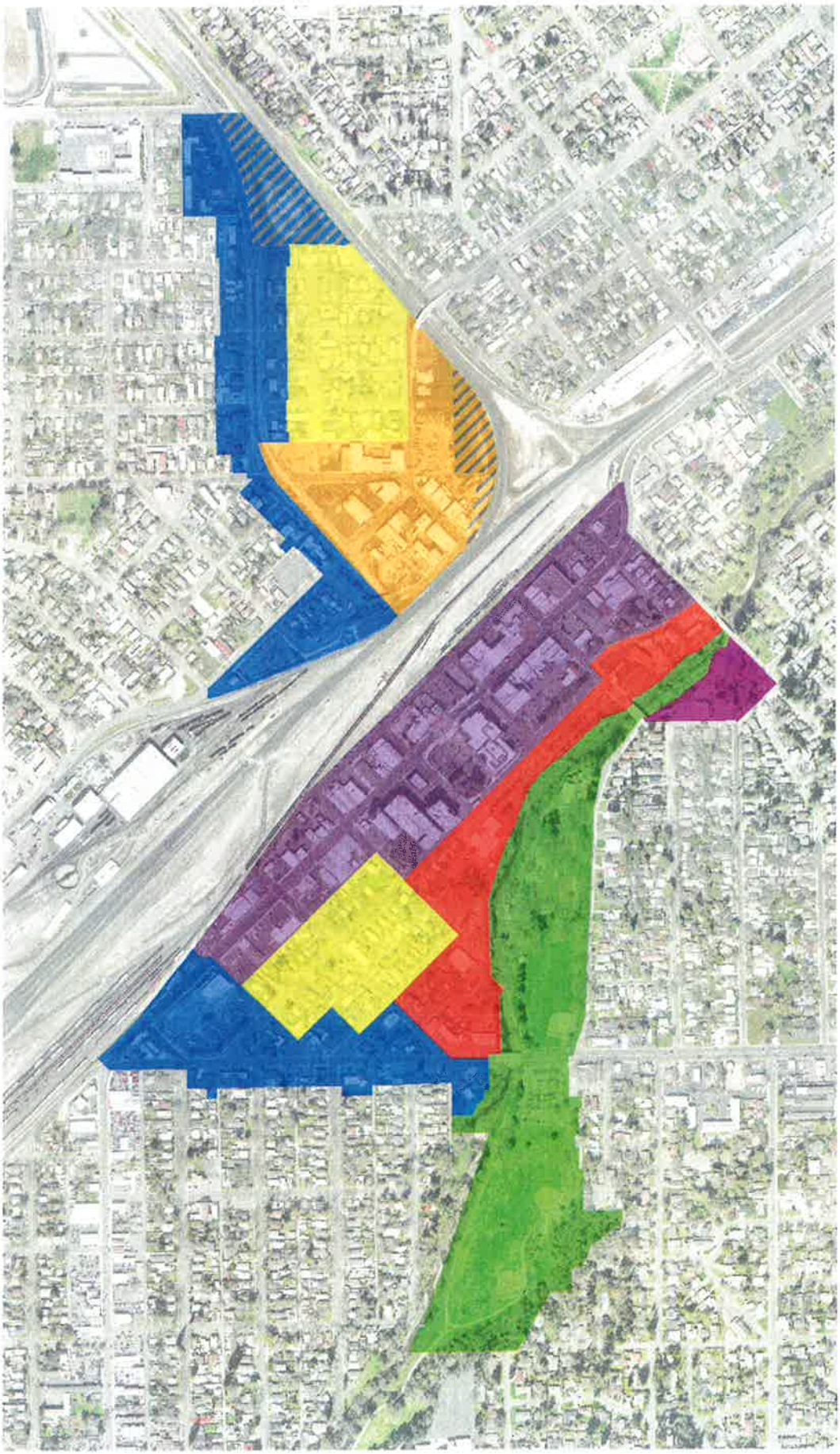
Draft Environmental Impact Report

Downtown Roseville Specific Plan









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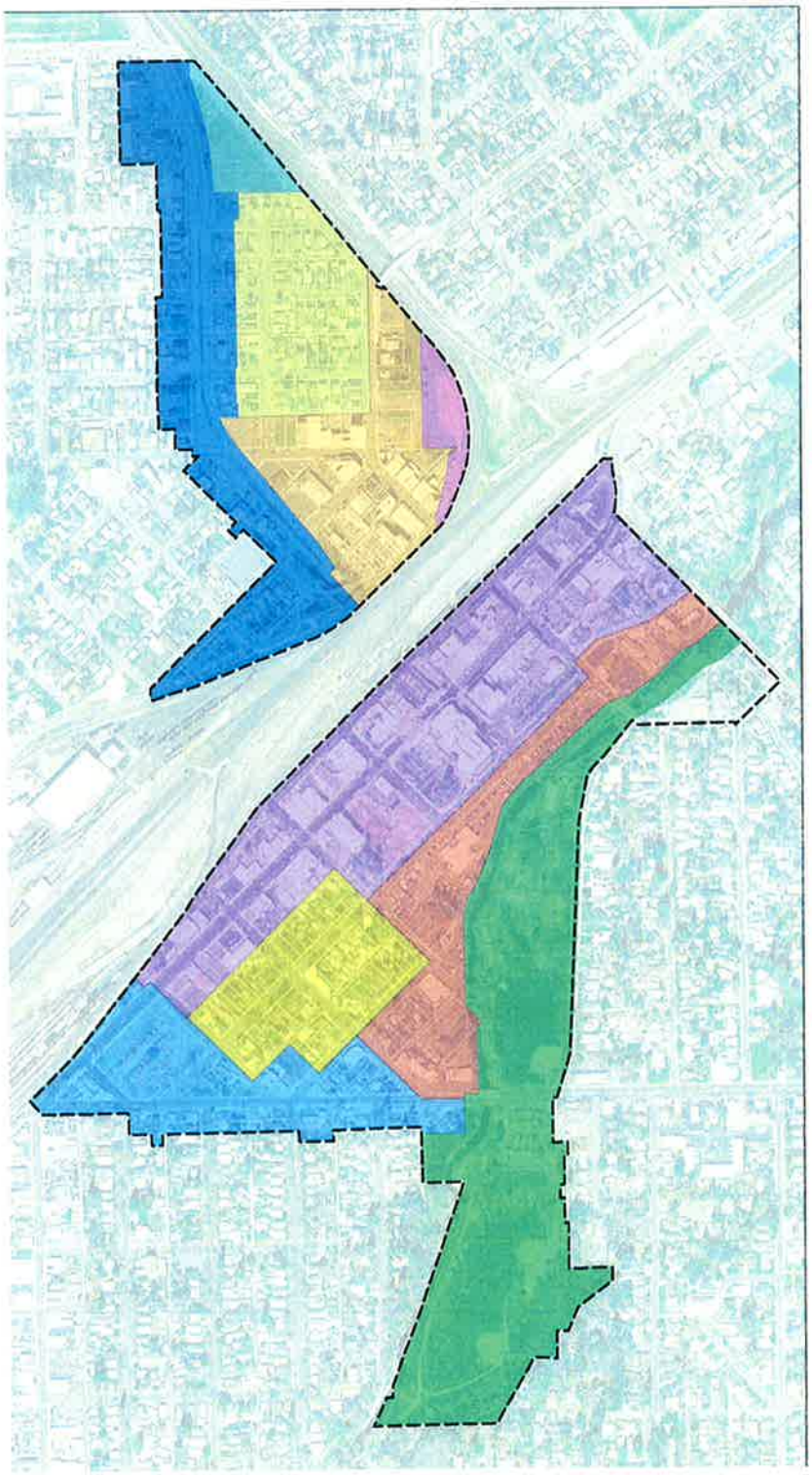
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Downtown Roseville Specific Plan









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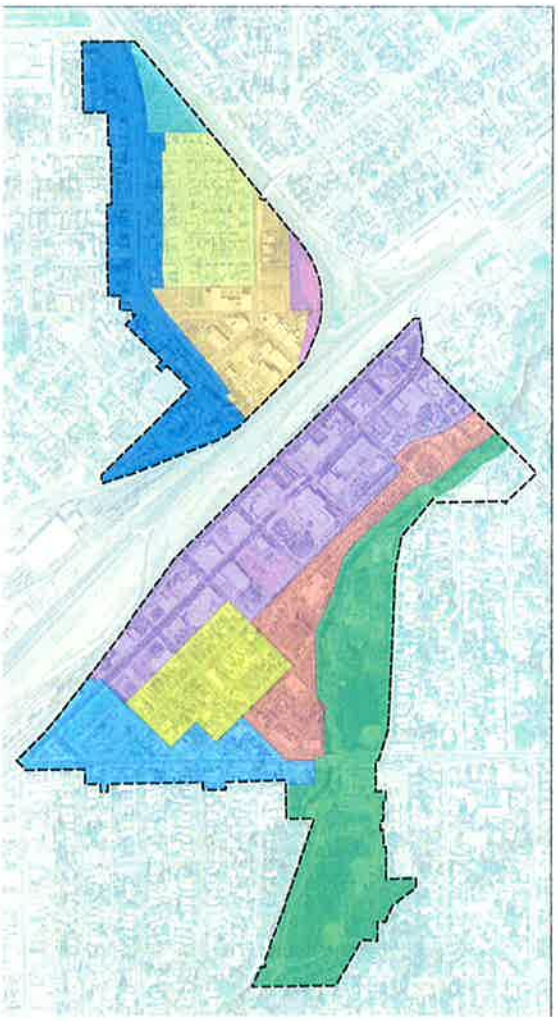
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Draft Environmental Impact Report

Downtown Roseville Specific Plan









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1 INTRODUCTION

This Draft Environmental Impact Report (DEIR) has been prepared under the direction of the City of Roseville (City) in accordance with the requirements of the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations, Section 15000 et seq.) This is a Project-level DEIR and evaluates the environmental impacts of the proposed Downtown Roseville Specific Plan (Plan), referred to in this document as the "proposed project" or "Plan".

This chapter of the DEIR is organized into the following sections:

1.1 Proposed Project Requiring Environmental Analysis;
1.2 The Downtown Roseville Planning process;
1.3 Purpose and Intended Uses of this DEIR;
1.4 Scope of this DEIR;
1.5 Agency Roles and Responsibilities;
1.6 Documents Incorporated by Reference; and
1.7 Standard Terminology and Acronyms.

1.1 PROPOSED PROJECT REQUIRING ENVIRONMENTAL ANALYSIS

The proposed project would involve implementation of the Downtown Roseville Specific Plan in a 167-acre area comprised of the existing Historic Old Town, Vernon Street Civic Core, and Royer and Saugstad Park. The proposed project area (Plan area) encompasses an infill area completely surrounded by built-out neighborhoods and the Union Pacific Railyard in central Roseville, California. The Plan would establish the appropriate distribution, mix, intensity, physical form, and functional relationships of land uses in the Downtown area to encourage and facilitate infill development, mixed-use, pedestrian scale, urban amenities, transit use, creative design, and general revitalization of the Downtown area. In addition, the Plan establishes policies for pedestrian movement, alternative transportation facilities, transit routes, vehicle traffic, and parking within the Downtown area. Lastly, the Plan would implement improvements related to connectivity, place making, and creek restoration and flood conveyance identified in the Royer/Saugstad Park Master Plan. Section 1.3 further describes the proposed project and improvements included in the Specific Plan.

1.2 DOWNTOWN ROSEVILLE PLANNING PROCESS

The Downtown Roseville Specific Plan is the fundamental guideline and development mechanism by which the proposed project would be implemented. The Specific Plan addresses infill (urban) redevelopment in Downtown Roseville as a result of a desire from the community (e.g., business owners, property owners, other community residents) to revitalize their existing downtown area.

The Downtown Roseville Specific Plan includes the following elements:

- Introduction to the Specific Plan;
- The Site (Specific Plan Area) and its Context;
- Land Use and Development Regulations;
- Mobility (transportation network including pedestrian facilities, transit, parking);
- Infrastructure, Utilities, and Public Facilities;
- Catalyst Sites (prototype developments);
- Design Guidelines and Development Standards; and
- Implementation.

The Design Guidelines element of the Specific Plan (Chapter 8 and 9) includes general design guidelines, as well as specific development standards to guide future development within the Plan area.

The Downtown Roseville Specific Plan and this DEIR have each been prepared for the City and are available for review at the City of Roseville of Planning and Redevelopment Department, 311 Vernon Street, Roseville, California 95678. The point of contact is Ms. Terri Shirhall, who can be reached at (916) 774-5276.

1.3 PURPOSE AND INTENDED USES OF THIS DRAFT ENVIRONMENTAL IMPACT REPORT

An Environmental Impact Report (EIR) is used to inform public agency decision makers and the general public of the significant environmental impacts of a proposed project, to identify possible ways to avoid or substantially minimize significant impacts, and to present a discussion of reasonable alternatives to the project that would avoid or substantially minimize significant impacts while feasibly attaining the basic objectives of the project. According to CEQA, preparation of an EIR is required when a proposed project would potentially result in a significant environmental impact. Public agencies are required to consider the information presented in the EIR when determining whether or not to approve a project.

The proposed project is considered a development project for CEQA purposes. For this reason, this project DEIR has been prepared to meet the requirements of a project-level EIR, as defined by Section 15161 of the State CEQA Guidelines. The project EIR examines the environmental impacts of a specific development project and focuses on changes in the physical environment that would result from the development of a project, including its planning, construction, and operation. The City's intention in preparing this project EIR is that no further environmental review under CEQA would be required for subsequent projects which are consistent with the proposed project (see State CEQA Guidelines Sections 15162–15164 and 15183). This would provide for the streamlined approval of projects proposed within the Plan area that are consistent with land use designations proposed in the Specific Plan, projects adhering to design guidelines specified in the Specific Plan (specifically prototype development), or other projects or improvements falling within the scope of the proposed project and this EIR, as described in Section 1.4 below.

1.4 SCOPE OF THIS DRAFT ENVIRONMENTAL IMPACT REPORT

Chapter 4 of this DEIR includes an evaluation of 12 primary environmental/resource areas, as well as other CEQA-mandated sections, as presented below:

4.1 Land Use and Planning;
4.2 Aesthetics;
4.3 Hazards and Hazardous Materials;
4.4 Geology and Soils;
4.5 Cultural Resources;
4.6 Transportation and Traffic;
4.7 Hydrology and Water Quality;
4.8 Biological Resources;
4.9 Public Services;
4.10 Utilities;
4.11 Air Quality; and
4.12 Noise.

Other CEQA-mandated issues discussed within the context of this DEIR include: Cumulative Impacts (Chapter 5), Growth-Inducing Impacts (Chapter 6), and Significant and Unavoidable Adverse Impacts (Chapter 7). Chapter 8 includes an Alternatives Analysis, as required by Section 15126.6 of the CEQA State Guidelines. Included as Volume II of this DEIR are the Technical Appendices that accompany the text of the DEIR (Volume I). Volume

II of the DEIR includes technical planning documents and other studies prepared to support development and implementation of the Specific Plan and the DEIR.

Under the CEQA statutes and the State CEQA Guidelines, a lead agency may limit the discussion of environmental effects in an EIR when they are not considered potentially significant (Public Resources Code Section 21002.1[e]; State CEQA Guidelines Sections 15128 and 15143). Information used to determine which impacts would be potentially significant was derived, in part, from a review of applicable planning and CEQA documents; fieldwork; a review of the proposed project; and feedback from ongoing public and agency consultation. The Notice of Preparation (NOP) dated October 17, 2007 is included as Appendix A of this DEIR.

Comments received during the public scoping meeting held on November 8, 2007 and comments received following the issuance of the NOP helped to determine the final scope of the DEIR. As a result of the review of existing information and the scoping process, it was determined that each of the issue areas listed above should be evaluated fully in this DEIR. The evaluation of these resource areas is provided in Chapter 4.

The NOP for the Downtown Roseville Specific Plan identified that implementation of the proposed project would result in "no impact" or "less-than-significant impacts" in the following resource areas; therefore these areas are not analyzed in this DEIR:

- Agricultural Resources;
- Population and Housing;
- Recreation; and
- Mineral Resources.

1.5 AGENCY ROLES AND RESPONSIBILITIES

1.5.1 LEAD AGENCY

The City of Roseville is the lead agency for the proposed project. The City, as lead agency, will require and administer regulatory mechanisms to implement the Plan. These actions include the adoption of the Plan itself, including a process for execution and revision; a General Plan amendment; the adoption of rezoning; adoption of the Downtown Parking Management Plan; and adoption of the Royer/Saugstad Park Master Plan.

As lead agency, the City has the principal responsibility for approving and carrying out the project and for ensuring that the requirements of CEQA, as well as all other applicable regulations, are met.

PROJECT ENTITLEMENTS AND OTHER CITY ACTIONS

The following list identifies entitlements currently requested by or from the City for the proposed project. Unless otherwise specified, these entitlements pertain to the proposed project in its entirety, including actions related to streetscape improvements identified in the Plan.

- Adopt a resolution establishing the Downtown Roseville Specific Plan area and an ordinance adopting the corresponding Downtown Code;
- Change General Plan land use designations for parcels on the project site to match land uses designated in the Downtown Roseville Specific Plan;
- Amend the City's Land Use Map and supporting text in the General Plan as appropriate;
- Adopt rezoning to change zoning designations for parcels on the project site to match land uses designated in the Downtown Roseville Specific Plan;

- Amend the General Plan Parks and Recreation Element to waive the nine-acre per 1,000 resident parkland dedication requirement or in-lieu fee requirement in order to facilitate reinvestment and economic development in the Downtown, Riverside, and Historic District Specific Plan areas;

- Amend the General Plan Circulation Element adding the intersection of Orlando Drive/Marlin Way/Cirby Way to the list of "Major Intersections Functioning at Less than Level of Service "C" in the City of Roseville Under Buildout Conditions;"

- Amend the General Plan Noise Element to allow the City to elect to approve new noise-sensitive land uses on a case-by-case basis in proximity to sources of transportation noise; in recognition that it is difficult to maintain rural/suburban noise standards in increasingly urbanized areas, and to facilitate the City's goal to encourage reinvestment and economic development in the Downtown, Riverside, and Historic District Specific Plan areas;

- Adopt text amendments to the to the Zoning Ordinance:

  - To reflect applicability of the Downtown Code to the Downtown Roseville Specific Plan area,

  - Reference the Riverside Gateway Specific Plan,

  - Allow Minor Design Review for projects in the Downtown Roseville Specific Plan area,

  - Address Nightclub uses and references standards in the Downtown Code, and

  - Modify the list of Allowable Land Uses and add Use Types (i.e., live/work) for consistency with the Downtown Code;

- Modify Municipal Code Title 17 (Sign Ordinance);

- Adopt the Royer/Saugstad Park Master Plan;

- Amend the Roseville Subdivision Ordinance to change zoning designations for parcels on the project site to match land uses designated in the Downtown Roseville Specific Plan;

- Establish a Prototype Review Process and other Plan-specific permit approval processes to allow streamlined development consistent with the Downtown Roseville Specific Plan and Downtown Code;

- Adopt and implement mitigation measures specified in this Specific Plan EIR; and

- The City will also rely on this EIR without further environmental review for approval the catalyst sites and, where applicable, other future discretionary entitlements and permits related to subsequent actions consistent with the proposed project (e.g., design reviews, development agreements, use permits) where preparation of a subsequent EIR, supplemental EIR, or addendum is not needed.

Additional requirements and lead agency responsibilities related to subsequent projects or permit applications may be identified during the 20-year Plan build-out period. The City, as lead agency, may impose conditions as are reasonably necessary to ensure project-related activities are in compliance with the proposed project (Specific Plan and Downtown Code), as well as all other applicable policies and requirements, including environmental compliance with federal, state, and local regulations.

City entitlements related to the proposed project anticipated to require regulatory authority are also discussed in Section 3.5 of this DEIR ("Entitlements"). Plan-related regulatory and financial strategies, including other actions

recommended to implement the Plan, are detailed in Chapter 10 of the Specific Plan. Specific Plan amendments, revisions, and other administrative activities are further discussed in Chapter 11 of the Specific Plan.

1.5.2 TRUSTEE AND RESPONSIBLE AGENCIES

A trustee agency is a state agency that has jurisdiction by law over natural resources that are held in trust for the people of the State of California. Responsible agencies are public agencies, other than the lead agency, that are anticipated to have discretionary approval of and responsibility for reviewing, carrying out, or approving elements of a project. Responsible agencies should participate in the lead agency's CEQA process, review the lead agency's CEQA document, and use the document when making a decision on project-specific elements.

The agencies listed below may have responsibility for, or jurisdiction over, the implementation of certain elements of the proposed project.

STATE AGENCIES

- California Department of Toxic Substances Control (DTSC)
- California Public Utilities Commission (CPUC)
- California Department of Transportation (Caltrans)—District 3
- State Office of Historic Preservation
- State Water Resources Control Board (SWRCB)
- Central Valley Regional Water Quality Control Board (RWQCB)—Region 5
- California Air Resources Board (CARB)
- California Department of Fish and Game (DFG)

REGIONAL AND LOCAL AGENCIES

- Placer County Air Pollution Control District (APCD)
- Placer County Environmental Health Division (PCEHD)
- City of Roseville Fire Department

1.5.3 REQUIRED PERMITS AND APPROVALS

The following list identifies permits and other approval actions likely to be required before implementation of individual elements of the proposed project.

STATE ACTIONS/PERMITS

- California Public Utilities Commission: Permit for replacement of utility infrastructure; projects that could affect Union Pacific Rail Road right-of-way.
- Caltrans—District 3: Encroachment permit for construction of facilities that could affect a State right-of-way;
- State Office of Historic Preservation Office: Section 106 Consultation; verification of historical properties;
- Central Valley RWQCB (Region 5): National Pollutant Discharge Elimination System (NPDES) construction stormwater permit (Notice of Intent to proceed under General Construction Permit);
- State Water Resources Control Board (SWRCB);
- Streambed Alteration Agreement (Department of Fish and Game).

FEDERAL ACTIONS/PERMITS

- Section 404 permit (Clean Water Act);
- Endangered Species Act Section 7 Consultation

REGIONAL AND LOCAL ACTIONS/PERMITS

- Placer County APCD: Authority to construct, health risk assessment; and/or
- City of Roseville Fire Department – Review of Site-Specific Health and Safety Plan (HASP) prior to construction.

1.6 DOCUMENTS INCORPORATED BY REFERENCE

In accordance with Section 15150 of the State CEQA Guidelines, this DEIR incorporates the following documents by reference:

- City of Roseville 2020 General Plan (City of Roseville 2004a);
- City of Roseville 2020 General Plan EIR (City of Roseville 2004b);
- Downtown Roseville Specific Plan and Downtown Code (City of Roseville 2008); and
- Royer/Saugstad Park Master Plan (Carducci 2007).

These documents are referenced, and certain elements are discussed and summarized in this DEIR. Copies of each of these documents, as well as all documents referenced in this DEIR, are available for review at the City of Roseville, 311 Vernon Street, Roseville, California 95678.

1.7 STANDARD TERMINOLOGY/ACRONYMS

This DEIR uses the following terminology. A list of acronyms and abbreviations is provided in Chapter 11, "Acronyms."

1.7.1 STANDARD TERMINOLOGY

No impact	means no change from existing conditions (no mitigation is needed).
Less-than-significant impact	means no substantial adverse change in the physical environment (no mitigation is needed).
Potentially significant impact	means an impact that might cause a substantial adverse change in the environment (mitigation is recommended because potentially significant impacts are treated as significant).
Significant impact	means an impact that would cause a substantial adverse change in the physical environment (mitigation is recommended).
Significant and unavoidable impact	means an impact that would cause a substantial adverse change in the physical environment and that cannot be avoided, even with the implementation of recommended mitigation.
Proposed project	refers to the Downtown Roseville Specific Plan, as described above and in Chapter 3 of this DEIR.

Project site and Plan area	refers to the area identified within the Downtown Roseville Specific Plan boundaries, as described in Chapter 3 of this DEIR. In addition, necessary infrastructure improvements would be implemented outside of the project area.
Off-site facilities	refers collectively to project elements located outside the Downtown Roseville Specific Plan boundaries, as described in Chapter 3 of this DEIR.

2 SUMMARY

2.1 INTRODUCTION

This section provides a summary of the "proposed project" in accordance with the State California Environmental Quality Act (CEQA) Guidelines Section 15123. As stated in Section 15123(a), "an EIR shall contain a brief summary of the proposed action and its consequences. The language of the summary should be as clear and simple as reasonably practical." As required by the State CEQA Guidelines, this chapter includes:

- a summary description of the proposed project;
- a synopsis of environmental impacts and recommended mitigation measures;
- identification of the alternatives evaluated; and
- a discussion of areas of controversy associated with the proposed project;

Table 2-1 at the end of this chapter provides a summary of the impacts determined in this DEIR and the mitigation measures proposed to avoid or substantially minimize significant and potentially significant impacts.

2.2 SUMMARY DESCRIPTION OF THE PROPOSED PROJECT

As described in detail in Section 3.0, the proposed project (Downtown Roseville Specific Plan) (Plan) involves implementation of a specific plan in a 165-acre area comprised of the existing Historic Old Town, Vernon Street Civic Core, and Royer and Saugstad Parks. The proposed project area (Plan area) encompasses an infill area completely surrounded by built-out neighborhoods and commercial/industrial land uses in central Roseville, California. The Plan area is further subdivided into 11 distinct character districts and the two parks. Each district incorporates an anticipated look and feel designed to promote the core goals established in the Specific Plan.

The Plan would establish the appropriate distribution, mix, intensity, physical form, and functional relationships of land uses intended to encourage and facilitate infill development, mixed-use, pedestrian scale, urban amenities, transit use, creative design, and general revitalization of the Downtown area. Specifically, the Plan describes the appropriate location for, size of, and design of buildings on a parcel by establishing requirements for each district. Requirements include building size and placement, envisioned potential level of new residential and commercial development that would be built during the next 20 years, defining the basic and most desirable uses allowed in a district, establishing the required location for and number of parking spaces, identifying the allowable building types (e.g., single family, podium, townhouse, cottage office), identifying allowable building frontage types (e.g., arcade, forecourt, terrace, porch), and identifying allowable sign types.

The Plan establishes policies for pedestrian movement, alternative transportation facilities, transit routes, vehicle traffic, and parking within the Downtown area. A walkable and pedestrian-friendly environment would be promoted by facilities such as sidewalks, crosswalks, and pedestrian-actuated traffic signals located throughout the Downtown Roseville area. The Plan identifies park-and-ride lots and bicycle facilities as alternative transportation facilities. A shuttle system to serve the Downtown Roseville area and connect to the regional mall/Fountains area or retail/commercial development along Douglas Boulevard is promoted as part of the Plan. Lastly, the Plan identifies increased parking capacity in the Downtown Roseville area by constructing parking structures.

As part of the Royer/Saugstad Park Master Plan, improvements related to connectivity, place making, and creek restoration and flood conveyance are proposed as part of the Specific Plan. Focus on these public enhancements would be between the Douglas Boulevard Bridge and Lincoln Street Bridge, including improvements related to enhancing public spaces. Connections in Downtown Roseville involve extending the downtown grid and Civic Center axis from Vernon Street, across Oak Street, and to Royer Park to provide pedestrian connections between Downtown and Royer Park. The Royer/Saugstad Park Master Plan also envisions creating places for people

(e.g., town square, garden). Lastly, creek restoration and flood conveyance activities would be implemented to improve aquatic and riparian habitat and hydro-geomorphic functions of Dry Creek. The goal of the restoration activities is to create healthy riparian vegetation and cover, provide shade to the stream surface, provide large, woody debris in the creek channel, provide standing snags, and create stable creek banks that exhibit little or no erosion. The focus of creek restoration would occur from Saugstad Park to Lincoln Street or Folsom Road.

In addition, the Plan would establish five catalyst sites to encourage the development of the type of uses envisioned in the Plan. These catalyst projects would be developed on proposed "opportunity sites;" parcels that are currently vacant or partially vacant, adjacent parcels under the same ownership, and/or sites with existing buildings identified as appropriate for higher or more intense uses.

2.3 ENVIRONMENTAL IMPACTS AND RECOMMENDED MITIGATION MEASURES

In accordance with State CEQA Guidelines Section 15123, the summary section of an EIR should identify significant effects of the proposed project, as well as discuss alternatives that would avoid or substantially minimize these effects. Table 2-1, "Summary Table of Impacts and Mitigation Measures" presented at the end of this section, provides a summary of the project-specific environmental impacts of the proposed project, the level of significance of the impact before mitigation, recommended mitigation measures for significant impacts, and the level of significance after implementation of the mitigation measures.

In most instances, each of the two alternatives evaluated in this DEIR would be anticipated to reduce the levels of impacts because each alternative is characterized by less development than the proposed project. As an example, there would be less traffic generated for both the No-Project Alternative and the Low-Density Alternative because each alternative would allow development at a lower density – thereby resulting in fewer housing units and less mixed-use development. However, implementation of either project alternative would not include improvements in Dry Creek to improve aquatic and riparian habitats. Chapter 8 provides an Alternatives Analysis which further explores impacts associated with each alternative addressed in this DEIR.

2.4 SUMMARY OF ALTERNATIVES

This EIR evaluates the following alternatives to the proposed project:

- The No-Project Alternative, and
- The Low-Density Alternative.

NO-PROJECT ALTERNATIVE

Analysis of a No-Project Alternative is required by CEQA (see Section 15126.6 of the State CEQA Guidelines). Under the No-Project Alternative, the Plan area would be developed in accordance with the existing City of Roseville General Plan 2020 land use map which defines the Downtown Roseville area for redevelopment and revitalization. However, the General Plan does not specify a change in land uses to accomplish redevelopment or revitalization. The proposed Downtown Roseville Specific Plan would achieve this goal by defining the land uses envisioned for the Downtown Roseville area and creating several catalyst sites to spur this redevelopment. As a result, the No-Project Alternative development scenario would result in similar urban uses currently developed in the project area. This alternative would not change the existing land uses allowed or envisioned in the Plan area.

The development potential of the City of Roseville General Plan 2020 is slightly different from land uses identified in the proposed Specific Plan. At build-out, the Specific Plan envisions higher density residential than the City of Roseville General Plan 2020 and envisions residential uses in areas identified in the City of Roseville General Plan 2020 solely for commercial- and retail-related uses. Areas identified for commercial-, retail-, and office-related uses in the City of Roseville General Plan 2020 would continue to be identified for similar uses

under the proposed Specific Plan. In addition, this alternative would not include utility upgrades or new design guidelines. Nor would the No-Project Alternative attain the primary goals and objectives of the proposed Specific Plan.

Low-Density Alternative

Under the Low-Density Alternative, the Plan area would be developed at a reduced intensity level of land uses relative to the proposed project. This alternative would develop the same mix of land uses and improvements as the proposed Specific Plan, but would reduce the density of residential developed in the Downtown Roseville area. The proposed Specific Plan envisions an increased amount of residential land uses in Downtown Roseville as part of mixed-use development which would develop approximately 122 new dwelling units on catalyst sites. The Low-Density Alternative would develop approximately 82 (one-third reduction) new dwelling units at the same catalyst sites. The Low-Density Alternative would achieve some, but not all, of the goals and objectives of the proposed project.

2.5 AREAS OF CONTROVERSY

The City issued a Notice of Preparation (NOP) for the proposed project on October 17, 2007. The NOP was issued to solicit comments from public agencies and the public on issues of concern relative to the proposed project that should be considered in the EIR. A public scoping meeting for the project was held on November 8, 2007, also for the purpose of soliciting comments from the public on project effects and alternatives.

The project in general has not generated significant public controversy, in part due to the outreach and education efforts by the City during the last several years during development of the Specific Plan. It is clear that smart-growth concepts and revitalization projects within previously developed urban area are gaining favor within the planning community and the public as a whole. While there remain issues and challenges in terms of land-use compatibility and circulation concepts within historically commercial areas, issues of potential controversy with respect to environmental resource areas that require extensive consideration were not identified during scoping and are limited within the scope of this analysis, which addresses issues related to urban, infill development.

Several comment letters were received in response to the NOP, however no comments contained in the letters received are considered controversial in nature. All issues raised in these comment letters are addressed within this DEIR, and letters received are available for review at the City of Roseville Planning and Redevelopment Department.

Table 2-1
Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
4.1 Land Use Planning and Consistency			
4.1-1: Land Use – Potential for Division of an Existing Community. The proposed Specific Plan would not physically divide residential communities in the Plan area. Instead, it would serve to unify the communities in the Plan area. There would be no impact.	NI	No mitigation is required.	NI
4.1-2: Land Use – Conflicts with Land Use Plans, Policies, or Regulations. Implementation of the proposed Specific Plan would require the adoption of new zoning districts and a General Plan amendment. Although the proposed Specific Plan could potentially generate land use conflicts with existing land uses, the land use changes proposed in the Plan are consistent with the generally urban nature of the downtown area and the transitional mixed-use areas would serve as a physical buffer between the higher intensity commercial/retail areas and adjacent residential neighborhoods. For these reasons, and because land use conflicts do not represent environmental effects in and of themselves, this impact is considered less than significant.	LTS	No mitigation is required.	LTS
4.1-3: Land Use – Consistency with Habitat Conservation and Natural Community Conservation Plans. The Plan area is not subject to an adopted habitat conservation plan or natural community conservation plan. Therefore, implementation of the proposed Specific Plan would not cause any inconsistencies with any habitat conservation plans or natural community conservation plans. There would be no impact.	NI	No mitigation is required.	NI
4.2 Public Utilities			
4.2-1: Public Utilities – Potable Water Supply, Treatment, and Distribution. The proposed Specific Plan would increase demand for potable water from existing City water supplies and production facilities. The City's water supply portfolio and treatment plant capacity are sufficient to serve the Specific Plan. With planned water system upgrades, the City's water system would have	LTS	No mitigation is required.	LTS

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Table 2-1
Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
sufficient capacity to serve existing and new development envisioned in the Specific Plan. This impact is considered less than significant.			
4.2-2: Public Utilities – Fire Flows. Water conveyance infrastructure in the Plan area is currently undersized and does not provide sufficient fire flows in accordance with City standards. However, the Plan would implement specific recommendations made by the City Environmental Utilities Department and Fire Department to install larger pipelines, new domestic water and fire services, and additional fire hydrants. These recommendations would provide fire flows that meet City standards. This impact is considered less than significant.	LTS	No mitigation is required.	LTS
4.2-3: Public Utilities – Wastewater Treatment and Collection. The proposed Specific Plan would increase demand for wastewater treatment from the City's Dry Creek Wastewater Treatment Plant. The City's wastewater treatment and collection systems currently have sufficient capacity to serve new development in the Plan area. Wastewater conveyance infrastructure in the project area is currently in poor condition. However, as part of the Plan, pipelines within the wastewater conveyance system would be replaced or rehabilitated to increase system performance in the Plan area. Therefore, this impact is considered less than significant.	LTS	No mitigation is required.	LTS
4.2-4: Public Utilities – Stormwater Drainage System. Development of land uses envisioned in the Plan would not substantially increase the amount of impervious surface in the Plan area, and thus would not significantly increase storm-water runoff. The storm-water drainage system in the plan area is currently undersized and exhibits structural failure. However, recommended improvements to the storm drainage system would be implemented as part of the Plan and would enable the storm drain system to meet City standards for a 10-year storm event. Therefore, this impact is considered less than significant.	LTS	No mitigation is required.	LTS

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Table 2-1
Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
4.2-5: Utilities – Increased Demand for Solid Waste Disposal. Implementation of the proposed Specific Plan would increase solid waste generation. The Western Regional Sanitary Landfill has sufficient solid waste disposal capacity available to serve increased residential and non-residential land uses in the Plan area. Therefore, this impact would be less than significant.	LTS	No mitigation is required.	LTS
4.2-6: Utilities – Increased Demand for Electrical Service. Implementation of the proposed Specific Plan would increase the demand for electrical service. Roseville Electric has sufficient electricity generation capacity available to serve the Plan area. In addition, Roseville Electric has identified improvement projects to accommodate the estimated increase in electrical capacity. Therefore, this impact would be less than significant.	LTS	No mitigation is required.	LTS
4.2-7: Utilities – Increased Demand for Natural Gas Service. Implementation of the proposed Specific Plan would increase the demand for natural gas service. PG&E has indicated sufficient natural gas capacity is available to serve the Plan area. In addition, PG&E identified no facility upgrades would be needed to accommodate the estimated increase in natural gas demand. Therefore, this impact would be less than significant.	LTS	No mitigation is required.	LTS
4.3 Public Services			
4.3-1: Public Services – Increased Demand for Fire Protection and Emergency Medical Facilities, Systems, Equipment, and Services. Development in the Plan area would result in increased demand for fire protection and emergency medical services, potentially resulting in the need for additional staff and equipment to maintain an adequate level of service. Fire Station #1, serving the Plan area, currently functions at its operational limits. However, construction of a new Fire Station #1 has been identified by the City which would have sufficient capability to serve increased demand. This impact would be less than significant.	LTS	No mitigation is required.	LTS

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Table 2-1
Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
4.3-2: Public Services – Increased Demand for Fire Flow. The proposed Specific Plan would include the development of residential and commercial uses that would require adequate water flow for fire suppression. Future redevelopment projects in the Plan area would incorporate City fire flow requirements into project designs. This impact would be less than significant.	LTS	No mitigation is required.	LTS
4.3-3: Public Services – Increased Demand for Law Enforcement Facilities, Services, and Equipment. Redevelopment projects in the Plan area would increase the demand for law enforcement facilities and services, resulting in the need for additional staff and equipment to maintain adequate levels of service. The City General Plan recognizes the need for additional police officers as population increases in the City and the Roseville Police Department currently provides adequate service to the community. Therefore, project impacts to law enforcement services would be less than significant.	LTS	No mitigation is required.	LTS
4.3-4: Public Services – Increased Demand for Public School Facilities and Services. Implementation of the proposed project would increase demand for elementary school (K–5), middle school (6–8), and high school (8–12) services in RCSD and RJUHSD. Elementary and middle schools nearest the project site are operating below capacity; therefore, the proposed project would not have a significant impact on these schools in the area. However, the high schools nearest the project site are close to or exceeding capacity. Therefore, the impact on high schools in the Plan area is considered potentially significant.	PS	**Mitigation Measure 4.3-4: Increased Demand for Public School Facilities and Services.** The proposed project would generate approximately 23 high school students. To ensure adequate funding is available for high school facilities necessary to accommodate the increase in student population caused by the proposed project, landowners and developers shall pay school mitigation fees in accordance with the City of Roseville Ordinance 2434 before issuance of building permits for construction in the Plan area. Development projects in the Plan area that include only residential land uses shall enter into a Mutual Benefit Agreement (MBA) with school districts serving that area. Implementation of Mitigation Measure 4.3-4 would ensure adequate funding is made available to school districts to pay for construction and operation of new school facilities as needed to serve development. School impact fees are typically an insufficient amount to fund 100% of new school facility construction. However, the California Legislature has declared that the school impact fee is deemed to be full and adequate mitigation under	LTS

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Table 2-1
Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		CEQA (Government Code Section 65996). With payment of the state-mandate fees, impacts on school services and facilities would be reduced to a less-than-significant level.	
4.3-5: Public Services – Increased Demand for Library Services. The proposed Specific Plan would include the development of residential uses that would demand library services. The City of Roseville Main Library is located inside the Plan area and would provide adequate library services to future residents. This impact would be less than significant.	LTS	No mitigation is required.	LTS
4.3-6: Public Services – Increased Demand for Parks and Recreation Facilities. The proposed Specific Plan would include the development of residential uses that would demand park and recreation facilities. The City of Roseville has sufficient park land to serve the needs of the community. Therefore, increased demand for parks and recreation uses would be met by existing facilities. This impact would be less than significant.	LTS	No mitigation is required.	LTS
4.4 Hazards and Hazardous Materials			
4.4-1: Geology and Soils – Risks to People and Structures Caused by Seismic Hazards, Including Surface Fault Rupture and Strong Ground Shaking. The Plan area is not located within an earthquake fault zone as designated by the Alquist-Priolo Earthquake Fault Zone Act. In addition, the Plan area is not located in an area considered by the California Geological Survey to be a relatively high ground shaking zone. Therefore, project development in the Plan area does not have the potential to expose people and structures to substantial adverse effects from seismic hazards including fault ground rupture and strong seismic ground shaking. This impact is considered less than significant.	LTS	No mitigation is required.	LTS
4.4-2: Geology and Soils – Seismically Induced Risks to People and Structures Caused by Liquefaction. The Plan area is not located in an area considered to be exposed to relatively high ground shaking and ground shaking, as a result of seismic activity from nearby or distant earthquake faults, would not cause seismic-	LTS	No mitigation is required.	LTS

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Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
related ground failure, including liquefaction. The potential for seismically induced liquefaction in the Plan area is low because soil types are not identified to be subject to the effects of liquefaction and liquefaction has posed a historical problem in Roseville. This impact would be less than significant.			
4.4-3: Geology and Soils – Seismically-Induced Risks to People and Structures Caused by Landsides. The project is not located in an area considered to be exposed to relatively high ground shaking. Ground shaking, as a result of seismic activity from nearby or distant earthquake faults, could cause seismic-related ground failure, including landslides in areas where slopes are present. Specifically, Dry Creek has steep slopes on both sides of the creek corridor that could be subject to landslides during a seismic event. Because the Specific Plan identifies improvements within the Dry Creek corridor, this impact is considered potentially significant.	PS	**Mitigation Measure 4.4-3: Geology and Soils - Seismically-Induced Risks to People and Structures Caused by Landsides.** To minimize potential damage from unstable soil (landslides) along Dry Creek, the project applicant shall hire a qualified, licensed geotechnical engineer to map the Dry Creek corridor for clay-rich, weak soils, and high groundwater conditions prior to any construction or grading activities occurring in Dry Creek. Any unstable or hazardous slopes identified during the geotechnical investigation shall be identified by the geotechnical engineer and the geotechnical engineer shall provide recommendations for preventing landslides during project design and/or construction. These measures shall be included in grading permits prior to approval by the City.	LTS
4.4-5: Geology and Soils – Construction-Related Erosion Hazards. Based on soil types that have a moderate to high erosion potential and steep slopes in the Dry Creek corridor, excavation and grading of soil could result in erosion during construction activities. Erosion and sediment control plans would be required to be prepared as part of individual development projects in the Plan area under the City's Grading Ordinance which would require reducing erosion and retaining sediment on-site. This impact is considered to be less than significant.	LTS	No mitigation is required.	LTS
4.4-6: Geology and Soils – Potential for Subsidence or Compression of Unstable Soils. The Plan area is not located in a known subsidence area as identified by the City of Roseville General Plan and is not located on soils that exhibit the potential to subside. This impact is considered less than significant.	LTS	No mitigation is required.	LTS

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Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
4.4-7: Geology and Soils – Potential for Damage Associated with Expansive Soils. Soil types found in the Plan area are moderately to highly susceptible to expansive soil behavior. Expansive soils may cause differential and cyclical foundation movements that can cause damage and/or distress to overlying structures. However, preparation of geotechnical evaluations would be required to be prepared as part of the building permit process which would identify any needed special construction and/or design methods for alleviating soil constraints. This impact would be considered less than significant.	LTS	No mitigation is required.	LTS
4.5 Aesthetics			
4.5-1: Aesthetics – Impacts on Scenic Vistas. Views on or near the project site include the UPRR yard and surrounding residential neighborhoods. There is not any prominent scenery (e.g., mountain range) viewable form the Plan area and there are no scenic highways within the Plan area. Urban redevelopment projects envisioned as part of the Plan would not block views of any scenic vista from on-site of off-site locations. Therefore, this impact would be less than significant.	LTS	No mitigation is required.	LTS
4.5-2: Aesthetics – Degradation of Visual Character. Implementation of the project would not substantially alter the existing visual character of the Plan area through redevelopment projects. The Plan area is currently developed primarily with urban land uses and would continue to be developed with urban land uses with implementation of the Plan. The existing open space and natural character of Dry Creek and Royer/Saugstad Park would not change also. Therefore, the project would not degrade the existing visual character in Downtown Roseville. This would be a less-than-significant impact.	LTS	No mitigation is required.	LTS
4.5-3: Aesthetics – Impacts from Lighting and Reflective Surfaces. The Plan area is currently developed with urban land uses that use nighttime lighting and incorporate architectural elements that include reflective surfaces. Redevelopment projects	PS	**Mitigation Measure 4.5-3: Aesthetics – Impacts from Lighting.** Operation of the golf course at nighttime would require the use of high-powered floodlights mounted on poles approximately 25 to 30 feet high that would be placed near or adjacent to existing	LTS

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Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
that would occur under the Specific Plan could construct additional facilities with reflective surfaces and nighttime lighting. The potential increase of reflective surfaces and nighttime lighting constructed would not substantially affect day and night views in the Plan area. In addition, the Specific Plan identifies development of a night-lighted golf course that would place high intensity lighting near or adjacent to residents. Although nighttime lighting is currently used at a baseball park at this location that emits nighttime lighting, the proposed golf course would add substantially new high intensity lighting to this portion of Roseville that could affect nearby residential users. This impact is considered potentially significant.		residences. Prior to installation of nighttime lighting at the golf course, the City shall coordinate with a company specializing in or expertise with exterior lighting systems for golf courses (e.g., Abacus). Floodlighting used shall consist of a double asymmetric beam distribution that ensures minimum upward light and tight control of light overspill into adjacent areas. The golf course shall be designed to incorporate a line of trees located along the outermost boundary between the golf course and all adjacent residences. This measure would retain existing nighttime lighting and glare impacts after construction of the golf course at a less-than-significant level.	
4.6 Traffic and Circulation			
4.6-1: Transportation and Circulation—Unacceptable Peak Hour LOS at Signalized Intersections under Existing Plus Project Conditions. With the introduction of traffic from the proposed project, peak hour traffic volumes would increase at several signalized study intersections in the Plan area, resulting in an LOS of D or worse at various intersections. However, with implementation of the Pedestrian District Overlay in the Plan area as part of the proposed project, the LOS impact at all Plan area intersections would be considered less than significant. Therefore, all impacts to signalized study intersections under existing plus project conditions are considered less than significant.	LTS	**Mitigation Measure 4.6-1: Transportation and Circulation – Unacceptable Peak Hour LOS at Signalized Study Intersections under Existing Plus Project Conditions.** The Specific Plan would establish a Pedestrian Overlay District within the Plan area. The Pedestrian Overlay District is would construct physical improvements at intersections in the Plan area to encourage pedestrian activity and increase pedestrian safety. Although three signalized intersections in the study area would operate below LOS C, they would be located in the Pedestrian Overlay District which would make the intersections exempt from the City's LOS C policy. Therefore, the project would result in a less-than-significant impact.	LTS
4.6-2: Transportation and Circulation—Unacceptable p.m. Peak Hour LOS at Signalized Intersections under Cumulative (2020) Plus Project Conditions. With the introduction of traffic from the proposed project, p.m. peak hour traffic volumes would increase at several signalized study intersections, resulting in an LOS of D or worse. Although certain mechanisms either are or would be in place as part of the proposed project (currently approved exemptions to the City's LOS policy and	S	**Mitigation Measure 4.6-2: Transportation and Circulation—Unacceptable Peak Hour LOS at Signalized Study Intersections under Cumulative (2020) Plus Project Conditions.** The Specific Plan would establish a Pedestrian Overlay District within the Plan area. The Pedestrian Overlay District is would construct physical improvements at intersections in the Plan area to encourage pedestrian activity and increase pedestrian safety. Establishment of a Pedestrian Overlay District would reduce	

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Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
implementation of the Pedestrian Overlay District) which would allow these impacts to be considered less than significant, some signalized intersections located outside of the City's Pedestrian Overlay Districts would degrade to an unacceptable level or the addition of project traffic would degrade operations by a whole letter grade. This impact is considered significant.		impacts to the Judah Street/Vernon Street and Washington Boulevard/Main Street intersections because it would these intersections exempt from the City's LOS C policy such that the intersections would operate at an acceptable LOS. The following mitigation measures are identified for the significant impacts under the Cumulative (2020) Plus Project scenario at signalized study intersections: ► **4.6-2a: LOS D at Yosemite Street/Atlantic Street.** The addition of project traffic at this intersection under cumulative 2020 conditions would deteriorate operations from LOS C to LOS D. To mitigate project impacts, the southbound right-turn lane could be restriped as a shared left/right-turn lane. With this restriping, the intersection would operate at an acceptable LOS C. The project would be responsible to pay its fair share toward this improvement. This intersection improvement shall be incorporated into the City of Roseville Capital Improvement Program. Incorporating this intersection improvement into the City's Capital Improvement Program would establish a funding mechanism to collect the remaining funds for this improvement (beyond the project's fair share). Therefore, implementation of the ultimate improvement would be guaranteed and the impact is considered less than significant. ► **4.6-2b: LOS D at Orlando Avenue/Marlin Drive/Cirby Way.** The addition of project traffic at this intersection under cumulative 2020 conditions would deteriorate operations from LOS C to LOS D. To mitigate project impacts, the northbound and southbound approaches should be widened to provide one dedicated left-turn lane, one through lane, and one right-turn lane. With these improvements, the intersection phasing could be modified to provide protected left-turn movements, and would operate at an acceptable LOS C. Please note that, given the curvature of Marlin Drive and Orlando Avenue, the creek just north of the intersection, and right-of-way constraints, the identified mitigation may not be feasible. Therefore, this	 <

Table 2-1
Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		impact is considered significant and unavoidable.	
		► **4.6-2c: LOS D at Harding Drive/Estates Drive.** The addition of project traffic at this intersection under cumulative 2020 conditions would deteriorate operations from LOS C to LOS D. To mitigate project impacts, a dedicated southbound right-turn lane would be needed. With this improvement, the intersection would operate at an acceptable LOS C. The project would be responsible to pay a fair share toward this improvement. Please note that existing development is present on all four quadrants of the intersection, limiting the available right-of-way to implement the improvement which may make the identified mitigation infeasible. Therefore, this impact is considered significant and unavoidable.	SU
		► **4.6-2d: LOS E at Sunrise Avenue/Eureka Road.** The addition of project traffic at this intersection under cumulative 2020 conditions would deteriorate operations from LOS D to LOS E. To mitigate project impacts, a third eastbound left-turn lane could be added to the intersection. With the improvement, the intersection would operate at LOS D, consistent with the No Project Condition. However, there are potential right-of-way constraints and inherent design complexities of implementing triple left-turn lanes. Therefore, this impact is considered significant and unavoidable.	SU
4.6-3: Transportation and Circulation—Transit. Implementation of the proposed land uses in the Plan area would increase the demand for public transit services in the plan area. Policies of the Specific Plan would not interfere or conflict with existing or planned transit services. This impact is considered less than significant.	LTS	No mitigation is required.	LTS

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4.6-4: Transportation and Circulation—Bicycle and Pedestrian. Implementation of the proposed land uses in the Plan area would increase demand for bicycle and pedestrian facilities. Policies of the Specific Plan would not interfere or conflict with existing and planned bicycle and pedestrian systems. This impact is considered less than significant.	LTS	No mitigation is required.	LTS
4.6-5: Transportation and Circulation—Parking. Implementation of the proposed land uses in the Specific Plan area would result in an inadequate parking supply. The Specific Plan would generate demand for parking in excess of existing and proposed parking supply in the Plan area by a maximum of 580 spaces. However, the Specific Plan identifies development of additional parking to meet future demands. This impact is considered less than significant.	PS	**Mitigation Measure 4.6-5: Transportation and Circulation - Parking.** To mitigate parking impacts for the Plan area, the project shall provide an additional 580 parking spaces. This shall be accommodated by providing extra spaces within the three planned parking structures, providing additional public parking spaces (as part of developing and implementing the Parking Management Plan), or require development to provide additional parking (e.g., in-lieu fees). With implementation of these measures, the impact would be reduced to a less-than-significant level.	LTS
4.6-6: Transportation and Circulation—Design. Implementation of the proposed land uses and transportation facilities in the Plan area may result in hazards due to a design feature. However, policies of the Specific Plan would require circulation improvements in the Plan area to meet design requirements to prevent safety hazards. This impact is considered less than significant.	LTS	No mitigation is required.	LTS
4.6-7: Transportation and Circulation—Emergency Access. Implementation of proposed land uses in the Plan area could result in inadequate emergency access because of transportation facility designs and/or increased traffic. However, the Specific Plan has been developed in coordination with the City's fire department to ensure adequate emergency response is available in the Plan area. This impact is considered less than significant.	LTS	No mitigation is required.	LTS

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Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
4.7 Cultural Resources			
4.7-1: Cultural Resources – Disturbance of Architectural Resources. The architectural inventory and evaluation conducted for the proposed project resulted in the conclusion that 2 of the 213 architectural properties within the Plan area that are at least 45 years old appear individually eligible for listing on the CRHR. In addition, the Old Town Roseville area is designated as a historic district by the City of Roseville at the local level. The remaining buildings in the Plan area are not considered CRHR-eligible. However, 25 additional buildings in the Plan area were built between 1960 and 1980 and will become at least 45 years in age during the 20-year build-out period for the Plan and may be considered eligible for listing in the CRHR when they become of sufficient age. Therefore, the project would have a potentially significant impact on architectural resources.	PS	**Mitigation Measure 4.7-1: Cultural Resources – Disturbance of Architectural Resources.** Two of the historic-era resources located within the Plan area to appear to be eligible for CRHR listing. These resources include: 316 Vernon Street and 419-425 Vernon Street. The Old Town Roseville area is designated as a historic district at the local level by the City of Roseville. Consequently, it is recommended that any alterations made to these eligible resources be conducted in a manner consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties, and the Design Guidelines for Central Roseville. Generally, under CEQA, a project that complies with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or the Secretary of Interior's Standards for Rehabilitation is considered to have mitigated impacts to a historical resource to a less-than-significant level (State CEQA Guidelines Section 15064.5). Development within the Plan area could result in new land uses, infill development, and streetscape improvements. Over the 20-year build-out period for the Specific Plan, future developments within the Plan area could result in impacts to 25 buildings built between 1963 and 1983. These buildings and their locations are listed in Table 4.7-2. Prior to the approval of demolition or building permits that would result in substantial alteration of any of the 15 buildings that will reach 45 years in age by the build-out date, the City shall ensure that an evaluation of significance according to CRHR criteria shall be performed. If the evaluation indicates the property is not eligible for listing in the CRHR, no further action is necessary. If any of these buildings are found to be eligible for listing in the CRHR in conjunction with future evaluations, the City shall ensure that the proposed development is consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties or develop other methods to avoid significant impacts to these properties in consultation with the State Office of Historic Preservation (OHP). This measure would reduce	SU

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Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		potentially significant impacts to Architectural Resources to a less-than-significant level. If it is not feasible to retain an eligible historic resource, prior to demolition, documentation similar to the standards of the Historic American Building Survey (HABS) shall be conducted. A HABS - like recordation would document the site history, construction history, and current appearance of the eligible resource in the context of Roseville's history. The HABS-like recordation shall be completed by an architectural historian who meets the Secretary of the Interior's professional qualifications standards, and an experienced HABS photographer. The final document shall be filed in a local library / repository. Although this type of documentation eliminates one adverse impact of demolition (i.e., loss of historical information) it does not prevent the physical loss of a historically significant resource. Implementation of the above mitigation measure would reduce impacts related to disturbance of architectural resources. However, the potential loss of a historically significant resource could occur. While implementation of mitigation measure 4.7-1 would lessen project impacts, demolition of the historical resource would be a significant adverse change and, therefore, considered a significant and unavoidable impact.	
4.7-2: Cultural Resources – Disturbance of Potential Subsurface Cultural Deposits. No archaeological resources are known to occur in the Plan area. However, because of the extensive amount of development in the Plan area, unknown subsurface cultural deposits could be present beneath roads and buildings. Grading and excavation activities associated with the proposed project could disturb buried archaeological deposits. This impact is considered potentially significant.	PS	**Mitigation Measure 4.7-2: Cultural Resources – Potential Subsurface Cultural Deposits.** In the event that unrecorded cultural materials are identified during construction-related ground disturbing activities, potentially destructive work in the vicinity of the find shall cease until a qualified archaeologist can determine the significance of the find and, if appropriate, provide recommendations for treatment to the City. Treatment approved by the City shall be implemented prior to resuming ground disturbing activities. This would reduce the impact to unrecorded cultural deposits to less than significant.	LTS

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Table 2-1
Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
4.7-3: Cultural Resources – Undiscovered / Unrecorded Human Remains. Project-related construction activities could uncover or otherwise disturb previously undiscovered or unrecorded human remains. Any disturbance of human remains would be a potentially significant impact.	PS	**Mitigation Measure 4.7-3: Cultural Resources – Undiscovered / Unrecorded Human Remains.** If human remains are discovered at any project construction site during any phase of construction, work within 50 feet of the remains shall be suspended immediately, and the City of Roseville, the project applicant, and the county coroner shall be notified immediately. If the remains are determined by the county coroner to be Native American, the Native American Heritage Commission (NAHC) shall be notified within 24 hours, and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. The City or the project applicant shall also retain a professional archaeologist with Native American burial experience who shall conduct a field investigation of the specific site and consult with the Most Likely Descendant (MLD) identified by the NAHC. As necessary, the archaeologist may provide professional assistance to the MLD including the excavation and removal of the human remains. The City or the project applicant shall implement any mitigation before the resumption of activities at the site where the remains were discovered.	LTS
4.8 Hazards and Hazardous Materials			
4.8-1: Hazardous Materials – Use, Storage, or Handling of Hazardous Materials. The proposed project would involve the storage, use, and transport of hazardous materials at individual project sites during construction activities. In addition, because the Plan envisions commercial land uses, it is likely that some facilities (e.g., dry cleaners, gas stations) could use hazardous materials during operation. However, use of hazardous materials in the Plan area would require compliance with local, state, and federal regulations. Furthermore, the City of Roseville performs annual inspections of all businesses utilizing hazardous materials and requires each business to file a Hazardous Materials Management Plan. Therefore, impacts related to creation of significant hazards to the public through routine transport, storage, use, disposal, and risk of upset would not occur. This impact is	LTS	No mitigation is required.	LTS

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Table 2-1
Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
considered less than significant.			
4.8-2: Hazardous Materials – Exposure of Construction Workers, Residents, and Others to Hazardous Materials. Potential recognized environmental conditions (RECs) have been identified in the Plan area. Existing or past uses were identified to have resulted in contamination of soil and/or groundwater in some locations. In addition, demolition, excavation, and construction activities in the Plan area could result in the exposure of construction workers to hazardous materials such as asbestos, petroleum hydrocarbons, and/or other harmful contaminants. If contaminated sites in the Plan area are not remediated before occupation or use of the site, future residents and others could be exposed to hazardous materials. This impact is considered significant.	S	**Mitigation Measure 4.8-2: Hazardous Materials – Exposure of Construction Workers, Residents, and Others to Hazardous Materials.** A Health and Safety Plan (HASP) prepared for the construction process, consistent with general industry standards and Occupational Safety and Health Administration (OSHA) requirements, would address the risks to construction personnel and public safety, such that these health and safety risks would be mitigated to an acceptable level. A qualified professional, such as a Certified Industrial Hygienist (CIH), would prepare the HASP to provide guidance for personnel involved in trenching and other excavation work where there is evidence of hydrocarbons or other hazardous materials. The HASP utilized for each construction phase would describe in detail the health and safety guidelines, procedures, and work practices that must be adhered to and the work to be performed, and would also include special details governing certain work, such as working in confined spaces. Should contaminants be found, appropriate measures would be taken to mitigate potential effects related to construction/implementation of the proposed project. This may include excavation of contaminated soils and disposal at an appropriate facility. The potential contaminants of concern are petroleum hydrocarbons and associated chemicals, such as oxygenates and fuel scavengers, and volatile organic carbons (e.g., PCE, TCE). The HASP would address appropriate personal protective equipment (PPE), monitoring to protect on-site workers; and the appropriate level of worker training (e.g., Hazardous Waste Operations and Emergency Response training). Monitoring may include visual and olfactory observation (e.g., soil staining or unusual odors), or air monitoring with hand-held devices (e.g., photo-ionization detector) to detect volatile hydrocarbons. Health-risk based action levels should be identified for various contaminants that would trigger modifications to work practices.	LTS

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Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		Work practice modifications may include the cessation of construction activities until soil or groundwater sampling is performed, or an increase in the level of PPE or worker training. A Sampling and Analysis Plan (SAP) would accompany the HASP to determine if contaminants of concern are present and at what concentrations. The HASP would also address procedures to follow if unknown objects (e.g., USTs, underground piping) are encountered during construction activities. Specialized contractors would be hired to decommission and remove such USTs and perform confirmation sampling as necessary. The implementation of an adequate site-specific HASP would reduce the health risk to construction personnel by these recognized environmental conditions to a less-than-significant level. In addition, the following measures shall apply to construction activities, as appropriate. 1) The construction contractor shall notify the Roseville Fire Department if evidence of soil or groundwater contamination (e.g., stained soil, unusual odor in groundwater) is encountered during construction activities. Any contaminated areas shall be remediated in accordance with recommendations made by the Fire Department, RWQCB, DTSC, or other appropriate federal, state, or local regulatory agencies. 2) Prior to demolition of any buildings constructed before 1977, the project applicant shall hire a qualified consultant to investigate whether any of these buildings contain lead and/or asbestos-containing materials and lead that could become friable or mobile during demolition activities. If found, the lead and/or asbestos-containing materials shall be removed by an accredited contractor in accordance with EPA and California OSHA standards. In addition, all activities (construction or demolition) in the vicinity of these materials shall comply with California OSHA lead and asbestos worker construction standards. The lead and asbestos-containing materials shall be disposed of properly at an appropriate off-site disposal facility.	

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Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		The City would require contractors to prepare a site-specific HASP for individual projects within the Plan area to address current or historic RECs identified in the Phase I to verify that contractors are aware of site-specific RECs. As an alternative, the City could prepare a Plan-wide programmatic HASP to address all RECs identified in the Plan area, although preparation of the HASP is the ultimate responsibility of the contractor. Implementation of Mitigation Measure 4.8-2 would reduce impacts related to exposure to hazardous materials to a less-than-significant level.	
4.9 Biological Resources			
4.9-1: Biological Resources – Effects on Special-status Fish Species. The proposed project includes several restoration and enhancement components that would improve the aquatic and riparian habitat quality along Dry Creek and would benefit special-status fish species in the long term. Implementation of the proposed project could also result in temporary disturbance and/or degradation of habitat for special-status fish within Dry Creek during the period of project construction. This impact would be potentially significant.	PS	**Mitigation Measure 4.9-1: Special-status Fish.** ► The following measures shall be implemented to mitigate adverse effects to special-status fish species potentially resulting from the proposed project. To the extent feasible, the project shall be designed and constructed to avoid and minimize adverse effects to special-status fish species and aquatic habitats within the Specific Plan area. ► Project construction activities within the aquatic habitat of the active creek channel shall be conducted between June 15 and October 15, during the season that migrating chinook salmon and steelhead are not likely to be present. Construction within the riparian habitat along the upper banks of the creek need not be restricted to this timeframe, provided that the following measures (and those described in Section 4.12, "Hydrology and Water Quality") are implemented to avoid or minimize sediment runoff into the creek. ► Silt fencing shall be placed around the construction areas within the aquatic habitat of the active creek channel. Silt fencing shall protect upstream and downstream areas from any construction related impacts. All construction activities within the aquatic habitat of the active creek channel shall be conducted within the silt fence area. Cofferdams shall be used	LTS

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Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		if construction in a live channel is necessary. To the extent feasible, they shall be designed to maintain an open channel to allow continued movement of aquatic species. If dewatering of a construction area is needed, it shall occur according to a Fish Translocation and Salvage Plan prepared by a qualified biologist. ► All outflow from any project-related dewatering that may be necessary when excavating the outfall installation areas shall be filtered and pumped downstream of the construction area. ► After completion of construction within the aquatic habitat of the active creek channel, all remaining side cast shall be removed from the work area and silt fencing shall be removed. ► Revegetation of disturbed areas within the riparian habitat of the active creek channel with native riparian plants shall be accomplished prior to the onset of the winter rains in the year of construction.	
4.9-2: Biological Resources – Effects on Valley Elderberry Longhorn Beetles. Implementation of the proposed project could result in removal or disturbance of elderberry shrubs, which may provide habitat for valley elderberry longhorn beetles. If elderberry shrubs with stem diameters 1.0 inch or greater are removed or disturbed, this impact would be potentially significant.	PS	**Mitigation Measure 4.9-2: Valley Elderberry Longhorn Beetles.** The following measures shall be implemented to mitigate adverse effects to valley elderberry longhorn beetles potentially resulting from the proposed project. If valley elderberry longhorn beetles are delisted in the future, as has recently been proposed by USFWS (USFWS 2006a), these measures may be amended to conform to any revised USFWS guidelines regarding this species. ► To the extent feasible, implementation of the project shall be designed and constructed to avoid and minimize adverse effects to elderberry shrubs. ► Before project construction would begin within the riparian habitat of the active creek channel, focused surveys for elderberry shrubs shall be conducted within the Dry Creek riparian corridor and adjacent municipal parks in and within 100 feet of proposed construction-sites. Such surveys will not be required within areas lacking suitable habitat for elderberry shrubs (i.e., areas already in residential development).	LTS

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Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		► Where elderberry shrubs with 1.0 inch or greater stem diameter are found, USFWS conservation guidelines for valley elderberry longhorn beetles shall be followed by establishing a 100-foot buffer around the dripline of such shrubs wherever feasible to completely avoid potential impacts to valley elderberry longhorn beetles (USFWS 1999). All buffers shall be marked with brightly colored flags or fencing and shall be maintained until project construction is complete. Earthmoving activities, herbicide use, and other construction and maintenance activities with potential to impact valley elderberry longhorn beetles and/or their host shrubs would be avoided within these buffer zones. A qualified biologist will provide project contractors and construction crews working in the vicinity of an elderberry shrub buffer zone with a worker-awareness program before such work begins. This program will be used to describe the species, its habits and habitats, its legal status and required protection, and all applicable mitigation measures. ► If complete avoidance of shrub buffer zones is not feasible, USFWS shall be consulted. It is anticipated that either a new buffer width would be agreed upon along with additional protections for the safety of the beetles and shrubs, or that shrubs that could not be adequately protected would be transplanted to a protected location before construction would begin, in accordance with established USFWS guidelines (USFWS 1999) and a USFWS-approved mitigation and monitoring plan. Shrubs shall be transplanted to an area protected in perpetuity as habitat for valley elderberry longhorn beetles through a conservation easement or similar mechanism. Replacement mitigation plantings shall also be provided based on USFWS guidelines, which require replacement ratios ranging from 1:1 to 8:1 for lost stems at least 1 inch in diameter, depending on the size of the affected stems. Associated native species will be planted at ratios ranging from 1:1 to 2:1 for each elderberry planting. Transplants and mitigation plantings shall be monitored to ensure that USFWS success criteria are met (i.e., 60 percent survival of elderberry plants and associated	

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		riparian plantings). The proponent may elect either 10 years of monitoring, with surveys and reports to USFWS every year; or 15 years of monitoring, with surveys and reports on years 1, 2, 3, 5, 7, 10, and 15. The mitigation and monitoring plan shall describe both short- and long-term maintenance and management of the mitigation site; and specify remedial measures to be undertaken if mitigation success criteria are not met. Long-term management of mitigation lands shall be ensured by establishing a management endowment or other suitable funding source. The mitigation shall be implemented in a preserved portion of the project site in Dry Creek's riparian corridor, elsewhere within the Dry Creek watershed, or in suitable habitat elsewhere in Placer County or an adjacent county. If mitigation occurs off-site, it shall be at a location that would provide at least equal-quality habitat for valley elderberry beetles as the project site after implementation of the mitigation.	
4.9-3: Biological Resources – Effects on Raptors and Special-status Birds. The riparian habitat restoration components of the proposed project would increase the quality of habitat available to special-status birds, an impact considered beneficial in the long term. However, implementation of the proposed project could also result in short-term construction-related impacts to special-status birds nesting in the Plan area. This temporary impact would be considered potentially significant.	PS	**Mitigation Measure 4.9-3: Raptors and Special-status Birds.** The following measures shall be implemented to mitigate adverse effects to raptors and special-status birds potentially resulting from the proposed project. ► Potential disturbance of nesting special-status birds and raptors shall be reduced by limiting vegetation removal and grading to the non-breeding season (generally September 1 to February 28) to the extent feasible. ► To avoid nest disturbance and a potential reduction in fledging success resulting from construction activities within the riparian habitat of the active creek channel and during the breeding season (March 1 to August 31), focused surveys for raptors and special-status birds would be conducted by a qualified biologist no more than 15 days prior to the beginning of construction. Surveys for raptors and special-status birds would include suitable nesting habitat within 500 feet of construction areas. If no active nests are found, no further measures would be needed.	LTS

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Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		▸ If active raptor or special-status bird nests are found, impacts would be avoided by the establishment of appropriate buffers and/or nest monitoring by a qualified biologist. The size of the buffer would be determined by a qualified biologist and may vary, depending on the species biology, location, nest stage, and specific construction activities to be performed while the nest is active. A qualified biologist shall monitor active nests to determine when the young have fledged and are feeding on their own, or the nest has failed. No construction activities would occur within a buffer zone until a qualified biologist confirms that the nest is no longer active.	
4.9-4: Biological Resources – Effects on Special-status Bats. The riparian habitat restoration components of the proposed project would increase the quality of potential habitat available to special-status bats, an effect considered beneficial in the long term. Temporary adverse impacts to special-status bats could also occur as a result of project construction activity if special-status bat maternity roosts occur in the Plan area and are incidentally removed or disturbed during construction. This potential impact would be considered less than significant because no bat colonies are known to occur within the project area and few individuals are expected to occur there.	LTS	No mitigation is required.	LTS
4.9-5: Biological Resources – Effects on Northwestern Pond Turtles. Although implementation of the proposed project could result in temporary construction-related loss and/or disturbance northwestern pond turtles, this species has a low potential for occurrence on-site and effected individuals are expected to be few, if any. This impact would thus be considered less than significant.	LTS	No mitigation is required.	LTS
4.9-6: Biological Resources – Impacts to Jurisdictional Waters and Sensitive Natural Communities. Implementation of the proposed project would include enhancement of the aquatic and riparian woodland habitats within and along Dry Creek, providing a beneficial long-term impact. Project implementation could also result in temporary disturbance and/or degradation of riparian and	PS	**Mitigation Measure 4.9-6: Jurisdictional Waters and Sensitive Habitats.** The following measures shall be implemented to mitigate adverse effects to jurisdictional waters and sensitive habitats potentially resulting from the proposed project.	LTS

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Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
aquatic habitat during the period of project construction, as well as both temporary and permanent impacts to waters of the United States due to bank stabilization treatments and bridge construction. These impacts would be potentially significant.		► To the extent feasible, the project shall be designed and constructed to avoid and minimize adverse effects to jurisdictional waters of the United States and riparian habitat within the Specific Plan area. Bioengineering bank stabilization techniques shall be used to the extent feasible and the installation of hardscape within jurisdictional waters of the United States shall be minimized to the greatest extent feasible to achieve the overall project objectives. ► Wherever possible, riparian woodland habitat shall be avoided and preserved; the connectivity of the Dry Creek riparian corridor shall be maintained and enhanced. Areas of riparian woodland to remain undisturbed shall be clearly marked for avoidance during construction by methods such as fencing of flagging and construction personnel shall be educated about the need to avoid adverse effects on this resource. ► The project shall incorporate restoration and enhancement of the riparian corridor into the final design plans and construction specifications. Loose rock and concrete debris along the creek banks shall be removed as appropriate. The riparian corridor along the creek channel shall be enhanced by the planting of native shrub, tree, and understory species to create a more diverse vegetation structure and thus a higher quality habitat for wildlife. Enhancement should include planting, establishment, and maintenance of suitable riparian species native to the region as well as removal and control of exotic plant species. ► Before any ground disturbing activities begin within the aquatic or riparian habitat of the active creek channel, a qualified biologist shall map potential waters of the United States as part of a formal delineation of waters of the United States and shall identify all riparian habitat that could be affected by the project. The findings shall be documented in a detailed report and submitted to the USACE for verification as part of the formal Section 404 wetland delineation process. If there would be unavoidable effects under USACE jurisdiction,	

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		the Section 404 process shall be completed and the acreage of affected jurisdictional habitat shall be replaced and/or rehabilitated. The acreage of jurisdictional wetland affected shall be replaced on a "no-net-loss" basis is accordance with USACE regulations. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by feasible methods agreeable to USACE. All minimization and compensation measures adopted through the permitting process shall be implemented. ► Approval by the RWQCB, as determined during the Section 401 and Section 404 permitting processes, shall be required. All mitigation requirements determined through this process shall be implemented before any ground disturbing activities begin. ► If there would be unavoidable effects to habitats under DFG jurisdiction, a streambed alteration agreement shall be obtained and affected habitat shall be replaced and/or rehabilitated. Because project implementation could result change to the natural flow and/or bed and bank of Dry Creek, the project could require a Section 1602 streambed alteration agreement from DFG. If complete avoidance of indentified riparian habitat is not feasible, the acreage of riparian habitat that would be removed shall be replaced or rehabilitated on a "no-net-loss" basis in accordance with DFG regulations and as specified in the streambed alteration agreement, if needed. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by feasible methods agreeable to DFG. All minimization and compensation measures adopted through the permitting process shall be implemented.	
4.9-7: Biological Resources – Wildlife Movement Corridors. Habitat enhancement components of the proposed project would have a long-term beneficial effect on the wildlife movement corridor along Dry Creek. Project construction is not expected to block wildlife movement; temporary impacts to the corridor would thus be considered less than significant.	LTS	No mitigation is required.	LTS

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4.9-8: Biological Resources – Impacts to Protected Trees. Proposed project features, grading, and construction activities may overlap or may occur within the drip line of protected trees. Depending upon the configuration of the approved site plans and the final extent of grading, the project may result in potentially significant impacts to protected trees.	PS	**Mitigation Measure 4.9-8: Protected Trees.** The following measures shall be implemented to mitigate adverse effects to protected trees potentially resulting from the proposed project. Tree removal shall be avoided unless 1) necessary for project construction, 2) identified as safety hazards in a Certified Arborist Tree Survey and located in existing or planned public access areas (e.g., streets, trails), or 3) if exotic invasive species (e.g., tree of heaven). In the Dry Creek riparian corridor, snags, dead wood and branches on live trees, and fallen branches shall be retained to the maximum extent possible due to the important habitat functions that they provide for wildlife. ► Based on final approved project plans, the project applicant shall determine where protected trees are present within areas proposed for construction and shall identify trees for avoidance or removal. ► A Tree Preservation Plan shall be prepared for the protected trees within the Plan area that shall be avoided by the project to ensure that they are adequately protected during construction activities. A Certified Arborist shall prepare a Tree Preservation Plan in accordance with the Title 19 Article IV of the Roseville Municipal Code, which shall contain detailed recommendations for tree preservation and removal based on construction and grading plans. The Tree Preservation Plan shall address each tree potentially affected by construction and recommend preservation or removal based on its suitability for preservation, proximity to construction activities, and ability to tolerate impacts. The Tree Preservation Plan shall also include general preservation and construction guidelines to assist in the protection of trees within or near the grading limits or near construction zones. The Tree Preservation Plan shall include recommendations for specific protective measures for trees before, during, and after construction to reduce impacts to trees from development and maintain their health throughout the construction process. The Tree Preservation Plan shall be prepared using information in a	LTS

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		Tree Survey and Assessment or similar report including information on each tree's species, size, location, condition, and suitability for preservation. ▸ Where the removal of protected oaks is deemed necessary, the loss shall be mitigated according to Section 19.66.070 of the Roseville Municipal Code which requires that the replacement be calculated based upon an inch-for-inch replacement of the diameter at breast height of the tree removed. Mitigation trees shall be planted at appropriate sites and with appropriate maintenance to ensure their long-term self-sustaining survival. Where possible, mitigation oaks will be planted in canopy gaps along Dry Creek's riparian corridor within the Plan area, or elsewhere within the City of Roseville. A performance standard of 80 percent of the established mitigation trees shall be met after 5 years. The mitigation trees shall not be dependent upon significant maintenance measures within the last 2 years of monitoring, including supplemental irrigation and staking. Alternatively, an in-lieu fee payment can be made to the City of Roseville Native Oak Tree Propagation Fund, which is calculated per inch based on the diameter at breast height of the tree removed.	
4.10 Air Quality			
4.10-1: Generation of Short-term Construction-Related Emissions of Criteria Air Pollutants and Precursors. Modeled short-term project-generated ozone precursor and fugitive dust emissions from construction activities in Plan area would exceed PCAPCD's significance threshold of 82 lbs/day. Thus, project-generated, construction- related emissions of ROG, NOx and PM10 could violate or contribute substantially to an existing or projected air quality violation and/or expose sensitive receptors to substantial pollutant concentrations, especially considering the nonattainment status of Western Placer County. As a result, this impact is considered significant.	S	**Mitigation Measure 4.10-1.** In accordance with the PCAPCD, the applicant shall comply with all applicable rules and regulations as listed above (e.g., Rule 202, 218 and 228). In addition, the following mitigation measures shall be implemented to reduce short-term construction-related air quality impacts. In addition, dust control measures are required to be implemented by all projects in accordance with the City of Roseville Grading Ordinance, and the PCAPCD Fugitive Dust Rule 228. 1. The applicant shall submit to PCAPCD a Construction Emission / Dust Control Plan within 30 days prior to groundbreaking. If the PCAPCD does not respond within 20 days, the plan shall be	SU

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		considered approved. The plan must address the minimum requirements found in section 300 and 400 of District Rule 228, Fugitive Dust (www.placer.ca.gov/airpollution/airpolut.htm). The applicant shall keep a hard or electronic copy of Rule 228, Fugitive Dust on-site for reference. 2. The Construction Emission/Dust Control Plan shall include a comprehensive inventory (i.e., make, model, year, emission rating) of all heavy-duty off-road equipment (50 horsepower (HP) of greater) that will be used an aggregate of 40 or more hours for the construction project. The project representative shall provide PCAPCD with the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreman. The plan shall demonstrate that the heavy-duty (> 50 HP) off-road vehicles to be used in the construction project, including owned, leased and subcontractor vehicles, will achieve a project wide fleet-average 20% NOX reduction and 45% particulate reduction compared to the most recent ARB fleet average. PCAPCD shall be contacted for average fleet emission data. Acceptable options for reducing emissions may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available. Contractors can access the Sacramento Metropolitan Air Quality Management District's web site to determine if their off-road fleet meets the requirements listed in this measure (http://www.airquality.org/ceqa/Construction_Mitigation_Calculator.xls). 3. Clean earth moving construction equipment with water or sweep clean, once per day, or as necessary (e.g., when moving onsite), consistent with National Pollutant Discharge Elimination System Best Management Practices, local ordinances, and municipal codes. Water shall be applied to control dust as needed to prevent dust impacts offsite. Operational water truck(s), shall be on-site, as required, to control fugitive dust. Construction vehicles leaving the site shall be cleaned, as needed, to prevent	

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		dust, silt, mud, and dirt from being released or tracked off-site. 4. Spread soil binders on unpaved roads and employee/equipment parking areas. Soil binders shall be non-toxic in accordance with state and local regulations. Apply approved chemical soil stabilizers, or vegetated mats, etc. according to manufacturers' specifications, to all-inactive construction areas (previously graded areas which remain inactive for 96 hours). 5. Minimize diesel idling time to a maximum of 10 minutes. 6. Utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary diesel power generators, if feasible. 7. Measures specific to 20+ acre project sites: < A pre-construction meeting shall be held to review the construction emission/dust control plan for projects requiring grading of 20+ acres. PCAPCD shall be notified and may attend. < The applicant shall comply with PCAPCD Fugitive Dust Rule 228; including suspending grading operations when conditions exceed designated wind speeds, and executing proper control of lime or other drying agents. < An applicant representative, ARB-certified to perform Visible Emissions Evaluations (VEE), shall routinely (i.e., once per week) evaluate project related off-road and heavy-duty on-road equipment emissions for compliance with this requirement for projects grading more than 20 acres in size, regardless of how many acres are to be disturbed daily. < Construction equipment exhaust emissions shall not exceed the PCAPCD Visible Emissions Rule 202. Fugitive dust is not to exceed 40% opacity and not go beyond property boundary at any time. Operators of vehicles and equipment found to exceed opacity limits are to be immediately notified and the equipment must be repaired within 72 hours.	

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Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
4.10-2: Generation of Long-Term Operation-Related (Regional) Emissions of Criteria Air Pollutants and Ozone Precursors. Operation-related activities would result in project-generated emissions of ROG, NOx or PM10 that exceed PCAPCD's significance threshold of 82 lb/day. Project-generated operation-related emissions of ROG and NOx would also exceed PCAPCD's recommended cumulative summertime threshold of 10 lb/day In addition, the proposed project would require a General Plan amendment to allow for development of desired land uses in downtown Roseville. Thus, project-generated, operation-related emissions of criteria air pollutants and precursors could violate or contribute substantially to an existing or projected air quality violation, expose sensitive receptors to substantial pollutant concentrations and/or conflict with air quality planning efforts. As a result, this impact is considered significant.	S	**Mitigation Measure 4.10-2** The following is a list of mitigation measures developed by PCAPCD to reduce long-term operational impacts to local and regional air quality. Due to the severe nonattainment designation in western Placer County for federal standards, all projects should implement those measures that are logical and feasible. 1. Exceed California Title 24 energy requirements. Areas of Title 24 to be exceeded shall be determined by the applicant and the City. 2. All truck loading and unloading docks shall be equipped with one 110/208-volt power outlet for every two-dock door. Diesel trucks shall be prohibited from idling more than five minutes and must be required to connect to the 110/208-volt power to run any auxiliary equipment. Signage shall be provided. 3. Install a gas outlet in all outdoor recreational fire pits, and permanently installed cooking appliances. 4. Only natural gas fireplace appliances are permitted. Where propane or natural gas service is not available, only EPA Phase II certified wood-burning devices shall be allowed in single-family residences. The emission potential from each residence shall not exceed 7.5 grams per hour. Wood-burning or Pellet appliances shall not be permitted in multi-family developments. 5. Where feasible, install solar electric generation systems. Recommend participation in Roseville Electric incentive programs for energy-efficient development.	SU
4.10-3: Exposure of Sensitive Receptors to Toxic Air Contaminant Emissions. The proposed project would not expose sensitive receptors to substantial emissions of TACs during construction because construction emissions would be temporary and would rapidly dissipate with distance from the source. However, implementation of the Specific Plan could result in the exposure of sensitive receptors, especially those within close proximity to the Rail Yard and proposed commercial uses, to TAC emissions that exceed the significance threshold of 10 in one	S	**Mitigation Measure 4.10-3.** The following mitigation measures shall be implemented to reduce the exposure of sensitive receptors to TACs: ► All proposed homes in the Plan area shall be equipped with filter systems with high Minimum Efficiency Reporting Value (MERV) for removal of small particles (such as 0.3 micron) at all air intake points to the home. All proposed dwelling units shall be constructed with mechanical ventilation systems	SU

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Table 2-1
Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
million for the cancer risk level. As a result, this impact would be considered significant.		which would allow occupants to keep windows and doors closed and allow for the introduction of fresh outside air, without the requirement of open windows. ► Proposed commercial uses that have the potential to emit TACs (e.g., diesel-fueled engines) shall be located as far away as possible from existing and proposed receptors. Proponents of projects with a residential component shall provide disclosure to future residents advising them of the proximity to the JR Davis Rail Yard and associated health risk impacts. ► When determining the exact type of facility that would occupy the proposed commercial space, the project shall take into consideration its toxic-producing potential. ► Proposed facilities that would require the long-term use of diesel equipment and heavy-duty trucks shall develop a plan to reduce emissions, which may include such measures as scheduling such activities when the residential uses are the least occupied, and requiring such equipment to be shut off when not in use and prohibiting heavy-trucks from idling. ► To the extent feasible, sensitive receptors shall be located as far away from the UPRR maintenance facility as possible. ► Implement Mitigation Measure 4.10-2-2, described above, with respect to electrification of commercial loading dock areas to reduce emissions associated with truck idling.	
4.10-4: Generation of Long-Term Operation-Related (Local) Mobile-Source Emissions of Carbon Monoxide. Project-generated, long-term operation-related (local) mobile-source emissions of CO would not violate or contribute substantially to a violation of the CAAQS or NAAQS, or expose sensitive receptors to substantial pollutant concentrations. This impact would be less than significant.	LTS	No mitigation is required.	LTS
4.10-5: Exposure of Sensitive Receptors to Odors. The project would not involve the siting of any major sources of odors. However, the nature of the businesses that would occupy the commercial development is not known, and one or more of the	S	**Mitigation Measure 4.10-5.** Implementation of Mitigation Measure 4.10-3 to reduce indoor exposure to TACs would also result in a reduction in the intensity	LTS

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Table 2-1
Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
businesses could be a minor source of objectionable odors, which could adversely affect nearby existing sensitive receptors. The proposed project would be located near the UPRR Yard, a major source of odors due to diesel PM. Therefore, this is considered a significant impact.		of offensive odors from the surrounding odor sources. In addition, the applicant shall require all businesses that occupy the property to install odor-controls as necessary to prevent a substantial dispersion of odors to adjacent residential areas.	
4.11 Noise			
4.11-1: Short-Term Construction-Generated Noise Levels. Implementation of the proposed project would result in short-term construction activities associated with individual development projects in the Plan area. These construction activities could potentially expose sensitive receptors to noise levels in excess of the applicable noise standards and/or result in a noticeable increase in ambient noise levels. Therefore, this impact is considered potentially significant.	LTS	**Mitigation Measure 4.11-1: Short-Term Construction-Generated Noise Levels:** Although impacts related to short-term construction-generated noise were considered to be less than significant with implementation of the project, the following mitigation is provided to ensure impacts remain at a less-than-significant level. Construction contractors shall implement the following measures during construction activities. ► Construction equipment shall be properly maintained per manufacturers' specifications and fitted with the best available noise suppression devices (i.e., mufflers, silencers, wraps, etc). Shroud or shield all impact tools, and muffle or shield all intake and exhaust ports on power equipment. ► Construction operations and related activities associated with the proposed project shall comply with the operational hours outlined in the City of Roseville Municipal Code Noise Ordinance; construction operations shall be limited to between the hours of 7 a.m. and 7 p.m. Monday through Friday and between 8 a.m. and 8 p.m. Saturday and Sunday. ► Construction equipment should not be idled for extended periods of time in the vicinity of noise-sensitive receptors. ► Locate fixed and/or stationary equipment as far as possible from noise sensitive receptors (e.g., generators, compressors, rock crushers, cement mixers). Shroud or shield all impact tools, and muffle or shield all intake and exhaust ports on powered construction equipment.	LTS

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Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		► Where feasible, temporary barriers shall be placed as close to the noise source or as close to the receptor as possible and break the line of sight between the source and receptor where modeled levels exceed applicable standards. Acoustical barriers shall be constructed material having a minimum surface weight of 2 pounds per square foot or greater, and a demonstrated Sound Transmission Class (STC) rating of 25 or greater as defined by American Society for Testing and Materials (ASTM) Test Method E90. Placement, orientation, size, and density of acoustical barriers shall be specified by a qualified acoustical consultant.	
4.11-2: Long-Term Traffic Noise Levels at Existing Noise-Sensitive Receivers. Implementation of the proposed project would result in an increase of average daily vehicle trips in the Plan area. In some locations, the increased traffic volumes would result in a noticeable (3 dB or greater) increase in traffic noise along roadways, however, impacts from the project would not exceed the city's General Plan noise standards (see Table 4.11-4); or, in areas where existing noise levels exceed those standards, the estimated increase in noise levels would be considered less than perceptible (less than 3dB). Therefore, this impact is considered less than significant.	LTS	No mitigation is required.	LTS
4.11-3: Long-Term Operational Stationary Source Noise Levels. Implementation of the proposed project would result in increases in stationary source noise associated with the proposed residential and commercial land uses. These stationary noise sources could potentially exceed the City's noise standards (hourly and maximum) and result in a noticeable increase in ambient noise levels.	PS	**Mitigation Measure 4.11-3: Long-Term Operational Stationary Source Noise Levels:** Project applicant(s) for industrial and commercial/office land uses shall implement the following measures to reduce exposure of sensitive receptors to excessive noise levels from future stationary sources. **1. Industrial and Commercial/Office Land Uses.** Where these land uses adjoin common property lines with noise-sensitive uses, the following mitigation measures shall be incorporated into the project design to reduce noise exposure from future stationary sources.	LTS

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Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		a. During project review the City's Planning Department shall determine if the proposed use would likely generate noise levels adversely affecting the adjacent noise-sensitive uses. If a proposed project has the potential to generate or expose noise-sensitive uses to noise levels exceeding the City of Roseville noise standards (Tables 4.11-4 through 4.11-6) or result in a substantial (3 dB or greater) permanent increase in ambient noise levels, the project applicant shall prepare a site-specific acoustical analysis. The acoustical analysis shall be conducted in accordance with the City of Roseville General Plan requirements shown in Table 4.11-5. b. Loading and unloading areas shall be located so that commercial buildings shield nearby residential land uses from noise generated by loading dock and delivery activities. If necessary, additional sound barriers shall be constructed on the commercial sites to protect nearby noise-sensitive uses. c. Loading dock activity and delivery truck activity at the commercial uses developed on the project site shall only occur during the daytime hours of 7 a.m. to 10 p.m., in order to prevent evening and nighttime sleep disturbance at nearby residential land uses d. All commercial HVAC machinery shall be located within mechanical equipment rooms wherever possible. Equipment manufacturer's specifications for venting and access to outside air shall be maintained. e. Localized noise barriers or rooftop parapets shall be constructed around the HVAC, cooling towers, and mechanical equipment so that line-of-site to the noise source from the property line of the noise-sensitive receptors is blocked. Equipment manufacturer's specifications for venting and access to outside air shall be maintained. f. Property maintenance activities at commercial and office uses shall be restricted to daytime hours between 8 a.m. and 9 p.m.	

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Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		Project applicant(s) for parking structures shall implement the following measures to reduce exposure of sensitive receptors to excessive noise levels from future stationary sources. **2. Parking Structures.** Parking structures located in the immediate vicinity of noise-sensitive land uses shall include the following mitigation measures. a. Orientate parking structures so that nearby noise-sensitive receptors would be shielded from all on-site circulation routes (entrances, exits, and internal routes). If maintaining visibility is required transparent acoustical screens shall be installed on openings with direct line-of-sight to noise-sensitive receptors. b. Parking structures driveways and entrances shall be located so that the structure serves as a barrier to nearby noise-sensitive receptors. c. Interior reflective surfaces (i.e., ceilings), exposing nearby noise-sensitive receptors to elevated noise levels shall have an acoustically absorptive treatment, such as spray-in cellulose applied. d. Parking structure capacity shall be limited during more sensitive evening and nighttime hours (7 p.m. to 7 a.m.). (i.e., 50% capacity from 7 p.m. to 10 p.m., 30% capacity from 10 p.m. to 7 a.m.). e. To ensure compliance, further analysis of on-site noise generation from the proposed parking structures shall be conducted when tentative maps become available. Implementation of the above mitigation measures and compliance with *City of Roseville Municipal Code* requirements would substantially reduce long-term stationary-source noise associated with the development of industrial land uses, commercial/office land uses, and parking structures to comply of the *City of Roseville General Plan* noise standards. Therefore, long-term operational	

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Summary Table of Impacts and Mitigation Measures

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		stationary source noise levels would be reduced to a less-than-significant level.	
4.11-4: Land Use Compatibility of On-site Sensitive Receptors with Future Traffic Noise Levels. Implementation of the proposed project would result in future traffic noise that could expose proposed new land uses to levels that exceed the City's standards. This traffic noise could result in annoyance and/or sleep disruption to nearby noise-sensitive receptors. Therefore, this impact is considered potentially significant.	PS	**Mitigation Measure 4.11-4: Land Use Compatibility of On-site Sensitive Receptors with Future Traffic Noise Levels.** Project applicant(s) shall implement the following measures to substantially reduce the exposure of sensitive receptors to excessive roadway traffic noise levels. During project review, the City's planning staff shall determine if the proposed land use would potentially be exposed to noise levels exceeding the City's noise level standards. If a proposed project has the potential to generate or be exposed to noise levels exceeding the City of Roseville noise standards (refer to Tables 4.11-4 through 4.11-6) or result in a substantial permanent increase in ambient noise levels (3 dB or greater), the project applicant shall prepare a site-specific acoustical analysis. The acoustical analysis shall be conducted in accordance with the City of Roseville General Plan requirements shown in Table 4.11-5. ► Disclose all transportation noise (i.e., roadway, railway, race track), vibration levels, and their meanings to purchasers and/or renters prior to contract or title transfer for residential property within the Plan area. ► Incorporate site specific design considerations to reduce exterior noise exposure levels. Site design shall include the following measures as applicable to the project-specific site and when feasible: • Common outdoor activity areas, such as play structures, swimming pools, or other outdoor congregation areas included in multi-family residential and/or mixed-use developments shall be located such that the building(s) serve as a sound barrier to the nearest predominant noise source. • Distances between noise sources and noise-sensitive uses shall be maximized through the use of noise buffers/setbacks. Setback areas can take the form of open	LTS

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Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		space, frontage roads, recreational areas, storage yards, or other City approved setback. • Noise barriers shall be constructed to provide shielding of noise-sensitive uses and outdoor activity areas. Barriers may include manmade walls, earthen berms, a combination of walls and berms, and other structures breaking line of sight from noise source to receptor. Barriers shall be located in close proximity to either the noise source or the sensitive receptor. • A site specific acoustical analysis shall be performed consistent with Table 4.11-5, and determine effectiveness of various site design measures based on specific construction plans. Implementation of the above mitigation measure may not always be considered feasible due to the urban nature of the Plan area. As an example, it may not be feasible to provide adequate noise buffers or other noise abatement/ reduction improvements between existing noise sources and sensitive receptors because of the existing urban nature of the Plan area. In addition, noise barriers in the Plan area may not be consistent with strategies or envisioned as part of the Downtown Roseville Specific Plan. An amendment to the Noise Element of the General Plan is proposed concurrent with the Downtown Specific Plan project. The amendment recognizes that in increasingly urban areas it is difficult to maintain suburban noise standards, and in order to facilitate the City's goals to encourage reinvestment and economic development in the Downtown, Riverside, and Historic District Specific Plan areas, the proposed amendment would allow the City to elect to allow new noise-sensitive land uses on a case-by-case basis in proximity to sources of transportation noise. Noise mitigation, including an acoustical analysis, would be required to reduce interior space noise levels to the standards specified in Table IX-1 of the City's General Plan. Exterior noise levels would require mitigation to the extent feasible using building orientation, construction, and design features; however ultimately, exterior noise levels may exceed the	

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		outdoor activity area noise standards identified in Table IX-1 of the City's General Plan. With approval of the amendment to the Noise Element of the General Plan and implementation of noise-reduction measures, impacts related to land use compatibility of on-site sensitive receptors with future traffic noise levels would be reduced to a less-than-significant level.	
4.11-5: Land Use Compatibility of On-site Sensitive Receptors with Future Railroad Noise Levels. Implementation of the proposed project would result in locating new noise-sensitive land uses within 60 dB L_{dn} railroad noise contours. Therefore, this impact is considered potentially significant.	PS	**Mitigation Measure 4.11-5: Land Use Compatibility of On-site Sensitive Receptors with Future Railroad Noise Levels.** Implement mitigation measure 4.11-4 to reduce the exposure of sensitive receptors (i.e., residential, mixed-use development) to significant noise associated with future railroad and rail yard operations. Implementation of mitigation measure 4.11-4 may not always be considered feasible due to the urban nature of the Plan area. As an example, it may not be feasible to provide adequate noise buffers or other noise abatement/reduction improvements between existing noise sources and sensitive receptors because of the existing urban nature of the Plan area. In addition, noise barriers in the Plan area may not be consistent with strategies or envisioned as part of the Downtown Roseville Specific Plan. With implementation of measures listed above (see Mitigation Measure 4.11-4) by project applicant(s) and enforcement of noise standards for interior spaces, projected noise levels would not have the potential to exceed applicable interior noise standards adopted by the City with respect to land use compatibility. However, due to the potential for noise associated with the railyard to exceed the General Plan standards for exterior noise, this impact would be significant and unavoidable.	SU
4.11-6: Future Interior Noise Levels at On-site Sensitive Receptors. Implementation of the proposed project would result in exposing new noise-sensitive receptors to interior noise levels that exceed the City's noise standards. This would result in	PS	**Mitigation Measure 4.11-6: Future Interior Noise Levels at On-site Sensitive Receptors:** Project applicant(s) shall implement the following measures for all noise-sensitive land uses with direct exposure to roadways, parking	LTS

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annoyance and/or sleep disruption to noise-sensitive receptors. Therefore, this impact is considered potentially significant.		areas, and railways and exterior noise levels greater than 70 dB L_{dn}: ► All residential uses shall be constructed with air conditioning and mechanical ventilation systems that allow for windows and doors to remain closed and achieve acoustical isolation from traffic and railroad noise. The systems shall allow for the introduction of fresh outside air, without the requirement of open windows. Access to outside air shall be automatically controlled to prevent unintentionally flowing seasonally hot or cold into conditioned space. ► Attic vents direct exposure to elevated noise levels shall be acoustically baffled, containing at least one 90 degree obstruction to the flow of air. The baffle shall be fitted with an acoustically absorbent liner. ► Exterior walls shall be constructed of a three-coat stucco or wood siding with an exterior underlayment or sound board. ► All residential windows and doors with direct exposure to elevated noise levels shall be required to meet a minimum STC rating of 34. ► Windows and sliding glass doors shall be mounted in low infiltration rate frames (0.5 cubic feet per minute or less, per ANSI specifications). ► Exterior doors shall be solid core with perimeter weather-stripping and threshold seals. ► The City shall require project applicants to submit an acoustical analysis which verifies compliance with the City of Roseville interior noise level standard of 45 dB L_{dn}. The analysis shall be based on detailed construction plans and site configuration details, and be conducted by a qualified acoustical consultant. Implementation of the above mitigation measure would reduce exposure of noise-sensitive uses to interior noise levels exceeding the City of Roseville 45 dB L_{dn} standard. As a result this impact would be reduced to a less-than-significant level.	

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4.11-7: Ground-Borne Noise and Vibration Levels at Sensitive Receptors. Implementation of the proposed project would result in exposing new sensitive noise-receptors to ground-borne noise and vibration levels that exceed the FTA and Caltrans guidelines. These ground-borne noise and vibration levels could result in annoyance or architectural/structural damage. Therefore, this impact is considered potentially significant.	PS	**Mitigation Measure 4.11-7: Ground-Borne Noise and Vibration Levels at Sensitive Receptors:** Project applicant(s) shall implement the following measures to reduce the potential for human annoyance and achitectural/structural damage resulting from elevated ground-borne noise and vibration levels. ► Construction-Induced Vibration: • Pile driving required within a 50-foot radius of historic structures should utilize alternative installation methods were possible (e.g., pile cushioning, jetting, pre-drilling, cast-in-place systems, resonance-free vibratory pile drivers). Specifically, geo pier style cast in place systems shall be used where feasible as an alternative to pile driving to reduce the number and amplitude of impacts required for seating the pile. • The pre-existing condition of all buildings within a 50-foot radius, and historical buildings within the immediate vicinity of proposed construction activities shall be recorded in the form of a preconstruction survey. The preconstruction survey shall determine conditions that exist before construction begins for use in evaluating damage caused by construction activities. Fixtures and finishes within a 50-foot radius of construction activities susceptible to damage shall be documented (photographically and in writing) prior to construction. All damage will be repaired back to its pre-existing condition. • Vibration monitoring shall be conducted prior to and during pile driving operations occurring within 100 feet of the historic structures. Every attempt shall be made to limit construction generated vibration levels in accordance with Caltrans recommendations during pile driving and impact activities in the vicinity of the historic structures. • Provide protective coverings or temporary shoring of on-site or adjacent historic features as necessary, in	LTS

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Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		consultation with the Preservation Director. ► Railroad Induced Vibration: • Vibration sensitive uses shall be located a minimum of 100 feet from the UPRR centerline. To ensure compliance with FTA and Caltrans recommended guidelines, and site specific ground-borne noise and vibration assesment should be conducted. • A ground-borne vibration assessment shall be conducted at proposed building pad locations within 200 feet of UPRR right of ways, prior to project approval. Vibration monitoring and assessment shall be conducted by a qualified noise and vibration control engineer. Implementation of the above mitigation measure would substantially limit the effects of ground-borne vibration on sensitive receptors and as a result, project-generated ground-borne noise and vibration levels would be reduced to a less-than-significant level.	
4.12 Hydrology and Water Quality			
4.12-1: Short-Term Degradation of Water Quality from Project-Related Construction Activities. Construction disturbances associated with the proposed project would create the potential for soil erosion and sedimentation of storm water drainage systems and runoff to Dry Creek. Construction activities may also involve the potential for releases of other pollutants to surface waters and/or the future storm drain system including oil and gas, chemical substances used in the construction process, accidental discharges, waste concrete, and wash water. Implementation of standard erosion control measures and implementation of minimum control measures required by the SWMP would be required by individual development projects in the Plan area. This impact is considered less than significant.	LTS	No mitigation is required.	LTS
4.12-2: Temporary Effects on Groundwater Quality During Construction. Sediments and contaminants would be prevented	LTS	No mitigation is required.	LTS

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from entering groundwater through requirements of the NPDES storm water general permit for construction activity, including preparation of a SWPPP. The NPDES permit would be required to include provisions for dewatering, and the SWPPP would be required to include a dewatering plan, measures to prevent/minimize releases of sediment and contaminants into groundwater during excavation, and methods to clean up releases if they do occur. Because compliance with these regulations would be a required of individual development projects in the Plan area and the contamination of groundwater would be avoided and/or minimized, this impact is considered less than significant.			
4.12-3: Change in the Quantity of Groundwater through Withdrawals, Interception, or Loss of Recharge Capacity. The Plan area is located within an existing urbanized area and is developed with impervious surfaces of various types. Implementation of the proposed project would not result in a substantial increase in impervious-surface coverage such that interference with groundwater recharge would occur. In addition, the proposed project would not result in a demand for groundwater resources. This impact is considered less than significant.	LTS	No mitigation is required.	LTS
4.12-4: Long-Term Changes in Runoff and Water Quality. Although individual project sites in the Plan area are in an urban environment that is largely paved, development under the Specific Plan may slightly increase the amount of impervious surfaces, and could proportionately increase runoff from individual project sites to storm drains. However, the Plan area is located an area of Roseville where an existing storm drainage system would be used to convey urban runoff conveyance in compliance with the City's SWMP requirements. Because compliance with NPDES-related regulations for storm water runoff would be a required element of individual projects in the Plan area, this impact is considered less than significant.	LTS	No mitigation is required.	LTS

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4.12-5: Expose People or Structures to a Significant Risk of Flooding. Implementation of the proposed project could expose people and structures to flooding due to construction of proposed commercial/residential buildings and an amphitheater adjacent to or Dry Creek. This impact is considered potentially significant.	PS	**Mitigation Measure 4.12-5: Hydrology and Water Quality – Expose People or Structures to a Significant Risk of Flooding.** All habitable structures constructed in the Plan area shall be located outside the adjusted 100-year flood plain as identified in the Downtown Specific Plan Hydraulic Study (RBF 2008) prepared for the Downtown Roseville Specific Plan. Additional encroachment into areas within the adjusted 100-year flood plain shall require site specific hydraulic modeling. Specific structures identified in the Downtown Roseville Specific Plan shall be prohibited from being constructed inside the adjusted 100-year flood plain unless evaluated and approved through project specific hydraulic modeling including structures associated with mixed-use development and high-density residential.	LTS
4.12-6: Proposed Project Structures within the 100-year Flood Zone Could Impede or Redirect Flood Flows. Implementation of the proposed project could expose people and structures to flooding due to construction of proposed commercial/residential buildings, a golf course, bridges and park facilities, and an amphitheater adjacent to or across Dry Creek. This impact is considered potentially significant. Portions of the proposed project are within the 100-year floodplain. This impact is considered potentially significant.	PS	**Mitigation Measure 4.12-6: Hydrology and Water Quality – Proposed Project Structures within the 100-year Flood Zone Could Impede or Redirect Flood Flows.** To prevent impeding or redirecting storm water flows in Dry Creek, the following actions shall be implemented for design and construction of improvements identified in the Downtown Roseville Specific Plan adjacent to Dry Creek. 1. The Creek Walk identified in the Downtown Roseville Specific Plan shall be constructed at the existing top of bank elevation for Dry Creek and the area south of the new library bridge shall be made inaccessible during major storm events. 2. All pedestrian bridges in the Specific Plan area and the grand staircase shall be aligned to prevent increased 100-year flood water surface elevations in Dry Creek. Additional hydraulic analyses shall be conducted for the new pedestrian bridge alignments that are inconsistent with the RBF hydraulic analysis. 3. Prior to any golf course related development activities in Saugstad Park, a site-specific hydraulic analysis or other acceptable analysis shall be conducted for a more specific golf course development plan to ensure that there is no risk of impeding or redirecting flood	LTS

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		flows. This future analysis shall be reviewed and approved by the City's Public Works Department. These measures would ensure proposed structures and improvements identified in the Specific Plan do not impede or redirect flood flows in Dry Creek, reducing this potential impact to a less-than-significant level.	
4.12-7 Inundation by Seiche, Tsunami, or Mudflow. The proposed project is not located in an area susceptible to seiche or tsunamis. Steep slopes along Dry Creek could pose hazards associated with mudflows. This impact is considered potentially significant.	PS	**Mitigation Measure 4.12-7: Hydrology and Water Quality – Inundation by Seiche, Tsunami, or Mudflow.** Implement Mitigation Measure 4.4-3. This measure would identify any unstable, hazardous slopes along Dry Creek that could pose a mudflow hazard to pedestrians and/or bicyclists and require implementation of recommendations to prevent landslides. This impact would be reduced to a less-than-significant level.	LTS
5 Cumulative Impacts			
5.4-1: Increases in Greenhouse Gas Emissions. Emissions of GHGs during construction and operation of the proposed project would be substantial. Therefore, direct impacts of the proposed project from GHG emissions are considered significant.	S	**Mitigation Measure 5.4-1** Implementation of Air Quality Mitigation Measure 4.10-2, which would reduce operational emissions of criteria air pollutants and precursors, would also act to reduce GHG emissions associated with project operation. Mitigation measure 4.10-2 is relevant to impact 5.4-1 because both criteria air pollutant and GHG emissions are frequently associated with combustion byproducts. In addition, the City shall implement the following measures to reduce direct and indirect GHG emissions associated with the proposed project. Certain measures would already be components of the project (i.e., Specific Plan policies, design guidelines and standards), and/or would be applied consistent with the City's General Plan Policies addressing GHG emissions and climate change, but are provided here for purposes of completeness. **A. Energy Efficiency** 1. Design buildings to be energy efficient (e.g., exceed Title 24 requirements). Site buildings to take advantage of shade,	SU

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		prevailing winds, landscaping and sun screens to reduce energy use (1% emissions reduction). 2. Install efficient lighting and lighting control systems. Use daylight as an integral part of lighting systems in buildings (0.5% emissions reduction). 3. Install light colored "cool" roofs, cool pavements, and strategically placed shade trees (0.5% emissions reduction). 4. Install energy efficient heating and cooling systems, appliances and equipment, and control systems. 5. Install light emitting diodes (LEDs) for traffic, street and other outdoor lighting. 6. Use solar heating, automatic covers, and efficient pumps and motors for pools and spas. **B. Renewable Energy** 1. Install solar and wind power systems, solar and tankless hot water heaters, and energy-efficient heating ventilation and air conditioning. 2. Improve the thermal integrity of buildings, and reduce the thermal load with automated time clocks or occupant sensors. 3. Where practical, install solar panels on carports and over parking areas. **C. Water Conservation and Efficiency** 1. Create water-efficient landscapes with native, drought-resistant species. 2. Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls. 3. Where feasible, use reclaimed water for landscape irrigation in new developments and on public property. Install the infrastructure to deliver and use reclaimed water. 4. Design buildings to be water-efficient. Install water-efficient fixtures and appliances. 5. Devise a comprehensive water conservation strategy appropriate for the project and location. The strategy may include many of	

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Table 2-1
Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		the specific items listed above, plus other innovative measures that are appropriate to the specific project. **D. Solid Waste Measures** 1. Reuse and recycle construction and demolition waste including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard. 2. Provide interior and exterior storage areas for recyclables and green waste and adequate recycling containers located in public areas. **E. Land Use Measures** 1. Incorporate public transit into project design (0.4-1% emissions reduction). 2. Preserve and create open space and parks. Preserve existing trees, and plant replacement trees at a set ratio. 3. Include pedestrian and bicycle-only streets and plazas within developments. Create travel routes that ensure that destinations may be reached conveniently by public transportation, bicycling or walking. Design roadway network to maximize pedestrian access to transit stops, including access from residential cul-de-sacs to collector and arterial streets (1% emissions reduction). **F. Transportation and Motor Vehicles** 1. Limit idling time for commercial vehicles, including delivery and construction vehicles. 2. Provide the necessary facilities and infrastructure to encourage the use of low or zero-emission vehicles (e.g., electric vehicle charging facilities and conveniently located alternative fueling stations) (0.5–1.5% emissions reduction). 3. Provide park and ride lots. 4. Increase headways of current City bus service to downtown Sacramento. 5. Provide shuttle service to public transit. 6. Provide public transit incentives such as free or low-cost monthly transit passes (1-5% emissions reduction).	

NI = No Impact LTS = Less-than-significant PS = Potentially Significant S = Significant SU = Significant and Unavoidable

Table 2-1
Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		7. Incorporate bicycle lanes, routes, and intersection improvements into street systems within the Specific Plan (1% emissions reduction). 8. For commercial land uses, provide adequate bicycle parking near building entrances to promote cyclist safety, security, and convenience (1% emissions reduction). 9. Create Class II bicycle lanes and walking paths directed to the location of schools, parks and other destination points (1% emissions reduction). 10. Ensure that the public school district shall serve the project site with a student busing system, and/or enable students residing in the project to safely walk to or bicycle to school without encountering barriers such as large arterial roadways or sound walls. 11. Construction of transit facility/amenity (bus shelters, bicycle lockers/racks, etc.) for existing public and private transit (0.5% emissions reduction). 12. Provide secure bicycle storage at public parking facilities. Mitigation Measure 5.4-1 would reduce operational and construction-generated GHG emissions. The City has determined that the proposed project would be consistent with the goals of AB 32 in that it is the type of project generally considered to be compatible with long-term GHG emission reduction efforts as it is a downtown revitalization project; and that it is reasonable to expect that the extensive vehicle trip reduction and energy conservation measures identified in Mitigation Measure 5.4-1 would be effective in substantially reducing GHG emissions compared with the unmitigated emissions calculations presented in Table 5.4-1. Conservative emissions reductions estimates were assigned to individual measures where documentation was available (California Air Pollution Control Officers Association 2008). The exact quantity of GHG emissions reduction associated with several measures identified in Mitigation Measure 5.4-1 cannot be calculated at this time. However, due to the current disparity between the volume of existing global GHG emissions and the goals of AB 32, even with mitigation measures incorporated, the proposed project would	

NI = No Impact LTS = Less-than-significant PS = Potentially Significant S = Significant SU = Significant and Unavoidable

Table 2-1
Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		contribute a cumulatively considerable, incremental contribution to global GHG emissions and, therefore, would result in a significant and unavoidable cumulative impact. Mitigation measures that were considered by the City but were determined to be infeasible include: ► Use of low or zero-emission vehicles, including construction vehicles is economically infeasible. ► Promote ride sharing programs by designating a certain percentage of parking spaces for ride sharing vehicles. The City already has a Transportation Systems Management (TSM) program. ► Create car sharing programs. This measure is not enforceable.	

NI = No Impact LTS = Less-than-significant PS = Potentially Significant S = Significant SU = Significant and Unavoidable

3 DESCRIPTION OF THE PROPOSED PROJECT

3.1 LOCATION AND SETTING

3.1.1 PROJECT AREA AND SURROUNDING AREA

PROJECT AREA

The Roseville Downtown Specific Plan , and Downtown Code (collectively referred to as the Plan) , are incorporated by reference into this EIR as authorized by CEQA Section 15150. The proposed Plan includes implementation of a specific plan in a 176-acre area comprised of the existing Historic Old Town, Vernon Street Civic Core, and Royer and Saugstad Park. The Downtown Code includes prescriptive standards and plan-specific ordinances (e.g., live-work, mixed-use, signage, evaluation of pre-design sites).

The proposed project area (Plan area) encompasses an infill area completely surrounded by built-out neighborhoods in central Roseville, California. Exhibit 3-1 shows the regional location of the project area. The Plan area is bisected by the Union Pacific rail yard with the Plan area connected by the Washington Boulevard underpass that runs under the railroad tracks. Vernon Street and Washington Boulevard are the primary roadways extending through the Plan area. Existing land uses in the Plan area include the Roseville Civic Center (City Hall), single-family residences, train depot, and commercial/retail businesses. Dry Creek also flows in a southerly direction through Royer and Saugstad Park.

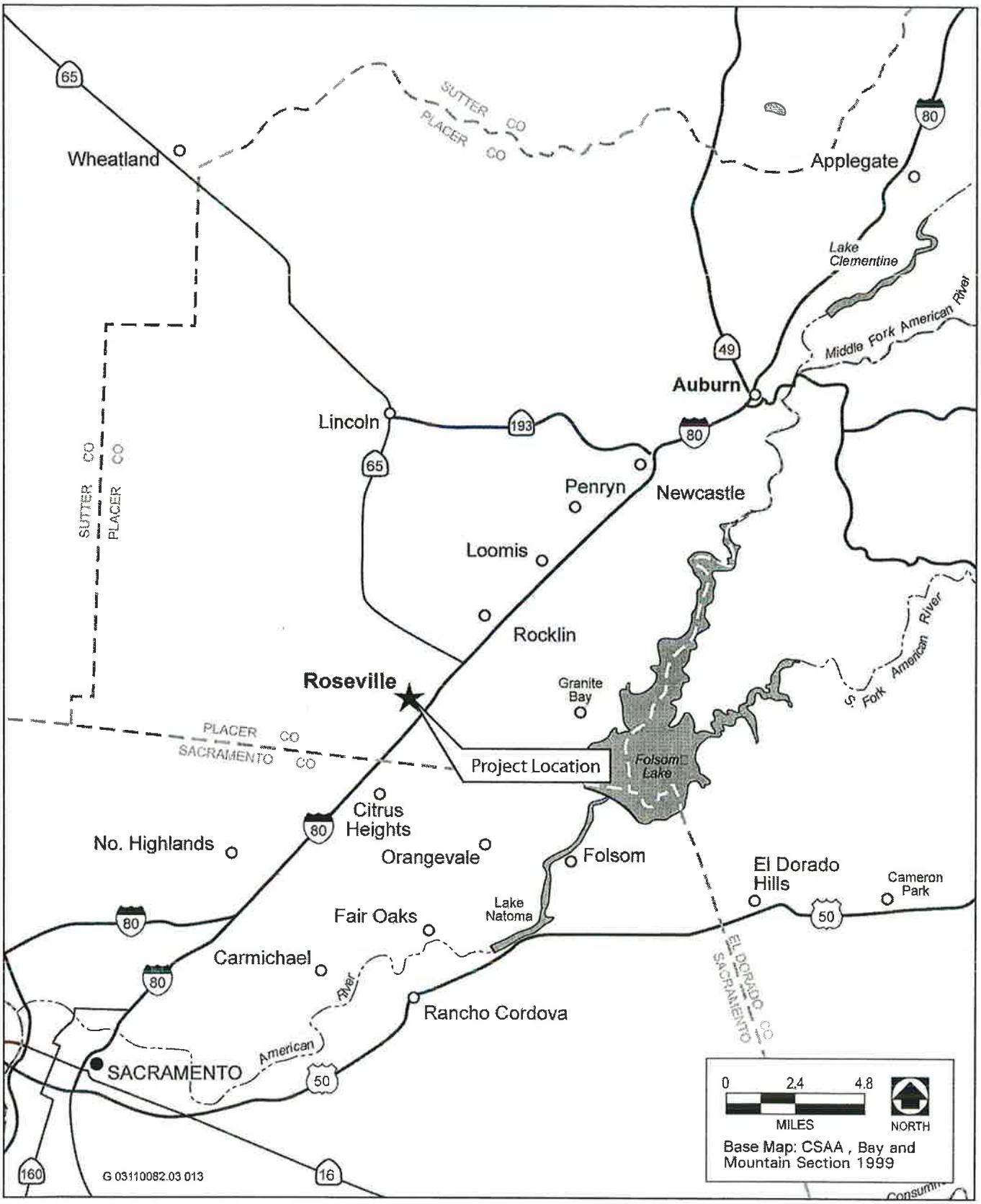
The Plan area is further subdivided into 11 distinct character districts and the two parks. Each district incorporates an anticipated look and feel designed to promote the core goals established in the Specific Plan. The ten districts include:

- Old Town Districts
  - Washington Corridor
  - Washington Corridor Intensification District
  - Old Town Bungalow
  - Old Town Commercial
  - Old Town Commercial Extension District

- Vernon Street Districts
  - Vernon Street
  - Dry Creek Mixed-Use
  - Royer Park
  - Creek View Residential
  - Vernon Bungalow
  - Douglas Corridor

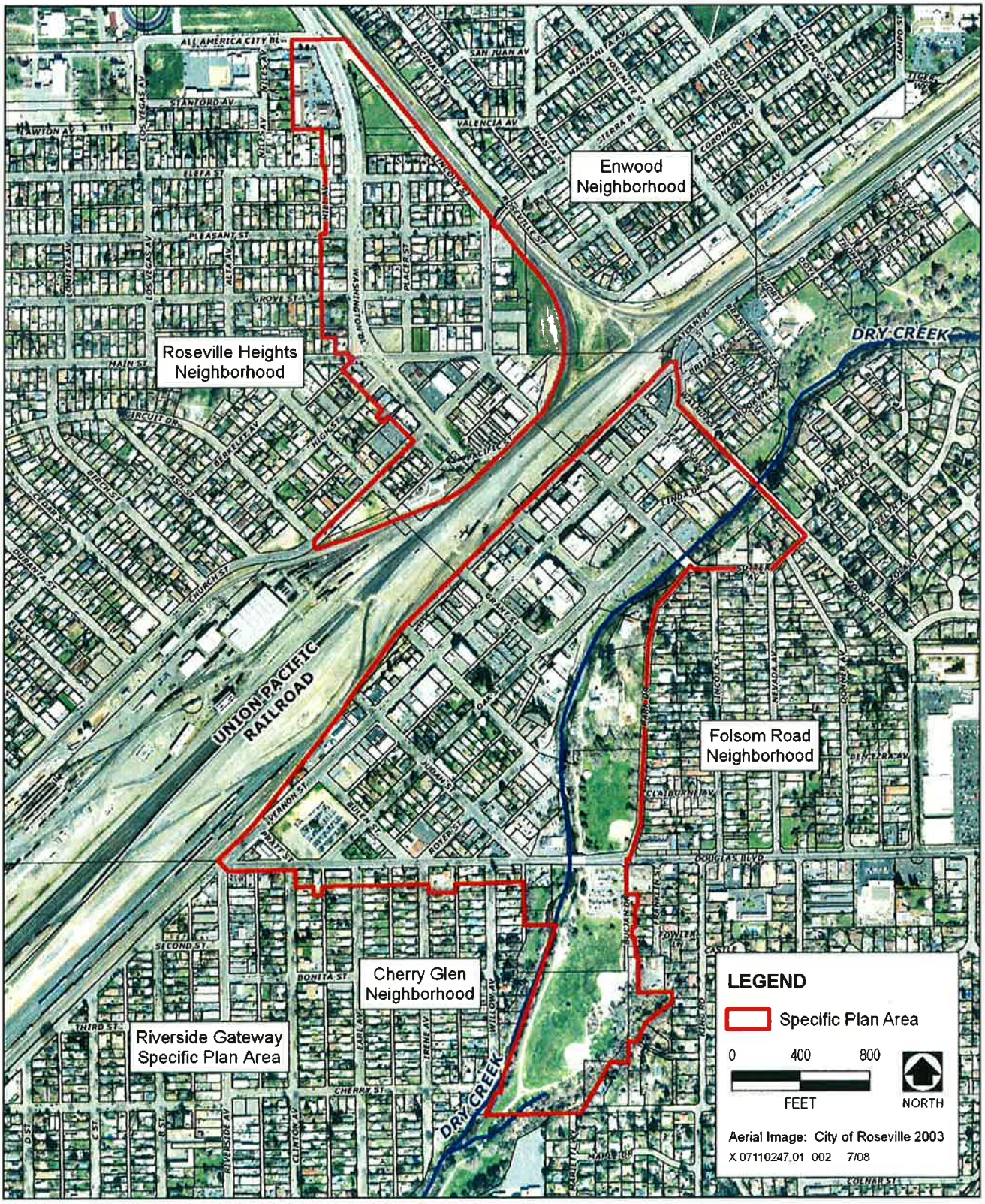
SURROUNDING LAND USES

Residential uses surround the Plan area, including Cherry Glen and Hillcrest located to the south and southeast, Roseville Heights located to the west, Los Cerritos located to the northwest, Sierra Vista located to the northeast, and Enwood and Folsom located to the east. The Plan area is also bisected by the Union Pacific rail yard. Commercial land uses associated with the Riverside Gateway area extend southward along Riverside Avenue located to the southwest. I-80 is approximately one mile to the southeast. These surrounding land uses are illustrated in Exhibit 3-2 and are described in greater detail in Section 4.1, "Land Use and Planning."



Source: California State Automobile Association, Bay and Mountain Section 1999

Regional Location **Exhibit 3-1**



Source: City of Roseville 2008

Vicinity Map **Exhibit 3-2**

3.1.2 General Plan Designation

The project area is within the Central Roseville Planning Boundary, according to the City of Roseville 2020 General Plan (2008). The project area is designated by the City General Plan as low density residential, medium density residential, central business district, public/quasi-public, and parks and recreation/ floodplain. Existing land uses are described in detail and illustrated in Section 4.1.

3.1.3 Zoning Designation

The *City of Roseville Zoning Ordinance* (August 2006) designates the project area single family residential, attached housing, central business district, general commercial, community commercial, planned development, public/quasi-public, and park and recreation/floodway. Existing land uses are described in detail and illustrated in Section 4.1.

3.2 PROJECT BACKGROUND

Under California law (Government Code 65450 et seq.), a city or county may use the mechanism of a specific plan to enact specific regulations, programs, and legislation to help achieve the goals expressed in its adopted General Plan. California law requires that such a specific plan include text and diagrams addressing the following issues: the distribution, location and intensity of land uses, including open space; the location and capacity of major infrastructure systems, including transportation, wastewater, and stormwater drainage; standards and criteria for development and use of natural resources; and implementation measures, including capital improvement and financing mechanisms necessary to execute the specific plan. The specific plan and corresponding Downtown code are a site-specific planning tools that bridge the gap between the general, policy-oriented guidelines of the General Plan and the detailed site plan criteria needed at the project level of individual development proposals. A specific plan creates a comprehensive vision, theme, and land use plan that supports the policy direction of the General Plan and establishes zoning, subdivision regulations, and design and development standards tailored to the specific plan area. The City initiated a visioning process for the Downtown area in response to a community desire to revitalize their existing downtown area into a vibrant and flourishing destination. In response, a Steering Committee was established to create recommendations for the Downtown Vernon Street and Historic Old Town Specific Plan that would be forwarded for approval at the Roseville Revitalization Committee, Planning Commission, and City Council. The scope of recommendations included policy framework, land use strategy, vehicle and pedestrian circulation, design guidelines, funding strategy, parking management plan, transit strategy, creek and floodway management plan, city facility priorities, Royer Park improvements, and identification of development opportunity sites.

During the Fall of 2005, the downtown Roseville community participated in a week-long immersion process that led to the development of the vision for downtown Roseville. The investment of time and ideas from the community led to the vision for downtown Roseville which was discussed at several public forums and ultimately received support from the City Council. The community participation resulted in a vision statement and guiding principles that serve as the foundation for the Downtown Roseville Specific Plan.

3.3 PROJECT GOALS AND OBJECTIVES

The primary objectives of the proposed project are to:

- Improve connectivity within Downtown as well as between Downtown and its surroundings;
- Respect and honor the history and influence of the railroad;
- Identify land uses and development standards that are responsive to market opportunities and that facilitate quality architecture and urban design;

- Reinforce identity through the establishment of character districts and gateway elements;
- Create and enhance public places that support community activity, spirit, and involvement;
- Promote arts, culture, heritage, education, and entertainment; and.
- Restore habitat values and flood conveyance functions along Dry Creek.

3.4 PROJECT CHARACTERISTICS

3.4.1 LAND USE AND DEVELOPMENT REGULATIONS

Land uses in the Plan area would be implemented through zoning districts. Implementation of the Plan would include the adoption of 11 new land use districts for the Plan area (see Exhibit 3-3) and require a General Plan amendment to allow for development of desired land uses in Downtown Roseville. The Specific Plan identifies the following land uses for each district.

- **Washington Corridor District (DT-1)** – This 20.1-acre area is identified as a mixed-use area extending along Washington Boulevard that principally allows development of mixed use, retail, restaurants, services, offices, and multi-family residential uses;
- **Washington Corridor Intensification District (DT-2)** – This 4.36-acre area is a triangular shaped parcel located at the corner of Washington Boulevard and Lincoln Street and identified as an opportunity site for development of mixed commercial and residential uses;
- **Old Town Bungalow District (DT-3)** – This 12.38-acre area is identified as a residential area located in the Old Town Roseville area that principally allows development of single-family residential and cottage office uses;
- **Old Town Commercial District (DT-4)** – This 15.95-acre area is identified as a mixed-use area located in the Old Town Roseville area that principally allows development of mixed use, retail, restaurants, entertainment, nightclubs/bars, grocery store/pharmacy, offices, multi-family residential, and live/work space uses;
- **Old Town Commercial Extension District (DT-5)** – This 2.41-acre area is land owned by Union Pacific Railroad and is proposed to be leased for public surface parking;
- **Vernon Street District (DT-6)** – This 38.17-acre area is identified as a mixed-use area extending along Vernon Street that principally allows development of mixed use, retail restaurants, entertainment, nightclubs, offices, public/quasi-public, and multi-family residential uses;
- **Dry Creek Mixed-Use District (DT-7)** – This 15.81-acre area is identified as a mixed-use area extending along the western edge of Dry Creek that principally allows development of mixed use, retail, restaurants, public/quasi-public, offices, multi-family residential, live/work space, public market, and vendor/kiosk uses;
- **Royer Park District (DT-8)** – This 36.52-acre area is identified as a recreational area extending along the eastern edge of Dry Creek that principally involves improvements to existing recreational opportunities at Royer/Saugstad Parks;
- **Creek View Residential District (DT-9)** – This 3.02-acre area is identified as a high-density residential area located in the northeastern-most portion of the Plan area that principally allows development of multi-family residential and neighborhood grocery store uses;

- **Vernon Bungalow District (DT-10) –** This 11.58-acre area is identified as a residential/cottage office area located centrally in the southernmost portion of the Plan area that principally allows development of single-family residential and cottage office uses; and

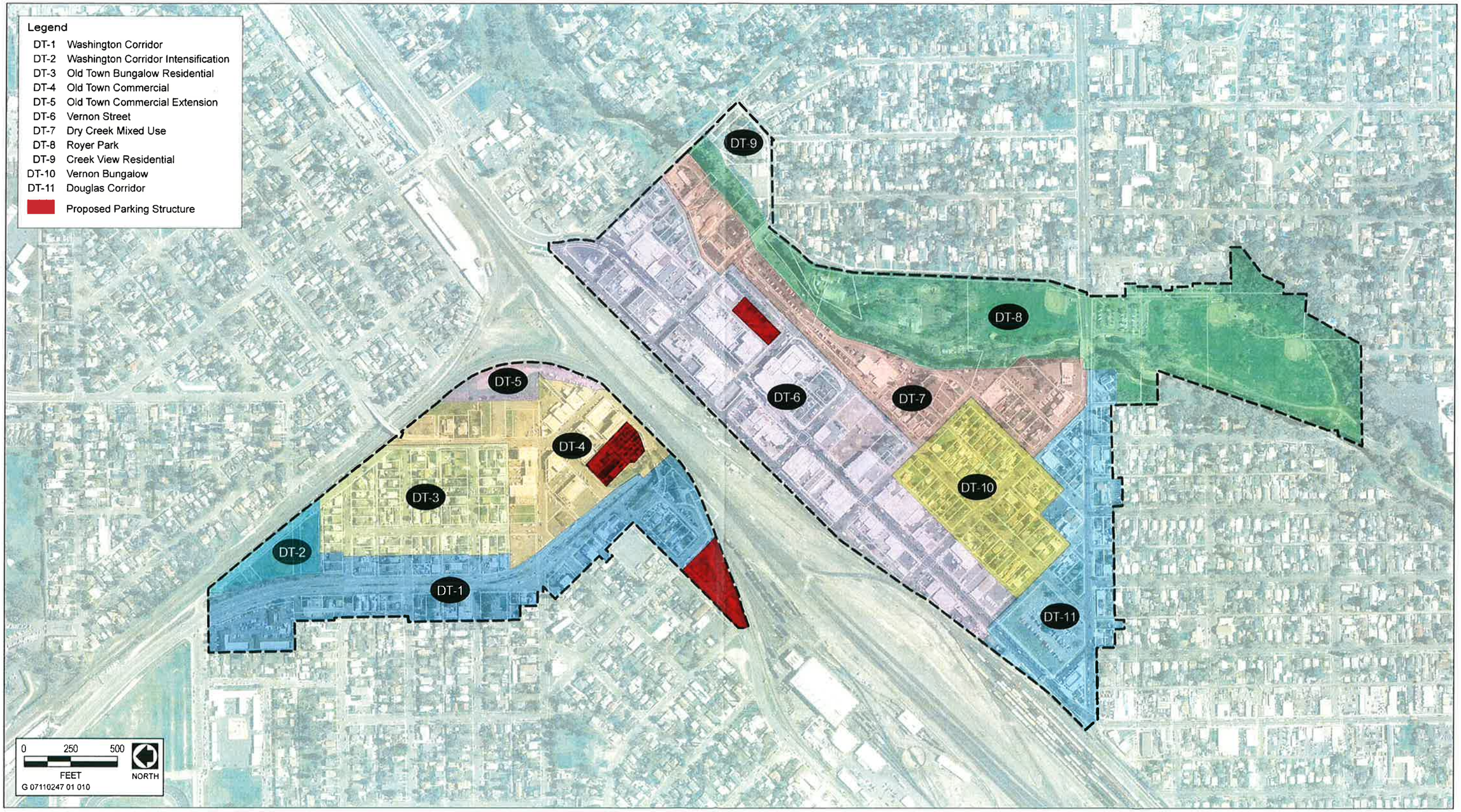
- **Douglas Corridor District (DT-11) –** This 15.23-acre area is identified as a mixed-use area extending along Douglas Boulevard that principally allows development of mixed use, retail, restaurants, service, offices, and multi-family residential uses.

Implementation of the above land uses in each district is anticipated to result in increased development of residential units and commercial square footage in the Plan area. For residential development, the Specific Plan envisions development of 1,020 new residential units in the Plan area in addition to 255 existing units. For commercial development, the Specific Plan envisions development of 3,227,045 square feet of new commercial space in addition to 939,404 square feet of existing commercial space in the Plan area. The existing and maximum allowable buildout of residential units and commercial square footage is shown in Tables 3-1 and 3-2.

Table 3-1
Proposed Residential Land Use Development

District	Existing Residential Units	Maximum Allowable Density (per acre)	20-year Buildout (units)	New Residential Units
Washington Corridor	39	15	83	44
Washington Corridor (Intensification)	0	30	68	68
Old Town Bungalow	82	12	99	17
Old Town Commercial	10	32	158	148
Old Town Commercial (Extension)	0	0	0	0
Vernon Street	16	40	354	338
Dry Creek Mixed-Use	21	40	315	294
Royer Park	0	0	0	0
Creek View Residential	13	30	68	55
Vernon Bungalow	56	12	64	8
Douglas Corridor	18	15	66	48
TOTAL	255		1,275	1,020

In addition, the Plan provides development standards and design criteria specific to each district that establish the appropriate distribution, mix, intensity, physical form, and functional relationships of land uses in the Downtown area. These regulations are intended to encourage and facilitate infill development, mixed-use, pedestrian scale, urban amenities, transit use, creative design, and general revitalization of the Downtown area, as described below.



Source: City of Roseville 2008

District Boundaries **Exhibit 3-3**

Table 3-2 Proposed Commercial Land Use Development				
District	Existing Commercial (square feet)	Maximum Floor Area Ratio (FAR)	20-year Buildout (square feet)	New Commercial (square feet)
Washington Corridor	93,223	100%	241,540	148,317
Washington Corridor (Intensification)	0	100%	98,010	98,010
Old Town Bungalow	76,441	40%	99,360	22,919
Old Town Commercial	131,704	300%	646,213	514,509
Old Town Commercial (Extension)	0	50%	7,873	7,873
Vernon Street	404,773	400%	1,543,766	1,138,993
Dry Creek Mixed-Use	95,501	350%	1,199,555	1,104,054
Royer Park	8,000	n/a	0	0
Creek View Residential	20,677	200%	67,800	47,123
Vernon Bungalow	59,233	40%	63,756	4,523
Douglas Corridor	49,852	100%	190,575	140,723
TOTAL	939,404		4,158,449	3,227,045

DEVELOPMENT STANDARDS

The Plan describes the appropriate location for, size of, and design of buildings on a parcel by establishing the following requirements for each district.

- **Building Placement and Size:** Building placement and size of development is described by defining the required or allowable build-to line, setbacks, building height, floor area ratio, and residential density. The build-to line requirements describe where a building can be located on the parcel and the potential size of the building. Build-to line and rear and side setbacks define the buildable area on a parcel. Building size is established by the building height, floor area ratio, and residential density.

- **Potential New Development:** Potential new development represents the envisioned potential level of new residential and commercial development that would be built during the next 20 years.

- **Principally Allowed Uses:** Principally allowed uses define the basic and most desirable uses allowed in a district.

- **Parking Requirements:** Parking requirements establish the required location for parking (e.g., parking structure, behind building, alley, subterranean) and the minimum number of parking spaces for the proposed use of the property. A goal of establishing parking location is to encourage pedestrian traffic by placing buildings and community-oriented space adjacent to public right-of-ways rather than parking.

- **Allowable Building Types:** The Plan identifies the allowable building types (e.g., single family, podium, townhouse, cottage office) within each district identify the preferred built form of new buildings.

- **Allowable Building Frontage Types:** Allowable building frontage types (e.g., arcade, forecourt, terrace, porch) represents the vision for how the front of new buildings interact with the public right-of-way. The Plan also identifies design standards for each building frontage type.

- **Allowable Sign Types:** The Plan defines the appropriate sign types (e.g., awning, projecting, wall, under canopy) within each property based on location, allowable uses, and building frontage type. Design standards for each allowable sign type are identified in the Plan.

Downtown Ordinances and Additional Provisions

The Plan identifies additional provisions and ordinances that address concerns related to higher density of the downtown area, the historic nature of many structures, the close relationship between residential and commercial land uses, the importance of activity within public rights-of-way, and the promotion of pedestrian traffic. The additional provisions and regulations describe applicable limitations, design standards, and operating requirements for mixed-use projects, live/work units, nightclubs and cocktail lounges, parking structures, cottage courtyards, newspaper racks, outdoor retail sales, and public art.

Downtown Amenity Requirements and Incentives

The Plan outlines requirements and incentives for urban amenities to enhance the quality of life in the Downtown area. Requirements and incentives of the Plan include encouraging pedestrian friendly design, amenities, beautification, sufficient parking, mixed-use districts, affordable housing, and access to public transit, parks, community facilities, and social services.

One tool the Plan uses to encourage implementation of amenities and incentives in the Downtown area is through incentive zoning. Through incentive zoning, the Plan allows an increase in the FAR, or other bonus awards (e.g., fee waivers), on the property proposed for development in exchange for implementing certain amenities or design provisions as part of the development project. Bonus awards take into account the projected build-out that would occur if all the bonus provisions allowable under the program, were awarded and should not exceed the capacity of the land or the capacity to provide infrastructure and services to support build-out. However, several urban amenities may be both a requirement and an incentive depending on the proposed land use and/or district.

3.4.2 Mobility

The Plan establishes policies for pedestrian movement, alternative transportation facilities, transit routes, vehicle traffic, and parking within the Downtown area. Details related to these policies of the Plan are described below.

Pedestrian Facilities

Walkability and a pedestrian-friendly environment would be promoted with pedestrian facilities (e.g., sidewalks, crosswalks, pedestrian actuated traffic signals) throughout the Downtown area. Specific pedestrian facilities improvements envisioned in the Plan include lighting and visual amenities in the Washington Boulevard undercrossing, a pedestrian actuated crossing at Pleasant Street and Washington Boulevard, provide mid-block pedestrian crossings east and west of the Oak Street/Washington Boulevard intersection, and reducing pedestrian-vehicle conflict points at intersections.

Alternative Transportation Facilities

Park-and-ride lots and bicycle facilities are identified as alternative transportation facilities in the Downtown area. The Plan promotes modification to the existing pedestrian Washington Boulevard undercrossing to accommodate bicyclists. The Plan also identifies the desire of the community to increase mobility of the Downtown area through construction of the Crooked Bridge/Lincoln Street overcrossing; however, due to complexity of this Class I bike trail improvement, it is not included or required as part of the Plan.

TRANSIT SERVICE

A shuttle system to serve the Downtown area and connect to the regional mall/Fountains area or retail/commercial development along Douglas Boulevard would be promoted as part of the Plan. Specifically, the Plan recommends a feasibility study be conducted when the entire Plan area achieves a 0.75 FAR. In addition, the Plan recommends new development in the Plan area be designed to support transit by providing appropriate curb-returns for larger vehicles, preserving additional right-of-way to accommodate the potential for future bus stop locations, and identifying possible future transit routes.

PARKING

Additional parking capacity in the Downtown area is identified by the Plan. Specifically, the Plan identifies 2,000 additional parking spaces would be required to support the planned land uses, if the Plan area built out to maximum potential. Of the total additional parking spaces required, 1,000 are identified as being required south east of the Vernon Street/Lincoln Street intersection and another 1,000 spaces located east of the Washington boulevard/Main Street intersection. However, the Plan recognizes that the Downtown area would most likely never develop to its full potential and recommends the City plan for two 500-space structures, at the same locations, to accommodate the anticipated buildout.

3.4.3 INFRASTRUCTURE, UTILITIES, AND PUBLIC FACILITIES

To support an increase in the number of dwelling units and in commercial/retail/office development square footage, expansion of the Civic Center, improvements to parks and recreation facilities, restoration of Dry Creek, expansion of public services, and upgrades to utilities are proposed or identified in the Plan.

CIVIC CENTER EXPANSION

With the completion of the Civic Center in 2002, the City has firmly established the Downtown and the Vernon Street District as the "Civic Core". Currently the City occupies four separate buildings within the downtown.

The floor area currently occupied by City operations, excluding the Main Library, in the civic core is 123,948 square feet. As the City continues to grow the need for additional support services will be necessary. This will require that the civic office space be increased in order to accommodate space for the expansion of existing city operations and services. The City's Central Services Division has recently completed a space study that indicates there will be a future need for approximately 25,000 square feet of additional office space to support current and future City operations. This space allocation does not include Fire Administration or Fire Prevention which is currently located at 401 Oak Street. It is anticipated that the City will need this additional space by 2015.

Three potential options were developed that would provide the city with the needed additional space including: locating the expansion on the current Fire Station 1 site (located 401 Oak Street); locating the expansion at 316 Vernon Street (i.e., relocating the Post Office) and maintaining a surface parking lot; and locating at 316 Vernon Street (i.e., relocating the Post Office distribution center) and developing as a mixed use project with retail uses (including the Post Office retail component on the ground floor), 3 floors of office, and structured parking. The mixed use project is the preferred alternative and the Plan includes a policy emphasizing the city's desire to assist the Post Office in relocating the distribution component of their operations outside of Downtown Roseville, retaining the retail component of the Post Office, and facilitating private development of the entire property.

FIRE PROTECTION

Relocation of Fire Station #1 and the Public Safety Building (PSB) to an alternate location within the Downtown is proposed as part of the Plan to achieve improving land use connectivity as part of the overall goals set forth in

the Plan. To facilitate relocating the fire station and PSB, an evaluation of the facility was conducted and identification of a preferred location was made. As part of the evaluation, four options were identified and analyzed. The criteria used for the evaluation consisted of the probable cost, location, traffic impacts, design considerations, vehicular accessibility, pedestrian accessibility, growth potential, and land use compatibility. Based on the comparative evaluation of the four options, the city identified a preference to relocate the fire station and PSB to the Oak/Lincoln Street intersection. The Plan includes a policy emphasizing the city's desire to develop a new Fire Station 1 and Fire Administration building at the Oak/Lincoln Street intersection to facilitate goals of the Plan.

PUBLIC PARKING STRUCTURES

The Plan promotes a "park once" concept which would be facilitated by the city's investment in structured parking. Structured parking is intended to ultimately assist in offsetting on-site parking required for development.

A parking demand model for the project was developed and based on buildout of the Plan, an additional 1,000 parking spaces would be necessary to park all commercial uses in parking structures. In order to accommodate the parking demand, the Plan recommends construction of three new parking structures at the following locations:

- Southeast of Church Street between Circuit Drive and North Grant Street;
- Centrally located between Church Street, Lincoln Street, Pacific Street, Washington Boulevard; and
- Centrally located between Oak Street, Washington Boulevard, Lincoln Street, and East Washington Boulevard.

Please refer to Exhibit 3-3, which illustrates the location of these three new parking structures.

LIBRARIES

The City of Roseville operates a public library system that includes the Main Library located at 225 Taylor Street. The Main Library is a significant feature within the Specific Plan because it provides opportunities for the City to implement activities that promote interaction between this library facility, Royer Park, future creekwalk, and commercial land uses proposed in the Plan area. The Main Library promotes the Plan's identification of the Vernon Street corridor as the civic core of the community.

PARKS AND RECREATION

As identified in the Royer/Saugstad Park Master Plan (RSPMP), which is incorporated by reference into this EIR as authorized by CEQA Section 15150, improvements related to connectivity, and place making, and creek restoration and flood conveyance are proposed as part of the Downtown Plan. Focus on these public enhancements would be between the Douglas Boulevard Bridge and Lincoln Street Bridge. The three improvements include numerous improvements related to enhancements to public spaces as shown in Exhibit 3-4 and described below.

Connections

Improvements to connections in the Plan area involve extending the downtown grid and Civic Center axis from Vernon Street, across Oak Street, and to Royer Park to provide pedestrian connections between downtown and Royer Park (see Exhibit 3-4). Specific improvements would be accomplished with the following projects:



City of Roseville 2007

Royer and Saugstad Park Master Plan

Exhibit 3-4

- Downtown Bridge connects Royer Park to the Civic Center and Downtown
- Mid-block Crossing located between Grant Street and Washington Boulevard and traffic signal synchronization at Oak Street and Grant Street
- Mid-block Crossing located between Lincoln Street and Washington Boulevard and traffic signal synchronization
- Grand Staircase, Ramp, and Water Feature provides access from Oak Street to Dry Creek
- Oak Street Realignment maximizes mixed-use development footprint and includes mid-block crossings, traffic signal synchronization at Oak Street and Grant Street, removal of driveway at intersection of Oak Street and Washington Boulevard, and new street plants
- Relocated Ice House Bridge facilitates a Class I bikeway alignment and access to Veterans' Garden
- Creek Walk creates an urban edge along Dry Creek, access to creek-side mixed-uses, and provides a flood protection
- Library Bridge replaces existing bridge to connect Royer Park, Civic Center, and Downtown area
- Street Enhancements include bikeway, street trees, walkway improvements, provides connection to Harding-Royer Bikeway project, provides walking loop inside Royer Park, narrows Grant Street to 2 lanes plus left-hand-turn lane, allows for closing of Grant Street for special events, provides traffic signal at Oak Street and Grant Street, provides mid-block crossing on Republican Alley alignment, and allows short-term diagonal parking adjacent to City Hall
- Downtown Gateway and Street Trees defines Royer Park as part of Downtown Roseville and connects Royer Park to Saugstad Park

Place Making

Place making is an important part of the design and intent of the RSPMP to create places for people. Specific improvements (see Exhibit 3-4) would be accomplished with the following projects:

- Town Square including a water feature that contributes to Dry Creek, walkway along Republican Alley Axis connecting with the Civic Plaza Parking Structure, allows for closing of Grant Street for special events, removes a parking lot and vacant commercial building
- Veterans' Garden development allowing for celebration of historic events, accommodates outdoor events, and emphasizes adjacent creek
- Library Amphitheater allowing for an outdoor teaching area, removes parking lot, provides creek access, and protects library from flooding
- Creek Access located along east side of creek providing for public access and flood conveyance
- Dry Creek Path providing a learning experience of nature and ecological relationships
- Interactive Water Feature / Salmon Plaza replacing two tennis courts, creating a gathering place, and providing a learning experience of nature and ecological relationships

- Creek Inspired Art Element Plaza providing a learning experience of nature and ecological relationships and a public gathering area
- Expanded Basketball adding two half courts between the Interactive Water Feature and North Group Picnic area
- South Group Picnic Area expanding picnic opportunities along edge of meadow
- North Group Picnic Area would be renovated, providing a learning experience of nature and ecological relationships, and creating a public gathering area
- Park Café and Tree Bosque creating an outdoor gathering area, providing a staging area for people using Class I Bikeway, and providing flood protection
- Infield would be renovated
- Parking Lot and Drop-Off would be renovated and would provide a separation area between Class I Bikeway and vehicular traffic
- Tennis Courts would replace two existing courts in Royer Park and relocate park maintenance building to Saugstad Park
- Saugstad Park would be improved to remove two ball fields, renovate fields for a lighted pitch-putt golf course, provide regional flood detention, combine park maintenance building with Golf Starter House, provide an enclosed dog park and a Frisbee golf course
- Mixed-Use Development replaces parking lot with tuck-under parking, finishes floor elevations 2 feet above 100-year flood boundary level, realigns Oak Street to maximize developable footprint, and relocates sanitary sewer easement to Oak Street
- Public Safety Building would be relocated to allow for mixed-use development

Creek Restoration and Flood Conveyance

Creek restoration and flood conveyance activities would be intended to improve aquatic and riparian habitat and hydro-geomorphic functions of the creek. The goal of the restoration activities is to create healthy riparian vegetation and cover, provide shade to 40% of the stream surface, provide large, woody debris in the creek channel, provide standing snags, and create stable creek banks that exhibit little or no erosion. The focus of creek restoration would occur from Saugstad Park to Lincoln Street or Folsom Road. Specific improvements would be accomplished with the following projects:

- Bank Re-contouring and stabilization improvements would enhance creek access, restore creek habitat, provide flood conveyance, enhance salmon habitat, provide a learning experience of nature and ecological relationships, and remove the Park Maintenance Building from Royer Park;
- Creek Restoration / Riffles would enhance salmon habitat, provide a learning experience of nature and ecological relationships, improve quality of stormwater entering Dry Creek, and plant watershed-specific native riparian plants;
- Riparian Forest Throughout Dry Creek Corridor would provide a learning experience of nature and ecological relationships, plant watershed-specific native riparian plants, protect mature native trees, and remove exotic plants;

- Riparian Plant Demonstration Garden would provide a learning experience of nature and ecological relationships and plant watershed-specific native riparian plants; and

- Floodplain Enhancement would address erosion on the west bank of the creek south of Douglas Boulevard, construct bank re-contouring and stabilizations, layback creek bank to form a floodable amphitheater, divert pavement sheet runoff away from creek bank, construct Downtown Bridge 2 feet above 100-year flood boundary level, finish floor elevations of proposed buildings 2 feet above 100-year flood boundary level, removal of Park Maintenance Building, removal of tennis court fencing, and relocate transfer station away from edge of creek.

WATER, SEWER, DRAINAGE, AND SOLID WASTE

Upgrades to existing infrastructure in the Downtown Roseville area were identified as needed because of the condition of existing pipes and increased demand/generation based on the proposed land uses. Construction activities related to upgrading infrastructure began in the Fall of 2006 for water, sewer, storm drain and dry utility improvements in the Historic District of Old Town area. Additional needed improvements (e.g., water facilities, sewer facilities, storm drain) were identified in subsequent studies and the Plan provides goals, policies, and strategies associated with supplying adequate utility services in the Plan area. Specifically, the Plan includes policies emphasizing the city's desire to ensure adequate water, wastewater/sewer, and stormwater drainage facilities are provided to serve development envisioned in the Plan.

3.4.4 CATALYST SITES

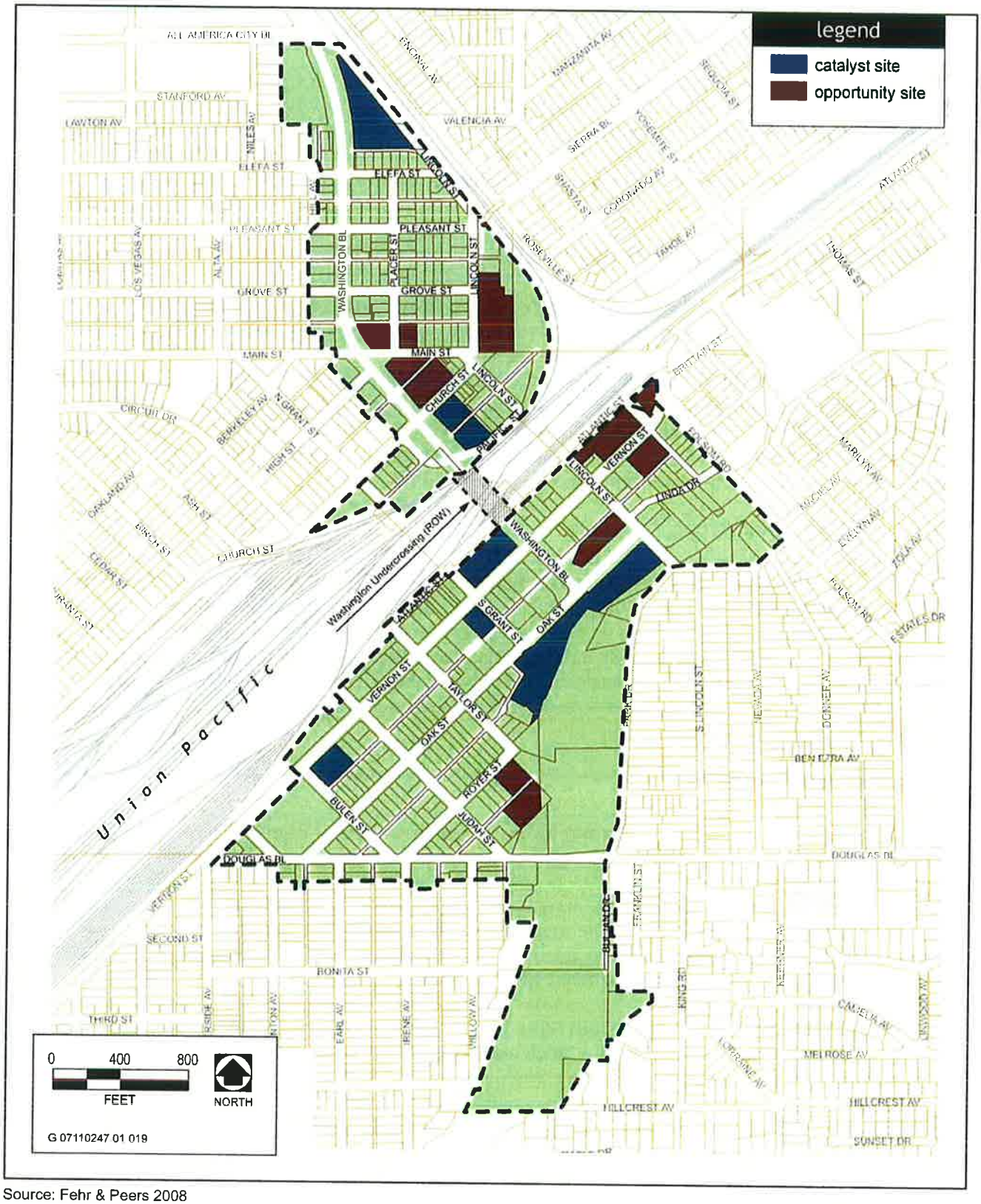
Five catalyst sites would be established in the Plan area (see Exhibit 3-5). The purpose of catalyst sites is to encourage the development of the type of uses envisioned in the Plan. These catalyst projects would be developed on proposed "opportunity sites;" parcels that are currently vacant or partially vacant, adjacent parcels under the same ownership, and/or sites with existing building identified as appropriate for higher or more intense uses. Focusing initial development efforts at catalysts sites provides the private sector with the confidence that investment in the change of use would be economically viable and promotes reinvestment in the other properties along this corridor.

PROTOTYPE DEVELOPMENTS

To encourage development and redevelopment in the Plan area, the City of Roseville prepared development prototypes for property owners to use as examples or models for new development on typical lot sizes. The development prototypes illustrate several design and development features that could be implemented in projects as part of the Plan, including parking areas, design concepts following a similar basic theme, and preferred construction and architectural materials. The specific plan identifies five catalyst sites in Downtown Roseville intended to revitalize and promote redevelopment activities throughout the Downtown area. Specific elements of each of the development prototypes and catalyst sites are described below.

Washington/Lincoln Site (725–845 Lincoln Street): The approximately 2-acre site is a triangular-shaped site at the corner of Lincoln Street and Washington Boulevard. The conceptual development plan includes a mixed-use, 3-story building at the north end of the site that would provide approximately 6,500 square feet of retail and restaurant uses on the ground floor, and residential units on the 2nd and 3rd floors of the building. One-, two- and, three-story residential units would be provided on the remainder of the site. A total of approximately 60 residential units would be constructed on the site.

Pacific/Church Street Site (120 Pacific Street): A four-level public parking structure would be constructed to provide approximately 385 parking stalls, with a variety of commercial uses fronting Washington, Church, and Pacific Streets totaling approximately 70,000 square feet.



Source: Fehr & Peers 2008

Catalyst and Opportunity Site Locations **Exhibit 3-5**

City Hall Annex/Post Office Site (316 and 320 Vernon Street): The existing City offices, a U.S. Post Office, and mail distribution center would be replaced with a four-story commercial building and parking garage totaling 200,000 square feet. The first floor fronting Vernon Street would provide a 4,500-square-foot Post Office and approximately 10,500 square feet of retail space. The 2nd, 3rd, and 4th floors would provide approximately 110,000 square feet of office space. The parking structure would provide approximately 132 parking stalls.

Dry Creek frontage (401 Oak Street): Four buildings oriented towards Dry Creek and accessible from Oak Street would be constructed to provide a mix of residential units, retail, and office spaces. Building A would provide approximately 48 residential units. Building B would provide approximately 50,000 square-feet of office space in a 3-story building. Building C would provide approximately 7,800 square feet of retail spaces on the ground floor and approximately 7,800 square feet of office spaces on the second floor. Building D would provide between 12 and 14 two-story, attached town homes.

Corner of Grant and Vernon Streets (401 Vernon Street): Potential for a mixed-use building, with ground level retail and subterranean parking, on the 0.4-acre parcel located at the southwest corner of Vernon and Grant Streets. The approximate square footage of this building would be 80,000 square feet.

To streamline the development review process, a development proposal consistent with one of the above development prototypes would not require a Design Review Permit. In addition, the City would waive the notification process typically required for Voluntary Merger or Lot Line Adjustments that could be required to construct a prototype development. The City review process for a prototype development would include reviewing the site/grading plan, distributing plan(s) for comments from various City development departments and outside utilities for 30 days, applicant revision of working drawings, preparation of construction documents, and Plan Check review.

3.5 ENTITLEMENTS

As lead agency, the City has the principal responsibility for approving and carrying out the project and for ensuring that the requirements of CEQA and all other applicable regulations are met. The following list identifies entitlements currently requested by the City for the proposed project. Unless otherwise specified, these entitlements pertain to the proposed project in its entirety.

PROJECT ENTITLEMENTS AND OTHER CITY ACTIONS

- Adopt a resolution establishing the Downtown Roseville Specific Plan area and an ordinance adopting the corresponding Downtown Code;
- Change General Plan land use designations for parcels on the project site to match land uses designated in the Downtown Roseville Specific Plan;
- Amend the City's Land Use Map and supporting text in the General Plan as appropriate;
- Adopt rezoning to change zoning designations for parcels on the project site to match land uses designated in the Downtown Roseville Specific Plan;
- Amend the General Plan Parks and Recreation Element to waive the nine-acre per 1,000 resident parkland dedication requirement or in-lieu fee requirement in order to facilitate reinvestment and economic development in the Downtown, Riverside, and Historic District Specific Plan areas;
- Amend the General Plan Circulation Element adding the intersection of Orlando Drive/Marlin Way/Cirby Way to the list of "Major Intersections Functioning at Less than Level of Service "C" in the City of Roseville Under Buildout Conditions;"

- Amend the General Plan Noise Element to allow the City to elect to approve new noise-sensitive land uses on a case-by-case basis in proximity to sources of transportation noise; in recognition that it is difficult to maintain rural/suburban noise standards in increasingly urbanized areas, and to facilitate the City's goal to encourage reinvestment and economic development in the Downtown, Riverside, and Historic District Specific Plan areas;

- Adopt text amendments to the to the Zoning Ordinance:

  - To reflect applicability of the Downtown Code to the Downtown Roseville Specific Plan area,

  - Reference the Riverside Gateway Specific Plan,

  - Allow Minor Design Review for projects in the Downtown Roseville Specific Plan area,

  - Address Nightclub uses and references standards in the Downtown Code, and

  - Modify the list of Allowable Land Uses and add Use Types (i.e., live/work) for consistency with the Downtown Code;

- Modify Municipal Code Title 17 (Sign Ordinance);

- Adopt the Royer/Saugstad Park Master Plan;

- Amend the Roseville Subdivision Ordinance to change zoning designations for parcels on the project site to match land uses designated in the Downtown Roseville Specific Plan;

- Establish a Prototype Review Process and other Plan-specific permit approval processes to allow streamlined development consistent with the Downtown Roseville Specific Plan and Downtown Code;

- Adopt and implement mitigation measures specified in this Specific Plan EIR; and

- The City will also rely on this EIR without further environmental review for approval the catalyst sites and, where applicable, other future discretionary entitlements and permits related to subsequent actions consistent with the proposed project (e.g., design reviews, development agreements, use permits) where preparation of a subsequent EIR, supplemental EIR, or addendum is not needed.

Additional requirements and lead agency responsibilities related to subsequent projects or permit applications may be identified during the 20-year Plan build-out period. The City, as lead agency, may impose conditions as are reasonably necessary to ensure project-related activities are in compliance with the proposed project (Specific Plan and Downtown Code), as well as all other applicable policies and requirements, including environmental compliance with federal, state, and local regulations.

4 AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES, AND MITIGATION MEASURES

4.0 APPROACH TO THE ENVIRONMENTAL ANALYSIS

Sections 4.1 through 4.12 of this Draft Environmental Impact Report (DEIR) present a discussion of existing conditions, environmental impacts associated with implementation of the proposed project, mitigation measures to reduce the level of impact, and residual significant impacts (i.e., impacts that would be significant and unavoidable despite the imposition of proposed mitigation measures).

As discussed in Section 1.3 of this DEIR "Purpose and Intended Uses of this DEIR", the Notice of Preparation (NOP) for the Downtown Roseville Specific Plan prepared by the City of Roseville, dated October 17, 2007 (Appendix A) identified that implementation of the proposed project would result in "no-impact" or "less-than-significant impacts" in the following areas; therefore these areas are not analyzed in this DEIR:

- Agricultural Resources;
- Population and Housing;
- Recreation; and
- Mineral Resources.

Sections 4.1 through 4.12 address the following resource areas, which were identified in the NOP to have potentially significant impacts and therefore warranting further analysis in this DEIR:

- Land Use and Planning;
- Aesthetics;
- Hazards and Hazardous Materials;
- Geology and Soils;
- Cultural Resources;
- Transportation and Traffic;
- Hydrology and Water Quality;
- Biological Resources;
- Public Services;
- Utilities;
- Air Quality; and
- Noise.

Each section in this DEIR that addresses the resource areas listed above (Sections 4.1 through 4.12) includes the following components:

Regulatory Background: This subsection presents information on the laws, regulations, plans, and policies that relate to the issue area being discussed. Regulations originating from local, state, and federal levels are discussed as appropriate.

Existing Conditions: This subsection presents the existing environmental conditions in the project area and in the surrounding area as appropriate, in accordance with Section 15215 of the State California Environmental Quality Act (CEQA) Guidelines (State CEQA Guidelines). The discussions of the environmental setting focus on information relevant to the issues under evaluation.

Environmental Impacts: This subsection identifies the impacts of the proposed project on the existing environment, in accordance with State CEQA Guidelines Sections 15125 and 15143. Before presenting an evaluation of impacts, the section describes the analysis methodology and the thresholds of significance used to identify impacts. Project impacts are identified alphanumerically and sequentially throughout this section. For example, impacts in Section 4.4 are identified as 4.4-a, 4.4-b, etc… An impact statement precedes the discussion of each impact, providing a summary of the impact and its level of significance. The discussion that follows the impact statement includes the analyses and evidence upon which the conclusion is made regarding the level of impact.

The discussions of Cumulative Impacts and Growth-inducing Impacts are presented in Chapter 5 and Chapter 6, respectively.

Mitigation Measures: This subsection identifies feasible mitigation measures intended to avoid or substantially reduce significant impacts of the proposed project, in accordance with State CEQA Guidelines Sections 15002(a)(3), 15021(a)(2), and 15091(a)(1). Each mitigation measure is identified alphanumerically to correspond with the number of the impact being reduced by the measure. For example, Impact 4.3-a would be mitigated with Mitigation Measure 4.3-a. This subsection also describes whether the mitigation measures would reduce impacts to less-than-significant levels. Significant and unavoidable impacts are identified as appropriate in this subsection, as well as in the "Residual Significant Impacts" subsection described below. Significant and unavoidable impacts are also summarized in Chapter 7.

Residual Significant Impacts: This subsection identifies any significant impacts that would remain significant and unavoidable following implementation of the mitigation measures.

4.1 LAND USE AND PLANNING

This section includes a description of the existing land use plans that apply to the Plan area and a description of existing land uses in the vicinity. It also includes an analysis of the relationship between the proposed project and these plans and related environmental policies. Please refer to Exhibit 3-2 (Plan Area and Vicinity), Exhibit 3-3 (Proposed Land Uses), and Exhibit 4.1-1 (Existing Land Uses) for graphic displays related to the following text.

This project DEIR has been prepared to meet the requirements of a project-level EIR. The City's intention in preparing this project EIR is that no further environmental review under CEQA would be required for subsequent projects which are consistent with the Specific Plan to provide for the streamlined approval of projects proposed within the Plan area that are consistent with land use designations, adhere to design guidelines (specifically prototype development), or fall within the scope of the Specific Plan and EIR.

4.1.1 EXISTING CONDITIONS

LAND USES IN THE PLAN AREA

The project site encompasses a 176-acre area comprising the existing Historic Old Town, Vernon Street Civic Core, and Royer and Saugstad Parks. Existing land uses in the Plan area include residential, commercial/retail, service commercial, light industrial, community-oriented (i.e., church), parks/open space, and governmental land uses in central Roseville. Exhibit 4.1-1 shows the existing land uses in the Plan area.

SURROUNDING LAND USES

The UPPR rail yard and tracks extend through the central portion of the Plan area and commercial/retail and light industrial uses extend northeastward along Vernon Street. Residential uses surround the majority of the Plan area. The Cherry Glen neighborhood, located to the south, is one of the city's oldest residential subdivisions and is characterized by period architectural styles including craftsman-style homes and mature tree canopy. Other older residential neighborhoods in the Plan area include the Folsom Road neighborhood, Enwood neighborhood, and Roseville Heights neighborhood.

The nearest school to the Plan area, Saint Rose Elementary, is located to the east directly across Dry Creek along with Roseville High which is located approximately ½ mile to the northeast. The Riverside Gateway Specific Plan area extends to the south along Riverside Avenue. Interstate 80 (I-80) is approximately ½ mile to the southeast.

4.1.2 REGULATORY BACKGROUND

The land use planning and zoning authority of local jurisdictions in California are set forth in the state's planning laws. The area is under the planning jurisdiction of the City of Roseville (City). The City planning jurisdiction, in relationship to the proposed project, is included in the discussion below. The respective land use plans and regulations are also described.

STATE PLANNING AND ZONING LAWS

California Government Code Section 65300 et seq. establishes the obligation of cities and counties to adopt and implement general plans. The general plan is a comprehensive, long-term, and general document that describes plans for the physical development of the City or County and of any land outside its boundaries that, in the City's or County's judgment, bears relation to its planning. The general plan addresses a broad range of topics, including, at a minimum, land use, circulation, housing, conservation, open space, noise, and safety. In addressing these topics, the general plan identifies the goals, objectives, policies, principles, standards, and plan proposals that support the City's or County's vision for the area.

The general plan is also a long-range document that typically addresses the physical character of an area over a 20-year period. Finally, although the general plan serves as a blueprint for future development and identifies the overall vision for the planning area, it remains general enough to allow for flexibility in the approach taken to achieve the plan's goals. The *City of Roseville General Plan 2020* is discussed, as applicable to the proposed project, later in this section.

The State Zoning Law (Government Code Section 65800 et seq.) establishes that zoning ordinances, which are laws that define allowable land uses within a specific district, must be consistent with the general plan and any applicable specific plans. When amendments to the general plan are made, corresponding changes in the zoning ordinance may be required within a reasonable time to ensure the land uses designated in the general plan would also be allowable by the zoning ordinance (Government Code Section 65860, subd. [c]).

CITY OF ROSEVILLE ZONING ORDINANCE

The *City of Roseville Zoning Ordinance* (August 2006) designates the Plan area as single family residential, attached housing, central business district, general commercial, community commercial, planned development, public/quasi-public, and park and recreation/floodway. The existing land uses in the Plan area are depicted in Exhibit 4.1-1 and are further described in Section 4.1.2.

The purpose of the single family residential (R-1) district is to promote development of detached, single-family homes, and similar and related uses inclusive of half-plexes.

The purpose of the attached housing (R-3) district is to promote development of multiple-family housing. The types of land use intended for the R-3 zoning district include apartments, condominiums, townhomes, and similar and related compatible uses.

The central business district (CBD) is intended to be applied to older portions of the downtown area to provide flexibility in the types of uses typically found in the traditional downtown where a range of business and service, residential, and mixed use uses can be located to support the entire community.

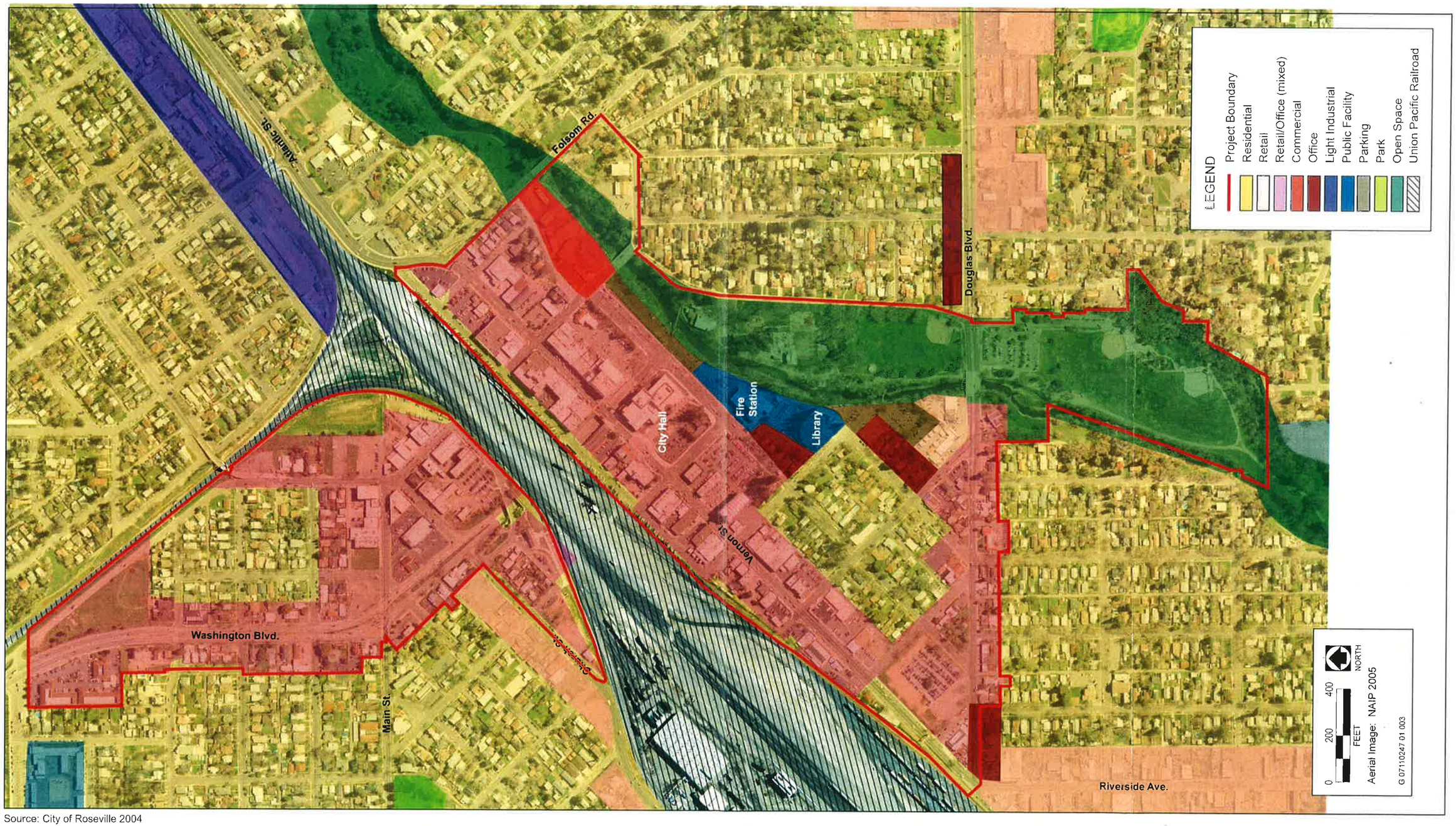
The purpose of the general commercial (GC) district is to promote development of commercial facilities that serve the entire community by providing areas for commercial facilities that are of a service or heavy commercial character and may involve outdoor display, storage, or activity areas.

The purpose of the community commercial (CC) district is to promote development of principal retail shopping that serve the needs of the entire community by providing areas for shopping centers and other retail and service uses.

The planned development (PD) district is a special purpose district that is established with the approval of a zoning ordinance amendment. The PD district is intended to be applied in circumstances where existing PD districts cannot be readily converted to a new zoning district or the desired mix of land uses cannot be achieved with a residential, commercial, or industrial mixed use district when combined with a special area overlay.

The public/quasi-public (P/QP) district is applied to land intended for education, religious assembly, governmental offices, municipal corporation yards, water treatment plants, power generating facilities (including privately owned facilities), and other publicly owned facilities.

The park and recreation (PR) district may be applied to both public and private recreation facilities. The PR district is intended to be applied to larger parks, particularly community wide facilities, but may also be applied to smaller neighborhood facilities when needed because of the planned facilities or natural features.



Source: City of Roseville 2004

Existing Land Uses

Exhibit 4.1-1

The floodway (FW) district promotes public health, safety, and general welfare, and is intended to minimize potential losses. The FW district is designed to:

- Restrict or prohibit uses which are dangerous to health, safety, or property in times of flood, or cause increases in flood heights or velocities;
- Require that uses vulnerable to floods, including public facilities which serve such uses, be protected against flood damage at the time of initial construction;
- Protect individuals from buying lands which are unsuited for intended purposes because of flood hazard;
- Avoid unnecessary expenditures of public funds to remedy flood hazards resulting from imprudent uses of lands vulnerable to floods;
- Maintain and preserve the existing stream channels and stream vegetation in as nearly natural condition as possible in order to preserve wildlife and fish habitat as well as to avoid the expenditure of public funds to remedy or avoid flood hazards, unnatural watercourse diversion, erosion, or situations caused by piecemeal alterations of natural watercourses and flood carrying areas, while balancing this need against the need to reduce the physical area of the floodplain; and
- Have individual property owners assume responsibility for their actions.

CITY OF ROSEVILLE GENERAL PLAN 2020

The *City of Roseville General Plan 2020* was adopted in August 2004. The Plan area is designated by the City General Plan as low-density residential, medium density residential, central business district, public/quasi-public, and parks and recreation/floodplain. The existing land uses in the Plan area are depicted in Exhibit 4.1-1 and are further described in Section 4.1.2.

The low-density residential land use category allows development of single-family dwelling units that comprise the majority of Roseville's housing supply. Development standards allow 0.5 to 6.9 dwelling units per gross developable acre and lot sizes average between 6,000 and 7,500 square feet.

The medium-density residential land use category allows development of single family detached dwelling units and attached patio homes, half-plexes, townhouses, condominiums, and mobile home parks. This residential land use accommodates a variety of housing types and designs and is often located as a transition or buffer between higher intensity land uses and low-density residential land uses. Development standards allow between 7.0 and 12.9 dwelling units per gross developable acre.

The central business district land use category is distinct because it acknowledges land use patterns of significantly greater intensities and traditional mixed uses of retail, offices, and apartments. The central business district land use category is limited to Central Roseville, the West Roseville Village Center, and to areas of greater urban intensity. Development standards allow floor area ratios to be as high as 300% (three times the site area).

The public/quasi-public land use category is used to establish areas for education, religious assembly, governmental offices, municipal corporation yards, and water treatment plants.

The parks and recreation land use category is used to identify public parks in Roseville and public and private recreation facilities. The floodplain land use category identifies land located within the 100-year floodplain boundaries. Development of lands with a floodplain land use designation is strictly regulated by the City of Roseville. As part of a specific plan, the land use designation may be combined with an open space or parks

designation. Land uses are limited to those that minimize impacts on upstream and downstream areas and are consistent with both the policies of the General Plan Safety Element and the underlying land use designation.

In addition, the *City of Roseville General Plan 2020* contains the following Land Use and Planning-related goals and policies applicable to the proposed project:

Community Form Goal 2: While recognizing that the automobile is the primary form of transportation, the City of Roseville should make a commitment to shift from the automobile to other modes of transportation.

Community Form Goal 3: In partnership with private interests, the City of Roseville will promote the creation of a town center offering government services, social and cultural activities, and commercial opportunities in Central Roseville. Roseville will also encourage the creation of additional social, cultural and commercial satellite opportunities throughout the community.

Community Form Goal 4: Through the designation of special study areas and redevelopment efforts, the City of Roseville will promote the preservation, revitalization and enhancement of its business district and existing neighborhood.

Community Form Goal 5: Design new development to be integrated, connected and related to existing development areas within the City.

Community Form Goal 7: Roseville will promote and encourage the availability of a variety of goods and services, and will take measures to retain a positive business climate in the City.

- **Community Form Policy 1:** Ensure high quality development in new and existing development areas as defined through specific plans, the development review process and community design guidelines.
- **Community Form Policy 4:** Promote a diversity of residential living options (e.g., density ranges, housing types, affordability ranges) while ensuring community compatibility and well-designed residential development.
- **Community Form Policy 6:** Through development approvals and City programs (e.g., redevelopment, capital improvement program, parks and recreation programs, etc.) assure that all portions of the community are linked and integrated.
- **Community Form—Relationship to Transit, Pedestrian, Air Quality (RTPAQ) Policy 1:** Promote land use patterns that support a variety of transportation modes and accommodate pedestrian mobility.
- **Community Form—RTPAQ Policy 2:** Allow for land use patterns and mixed use development that integrate residential and non-residential land uses, such that residents may easily walk or bike to shopping, services, employment and leisure activities.
- **Community Form—RTPAQ Policy 5:** Where feasible, improve existing development areas to create better pedestrian and transit accessibility.
- **Community Form—RTPAQ Policy 6:** Through City land use planning and development approvals, require that neighborhood serving uses (e.g., neighborhood commercial uses, day care, parks, schools, and other community facilities) be physically linked with adjacent residential neighborhoods.
- **Community Form—Downtown, Neighborhoods (DN) Policy 1:** Create and maintain a strong identifiable downtown that offers the surrounding community a cluster of municipal offices and services, commercial, office and higher density residential uses.

- **Community Form—DN Policy 4:** Support the redevelopment and revitalization of areas that are in decline or economically underutilized.

- **Community Form—DN Policy 5:** Encourage infill development and rehabilitation that:

  - upgrades the quality and enhances the character of existing areas;
  - enhances public transit use and pedestrian access;
  - efficiently utilizes and does not overburden existing services and infrastructure; and
  - results in land use patterns and densities that provide the opportunity for the construction of household types affordable to all income groups.

- **Community Form—Jobs/Housing and Economic Development (JH & ED) Policy 5:** Maintain land use patterns, intensities and densities that promote a positive business climate (e.g., supply of business professional, commercial and industrial lands).

- **Community Form—JH & ED Policy 6:** Support activities that attract employment uses to the City as identified in the Economic Development Study/Plan.

4.1.3 Environmental Impacts

Analysis Methodology

The information presented in this section is based on a review of relevant literature and adopted plans, including the *City of Roseville General Plan 2020.*

Thresholds of Significance

The proposed project would cause a significant impact on land use if it would:

- physically divide an established community;

- conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect; or

- conflict with any applicable habitat conservation plan or natural community conservation plan.

Impact Analysis

IMPACT 4.1-1 **Land Use – Potential for Division of an Existing Community.** *The proposed Specific Plan would not physically divide residential communities in the Plan area. Instead, it would serve to unify the communities in the Plan area. There would be* ***no impact****.*

The Plan area is bordered on the south by the Cherry Glen neighborhood, on the east by the Folsom Road neighborhood, on the west by the Roseville Heights neighborhood, and on the north by the Enwood neighborhood. Implementing the proposed Specific Plan would not physically divide these residential communities because it would not develop any lengthy walls, large fenced areas, new freeways or arterials, large industrial or other complexes, or other physical impediments to cross-community access. Instead, the proposed Specific Plan would serve to unify the communities by promoting the development of a greater range of housing and neighborhood commercial uses in the Plan area and by improving and expanding pedestrian, bicycle, and vehicle access throughout the Plan area and in the immediate area. As a result, there would be no impact.

IMPACT 4.1-2 **Land Use – Conflicts with Land Use Plans, Policies, or Regulations.** *Implementation of the proposed Specific Plan would require the adoption of new zoning districts and a General Plan amendment. Although the proposed Specific Plan could potentially generate land use conflicts with existing land uses, the land use changes proposed in the Plan are consistent with the generally urban nature of the downtown area and the transitional mixed-use areas would serve as a physical buffer between the higher intensity commercial/retail areas and adjacent residential neighborhoods. For these reasons, and because land use conflicts do not represent environmental effects in and of themselves, this impact is considered* ***less than significant.***

Parcels within the Plan area are designated in the *City of Roseville General Plan* as low density residential, medium density residential, central business district, public/quasi-public, and parks and recreation/floodplain (City of Roseville 2004), and are currently zoned for single family residential, attached housing, central business district, general commercial, community commercial, planned development, public/quasi-public, and park and recreation/floodway according to the *City of Roseville Zoning Ordinance* (City of Roseville 2006). Land uses in the Plan area are implemented through zoning districts. Implementation of the Plan would include the adoption of 11 new land use districts for the Plan area and require a General Plan amendment to allow for development of desired land uses in Downtown Roseville. The Specific Plan provides development standards and design criteria specific to each district (see Exhibit 3-3, "Project Description") which would include:

- Washington Corridor District – is identified as a mixed-use area extending along Washington Boulevard that principally allows development of mixed use, retail, restaurants, services, offices, and multi-family residential uses;

- Washington Corridor Intensification District – is a triangular shaped parcel located at the corner of Washington Boulevard and Lincoln Street and identified as an opportunity site for development of mixed commercial and residential uses;

- Old Town Bungalow District – is identified as a residential area located in the Old Town Roseville area that principally allows development of single-family residential and cottage office uses;

- Old Town Commercial District – is identified as a mixed-use area located in the Old Town Roseville area that principally allows development of mixed use, retail, restaurants, entertainment, nightclubs/bars, grocery store/pharmacy, offices, multi-family residential, and live/work space uses;

- Old Town Commercial Extension District – is land owned by Union Pacific Railroad and is proposed to be leased for public surface parking;

- Vernon Street District – is identified as a mixed-use area extending along Vernon Street that principally allows development of mixed use, retail restaurants, entertainment, nightclubs, offices, public/quasi-public, and multi-family residential uses;

- Dry Creek Mixed-Use District – is identified as a mixed-use area extending along the western edge of Dry Creek that principally allows development of mixed use, retail, restaurants, public/quasi-public, offices, multi-family residential, live/work space, public market, and vendor/kiosk uses;

- Royer Park District – is identified as a recreational area extending along the eastern edge of Dry Creek that principally involves improvements to existing recreational opportunities at Royer/Saugstad Parks;

- Creek View Residential District – is identified as a high-density residential area located in the northeastern-most portion of the Plan area that principally allows development of multi-family residential and neighborhood grocery store uses;

- Vernon Bungalow District – is identified as a residential/cottage office area located centrally in the southernmost portion of the Plan area that principally allows development of single-family residential and cottage office uses; and

- Douglas Corridor District – is identified as a mixed-use area extending along Douglas Boulevard that principally allows development of mixed use, retail, restaurants, service, offices, and multi-family residential uses.

The proposed Specific Plan would implement a multi-dimensional approach to regulating development in the 11 new districts by utilizing a detailed land use matrix; "At-A-Glance" sheets that specify building placement and size, principally allowable uses, allowable building types, allowable building frontage types, allowable sign types, and parking requirements; and municipal ordinances. These regulations are identified in the Downtowncode section of the Specific Plan. The regulations would apply to all properties located within one of the 11 districts and would be in addition to general provisions identified in the City's Municipal Code.

Because the proposed Specific Plan is long-range in nature and intended to guide development over the next 20 years, redevelopment and conversion to land uses envisioned in the Plan would occur over time. The planned intensity and scale of development would be appropriate for this primarily urban area of Downtown Roseville. The transitional mixed-use residential areas would serve as a physical buffer between the higher intensity commercial/retail areas located in the central portions of Downtown Roseville and Old Town Roseville and the surrounding residential neighborhoods and would help to maintain compatible adjacent land uses in and surrounding the Plan area. For these reasons, and because land use changes do not represent environmental effects in and of themselves, this impact is considered less than significant.

IMPACT 4.1-3 **Land Use – Consistency with Habitat Conservation and Natural Community Conservation Plans.** *The Plan area is not subject to an adopted habitat conservation plan or natural community conservation plan. Therefore, implementation of the proposed Specific Plan would not cause any inconsistencies with any habitat conservation plans or natural community conservation plans. There would be* ***no impact****.*

Dry Creek runs through the eastern portion of the Plan area and supports a variety of natural vegetation and habitat. The proposed Specific Plan is not located in an area designated or zoned by the City, or an agency with jurisdiction over the proposed project, for conservation, open space, or other use adopted for the purpose of avoiding or mitigating an environmental effect. In addition, the portion of Dry Creek in the Plan area is not subject to an adopted habitat conservation plan or natural community conservation plan, does not contain and is not part of a wetland mitigation bank or other biological resource mitigation bank, and neither contains nor is located adjacent to existing farmland designated or under contract for preservation. Therefore, there would be no impact.

4.1.4 Mitigation Measure

No significant impacts related to land use consistency and compatibility would occur under the proposed project; therefore, no mitigation measures are required.

4.1.5 Residual Significant Impacts

All impacts associated with land use consistency and compatibility are considered less than significant. Therefore, there are no residual significant impacts.

4.2 PUBLIC UTILITIES

This section describes existing and proposed utilities systems associated with the proposed project: water, wastewater, stormwater conveyance, solid waste disposal, electricity, and natural gas. The potential impacts of the proposed project on these utilities are described, and environmental impacts of necessary on-site and potential off-site infrastructure improvements are evaluated. Impacts are evaluated for development at full build-out of the project area in accordance with the Specific Plan.

4.2.1 EXISTING CONDITIONS

WATER SUPPLY AND INFRASTRUCTURE

Surface Water

The City currently serves as the water supplier for the Plan area. Water supply for the City includes surface water from Folsom Lake, groundwater, and recycled water. Surface water is delivered from Folsom Lake via United States Bureau of Reclamation (USBR) facilities through parallel 48-inch and 60-inch transmission mains to the City's water treatment plant on Barton Road which has capacity of 100 million gallons per day (mgd).

The City of Roseville's water source has historically been from surface sources of which Folsom Lake has been the primary source since the Roseville water treatment plant came on-line in 1971. Through this intake Roseville receives raw water from the USBR and Placer County Water Agency (PCWA) through USBR facilities. Groundwater is occasionally used as a short term, back-up supply. It should be noted however that during the last year the City of Roseville has conducted a pilot program which was comprised of limited testing of the City's aquifer storage and recovery (ASR) facility on the west side of the City. Otherwise, the last instance of groundwater use was in drought conditions experienced in 1991. Intertie water from adjacent agencies typically occurs due to treatment plant disruptions experienced during plant construction projects or other maintenance operations that require plant shutdown. A few interties are used for equal trading of water supplies in two different service areas due to local operational needs.

The City's current annual surface water supply of 66,000 acre-feet (af) is American River water diverted from Folsom Lake. The City maintains a contract entitlement with the USBR for 32,000 af for Central Valley Project (CVP) supplies. A contract entitlement with PCWA for 10,000 af, with options for 20,000 af more, serves Middle Fork Project water through Folsom Lake. The City has a current contract with San Juan Water District (SJWD) for 4,000 af. The SJWD supply is a wet year supply only and is served from part of SJWD's contract with PCWA for 25,000 af of Middle Fork Project water, also served from Folsom Lake (City of Roseville 2006).

The City participated in the Water Forum, which was comprised of regional stakeholders concerned with the protection of the Lower American River and reliable water supplies. The Water Forum resulted in the development of several purveyor specific agreements that outline how purveyors will meet commitments agreed too as a part of the Water Forum efforts in providing a safe and reliable water supply through the year 2030 and for protecting resources associated with the Lower American River. Roseville's agreement included a limitation of diversion from the American River in both wet and driest years. In wet years the City will limit diversions from its USBR and PCWA American River supply contracts to no more then 54,900 AFY and to no less then 39,800 AFY in driest years. Water supply contracts and Water Forum limitations are further described within the City's 2005 Urban Water Management Plan prepared by Brown and Caldwell and dated March 2006. Through an agreement with the San Juan Water District (SJWD) the City increased its wet year water supplies an additional 4,000 AFY for a total supply of 58,900 AFY.

Water treatment for the City of Roseville is provided at the 100 million gallon per day (MGD) Barton Road WTP. The City is also part of a group of agencies that are studying the construction of a new water treatment facility on the Sacramento River, led by PCWA. The new treatment plant would allow access to USBR water without

impacting the Lower American River, which is consistent with the Water Forum Agreement. Roseville plans to receive 10 mgd of capacity from this new plant when it is constructed (City of Roseville 2006).

The City's existing maximum-day demand during a normal year for potable water is approximately 33,545 acre-feet per year (AFY) or 30 mgd. The estimated future maximum-day demand for water under existing General Plan conditions during a normal year is 56,465 AFY or 50.4 mgd (average day) at buildout of the city in the year 2030. The City's current water supply allocation of approximately 66,000 AFY (limited to 58,900 AFY from the American River in accord with the City's Water Forum Agreement) is sufficient to meet the estimated future demands; however, the City plans to optimize the use of recycled water to increase future available water supplies (City of Roseville 2006).

The City's water distribution system includes pipes, storage facilities, booster pumping stations, and pressure stations. The City has five storage tanks for a total of 28 million gallons of storage.

Groundwater

The City maintains groundwater wells for backup supply and dry year supply. The City is also investigating using its wells for aquifer storage and recovery (ASR) purposes to store potable water in the aquifer when available for use during other times (City of Roseville 2006). Over the past several years the City has been working with the State Regional Water Quality Control Board and other state agencies in piloting its ASR program. This has included the injection of potable water taken from the City's distribution system into the aquifer and subsequent extraction and delivery to City water customers. The City's current groundwater well facilities are capable of delivering approximately 10,200 AFY of water supply.

Recycled Water

Recycled water is available from Roseville's two wastewater treatment plants (WWTP) – Dry Creek WWTP and Pleasant Grove WWTP. Both plants produce a Title 22 quality effluent that is available for recycled water applications. The system currently serves over 2,000 AFY of recycled water to customers within and outside of the City limits through a distribution network to parks, streetscapes, and golf courses. Of this amount, approximately 1,480 AFY are for customers located within the City of Roseville. System expansion is planned for more intensive the use of recycled water in the western portion of the City as new development is built (City of Roseville 2006). Recycled water demands within the City are expected to increase by approximately 2,345 AFY for a total recycled water demand of 3,825 AFY at buildout of the City's existing General Plan (RMC TM 5a, updated February 11, 2008).

Project Area

The existing water distribution system includes pipelines ranging from 4 to 24 inches in diameter extending along multiple roadways and alleyways in the Plan area. Details specific to each waterline identified by the street or alleyway in which they are located are described below.

Historic Old Town

- Church Street – contains a 12-inch pipe extending from Lincoln Street to off the project site
- Lincoln Street – contains a 12-inch pipe extending from Church Street to off the project site and a 4-inch pipe extending from Church Street to an alley between Grove and Pleasant Streets
- Elefa Street – contains a 8-inch pipe extending from Lincoln Street to off the project site
- Washington Boulevard – contains a 24-inch pipe extending from Downtown Roseville to Main Street and a 8-inch pipe extending from All America City Boulevard to Elefa Street

- Alley between Grove and Pleasant Streets – contains a 6-inch pipe extending from Lincoln Street to off the project site
- Alley between Main and Grove Streets – contains a 6-inch pipe extending from Lincoln Street to off the project site
- Alley between Elefa and Pleasant Streets – contains a 4-inch pipe extending from Lincoln Street to off the project site

Downtown Roseville

- Douglas Boulevard – contains a 8-inch pipe extending across the entire Plan area except for a short gap in the line at Dry Creek
- Taylor Street – contains a 6-inch pipe extending from Royer Street to its northwest terminus
- Royer Street – contains a 4-inch and a 12-inch pipe extending from Douglas Boulevard to Taylor Street
- Judah Street – contains a 4-inch pipe extending from Douglas Boulevard to Royer Street
- Vernon Street – contains a 8-inch pipe extending from Washington Street to Jefferson Street and a 24-inch pipe extending from Washington Street to Grant Street
- Grant Street – contains a 24-inch pipe extending from Vernon Street to Oak Street
- Oak Street – contains a 6-inch pipe extending from Taylor Street to Grant Street and a 24-inch pipe extending from Grant Street to Washington Street
- Washington Street – contains a 24-inch pipe extending from Vernon Street into Historic Old Town
- Stella Alley – contains a 4-inch pipe extending from Douglas Boulevard to near Grant Street
- Republican Alley – contains a 6-inch pipe extending from Douglas Boulevard to Taylor Street
- Alley between Vernon Street and UPRR – contains a 6-inch pipe extending from Bulen Street to Grant Street

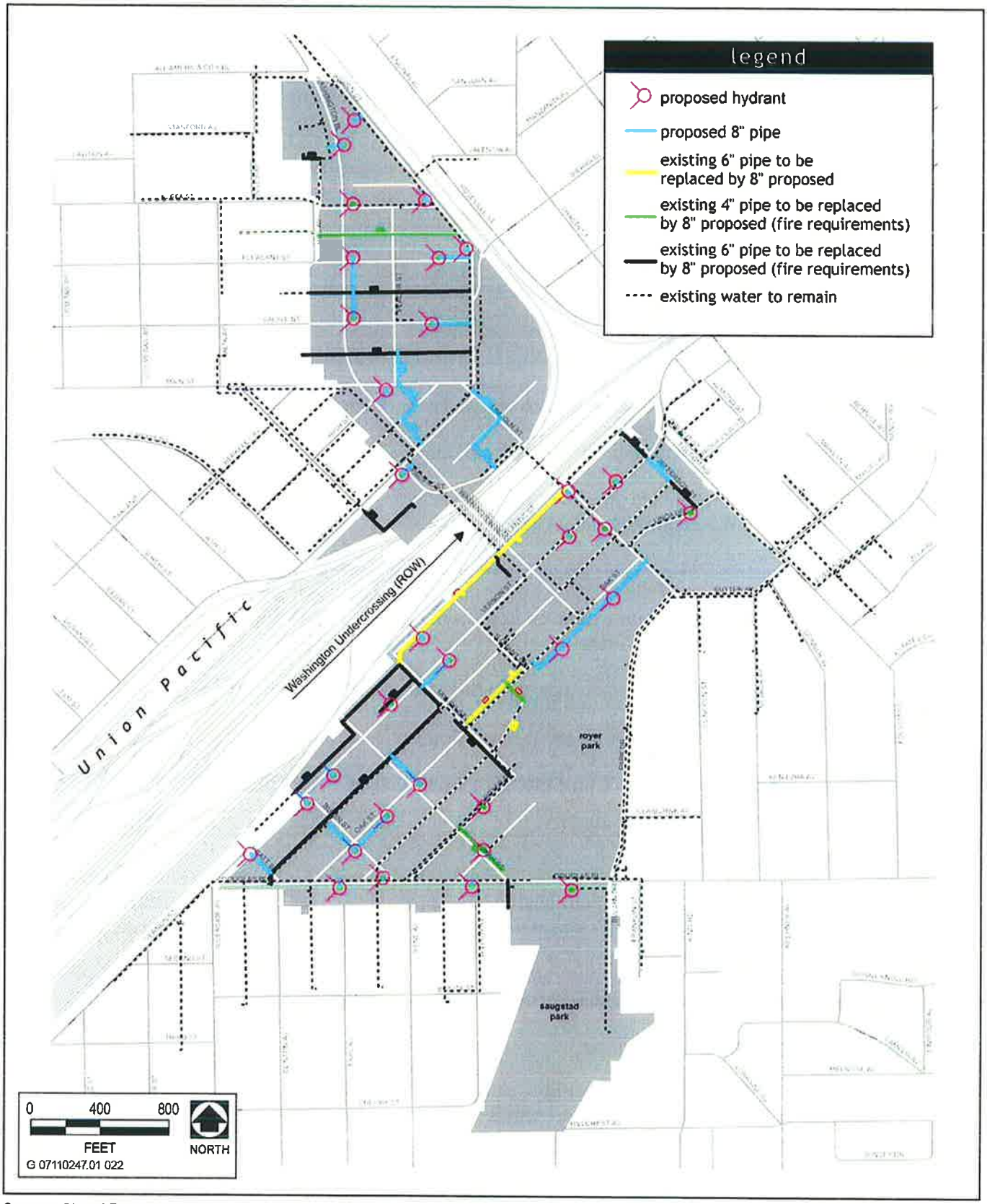
The City has determined that several pipes for the water distribution system in the Plan area will need to be upsized in the future, with or without implementation of the proposed project, due to greater water demand and the need for better fire protection in the Downtown Roseville area (please refer to discussion under Impact 4.2-1). Exhibits 4.2-1 and 4.2-2 show existing and proposed water and fire flow facilities in the Plan area.

WASTEWATER TREATMENT AND COLLECTION SYSTEM

Wastewater Treatment

The City of Roseville, along with the South Placer Municipal Utility District and Placer County are partners within the South Placer Wastewater Authority (SPWA). The SPWA was created in 2000 to oversee policy for funding regional wastewater infrastructure. The City of Roseville owns and operates two regional wastewater treatment facilities on behalf of the partners. These treatment facilities include the Dry Creek wastewater treatment plant (DCWWTP) and the Pleasant Grove wastewater treatment plant (PGWWTP).

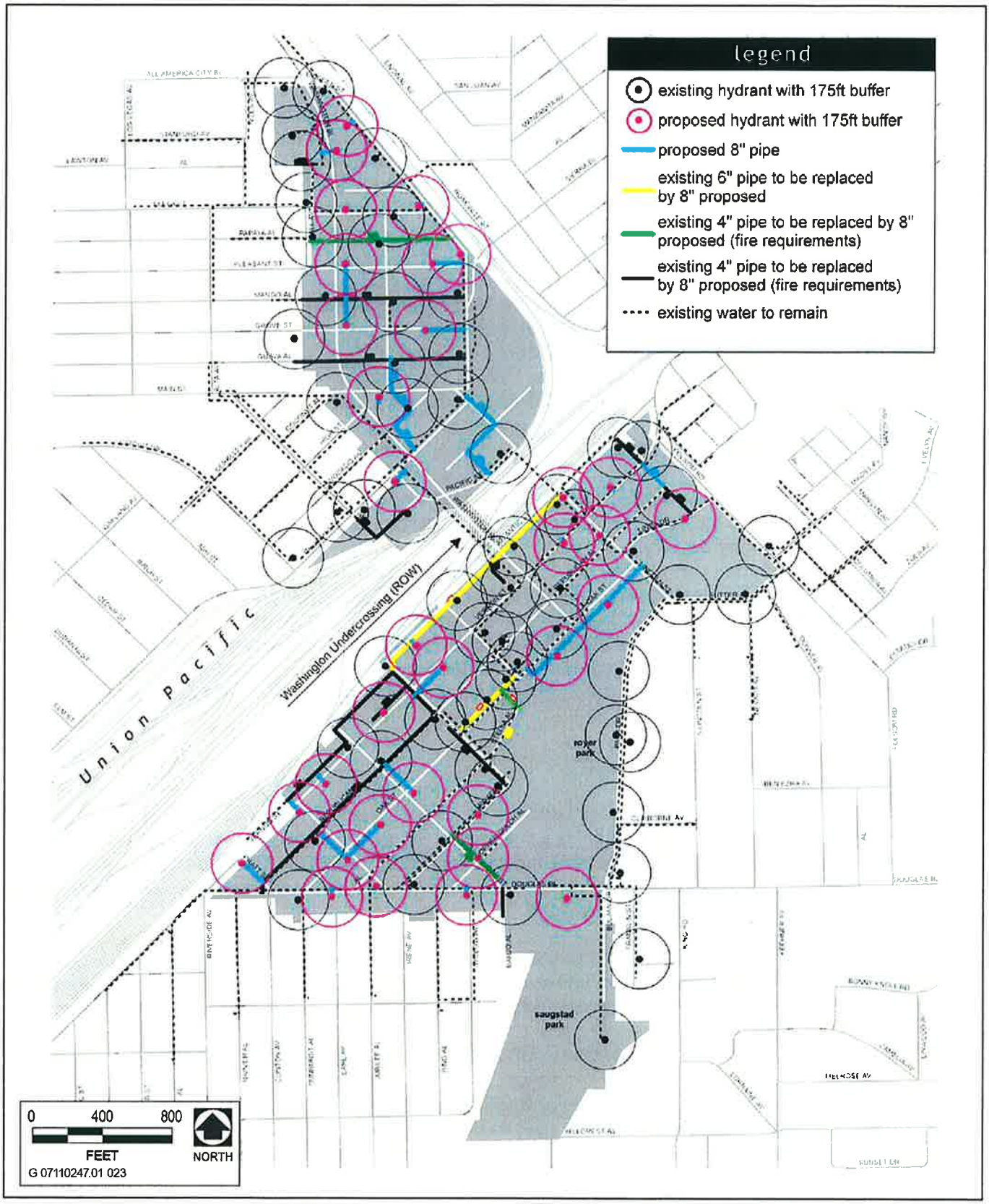
The City has prepared the South Placer Regional Wastewater and Recycled Water Systems Evaluation (Systems Evaluation, June 2007) which delineates the 2005 regional wastewater service area boundary (2005 Boundary)



Source: City of Roseville 2008

Water

Exhibit 4.2-1



Source: City of Roseville 2008

Hydrants **Exhibit 4.2-2**

and provides baseline and projected characterizations of its regional wastewater and recycled water systems. The 2005 Boundary includes areas within Roseville, Rocklin, Loomis, and portions of Granite Bay and unincorporated Placer County. This document is also the long-term planning tool to project wastewater treatment needs, and to identify necessary capital improvement projects to accommodate urban growth within the 2005 Boundary. The Systems Evaluation document addressed system conditions as of June 2004 and anticipated buildout conditions within the 2005 Boundary; including scenarios assuming intensified growth within redevelopment areas in Roseville and Rocklin. Build out of the 2005 Boundary, including intensification scenarios within the Roseville and SPMUD service areas would result in 16.34 mgd ADWF at the DCWWTP and 16.15 mgd ADWF at the PGWWTP (RMC TM 2b, Update January 24, 2008) totaling 32.49 mgd ADWF in the Service Area.

Wastewater Collection

The existing wastewater collection system serving the Vernon Street portion of the Plan area consists of a mixture of 4-inch, 6-inch, and 10-inch pipelines (see Exhibit 4.2-3). The existing wastewater collection system serving the Historic Old Town portion of the Plan area consists of 6-inch and 10-inch pipelines (see Exhibit 4.2-3). In addition, a 63-inch pipeline extends through the Vernon Street portion of the Plan area and is located adjacent to Dry Creek (see Exhibit 4.2-3). However, this 63-inch pipeline is a trunk line and does not serve the Plan area.

Stormwater Drainage System

Stormwater and drainage service for the Plan area is provided by the City of Roseville and managed by the Public Works Department. Within the Plan area, all stormwater and surface water is collected and conveyed into a closed system that is maintained by the City.

The existing stormwater drainage system serving the Plan area is primarily located in Douglas Boulevard, Taylor Street, Grant Street, Washington Street, Lincoln Street, Walnut Street, Church Street, Pacific Street, Grove, Street, and Placer Street. Investigations by City maintenance staff revealed that the storm pipelines, drain inlets, and manholes located in or along Douglas Boulevard and Taylor Street need to be replaced (City of Roseville 2008) (please refer to discussion under Impact 4.2-3). Exhibit 4.2-4 shows existing and proposed storm drain facilities in and near the Plan area.

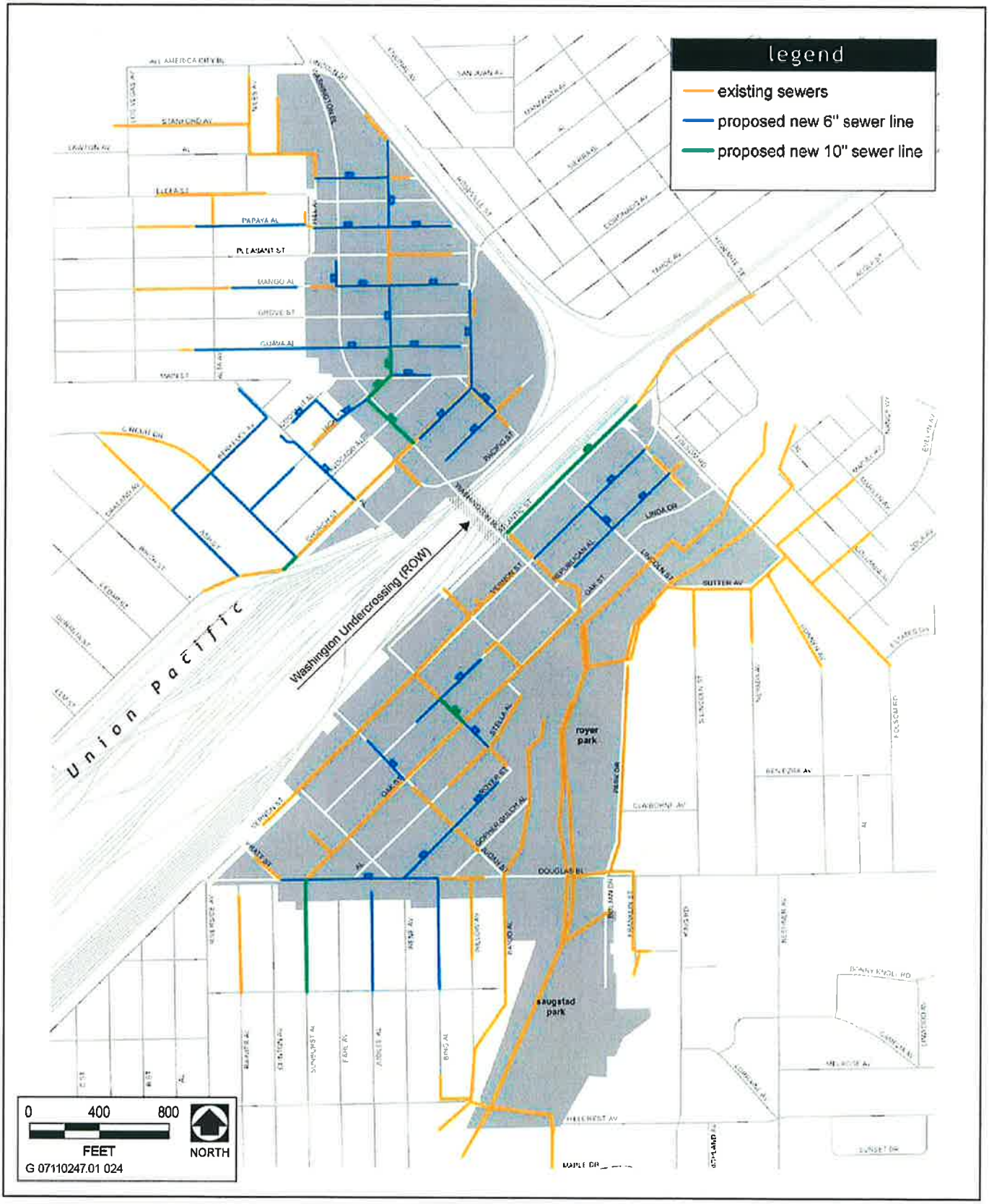
Electricity and Natural Gas

Roseville Electric, the municipally owned provider for the City of Roseville, provides electrical service in the Plan area which is conveyed predominantly via aerial lines in the alleys or adjacent to roadways (see Exhibit 4.2-5). There are exceptions to this mode of service, but they are mainly limited to the Historic Old Town or where new development has occurred (e.g., Civic Center, Civic Plaza project). In these areas Roseville Electric or the development has paid to underground the services.

Pacific Gas and Electric Company (PG&E) provides natural gas service to the Plan area via gas mains generally located in the alleys that run parallel to the grid street pattern (see Exhibit 4.2-6). The majority of the Plan area is serviced with a mix of gas lines ranging in size from ¾ of an inch to six inches.

Solid Waste Collection and Disposal, Source Reduction & Recycling

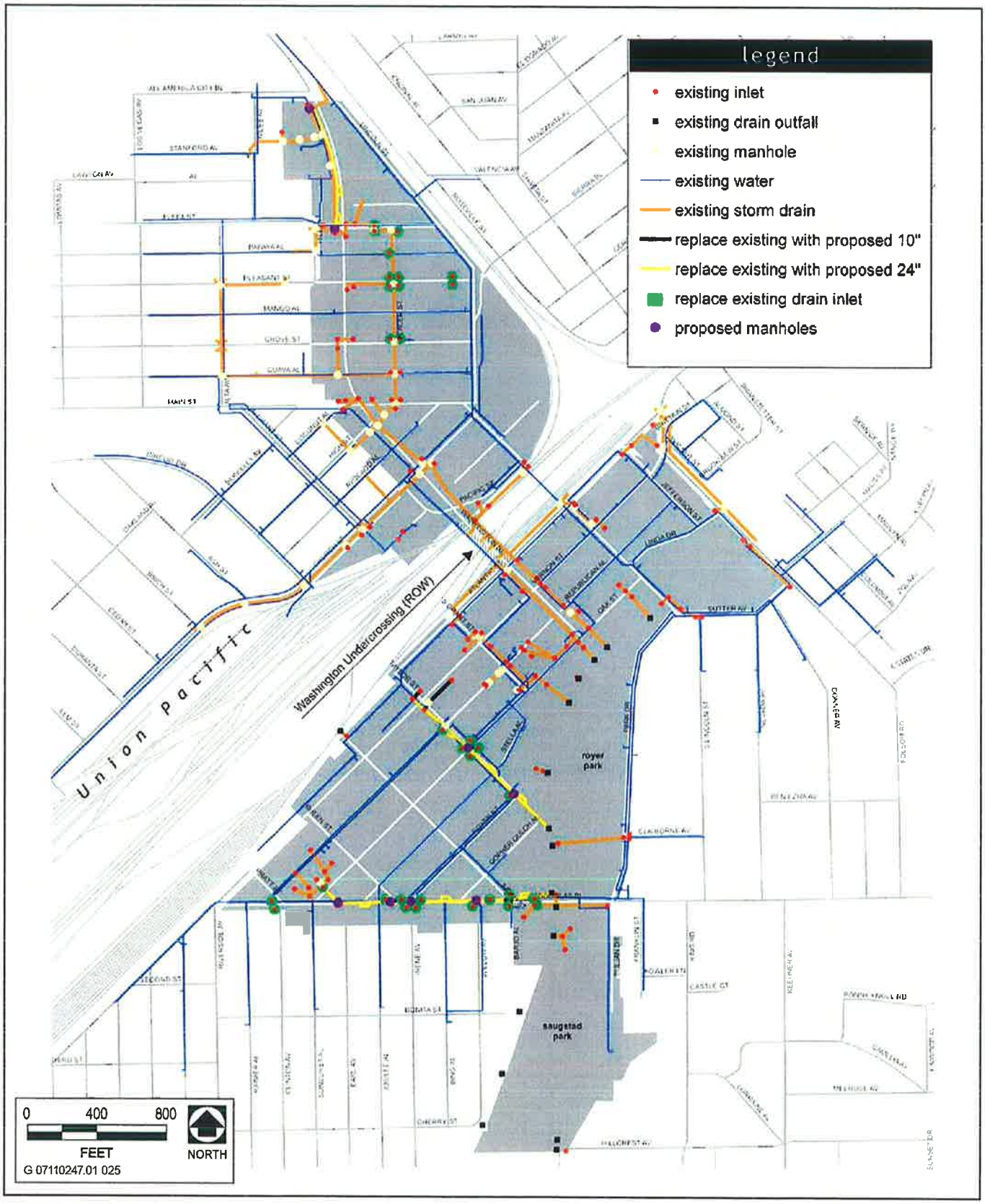
Roseville, along with the City of Lincoln, City of Rocklin, and Placer County, formed the Western Placer Waste Management Authority (Authority) to provide solid waste management. The Authority is assigned the lead role in cooperative policy making with respect to solid waste issues. Placer County oversees the operation of one regional landfill, the Western Regional Sanitary Landfill (WRSL) which is located at the southwest corner of Athens Road and Fiddyment Road and serves the western portion of the County, including Roseville. The WRSL is specified as a Class III non-hazardous site and a private firm under contract with the Authority manages its



Source: City of Roseville 2008

Sewers

Exhibit 4.2-3



Source: City of Roseville 2008

Storm Drains

Exhibit 4.2-4



Source: City of Roseville 2008

Utilities **Exhibit 4.2-5**



Source: City of Roseville 2008

Gas Facilities

Exhibit 4.2-6

operation. Hazardous materials are transported to Class I landfills outside the County. Collection of solid waste within the City is operated and managed by Roseville's Environmental Utilities Department, Solid Waste Utility.

The WRSL has disposal acreage of 231 acres and is expected to cease operation in 2042. Currently, the WRSL has a maximum permitted throughput of 1,900 tons per day and a remaining capacity of approximately 29,100,000 cubic yards which equals 80% of its permitted capacity (California Integrated Waste Management Board (CIWMB) 2008a).

4.2.2 REGULATORY BACKGROUND

The *City of Roseville General Plan 2020* (City of Roseville 2004) identifies goals and policies associated with providing water, wastewater, solid waste disposal, electricity, and natural gas to new development. These goals and policies provide guidance on the provision of utility services and on eliminating deficiencies and obstacles to the expansion of utility services to adequately serve existing and future development. In addition, state legislation ties proposed development to the availability of adequate long-term water supplies to serve development projects. These City and state requirements, as they apply to each utility element, are summarized below.

WATER SUPPLY

The City does not require special permits for water distribution. However, building permits are required before water service can be provided. The following goals and policies of the *City of Roseville General Plan 2020* apply to water supply.

Water System Goal 1: Maintain a water system that adequately serves the existing community and planned growth levels, ensuring the ability to meet projected water demand and to provide needed improvements, repairs, and replacements in a timely manner.

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

Water System Goal 3: Ensure that safe drinking water standards are met and maintained in accordance with State Department of Health Services and U.S. Environmental Protection Agency (EPA) regulations.

Water System Goal 4: Actively pursue water conservation measures.

Water System Goal 5: Actively pursue supplemental water supplies.

- **Water System Policy 1:** Secure sufficient sources of water to meet the needs of the existing community and planned growth.
- **Water System Policy 2:** Provide sufficient water treatment capacity and infrastructure to meet projected water demand.
- **Water System Policy 3:** Initiate, upon 75% of treatment plant capacity, expansion studies to determine necessary improvements to meet projected water demand.
- **Water System Policy 4:** Establish a process for monitoring growth trends to anticipate water consumption needs.
- **Water System Policy 5:** Ensure all development provides for and pays a fair share of the cost for adequate water distribution, including line extensions, easements, and plant expansions.

- **Water System Policy 6:** Design the City's water system to maintain a minimum water pressure of 50 pounds per square inch (PSI) while providing adequate water to meet fire demands in the system.

- **Water System Policy 7:** Provide an emergency back-up system to add sufficient reliability to the system as determined by the Environmental Utilities Department.

- **Water System Policy 8:** Develop and pursue alternatives to continue delivery of PCWA and SJWD water to Roseville.

- **Water System Policy 9:** Monitor water quality regularly and take necessary measures to prevent contamination.

- **Water System Policy 10:** Develop and implement water conservation standards and measures as necessary elements of the water system.

- **Water System Policy 11:** Develop and implement an aquifer storage and recovery program.

WASTEWATER

The City does not require special permits for wastewater collection. However, building permits are required before sewer service can be provided. The following goals and policies of the *City of Roseville General Plan 2020* apply to wastewater service and treatment.

Wastewater and Recycled Water Systems Goal 1: Participate in a cooperative regional approach to wastewater treatment and discharge in order to maintain a system that adequately services planned growth within the City.

Wastewater and Recycled Water Systems Goal 2: Provide wastewater services to all existing and future Roseville development through the City's wastewater utility. The provision of services by another provider may be considered when it is determined that such service is beneficial to the City and its utility customers or the provision of City services is not feasible.

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

Wastewater and Recycled Water Systems Goal 4: Meet State of California and EPA water quality standards for the discharge of treated wastewater, as well as meet State of California quality standards for the production of recycled water.

- **Wastewater and Recycled Water Systems Policy 1:** Expand recycled water distribution system to deliver and meet estimated demands of 4,500 acre feet/year.

- **Wastewater and Recycled Water Systems Policy 2:** Ensure adequate storm surge capacity at the wastewater treatment plants (WWTP).

- **Wastewater and Recycled Water Systems Policy 3:** Initiate upon 75 percent utilization of treatment plant capacity, expansion studies to determine necessary improvements to meet projected wastewater treatment demands.

- **Wastewater and Recycled Water Systems Policy 4:** Ensure that wastewater treatment capacity is available and that wastewater generation is minimized.

- **Wastewater and Recycled Water Systems Policy 5:** Explore potential alternatives to treatment and discharge.

- **Wastewater and Recycled Water Systems Policy 6:** Develop, plan, and provide incentives for use of recycled water by the public and private sectors.

- **Wastewater and Recycled Water Systems Policy 7:** Prevent hazardous materials from entering the wastewater system.

STORMWATER DRAINAGE

The City has developed several flood mitigation programs and maintains several flood control projects designed to protect development within its jurisdiction and to lessen the potential for flooding within neighboring communities. *The City of Roseville General Plan 2020* contains the following flood control management goals and policies that are applicable to the project.

Flood Protection Goal 1: Minimize the potential for loss of life and property due to flooding.

Flood Protection Goal 2: Pursue flood control solutions that are cost-effective and minimize environmental impacts.

- **Flood Protection Policy 1:** Continue to regulate, through land use, zoning, and other restrictions, all uses and development in areas subject to potential flooding.

- **Flood Protection Policy 2:** Monitor and regularly update City flood studies, modeling and associated land use, zoning, and other development regulations.

- **Flood Protection Policy 3:** Continue to pursue a regional approach to flood issues.

- **Flood Protection Policy 4:** Provide flood warning and forecasting information to community residents to reduce impacts to personal property.

- **Flood Protection Policy 5:** Minimize the potential for flood damage to public and emergency facilities, utilities, roadways, and other infrastructure.

- **Flood Protection Policy 6:** Require new developments to provide mitigation to insure that the cumulative rate of peak run-off is maintained at pre-development levels.

- **Flood Protection Policy 7:** Continue to implement the Storm Maintenance Program to keep creeks and storm drain systems free of debris.

- **Flood Protection Policy 8:** Establish flood control assessment districts or consider other funding mechanisms to mitigate flooding impacts.

- **Flood Protection Policy 9:** Where feasible, maintain natural stream courses and adjacent habitat and combine flood control, recreation, water quality, and open space functions.

SOLID WASTE

The City has developed several solid waste programs designed to ensure adequate solid waste disposal facilities are available to serve needs of the community. *The City of Roseville General Plan 2020* contains the following solid waste goals and policies that are applicable to the proposed project.

Solid Waste, Source Reduction & Recycling Goal 1: Provide a healthy, safe, and economical system for solid waste collection and disposal.

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

- **Solid Waste, Source Reduction & Recycling Policy 4:** Maintain a minimum 10-year reserve capacity at the landfill.

Electricity and Natural Gas

Roseville Electric and electric rates are regulated by the City of Roseville City Council. The following goals and policies of the *City of Roseville General Plan 2020* also apply to electrical and natural gas service.

Electric Utility Goal 1: Within the regulatory guidance provided by the City Council and any State of California mandated actions, maintain a municipal electric utility that provides an efficient, economical, and reliable electric system.

Electric Utility Goal 2: Provide electric services to all existing and future Roseville development through the City's Electric Utility. The provision of services by another provider may be considered where it is determined that such service is beneficial to the City and its utility customers or the provision of City services is not feasible.

Electric Utility Goal 3: Maintain adequate resource reserves consistent with industry standards, sound utility planning, and applicable contracts.

Electric Utility Goal 4: Aggressively pursue cost-effective and environmentally safe alternative sources of energy and energy conservation measures.

- **Electric Utility Policy 1:** Secure new electric resources and transmission as necessary to meet projected demand levels.
- **Electric Utility Policy 2:** Provide improvements to the sub-transmission and distribution system, consistent with facility planning studies, to ensure a reliable source of electricity is maintained.
- **Electric Utility Policy 3:** Develop siting and land use compatibility standards for energy facilities.
- **Electric Utility Policy 4:** Extend existing resource contracts if found to be in the best interest of the City.
- **Electric Utility Policy 5:** Explore the feasibility of the development of and participation in renewable energy resources.
- **Electric Utility Policy 6:** Adopt a load/resource management plan, incorporating energy efficiency, conservation, load management, and reliability strategies, identifying program objectives and implementation and monitoring mechanisms.
- **Electric Utility Policy 7:** Pursue effective measures to enhance reliability of interconnection of electric utility system to region-wide grid.
- **Electric Utility Policy 8:** Pursue reasonable and cost-effective energy efficiency, conservation, and load management programs pertinent to the electric utility system.
- **Electric Utility Policy 9:** Continue to pursue emergency electric supplies.

- **Electric Utility Policy 10:** Require new development to pay a fair share of the cost of new sub-transmission and distribution needed to serve the development and to dedicate sites and easements needed for substations, transmission, sub-transmission, and distribution.

- **Electric Utility Policy 11:** Develop and implement public education programs designed to increase the public's awareness of energy issues, including conservation measures and practices.

- **Electric Utility Policy 12:** New construction and tenant improvements will be designed so as to exceed the applicable California Title 24 Standards, at levels as indicated in applicable electric utility programs.

Privately-Owned Utilities Goal 1: Work with privately-owned utility companies to ensure adequate service is provided in a timely manner for Roseville customers.

- **Privately-Owned Utilities Policy 1:** Provide for the review and comment of development proposals by non-City-owned utilities.

- **Privately-Owned Utilities Policy 2:** Require the installation of communication and electric lines underground except when infeasible or impractical.

- **Privately-Owned Utilities Policy 3:** Require the provision of necessary utility easements in all new developments.

- **Privately-Owned Utilities Policy 4:** Work with non-City-owned utility providers to insure that uses and equipment are planned and constructed in a manner consistent with adopted land use policies and design guidelines, to the extent feasible.

4.2.3 Environmental Impacts

Analysis Methodology

The Specific Plan includes descriptions and summaries of water, wastewater, drainage, and solid waste facilities and recommends upgrades based on previous studies prepared by the City Environmental Utilities Department (e.g., Urban Water Management Plan [2006]). Impacts on water, wastewater, stormwater conveyance, electricity, and natural gas services that would result from the project were identified based on these previous studies and comparing existing service capacity and facilities against anticipated future demand associated with new development in the project area.

Thresholds of Significance

The proposed project would cause a significant impact on utilities if it would:

- create demand beyond available service capacity;

- create demand for wastewater treatment/disposal beyond available service;

- substantially increase the rate or amount of surface runoff in a manner that would exceed the capacity of existing/planned drainage facilities and/or result in flooding on-site or off-site;

- create demand for electrical or natural gas service that is substantial in relation to the existing demands;

- exceed wastewater treatment requirements of the regional water quality control board;

- require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- have insufficient water supplies available to serve the proposed project from existing or permitted entitlements and resources, or require new or expanded entitlements;
- result in a determination by the wastewater treatment provider that serves or may serve the project area that it has inadequate capacity to serve the proposed project's projected demand in addition to the provider's existing commitments; or
- require the construction of new or expansion of solid waste facilities, the construction of which could cause significant environmental effects.

IMPACT ANALYSIS

IMPACT 4.2-1 **Public Utilities – Potable Water Supply, Treatment, and Distribution.** *The proposed Specific Plan would increase demand for potable water from existing City water supplies and production facilities. The City's water supply portfolio and treatment plant capacity are sufficient to serve the Specific Plan. With planned water system upgrades, the City's water system would have sufficient capacity to serve existing and new development envisioned in the Specific Plan. This impact is considered* ***less than significant.***

Water Supply

Analysis for water supply must be evaluated for both wet year and dry year scenarios. The City's existing surface water supply contracts total 66,000 acre-fee per year (AFY). This includes 32,000 AFY from the USBR, 30,000 AFY from PCWA and 4,000 AFY from SJWD (wet year only supply). In accord with the City's Water Forum Agreement the City has agreed to limit diversion from its USBR and PCWA American River supply contracts to no more then 54,900 AFY in wet years and no less then 39,800 AFY in dry years. When considering the City's wet year supply from SJWD total American River diversions in wet years total 58,900 AFY.

Wet Years

Water demands at build-out of the City are estimated at 56,465 AFY and are projected to increase by 706 AFY (692 AFY plus 14 AFY for systems losses at two percent) with the Plan Area for a total water supply need of 57,171 AFY. The City relies on a water supply portfolio that includes surface water and the use of recycled water to irrigate many parks, golf courses and landscape corridors within the City. At build-out, recycled water is expected to supply demands of 3,825 AFY. This results in a total potable water demand at build-out of the City and the Plan area of 53,346 AFY. When compared to the City's wet year supply from the American River of 58,900 AF; sufficient water supplies are available during wet years.

Dry Years

During dry years, and in accord with the City's Water Forum Agreement, the City's American River water supply contract can be reduced. Per the Water Forum Agreement, City supply during dry years can range from full supply entitlement to no less then 39,800 AFY during critically dry years. The City relies on a water supply portfolio that includes surface water, recycled water and groundwater (in drier years only). The City also assumes reductions in water supply needs as a result of conservation efforts during years when supplies are cut back. Depending on the level of supply cut-backs the City can mandate various water conservation drought stages to ensure water demands are reduced. For purposes of this analysis, the City assumes a minimum 10% reduction in

potable water supply needs based on conservation efforts. This results in a water supply need during dry years of 51,764 AFY (57,151 AFY less 5,387 AF resulting from mandatory water conservation) with the Project. When surface water supplies are cut back to the maximum level per the Water Forum Agreement water demands would be met through the use of 39,800 AFY surface water supplies, 3,825 AFY recycled water supplies and 7,829 AFY groundwater supplies. As described previously, the City currently has groundwater facilities capable of supplying up to 10,200 AFY of groundwater. Therefore sufficient water supplies are available during dry years and water supply impacts are considered less than significant.

Water Treatment

At buildout of the Plan, the water demand would be 706 AFY (1.3 mgd max day demand). The Barton Road WTP, which provides water treatment for the City, has an existing capacity of 100 mgd (City of Roseville 2006). The estimated future maximum day demand for potable water with the Project would increase from 95.3 mgd to 96.6 mgd which would be less than the capacity of the Barton Road WTP. Therefore, sufficient potable water treatment capacity and diversion capacity exist and would be available to serve the project and this impact is considered less than significant.

IMPACT 4.2-2 **Public Utilities – Fire Flows.** *Water conveyance infrastructure in the Plan area is currently undersized and does not provide sufficient fire flows in accordance with City standards. However, the Plan would implement specific recommendations made by the City Environmental Utilities Department and Fire Department to install larger pipelines, new domestic water and fire services, and additional fire hydrants. These recommendations would provide fire flows that meet City standards. This impact is considered* ***less than significant****.*

Water distribution system capacity for Roseville is designed to meet "maximum day plus fire flow" demand condition. The City of Roseville Water Model Update (WMU) dated July 2003 documents water system design criteria. The WMU states, "Fire flows are to be met concurrently with a maximum day demand condition, while maintaining a minimum residual pressure of 20 psi, as measured at the flowing hydrant." The WMU outlines the needs for new water facilities throughout the City based on water capacity.

The governing factor for water facility upgrades within the Plan area is the need to meet fire flow requirements. A capacity analysis of the project area under maximum-day demand and the fire flow scenario was prepared as part of the WMU. As described in the WMU, minimum fire flows must be met concurrently with a maximum-day demand condition and a residual system pressure of 20 psi. The analysis also assumed City and Uniform Fire Code standards, which require all new buildings greater than 3,600 square feet to be protected by an automatic sprinkler system. Using these requirements, the WMU simulated 4,000 gallons per minute (gpm) fire flow in the Plan area with a simultaneous 1,500 gpm fire flow at the opposite end of the City. Modeling results indicate the existing water distribution system in the Plan area is currently undersized to meet current maximum-day plus fire flow requirements. Therefore, the water distribution system in the project area would require improvements to address existing system deficiencies. These system deficiencies are further magnified by the proposed Specific Plan project.

The WMU identified specific water system recommendations to resolve current system capacity deficiencies within the plan area. The proposed Specific Plan would implement the recommended improvements to the water pipeline system along with minor modifications from City EU Department staff members. The recommendations in the WMU include replacing existing 4-inch and 6-inch water lines with 8-inch lines (see Exhibit 4.2-1). In addition, new fire hydrants would be installed throughout the Plan area to meet a requirement for 175-foot coverage and 350-foot maximum spacing (see Exhibit 4.2-2). Modeling results have shown that implementation of these water distribution facility upgrades would allow for the provision of the increased water demand from the Project; therefore this impact is considered less than significant.

IMPACT 4.2-3 **Public Utilities – Wastewater Treatment and Collection.** *The proposed Specific Plan would increase demand for wastewater treatment from the City's Dry Creek Wastewater Treatment Plant. The City's wastewater treatment and collection systems currently have sufficient capacity to serve new development in the Plan area. Wastewater conveyance infrastructure in the project area is currently in poor condition. However, as part of the Plan, pipelines within the wastewater conveyance system would be replaced or rehabilitated to increase system performance in the Plan area. Therefore, this impact is considered* ***less than significant.***

Wastewater Treatment

All flow from the Plan area will be treated at the Dry Creek Wastewater Treatment Plant (DCWWTP), a regional wastewater treatment facility. The Systems Evaluation Report (June 2007) established estimated flows to the DCWWTP under several scenarios. These estimated flows are documented in several technical memoranda (TMs) which are appendices to the Systems Evaluation document, which is currently being updated. As a part of the update, several TMs have also been updated and the most recent information available is reflected in this analysis.

One of the scenarios considered is build-out of the 2005 Boundary (System Evaluation TM 2a dated October 21, 2005 and updated January 24, 2008) while another scenario considered anticipated redevelopment areas within the cities of Roseville and Rocklin (Systems Evaluation TM 9c dated May 31, 2006). The redevelopment areas considered in Roseville included flows from within the Plan area and is identified as the Historic District and Vernon Street Redevelopment Areas within TM 9c. Wastewater flows estimated within the Systems Evaluation were determined based on the land use of the parcels within the 2005 Boundary and unit flow factors developed as part of the study document. As documented in RMC TM 2b (updated) and TM 9c, intensification anticipated within the cities of Roseville and Rocklin would generate an additional 1.64 mgd (2.284 mgd – 0.642 mgd) increase in flow from existing land uses within the identified redevelopment areas. Of that 1.64 mgd increase, 0.71 mgd would be generated from redevelopment and intensification within the Downtown Specific Plan area (Historic District plus Vernon Street).

Based on these technical studies, the DCWWTP is planned to treat 16.34 mgd ADWF at build-out of the 2005 Boundary which includes intensified flows from future redevelopment, including the Plan area. The DCWWTP is permitted for 18 mgd ADWF. Therefore, implementation of the Plan would not increase the need for additional wastewater treatment beyond current permitted capacity. This impact is considered less then significant.

Wastewater System

During preparation of the Specific Plan, analysis of the condition of the existing wastewater (sewer) lines in the project area was conducted. The Wastewater Collection System Capitol Improvement Plan (CIP), based on an inspection of pipes greater than 75 years old, recommends specific improvements and provides information on pipe and manhole location, condition, and the need/plans for replacement. Sewer lines and manholes as part of the study were inspected by the City and assigned a ranking of 1 to 5 based on their condition with a 1 identifying a pipe in the best condition and a 5 identifying a pipe in very poor condition. As recommended by the City, any pipes with rankings of 3, 4, or 5 should be considered for replacement. This criterion was used to identify the pipes that should be replaced within the Plan area, as shown in Exhibit 4.2-3.

As part of the planning process, the potential capacity upgrades for the sewer facilities were also analyzed to identify potential effects from intensifying the existing wastewater system. The City's wastewater hydraulic capacity model used to evaluate increased sewer flows based on land uses identified in the Plan. The results of the study indicate existing sewer facilities are sufficiently sized to accommodate the increased flows from the Plan area. However, several new improvements are required to serve specific development projects in the Plan area (i.e., site-specific). The area adjacent to Oak Street between Washington Boulevard and Lincoln Street lacks existing sewer facilities to serve future development. An existing 63-inch sewer line extends through this area adjacent to Dry Creek; however, service connections cannot be made off of this trunk sewer facility. Therefore, a

new 6-inch sewer line would need to be constructed in Oak Street to serve future development in this area. Potential environmental impacts resulting from construction of this pipeline are covered in subsequent sections of this DEIR (e.g., air quality, water quality, traffic).

Because the existing wastewater system in the Plan area has been analyzed as part of the Plan and was determined to be sufficiently able to serve future land uses as identified in the Plan, this impact is considered less than significant.

IMPACT 4.2-4 **Public Utilities – Stormwater Drainage System.** *Development of land uses envisioned in the Plan would not substantially increase the amount of impervious surface in the Plan area, and thus would not significantly increase storm-water runoff. The storm-water drainage system in the plan area is currently undersized and exhibits structural failure. However, recommended improvements to the storm drainage system would be implemented as part of the Plan and would enable the storm drain system to meet City standards for a 10-year storm event. Therefore, this impact is considered* ***less than significant.***

Land uses identified in the Plan would not affect the amount of stormwater flow contributed to the existing stormwater drainage system because the Plan area is currently developed with urban land uses and impervious surfaces. In addition, the Specific Plan identifies improvements specific to Dry Creek including, but not be limited to, bank stabilization treatments, scour protection, floodwall reconstruction, bank recontouring for flood conveyance or restoration, and construction of step pools or riffles for salmonid habitat enhancement (refer to Policy 8.4.2 of the proposed *Downtown Roseville Specific Plan*). These improvements to Dry Creek would not affect storm-water runoff in the Plan area because Dry Creek is the ultimate outfall for storm-water drainage in the Plan area. Please refer to Section 4.12, "Hydrology and Water Quality," of this DEIR for analysis of potential impacts related to hydrology of Dry Creek.

City storm drain standards require all facilities be sized to accommodate a 10-year storm event. A detailed analysis of drainage capabilities in the Plan area could not be completed because of a lack of topographic and drainage information for the Plan area. However, based on layout of the existing drainage system reasonable assumptions were made by the City. The storm drain systems in Washington Boulevard and Lincoln Street use pipes greater than 30 inches and would be sufficient capacity to handle additional storm drainage generated by redevelopment activities in the plan area. The remaining trunk lines in the plan area consist primarily of 12- and 15-inch pipelines that would need to be upsized. Specifically, the storm drain line in Washington Boulevard extending from Lincoln Street to Elefa Street would need to be upsized to a 24-inch pipeline. The storm drain lines in Taylor Street and Douglas Boulevard would also need to be upsized to 24-inch pipelines.

Other improvements identified by the City as needed in the Plan area include upgrading existing drop inlets, storm drain laterals, and manholes. Drop inlets and manholes need to be upgraded to meet City standards and storm drain laterals need to be upsized to 12-inch pipes. Upgrades to the storm drain system specific to the Historic Old Town area have also been identified by the City.

The City determined that improvements to the storm drain system (i.e., trunk lines, drop inlets, storm drain laterals, manholes) would increase the capacity of the storm drain system to adequately handle future development projects in the Plan area. Future development projects may require additional improvements to the storm drain system depending on configuration of the new development. To assess site-specific storm drain needs, the City would require future development projects to prepare a site-specific drainage analysis that identifies how the proposed development would tie into trunk lines.

Because the City has determined that identified improvements to the storm drain system would provide sufficient capacity to serve envisioned development in the Plan area and because development projects in the Plan area would be required to prepare a site-specific drainage analysis, this impact is considered less than significant.

IMPACT 4.2-5 **Utilities – Increased Demand for Solid Waste Disposal.** *Implementation of the proposed Specific Plan would increase solid waste generation. The Western Regional Sanitary Landfill has sufficient solid waste disposal capacity available to serve increased residential and non-residential land uses in the Plan area. Therefore, this impact would be* ***less than significant.***

The City of Roseville does not currently identify a solid waste generation factor based on land uses. Because the City of Roseville does not use a specific calculation to determine the volume of solid waste that would be generated by development projects, calculations from the California Integrated Waste Management Board (CIWMB) are used. The CIWMB provides an average per capita disposal rate for Placer County of 0.36 tons per year per residence (CIWMB 2008b). The Plan envisions development of 1,020 new residences which would result in the generation of approximately 459 tons of solid waste per year.

Related to commercial land uses, CIWMB lists the solid waste generation rate used in other CEQA documents prepared for projects throughout California. CIWMB identifies a solid waste generation rate ranging from 0.01 pounds per square foot per day (lbs/sq ft/day) for offices, to 0.046 lbs/sq ft/day for commercial retail, and to 0.013 lbs/sq ft/day for commercial land uses (CIWMB 2008c). Because the Plan envisions a mix of commercial-related land uses, an average of the three generation rates listed by the CIWMB (i.e., 0.01, 0.046, 0.013 lbs/sq ft/day) was used (i.e., 0.23 lbs/sq ft/day). The Plan envisions development of 3,227,045 square feet of new commercial land uses in the Plan area which would result in approximately 74,222 lbs/day of solid waste generated, or approximately 13,546 tons per year.

Combining residential and commercial land use solid waste generation, the overall solid waste generation for the Plan area would increase by approximately 14,005 tons per year. This rate would not be reached until full buildout of the Plan area. Redevelopment projects would occur over a 20-year period, and much lower generation rates would occur at project initiation, with gradual increases in the rate until full buildout.

The WRSL would continue to serve the Plan area and has a maximum permitted throughput of 1,900 tons per day (693,500 tons per year) and a remaining capacity of approximately 29,100,000 cubic yards which equals 80% of its permitted capacity (CIWMB 2008a). The total estimated solid waste generated by land uses identified in the Plan would account for approximately 2% of the total maximum permitted throughout the life of the WRSL. Because the increased solid waste generated from implementation of the Plan accounts for a relatively small portion of the total throughput of the WRSL, and would not lead to an excedance of the capacity of this facility, the project would not require construction of new or expansion of solid waste facilities. Therefore, this impact would be less than significant.

IMPACT 4.2-6 **Utilities – Increased Demand for Electrical Service.** *Implementation of the proposed Specific Plan would increase the demand for electrical service. Roseville Electric has sufficient electricity generation capacity available to serve the Plan area. In addition, Roseville Electric has identified improvement projects to accommodate the estimated increase in electrical capacity. Therefore, this impact would be* ***less than significant.***

Roseville Electric has identified sufficient electric generation capacity available to serve increased residential and non-residential land use development in the Plan area. In addition, Roseville Electric has identified and is implementing numerous improvements to the electric infrastructure in the city including infrastructure necessary to provide electrical service to the Plan area. Improvement projects currently include:

- Undergrounding the existing overhead facilities in specific areas of the city;
- Upgrading the Vernon Street Substation, located at the corner of E Street and Vernon Street, to accommodate the estimated increase in capacity;

- Extending a mainline underground circuit that connects with the existing Vernon Street Substation, extends northeast along Vernon Street, extends along Douglas Boulevard between Vernon Street and Oak Street, extends along the entire length of Oak Street, extends between Lincoln Street and Linda Drive, and lastly ties into an exiting overhead mainline circuit. Pull boxes, switches, and transformers would be provided for as necessary at these locations. The extension of this circuit would occur at the same time as streetscape infrastructure is installed.

In addition to the above improvement projects, should additional electrical capacity be needed to serve future development projects in the Plan area, Roseville Electric would accomplish this by providing additional conduits during the process of undergrounding infrastructure.

Roseville Electric indicated that no new electric generation projects are planned. In addition, transmission infrastructure upgrades, if needed, are the responsibility of regional, state, and federal transmission authorities.

Roseville Electric expects adequate electric resources to be available for purchase from outside sources to serve the Plan area. Therefore, impacts to electric services are considered less than significant.

IMPACT 4.2-7 **Utilities – Increased Demand for Natural Gas Service.** *Implementation of the proposed Specific Plan would increase the demand for natural gas service. PG&E has indicated sufficient natural gas capacity is available to serve the Plan area. In addition, PG&E identified no facility upgrades would be needed to accommodate the estimated increase in natural gas demand. Therefore, this impact would be* ***less than significant****.*

PG&E was contacted regarding their existing facilities in the Plan area and PG&E did not identify the need for any natural gas facility upgrades (Shirhall, pers. comm., 2008). Potential site-specific needs for gas facilities to serve new development projects in the Plan area would not be known until detailed site plans are submitted to the City for review. However, substantial relocations of existing gas facilities are not anticipated to be needed to the serve increased residential and non-residential land use development in the Plan area. Therefore, impacts to natural gas services are considered less than significant.

4.2.4 Mitigation Measures

No significant impacts related to utilities and service systems would occur under the proposed project; therefore, no mitigation measures are required.

4.2.5 Residual Significant Impacts

All impacts associated with utilities and service systems are considered less than significant. Therefore, there are no residual significant impacts.

4.3 PUBLIC SERVICES

This section evaluates the potential impacts on public services from implementation of the proposed project. Public services include fire protection, police protection, public schools, parks, and other public facilities. Impacts are evaluated in relation to increased demand for public services associated with the proposed project and actions needed to provide increased services that could potentially lead to physical environmental effects. Other utility services, such as water and wastewater treatment, stormwater management, electricity, and natural gas services, are addressed in Section 4.2, "Public Utilities."

This project DEIR has been prepared to meet the requirements of a project-level EIR. The City's intention in preparing this project EIR is that no further environmental review under CEQA would be required for subsequent projects which are consistent with the Specific Plan to provide for the streamlined approval of projects proposed within the Plan area that are consistent with land use designations, adhere to design guidelines (specifically prototype development), or fall within the scope of the Specific Plan and EIR.

4.3.1 EXISTING CONDITIONS

LAW ENFORCEMENT

The City of Roseville Police Department (RPD), headquartered at 1051 Junction Boulevard, provides primary law and traffic enforcement services within the City. Currently, the police department has128 sworn police officers and 72 civilian positions. Although the City has not adopted a formal staffing standard for the police department, the department's current goal is to maintain a sworn staffing level of approximately 1.2 sworn officers per 1,000 residents in the City along with other staff as needed to support the department's mission and meet community needs.

The RPD is responsible for patrol duty within the City limits, responding to and investigating crimes and other calls for service, providing animal control services, and traffic safety. Cooperation with the UPRR's private police department ensures provision of back-up services within the rail yard as needed.

The RPD staffs and houses its own communications center, including the 9-1-1 public safety answering point for the City. The communications center provides dispatch services for Roseville Police, Fire, and Animal Control. The RPD headquarters building houses a 40-bed jail which is staffed by non-sworn correctional officers. The jail is classified by the California Board of Corrections as a Type I jail which identifies it as being capable to house pre-sentenced arrestees up to 96 hours or until arraignment. The department's current policy is to hold inmates no longer than 24 hours; those that cannot be released by that time on a promise to appear are transported to the Placer County Jail.

FIRE PROTECTION

The City of Roseville provides primary fire protection services within the City. Currently the City of Roseville Fire Department has 113 full-time employees and operates from seven fire stations and has two additional fire stations in the planning stages. Fire Station #1 is located at 401 Oak Street, within the Plan area, and is staffed with a four-person paramedic truck company and a Battalion Chief. The Fire Department operates a fleet consisting of strategically located engines, aerial ladder trucks, wildland engines, a hazardous materials response vehicle, a technical rescue vehicle, and command vehicles. The Fire Department also utilizes a Fire Training Center which is located at the Corporation Yard on PFE Road and includes a storage building, training tower, classrooms, and field training facilities.

Fire Department responses are generally grouped into three categories: fire calls, emergency medical service (EMS), and non-fire calls. Fire calls are defined as related to fires including structural, grass, and automobile.

EMS calls are identified as related to medical emergencies. Non-fire calls refer to all other calls such as investigations of possible fire hazards, false alarms, and other miscellaneous calls.

The Insurance Service Office (ISO) rating measures a fire department's effectiveness and is based on a municipality's facilities and equipment, personnel, and quantity of water available for fire fighting. Roseville has an ISO rating of 3 on a scale of 1 to 10 (Rostam, pers. comm., 2008). The lower the number, the higher the effectiveness rating.

The City has established a response time standard to determine the effectiveness of fire services in the city. A four-minute response time, from the time the call is received to the arrival of the first engine on the scene, has been determined to be the critical target for lifesaving purposes. The Roseville Fire Department during the last quarter of 2007 achieved a four-minute standard of 83% of the time for first engine arrival, which meets the response goal of 80% (Rostam, pers. comm., 2008).

Public Schools

The Plan area is served by Roseville City School District (RCSD), which serves kindergarten to 8th grade. RCSD currently operates 16 schools, with one additional elementary school planned to open in fall 2008. The Roseville Joint Unified High School District (RJUHSD) serves 9th through 12th grades for the City of Roseville. RJUHSD currently operates four comprehensive high schools, a continuation school, an adult school, an independent study school, and a small school for high-risk freshmen and sophomores.

RCSD serves approximately 8,400 students and three of the district's schools operate at exceeding capacity. RJUHSD serves approximately 9,000 students and all of the district's high schools operate at exceeding capacity. Table 4.3-1 shows the enrollment for RCSD and RJUHSD schools for the 2006–2007 school years and provides an assessment of the capacity of those schools during that time. It should be noted that the exact capacity levels and enrollment figures can change frequently as more portable classrooms are added, and additional students enroll in the district.

Table 4.3-1
Roseville City School District and Roseville Joint Unified High School District Enrollment, 2006–2007 School Year

School Name	Grade Levels	Current Enrollment[1]	Student Capacity (# of students)	% of Capacity	Remaining Capacity (# of students)
Blue Oaks Elementary	K–5	559	600	93	41
Vencil Brown Elementary	K–5	512	600	85	88
George Cirby Elementary	K–5	374	600	62	226
Crestmont Elementary	K–6	469	575	82	106
Diamond Creek Elementary	K–5	567	600	95	33
Catheryn Gates Elementary	K–5	606	600	101	-6
William Kaseberg Elementary	K–5	428	675	63	247
George Sargeant Elementary	K–6	454	600	76	146
Sierra Gardens Elementary	K–6	481	625	77	144
Ferris Spanger Elementary	K–5	440	625	70	185
Bradford Woodbridge Fundamental School	K–3	268	625	43	407
Stoneridge Elementary	K–6	475	400	119	-75

Table 4.3-1
Roseville City School District and Roseville Joint Unified High School District Enrollment, 2006–2007 School Year

School Name	Grade Levels	Current Enrollment[1]	Student Capacity (# of students)	% of Capacity	Remaining Capacity (# of students)
Thomas Jefferson Elementary	K-5	370	600	62	230
Robert Cooley Middle School	6–8	866	999	87	133
George Buljan Intermediate	6–8	983	891	110	-92
Warren T. Eich Intermediate	7–8	570	810	70	240
Adelante High School	10–12	202	N/A[2]	N/A[2]	N/A[2]
Granite Bay High School	9–12	2,096	1,600	131	-496
Independence High School	9–12	277	N/A[2]	N/A[2]	N/A[2]
Oakmont High School	9–12	2,115	1,600	132	-515
Roseville High School	9–12	2,134	1,600	133	-534
Woodcreek High School	9–12	2,094	1,600	131	-494

[1] Student enrollment in the district changes daily as more students enroll and others leave; therefore, this table cannot reflect exact current enrollment.
[2] Adelante and Independence high schools are a continuation or an alternative education school and do not have an established student capacity.
Sources: Education Data Partnership 2008; Chris Grimes, pers. comm., 2007 (RJUHSD); City of Roseville 2004.

School districts typically fund new facilities with 50% state and 50% local sources. To ensure adequate funding for new school facilities to accommodate substantial new development and population growth within Roseville, the City Council adopted Ordinance 2434 (School Facilities Mitigation Plan) in February 1991. This ordinance requires the payment of fees, participation in a Mello-Roos Community Facilities District, and school facility mitigation plans for new development proposed in overcrowded districts. The mitigation fees established in the ordinance may be greater than the state-mandated fees. These fees vary depending on the school district.
In addition to these fees, landowners/developers are required to pay the following fees before building permits are issued: standard single-family housing fee, $2.97 per square foot; multifamily fee (includes duplexes), $2.97 per square foot; and standard commercial/industrial fee, $0.26 per square foot (City of Roseville 2007a and 2007b).

Library System

The City of Roseville owns and operates civic facilities comprised of buildings and properties that are used not only for the daily operation of City government, but for community-based activities of its local citizens. These facilities include libraries. The library system provides facilities and services for people within the community as a vital public service and contributor to the community's quality of life. The facilities consist of the Main Library in the Civic Center located at 225 Taylor Street and the Maidu Branch located at 1530 Maidu Drive. The new Martha Riley Community Library and Utility Exploration Center, located in the Northwest Specific Plan area at Mahaney Park, recently opened to the public.

Parks and Open Space

The City of Roseville adopted standard for park land is nine acres per 1,000 residents. The nine-acre requirement is divided into three acres each for neighborhood, city-wide, and open space areas. The City defines park lands as public developed parks, recreational open space, and joint-use park-school facilities. Based upon the current

General Plan land use allocation at buildout, Roseville provides approximately 12 acres of park land per 1,000 residents, not including golf courses or private recreational facilities.

Royer/Saugstad Park is a community/city-wide park located in the Plan area and is designed to accommodate a variety of recreational uses. A community/city-wide park is designed to cluster active sport elements to accommodate city-wide or regional needs such as tournaments, special events, and or tourism and typically include unique recreational amenities (e.g., plaza, swimming pool, library, tennis courts, nature center, picnic facility, trail systems, transit stops). Royer/Saugstad Park is also identified as a unique recreational center serving the entire Roseville population, and in particular serving Downtown Roseville.

4.3.2 REGULATORY BACKGROUND

FEDERAL

Americans with Disabilities Act

The Americans with Disabilities Act (ADA) of 1990 (42 U.S. Code (USC) 12181) prohibits discrimination on the basis of disability in public accommodation and state and local government services. Under the ADA, the Architectural and Transportation Barriers Compliance Board issues guidelines to ensure that facilities, public sidewalks, and street crossings are accessible to individuals with disabilities. Typical ADA improvements include creating handicap parking spaces, restroom modifications, door hardware requirements, and lighting upgrades. Play areas, meeting rooms, park restrooms, and other buildings and park structures are required to meet ADA compliance requirements. Park facilities under the proposed project would be required to be ADA compliant.

STATE

California Department of Education

The California Department of Education (CDE) School Facilities Planning Division (SFPD) has prepared a School Site Selection and Approval Guide that provides criteria for locating appropriate school sites in the State of California. These criteria originate in the Education Code (e.g., Sections 17212, 17212.5, 17213, 17213.1, 17215, and 17215.5) and in Title 5, Section 14010, of the California Code of Regulations (CCR). (See also Public Resources Code [PRC] Section 21151.8 and State CEQA Guidelines Section 15186.) CDE's authority for approving proposed sites is contained in Education Code Section 17251. School districts must receive CDE approval to be able to receive state funds for the acquisition of sites under the state's School Facilities Program, administered by the State Allocation Board. Districts using only local funds are still encouraged to seek CDE approval for the benefits that such outside review can provide.

School site and size recommendations were changed by CDE in 2000 to reflect various changes in educational conditions, such as reduction of class sizes and use of advanced technology. The expanded use of school buildings and grounds for joint use by agencies and the community, along with concern for the safety of students and staff members, also influenced the modification of the CDE recommendations.

CDE provides specific recommendations for school size in the *Guide to School Site Analysis and Development* (CDE 2000). This document suggests an acreage ratio of 1:2 between buildings and grounds. CDE is aware that in many cases, primarily in urban settings, smaller sites cannot accommodate this ratio. In such cases, SFPD may approve an amount of acreage less than the recommended gross site size and building-to-grounds ratio.

Certain health and safety requirements for school site selection are governed by state regulations and the policies of SFPD relating to:

- proximity to airports, high-voltage power transmission lines, railroads, and major roadways;

- presence of toxic and hazardous substances;
- proximity to hazardous facilities and hazardous air emissions sources;
- proximity to high-pressure natural gas lines, propane storage facilities, gasoline lines, pressurized sewer lines, or high-pressure water pipelines;
- noise;
- results of geological studies or soil analyses;
- traffic and school bus safety; and
- safety issues related to joint-use facilities.

LOCAL

City of Roseville General Plan 2020

The *City of Roseville General Plan 2020* (City of Roseville 2007a) includes the following goals and policies related to the proposed project:

Police Services Goal 1: Maintain a professional law enforcement agency that proactively prevents crime; controls crime that the community cannot prevent; and, reduces fear and enhances the security of the community.

- **Police Services Policy 7:** Design parks to facilitate surveillance by adjoining residents, security services, and police.

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

Fire Protection Goal 2: Provide emergency services in a well-planned, cost-effective, and professional manner through the best utilization of equipment, facilities, and training available.

- **Fire Protection Policy 2:** Strive to achieve the following service levels:
  - Four-minute response time for all emergency calls
  - ISO rating of 3 or better
  - 500 gallons of water per minute within 10 minutes of an alarm
- **Fire Protection Policy 6:** Phase the timing of the construction of fire stations to be available to serve the surrounding service area.

Library Goal 2: Provide services and locate library facilities to adequately serve all City residents.

- **Library Policy 3:** Provide branch libraries at the neighborhood level to service residents within a five-mile radius of each facility.
- **Library Policy 4:** Provide branch libraries to service population increments of +20,000
- **Library Policy 5:** Plan for the clustering and connection of community facilities in neighborhood centers, including parks, libraries, and community centers.

Schools Goal 1: The provision of adequate school facilities is a community priority. The school districts and the City will work closely together to obtain adequate funding for new school facilities. If necessary, and where

legally feasible, new development may be required to contribute, on the basis of need generated, 100% of the cost for new facilities.

- **Schools Policy 1:** The City and the school districts will work cooperatively to explore all local and State funding sources in order to secure adequate funding for new school facilities.
- **Schools Policy 2:** Adequate facilities must be shown to be available in a timely manner before approval will be granted to new residential development.
- **Schools Policy 3:** Financing for new school facilities will be identified and secured before new development is approved.
- **Schools Policy 7:** Designate public/quasi-public land uses in clusters so that the use of schools, parks, open space, libraries, child care, and community activity and service centers create a community or activity focus.

Parks and Recreation Goal 1: Provide adequate park land, recreational facilities and programs within the City of Roseville through public and private resources.

Parks and Recreation Goal 2: Provide residents with both active and passive recreation opportunities by maximizing the use of dedicated park lands and open space areas.

- **Parks and Recreation Policy 1:** The City shall ensure the provision of 9 acres of park land per 1,000 residents.
- **Parks and Recreation Policy 8:** Require that parks and recreational facilities be phased or fully completed so as to be available as adjacent residential uses are developed.

4.3.3 Environmental Impacts

Analysis Methodology

Impacts on public services that would result from the Specific Plan were identified by comparing existing service capacity and facilities against future demand associated with project implementation. Evaluation of potential public service impacts were based on a review of documents pertaining to the proposed Plan area, including the City General Plan. Additional background information on current services, staffing, and equipment was obtained through consultation with appropriate agencies such as the Roseville Fire Department, the RPD, and the RCSD and RJUHSD.

The following analysis assumes the proposed project would consist of new residential housing (approximately 1,275 units), new commercial land uses (approximately 3,227,045 square feet), and 36.4 acres of parks and public facilities. Construction is anticipated to be in phases over an estimated 20-year period.

Thresholds of Significance

As identified in the State CEQA Guidelines (Appendix G), an impact related to the provision of public services would be considered a significant environmental impact if the proposed project would:

- Result in substantial adverse physical impacts associated with the provisions of new or physically altered governmental facilities, or 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 following public services:
  - Fire protection
  - Law enforcement

- Schools
- Parks
- Other public facilities

- increase demand on existing neighborhood and community parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or

- result in the substantial loss of open space resources.

Impact Analysis

IMPACT 4.3-1 **Public Services – Increased Demand for Fire Protection and Emergency Medical Facilities, Systems, Equipment, and Services.** *Development in the Plan area would result in increased demand for fire protection and emergency medical services, potentially resulting in the need for additional staff and equipment to maintain an adequate level of service. Fire Station #1, serving the Plan area, currently functions at its operational limits. However, construction of a new Fire Station #1 has been identified by the City which would have sufficient capability to serve increased demand. This impact would be* ***less than significant.***

Buildings constructed prior to 1983 are a greater fire risk than those built subsequently with higher structural and material standards under the new building code. Most of the older structures, which comprise the highest hazards, are concentrated within the infill regions of the City, including the Plan area. The Plan area is located within the service area of the City of Roseville Fire Station #1, located at 401 Oak Street. Fire Station #1 would provide first-response service to the Plan area.

As stated in the City's General Plan, minimum feasible response times for fire and emergency calls would be maintained through staffing and station locations; although the General Plan does not specify a firefighter per population ratio. However, the City has a policy to achieve a four-minute response time for all emergency calls (City General Plan, Fire Protection Policy 2).

Fire Station #1 is currently functioning at its operational limits because of existing cumbersome and insufficient space for staff, training, equipment, and administration to efficiently serve the community (Rostam 2008). As a result, the City recently identified options to meet current demands including expansion at the station's current location and construction of a new station at a different site (RRM Design Group 2007). After analyzing four options, the City is moving forward with construction of a new fire station north and adjacent to the intersection of Lincoln and Oak Streets. Construction of the new Fire Station #1 would allow the Fire Department to adequately provide fire protection and emergency services, including maintaining a four-minute response time for all emergency calls, in the Plan area. Because improvements to fire protection and emergency services have been identified for the Plan area, implementation of the proposed project is considered to result in a less-than-significant impact.

IMPACT 4.3-2 **Public Services – Increased Demand for Fire Flow.** *The proposed Specific Plan would include the development of residential and commercial uses that would require adequate water flow for fire suppression. Future redevelopment projects in the Plan area would incorporate City fire flow requirements into project designs. This impact would be* ***less than significant.***

The Roseville Fire Department maintains oversight authority to ensure that adequate water volume and pressure are available in the City. Methods to calculate minimum fire flow involve design-specific calculations including the density of structures, height, number of stories, square footage, building materials, and structural design. A firefighting standard of 500 gallons per minute within 10 minutes of alarm is the standard adopted by the City of Roseville as adequate to meet fire protection needs. Lack of adequate fire flow would impede the ability of the Roseville Fire Department to provide effective fire suppression service in the Plan area.

The California Fire Code and City Fire Code (Section 16.16.190) require developers to provide minimum fire flow and flow duration for fire protection to all premises on which buildings or portions of buildings are constructed. Future redevelopment projects in the Plan area would incorporate the California Fire Code and City Fire Code requirements into project designs. Therefore, this impact would be less than significant.

IMPACT 4.3-3 **Public Services – Increased Demand for Law Enforcement Facilities, Services, and Equipment.** *Redevelopment projects in the Plan area would increase the demand for law enforcement facilities and services, resulting in the need for additional staff and equipment to maintain adequate levels of service. The City General Plan recognizes the need for additional police officers as population increases in the City and the Roseville Police Department currently provides adequate service to the community. Therefore, project impacts to law enforcement services would be* ***less than significant.***

The RPD operates out of their headquarters located at 1051 Junction Boulevard, which is located approximately 1 mile from the Plan area. This station would provide first-response service for the Plan area. Although the City has not adopted a formal staffing standard for the police department, the department's current goal is to maintain a sworn staffing level of approximately 1.2 sworn officers per 1,000 residents in the city (Allison, pers. comm., 2007). The Plan is estimated to increase residential population in Downtown Roseville at project buildout by 3,315 persons (1,275 new residential units with an average of 2.6 persons per household) (U.S. Census 2008). Using the City's ratio of 1.2 sworn officers per 1,000 residents, a minimum of 3 new sworn officers would be needed to serve redevelopment projects associated with the Plan at buildout. Because the Plan area is located in close proximity to the RPD headquarters and because RPD uses automobile patrols to cover the entire geographic area of the City, no new police facilities would be required to serve the Plan area.

The City's General Plan identifies that as population grows the demand for both traditional and non-traditional law enforcement services is also expected to increase. As a result, the RPD would require additional staff as the City's population grows to continue providing present levels of service. Although redevelopment projects in the Plan area would increase population in the City as a whole, the City General Plan recognizes additional police officers would be needed to serve future population increases. In addition, the RPD is currently able to provide more than adequate law enforcement services to the city (Allison, pers. comm., 2007). Therefore, implementation of the Plan is considered to result in a less-than-significant impact.

IMPACT 4.3-4 **Public Services – Increased Demand for Public School Facilities and Services.** *Implementation of the proposed project would increase demand for elementary school (K–5), middle school (6–8), and high school (8–12) services in RCSD and RJUHSD. Elementary and middle schools nearest the project site are operating below capacity; therefore, the proposed project would not have a significant impact on these schools in the area. However, the high schools nearest the project site are close to or exceeding capacity. Therefore, the impact on high schools in the Plan area is considered* ***potentially significant.***

The proposed project would increase the demand for elementary, middle, and high school facilities in RCSD and RJUHSD. George Cirby Elementary and William Kaseberg Elementary are the closest elementary schools to the project site. George Cirby Elementary is at 62% of capacity and William Kaseberg Elementary is at 63% of capacity (Table 4.3-1). The middle school serving the Plan area is Warren T. Eich Intermediate School, which is at 70% of capacity (Table 4.3-1). The closest high schools to the Plan area are Roseville High School and Oakmont High School. Currently, Roseville High School is operating at 133% of capacity and Oakmont is operating at 132% of capacity (Table 4.3-1).

Although the proposed project would increase the population in the Plan area, the increase in student population would be small relative to the number of new residences in the greater Roseville area. Approximate student generation rates for similar mixed-use residential developments were used to determine the increase in number of students that would result from implementation of the proposed project. Because mixed-use residential

developments are a relatively new type of development, RCSD and RJUHSD currently do not have established student generation rates for mixed-use residential developments.

The results of this analysis, as provided in Table 4.3-2, reflects that low density residential uses would generate a greater number of high school students, a greater number of students in grades 6–8, and a greater number of students in K–5th grade than high density residential – based on the student generation rates provided by the respective school districts. This analysis suggests that on average, low density residential households generally represent families with more children (in these associated age groups) than those families that live in high density residential housing. For example, families, couples, or singles that live in studio apartments, loft space, or one or two-bedroom apartments with relatively less square footage than larger "low density" mixed-use residences are less inclined to have school-aged children living with them in those housing types (over a defined geographical area) than families or single parents that own or rent larger homes.

Table 4.3-2
Student Generation Rates for Mixed-Use Residential for Roseville City School District and Roseville Joint Unified High School District

	High School	Middle School	Elementary School
Generation Rates for Low Density Mixed-use Residential	0.161[1]/2.5 = 0.064[2]	0.092[1]/2.5 = 0.037[2]	0.246[1]/2.5 = 0.098[2]
Number of Students Generated from Low-density Mixed-use Residential[3]	**82**	**47**	**125**
Generation Rates for High Density Mixed-use Residential	0.045[1]/2.5 = 0.018[2]	0.028[1]/2.5 = 0.011[2]	0.076[1]/2.5 = 0.030[2]
Number of Students Generated from High-density Mixed-use Residential[3]	**23**	**14**	**38**

[1] Generation rates provided by RCSD and RJUHSD.

[2] Mixed-use residential generation rates were calculated by dividing generation rates provided by respective school districts by 2.5. This approximation of mixed-use residential generation rates has been used for other similar types of developments. RCSD and RJUHSD do not have generation rates for mixed-use residential developments.

[3] Assumes construction of 1,275 residential dwelling units.

Table 4.3-2 shows the projected increase in students for both low density and high density residential uses. However, these projections are used in this analysis in order to present the most conservative scenario because the generation rates for low density mixed-use residential result in more students for each age/grade bracket.

Based on the approximate student generation rates for mixed-use residential, it is estimated that the Plan could generate 163 additional elementary school students and 61 additional middle school students (Table 4.3-2). Because the elementary and middle schools nearest the Plan area are operating below capacity and can sufficiently accommodate the additional students generated, the proposed project would have a less-than-significant impact on these schools in the area.

Although the population increase associated with the Plan would be relatively small, the two high schools nearest the Plan area are currently operating beyond capacity (Grimes, pers. comm., 2008). Based on approximate student generation rates for mixed-use residential, it is estimated that the Plan would generate 105 new high school students (Table 4.3-2). Although this number of students is small compared to the total number of students in the RJUHSD and RCSD, the nearest high schools are already operating at or above capacity. As a result, new school facilities would be needed to accommodate the new development associated with the proposed project.

In response to the need for new high school facilities, the RJUHSD plans to purchase a piece of property in 2011 that is located at the intersection of Hayden Parkway and Bob Doyle Drive. After purchasing the property, RJUHSD plans to construct a new high school and begin operation in 2013 (Grimes, pers. comm., 2008).

Although new high school facilities would be constructed to serve high school students generated by the proposed project, students would be required to attend existing, overcrowded high school facilities until new high school facilities become available.

In addition, construction of these new high school facilities could result in adverse physical and environmental impacts. RJUHSD would be the agency responsible for preparing the required environmental analysis to evaluate potential impacts associated with development of a new high school. The development of a new high school could result in several environmental impacts (e.g., biological habitat, construction-related air quality and noise), beyond those impacts evaluated throughout this DEIR some of which may remain significant even with implementation of recommended mitigation. Because the proposed project would contribute to the need to construct a new high school, this impact is considered **potentially significant**.

IMPACT 4.3-5 **Public Services – Increased Demand for Library Services.** *The proposed Specific Plan would include the development of residential uses that would demand library services. The City of Roseville Main Library is located inside the Plan area and would provide adequate library services to future residents. This impact would be* ***less than significant.***

Implementation of the project would increase the number of people living in Downtown Roseville who would demand library services. The City of Roseville Main Library is located within the Plan area at 225 Taylor Street. The Main Library would continue to provide library services to future residents in Downtown Roseville with implementation of the project. In addition, the City of Roseville opened the new Martha Riley Community Library at Mahany Park in December 2007 to further expand library services available to the community. The Main Library has indicated that they can adequately serve future residents of Downtown Roseville (Bish, pers. comm., 2007). Therefore, this impact would be less than significant.

IMPACT 4.3-6 **Public Services – Increased Demand for Parks and Recreation Facilities.** *The proposed Specific Plan would include the development of residential uses that would demand park and recreation facilities. The City of Roseville has sufficient park land to serve the needs of the community. Therefore, increased demand for parks and recreation uses would be met by existing facilities. This impact would be* ***less than significant.***

The number of residents in Downtown Roseville would increase with implementation of the Plan and subsequently increase demand for parks and recreational facilities. Royer/Saugstad Park is located in the Plan area and improvements to existing recreational facilities are proposed as part of the project including replacing tennis courts, constructing a new amphitheater, extension of bikeways, and construction of a lighted pitch-putt golf course. The environmental impacts associated with these recreational improvements are considered in this DEIR in the appropriate resource sections.

The City of Roseville has an adopted standard to provide 9 acres of parks per 1,000 residents. The 9-acre requirement is divided into 3 acres each for neighborhood, citywide, and open space areas. Based on the City's current General Plan land use allocations at buildout, the City currently has approximately 12 acres of parkland per 1,000 persons.

Royer and Saugstad Parks are located in the Plan area and this facility is considered one of three citywide park facilities. Citywide park facilities are designed to accommodate a wider variety and higher intensity of recreational uses and are identified as unique recreational centers serving the entire Roseville population. Royer and Saugstad Parks combined consist of 36.3 acres. The Specific Plan would also create a Town Square at the Civic Center which is envisioned to provide a variety of passive and active amenities with more of an urban recreational focus. The Town Square would encompass approximately 1.1 acres. Combined, the Town Square and Royer/Saugstad Parks provide 37.4 acres of parkland in the Plan area.

Infill and non-specific plan areas are typically required to meet the 9-acre requirement or satisfy the requirement through an in-lieu park land dedication. Based on these criteria, implementation of the Plan would add 1,275 new

residential units and approximately 3,188 new residents which would require, or create the demand for, approximately 28.7 acres of overall parkland dedication. However, the Specific Plan includes a policy to waive the park dedication or in-lieu fee requirement for the Plan area as an incentive to residential development in Downtown Roseville (Policy 8.2.1). In addition, the Specific Plan includes a policy to assign or allocate park fees collected with development of residential housing in the Plan area specifically to Plan area (Policy 8.2.2).

With approval of the Specific Plan, including Policy 8.2.2, development of land uses identified for the Plan area would increase demand for parks and recreational facilities but would not substantially deteriorate existing facilities. In addition, the Specific Plan would be consistent with City policy requiring park dedication or in-lieu fees because approval of the Specific Plan, including Policy 8.2.1, would exempt new development from this requirement. Therefore, this impact would be less than significant.

4.3.4 Mitigation Measure

No mitigation measures are necessary for the following less-than-significant impact:

4.3-1: Public Services – Increased Demand for Fire Protection and Emergency Medical Facilities, Systems, Equipment, and Services

4.3-2: Public Services – Increased Demand for Fire Flow

4.3-3: Public Services – Increased Demand for Law Enforcement Facilities, Services, and Equipment

4.3-5: Public Services – Increased Demand for Library Services

4.3-6: Public Services – Increased Demand for Parks and Recreation Facilities

The following mitigation measures are provided for significant impacts.

Mitigation Measure 4.3-4: Increased Demand for Public School Facilities and Services.

The proposed project would generate approximately 23 high school students. To ensure adequate funding is available for high school facilities necessary to accommodate the increase in student population caused by the proposed project, landowners and developers shall pay school mitigation fees in accordance with the City of Roseville Ordinance 2434 before issuance of building permits for construction in the Plan area. Development projects in the Plan area that include only residential land uses shall enter into a Mutual Benefit Agreement (MBA) with school districts serving that area.

Implementation of Mitigation Measure 4.3-4 would ensure adequate funding is made available to school districts to pay for construction and operation of new school facilities as needed to serve development. School impact fees are typically an insufficient amount to fund 100% of new school facility construction. However, the California Legislature has declared that the school impact fee is deemed to be full and adequate mitigation under CEQA (Government Code Section 65996). With payment of the state-mandate fees, impacts on school services and facilities would be reduced to a less-than-significant level.

4.3.5 Residual Significant Impacts

All impacts associated with public services are considered less than significant. Therefore, there are no residual significant impacts.

4.4 GEOLOGY AND SOILS

This chapter identifies and evaluates the changes in conditions related to geology and soils, as well as seismic conditions, associated with implementation of the proposed project. The analysis addresses potentially significant geology and soils effects, and recommends mitigation measures to reduce significant or potentially significant environmental impacts.

This project DEIR has been prepared to meet the requirements of a project-level EIR. The City's intention in preparing this project EIR is that no further environmental review under CEQA would be required for subsequent projects which are consistent with the Specific Plan to provide for the streamlined approval of projects proposed within the Plan area that are consistent with land use designations, adhere to design guidelines (specifically prototype development), or fall within the scope of the Specific Plan and EIR.

4.4.1 EXISTING CONDITIONS

GEOLOGY

Regional Geology

The City of Roseville is located in an area with underlying material composed of alluvial deposits from the Sierra Nevada Mountain Range. Geology consists of transitional formations between the alluvial deposits of the valley and volcanic material characteristic of the Sierra Nevada. The City is underlain by relatively recent Plio-Pleistocene non-marine sedimentary deposits formed during the Cenezoic period (City of Roseville 2004a).

Project Site Geology

The project site is located within the U.S. Geological Survey (USGS) Roseville and Citrus Heights 7.5-Minute Quadrangles. Topography in the Plan area is primarily flat except for Dry Creek, which sits approximately 50 feet lower in elevation than the surrounding Downtown Roseville area. Elevations range from approximately 170 feet above sea level at the northernmost extent of the Plan area, to approximately 115 feet in Dry Creek.

Review of the soils data provided through the U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) *Web Soil Survey* indicates that near-surface soils in the Plan area include the following:

- Cometa-Ramona sandy loams, 1 to 5% slopes;
- Xerofluvents, occasionally flooded;
- Xerofluvents, frequently flooded; and
- Xerorthents, cut and fill areas.

Each of these soil types is discussed in greater detail below.

Cometa-Ramona

The Cometa-Ramona sandy loams soil type dominates the Plan area and is identified as an undulating soil located on low terraces. This soil type contains approximately 50% Cometa soil and 30% Ramona soil. San Joaquin sandy loam, Fiddyment loam, and Alamo clay make-up the remainder. Cometa soil is found on short side slopes and bottoms and is a deep, well-drained claypan soil that forms in alluvium primarily from granite sources. Ramona soil is found on fingerlike ridges and younger land surfaces and is a very deep and well-drained soil that forms in alluvium from predominantly granite sources.

Cometa subsoil exhibits a very slow permeability, the potential for shrink-swell, and a limited ability to support a load which creates a major limitation to urban uses. Ramona subsoil exhibits a moderately slow permeability which creates a limitation to urban uses.

Dwelling and road construction can be designed to offset the shrink-swell potential and the low bearing strength of the Cometa soil.

Xerofluvents (Occasionally Flooded)

The xerofluvents, occasionally flooded, soil type is found adjacent to stream channels (e.g., Dry Creek) and consist of small areas of moderately well-drained loamy alluvium. Areas containing this soil type are occasionally flooded by stream overflow and, therefore, are not considered suited for urban uses because of their flood hazard.

Xerofluvents (Frequently Flooded)

The xerofluvents, frequently flooded, soil type is found adjacent to stream channels (e.g., Dry Creek) and consist of narrow stringers of somewhat poorly drained recent alluvium. Areas containing this soil type are subject to frequent flooding and channelization and, therefore, are not considered suited for urban uses because of their flood hazard.

Xerorthents (Cut and Fill Areas)

The xerorthents, cut and fill areas, soil type is primarily found in the UPRR rail yard but have potential to extend into the Plan area. Xerorthents consist of mechanically removed and mixed soil material in cut and fill areas used primarily for highways and urban development. Cut and fill areas are typically well drained with a very rapid surface runoff.

REGIONAL SEISMICITY AND FAULT ZONES

Potential seismic hazards resulting from a nearby moderate to major earthquake can generally be classified as primary and secondary. The primary effect is fault ground rupture, also called surface rupture. Common secondary seismic hazards include ground shaking, liquefaction, and subsidence. Each of these potential hazards is discussed below.

Surface Rupture

Surface rupture is an actual cracking or breaking of the ground along a fault during an earthquake. Structures built over an active fault can be torn apart if the ground ruptures. Surface rupture along faults is generally limited to a linear zone a few meters wide. The Alquist-Priolo Act (see Section 4.4.3, "Regulatory Setting," below) was created to prohibit the location of structures designed for human occupancy across the traces of active faults, thereby reducing the loss of life and property from an earthquake.

While numerous faults have been identified within 100 kilometers of the Sacramento area, there are no known active faults located within Placer County. Three inactive faults lie within the immediate Roseville vicinity: 1) the Volcano Hill Fault, extending northwesterly for approximately one mile starting just east of the City limits; 2) the Linda Creek Fault (the existence of which is disputed due to lack of recorded activity) extends along a portion of Linda Creek through Roseville and a portion of Sacramento County; and, 3) an unnamed fault alignment extending east to west between Folsom Lake and the City of Rocklin, portions of which are concealed, but possibly connected to the Bear Mountain Fault near Folsom Lake. In 1908, an earthquake estimated to have exceeded 4.0 on the Richter Scale occurred on an unnamed fault in the southwestern portion of Placer County, probably centered between Folsom and Auburn, and Placerville and Roseville (City of Citrus Heights 2000). No significant seismic event has been recorded in the Roseville vicinity since that time.

Seismic Ground Shaking

Ground shaking, motion that occurs as a result of energy released during faulting, could potentially result in the damage or collapse of buildings and other structures, depending on the magnitude of the earthquake, the location of the epicenter, and the character and duration of the ground motion. Other important factors to be considered are the characteristics of the underlying soil and rock, the building materials used, and the workmanship of the structure.

"Active" Faults in the Project Vicinity

Table 4.4-1 identifies faults that have been designated by the California Division of Mines and Geology as "active," and therefore may pose a potential geologic hazard to the project site. These faults show evidence of displacement during Holocene time (11,000 years ago to present). In addition, Table 4.4-1 identifies the approximate distance from the project site, maximum moment magnitude (M), and fault type.

Table 4.4-1
"Active" Faults in the Project Vicinity

Fault	Approximate Distance (miles) from the Plan Area	Historic Activity	Maximum Credible Earthquake[1]
Hayward Fault	60	6.8	6.5–7.0
Calaveras Fault	50	6.1	6.5–7.0
San Andreas Fault	80	7.1	8.3
Midland Fault	32	-	7.0
Dunnigan Hills Fault	35	-	6.5
Foothills Fault System	15	5.7	6.5

Note:
[1] The Maximum Credible Earthquake is defined as the strongest earthquake that is likely to be generated along an active fault zone, and is based on the geologic character of the fault and the earthquake history.
Source: *City of Citrus Heights General Plan, Summary of Background Information, November 2000*

For purposes of this EIR, the California Geological Survey's Probabilistic Seismic Hazards Mapping Ground Motion Page (California Geological Survey 2008) was consulted to estimate site-specific probabilistic ground acceleration for the Plan area. Peak horizontal ground acceleration (the level of ground shaking) with 10% probability of being exceeded in 50 years was calculated for firm rock, soft rock, and alluvium in percentage of gravity (g) (or percentage of the earth's normal gravitational strength). These calculations found that there is a 1-in-10 probability that an earthquake will occur within 50 years that would result in a peak horizontal ground acceleration (pga) exceeding 0.157 pga (California Geological Survey 2008). Peak horizontal ground acceleration is a measure of earthquake acceleration. Unlike the Richter magnitude scale, pga is not a measure of the total size of the earthquake but rather how hard the earth shakes in a given geographic area. However, pga generally correlates with the Mercalli scale.

Ground Failure/Liquefaction

Soil liquefaction occurs when ground shaking from an earthquake causes a sediment layer saturated with groundwater to lose strength and take on the characteristics of a fluid, thus becoming similar to quicksand. Factors determining the liquefaction potential are soil type, the level and duration of seismic ground motions, the type and consistency of soils, and the depth to groundwater. Loose sands and peat deposits are susceptible to liquefaction,

while clayey silts, silty clays, and clays deposited in freshwater environments are generally stable under the influence of seismic ground shaking.

Liquefaction poses a hazard to engineered structures. The loss of soil strength can result in bearing capacity insufficient to support foundation loads, increased lateral pressure on retaining or basement walls, and slope instability. Although no specific liquefaction hazard areas have been identified in the City of Roseville, this potential is recognized throughout the Central Valley where unconsolidated sediments and a high water table coincide.

No determination has been made that liquefaction exists in the Roseville area. Based on project-specific analysis and past experience, liquefaction has not been a significant problem within the City (City of Roseville 2004b).

Subsidence

Ground subsidence is the sinking of land over man-made or natural underground voids. Land subsidence can be induced by both natural and human phenomena. Natural phenomena include: subsidence resulting from tectonic deformations and seismically induced settlements; soil subsidence from consolidation, hydrocompaction, or rapid sedimentation; subsidence from oxidation or dewatering of organic-rich soils; and subsidence related to subsurface cavities. Subsidence related to human activity includes subsurface fluid or sediment withdrawal. Pumping of water for residential, commercial, and agricultural uses from subsurface water tables causes more than 80% of the identified subsidence in the United States (Galloway et al. 1999). Lateral spreading is the horizontal movement or spreading of soil toward an open face, such as a streambank, the open side of fill embankments, or the sides of levees. The potential for failure from subsidence and lateral spreading is highest in areas where there is a high groundwater table, where there are relatively soft and recent alluvial deposits, and where creek banks are relatively high.

The City's geographic location, soil conditions, and surface terrain combine to minimize risk of major damage from landslides, subsidence (gradual shrinking of the earth's surface due to underground resource extraction), or other geologic hazards resulting from seismic activity and related natural forces (City of Roseville 2004b).

Slope Stability

A landslide is the downhill movement of masses of earth material under the force of gravity. The factors contributing to landslide potential are steep slopes, unstable terrain and proximity to earthquake faults. This process typically involves the surface soil and an upper portion of the underlying bedrock. Expansive soil on slopes tends to shrink and swell in response to moisture content changes. During this shrinking and swelling process, gravity tends to work the soil downslope. Movement may be very rapid, or so slow that a change of position can be noted only over a period of weeks or years (soil "creep"). The size of a landslide can range from several square feet to several square miles.

While Roseville is located on relatively level terrain, the land gradually increases in slope to the east and north. The most significant slope areas are located along creeks and ravine areas. The soils in the Plan area have slight to moderate erosion potential, particularly adjacent to Dry Creek (NRCS 2008).

Expansive Soils

Expansive soils have the ability to shrink and swell with wetting and drying. Soils with high clay content tend to be the most affected. The shrink-swell potential of expansive soils can result in differential movements beneath foundations. The potential for soil to undergo shrink and swell is enhanced by the presence of a fluctuating, shallow groundwater table. Volume changes of expansive soils can result in the consolidation of soft clays following the lowering of the water table or the placement of fill. The soils in the Plan area have a moderate

shrink-swell potential (NRCS 2008). Shrink-swell refers to the soils ability to expand when wet and to contract when dry.

4.4.2 Regulatory Setting

Federal

Earthquake Hazards Reduction Act

In October 1977, the U.S. Congress passed the Earthquake Hazards Reduction Act to reduce the risks to life and property from future earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards and reduction program. To accomplish this, the act established the National Earthquake Hazards Reduction Program (NEHRP). This program was significantly amended in November 1990 by the National Earthquake Hazards Reduction Program Act (NEHRPA) by refining the description of agency responsibilities, program goals, and objectives.

The mission of NEHRP includes improved understanding, characterization, and prediction of hazards and vulnerabilities; improved building codes and land use practices; risk reduction through post-earthquake investigations and education; development and improvement of design and construction techniques; improved mitigation capacity; and accelerated application of research results. The NEHRPA designates the Federal Emergency Management Agency (FEMA) as the lead agency of the program and assigns several planning, coordinating, and reporting responsibilities. Other NEHRPA agencies include the National Institute of Standards and Technology, National Science Foundation, and USGS.

State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Act (PRC Sections 2621–2630) was passed in 1972 to mitigate the hazard of surface faulting to structures designed for human occupancy. The main purpose of the law is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The law addresses only the hazard of surface fault rupture and is not directed toward other earthquake hazards. The Alquist-Priolo Act requires the State Geologist to establish regulatory zones known as "Earthquake Fault Zones" around the surface traces of active faults and to issue appropriate maps. The maps are distributed to all affected cities, counties, and state agencies for their use in planning efforts. Before a project can be permitted in a designated Alquist-Priolo Earthquake Fault Zone, cities and counties must require a geologic investigation to demonstrate that proposed buildings would not be constructed across active faults.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 (PRC Sections 2690–2699.6), addresses earthquake hazards from nonsurface fault rupture, including liquefaction and seismically induced landslides. The act established a mapping program for areas that have the potential for liquefaction, landslide, strong ground shaking, or other earthquake and geologic hazards. The act also specifies that the lead agency for a project may withhold development permits until geologic or soils investigations are conducted for specific sites and mitigation measures are incorporated into plans to reduce hazards associated with seismicity and unstable soils.

National Pollutant Discharge Elimination System Permit

In California, the State Water Resources Control Board (SWRCB) administers regulations promulgated by the U.S. EPA (55 Code of Federal Regulations [CFR] 47990) requiring the permitting of stormwater-generated pollution under the National Pollutant Discharge Elimination System (NPDES). In turn, the SWRCB's

jurisdiction is administered through nine regional water quality control boards. Under these federal regulations, landowners must obtain a Construction General Permit through the NPDES Stormwater Program for all construction activities with ground disturbance of 1 acre or more. The General Permit requires the implementation of best management practices (BMPs) to reduce sedimentation into surface waters and control erosion. One element of compliance with the NPDES permit is preparation of a Stormwater Pollution Prevention Plan (SWPPP) that addresses control of water pollution, including sediment, in runoff during construction (see Section 4.12, "Hydrology and Water Quality," for more information about the NPDES and SWPPPs).

California Building Standards Code

The State of California provides minimum standard for building design through the California Building Standards Code (California Code of Regulations, Title 24). Where no other building codes apply, Chapter 29 regulates excavation, foundations, and retaining walls. The California Building Standards Code (CBC) applies to building design and construction in the state and is based on the federal Uniform Building Code (UBC) used widely throughout the country (generally adopted on a state-by-state or district-by-district basis). The CBC has been modified for California conditions with numerous more detailed and/or more stringent regulations.

The state earthquake protection law (California Health and Safety Code Section 19100 et seq.) requires that structures be designed to resist stresses produced by lateral forces caused by wind and earthquakes. Specific minimum seismic safety and structural design requirements are set forth in Chapter 16 of the CBC. The CBC identifies seismic factors that must be considered in structural design.

Chapter 18 of the CBC regulates the excavation of foundations and retaining walls, and Appendix Chapter A33 regulates grading activities, including drainage and erosion control, and construction on unstable soils, such as expansive soils and areas subject to liquefaction.

LOCAL

City of Roseville General Plan

The following goals and policies from the *City of Roseville General Plan 2020* are applicable to the proposed project:

Seismic and Geologic Hazards Goal 1: Minimize injury and property damage due to seismic activity and geologic hazards.

- **Seismic and Geologic Hazards Policy 3:** Minimize soil erosion and sedimentation by maintaining compatible land uses, suitable building designs, and appropriate construction techniques.
- **Seismic and Geologic Hazards Policy 6:** Require contour grading, where feasible, and revegetation to mitigate the appearance of engineered slopes and to control erosion.

City of Roseville Building Codes and Regulations

The City of Roseville Building and Construction Ordinance (16.04) incorporates the following Uniform Codes into its building requirements to ensure that buildings are designed and sited properly to protect against seismic and unstable soils conditions: Uniform Building Code, Uniform Housing Code, Uniform Building Code for Abatement of Dangerous Buildings, Uniform Mechanical Code, Uniform Plumbing Code, and National Electric Code.

4.4.3 ENVIRONMENTAL IMPACTS

METHOD OF ANALYSIS

Evaluation of potential geologic and soil impacts was based on a review of documents pertaining to the Plan area, including the City of Roseville General Plan, the U.S. Department of Agriculture NRCS *Soil Surveys* (NRCS 2008); California Geological Survey geologic maps; and published and unpublished geologic literature. The information obtained from these sources was reviewed and summarized to establish existing conditions and to identify potential environmental effects, based on the standards of significance presented in this section. In determining the level of significance, the analysis assumes that the proposed project would comply with relevant federal, state, and local ordinances and regulations, as well as the City of Roseville General Plan policies and building code requirements presented in this section. Water quality effects during construction are addressed in Section 4.12, "Hydrology and Water Quality."

The proposed project would not remove septic systems and does not include and would not use septic tanks or alternative wastewater disposal systems. This issue will not be analyzed further in this DEIR.

THRESHOLDS OF SIGNIFICANCE

An impact is considered significant, as defined by the State CEQA Guidelines (Appendix G), if the proposed project or alternatives would:

- expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - the rupture of a known earthquake fault as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault;
  - strong seismic ground shaking;
  - seismic-related ground failure, including liquefaction; or
  - landslides;
- result in substantial soil erosion or the loss of topsoil;
- be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landsliding, lateral spreading, subsidence, liquefaction, or collapse; or
- be located on expansive soil, as defined in Table 18-1-B of the UBC, creating substantial risks to life or property.

IMPACT 4.4-1 **Geology and Soils – Risks to People and Structures Caused by Seismic Hazards, Including Surface Fault Rupture and Strong Ground Shaking.** *The Plan area is not located within an earthquake fault zone as designated by the Alquist-Priolo Earthquake Fault Zone Act. In addition, the Plan area is not located in an area considered by the California Geological Survey to be a relatively high ground shaking zone. Therefore, project development in the Plan area does not have the potential to expose people and structures to substantial adverse effects from seismic hazards including fault ground rupture and strong seismic ground shaking. This impact is considered* ***less than significant****.*

The project site is not located within an earthquake fault zone as designated by the Alquist-Priolo Earthquake Fault Zone Act (California Geological Survey 2008). The nearest fault that has been zoned as "active" is the Foothills fault system located approximately 15 miles east of the Plan area; this fault is estimated to have a maximum moment magnitude of 6.5 (Table 4.4-1).

The California Geological Survey's Probabilistic Seismic Hazards Mapping Ground Motion Page (California Geological Survey 2008) was consulted to estimate site-specific probabilistic ground acceleration for the Plan area. The calculations found that there is a 1-in-10 probability that soils in the Plan area will have a peak horizontal ground acceleration (level of ground shaking) exceeding 0.157 pga within 50 years (California Geological Survey 2008).

Strong ground shaking may also occur in the Plan area as a result of large, distant earthquakes. However, faults most notable for having the capability of resulting in a large earthquake (i.e., Hayward, Calaveras, San Andreas) are located over 50 miles from the Plan area and would not present any danger to structures in the Plan area. In addition, future development projects in the Plan area would be required to meet standards and regulations of the California Building Standards Code and of the City of Roseville.

Because development in the Plan area with homes and other urban structures does not have the potential to expose people to substantial adverse effects from fault ground rupture and strong seismic ground shaking, this impact is considered less than significant.

IMPACT 4.4-2 **Geology and Soils – Seismically Induced Risks to People and Structures Caused by Liquefaction.** *The Plan area is not located in an area considered to be exposed to relatively high ground shaking and ground shaking, as a result of seismic activity from nearby or distant earthquake faults, would not cause seismic-related ground failure, including liquefaction. The potential for seismically induced liquefaction in the Plan area is low because soil types are not identified to be subject to the effects of liquefaction and liquefaction has posed a historical problem in Roseville. This impact would be* ***less than significant****.*

Based on the soil types found in the Plan area and the relative distance of faults that could result in exposing the soils in the Plan area to ground shaking, the risk of liquefaction is considered low. Although no specific liquefaction hazard areas have been identified in the City of Roseville, this potential is recognized throughout the Central Valley where unconsolidated sediments and a high water table coincide. However, to date no determination has been made that liquefaction exists in the Roseville area and based on project-specific analysis and past experience by City engineers, liquefaction has not posed a significant problem in the City. Given this low risk of exposure and the nature of the soil types found at the project site that would be subject to liquefaction, the risk to people and structures appears to be low and this impact is considered less than significant.

IMPACT 4.4-3 **Geology and Soils – Seismically-Induced Risks to People and Structures Caused by Landsides.** *The project is not located in an area considered to be exposed to relatively high ground shaking. Ground shaking, as a result of seismic activity from nearby or distant earthquake faults, could cause seismic-related ground failure, including landslides in areas where slopes are present. Specifically, Dry Creek has steep slopes on both sides of the creek corridor that could be subject to landslides during a seismic event. Because the Specific Plan identifies improvements within the Dry Creek corridor, this impact is considered* ***potentially significant****.*

While landslides caused by seismic activity could occur along the steeper slopes along Dry Creek in the Plan area, there is no indication of major slope instability along Dry Creek, and no evidence of recent landslides in the Plan area or in the vicinity. While the potential for a major landslide along Dry Creek is low, site soils could be subject to localized soil creep, slumping, and small landslides on oversteepened slopes, along incised drainages, and in water-saturated granular soils found along Dry Creek.

The Downtown Roseville Specific Plan identifies improvements that would occur along Dry Creek to protect and further develop the natural habitat for Dry Creek (Policy 8.4.2). Improvements could include planting additional trees in the floodplain and modifications to the streambed to improve habitat for aquatic wildlife species. Specific improvements related to improving habitat include bank recontouring and stabilization to reduce the amount of erosion that is prevalent in some reaches of the Dry Creek stream corridor and installation of riffles. Another improvement would involve installing future storm drain treatment mechanisms identified as part of the storm water component of the Plan to improve the overall water quality in Dry Creek. In addition, the Specific Plan identifies excavation would occur for an amphitheater adjacent to the Dry Creek.

Although the improvements to Dry Creek are intended to improve existing biological habitat conditions and drainage capabilities, details related to these improvements have not yet been identified. In addition, excavation activities associated with the amphitheater could directly affect slopes along Dry Creek. As a result, the potential for these improvements to effect the stability of banks along Dry Creek are not known. Therefore, this is considered a potentially significant impact.

IMPACT 4.4-4 **Geology and Soils – Construction-Related Erosion Hazards.** *Based on soil types that have a moderate to high erosion potential and steep slopes in the Dry Creek corridor, excavation and grading of soil could result in erosion during construction activities. Erosion and sediment control plans would be required to be prepared as part of individual development projects in the Plan area under the City's Grading Ordinance which would require reducing erosion and retaining sediment on-site. This impact is considered to be* ***less than significant.***

Construction activities associated with future development projects in the Plan area would involve excavation and grading of soil which would expose on-site soils to wind and water erosion. In general, the potential for erosion to occur at a specific project site is low on slopes with gradients less than 10% (found in the majority of the Plan area). Where slope gradients are between 10% and 30%, the potential for erosion is moderate. The erosion potential for soil on slopes greater than 30% is considered high, as found in the Dry Creek corridor.

Although the majority of development activities envisioned as part of the Specific Plan would occur on relatively flat slopes, excavation activities are expected to occur for an amphitheater located adjacent to the Dry Creek corridor (Policy 8.4.2). Excavation activities associated with the amphitheater could occur in areas with slopes greater than 10%.

In accordance with the City's Grading Ordinance, the applicant for a specific development project occurring in the Plan area, including the proposed amphitheater, would be required to submit an erosion and sediment control plan to reduce the amount of erosion and retain sediment on the project site. In addition, the City's Grading Ordinance includes specific standards for project construction and erosion control including the requirement for prompt re-vegetation of disturbed areas, avoidance of grading activities during wet weather, avoidance of disturbance within drainages, as well as other erosion and sedimentation control measures.

Because the soils in the plan area have only a slight potential for erosion and because erosion control measures would be implemented, construction activities associated with development projects in the Plan area would result in a less-than-significant impact on soil erosion.

IMPACT 4.4-5 **Geology and Soils – Potential for Subsidence or Compression of Unstable Soils.** *The Plan area is not located in a known subsidence area as identified by the City of Roseville General Plan and is not located on soils that exhibit the potential to subside. This impact is considered* ***less than significant.***

Subsidence, the sinking of land, is caused by compaction of unconsolidated soil units during a seismic event, compaction by heavy structures, erosion of peat soils, or groundwater depletion. Subsidence usually occurs over a broad area and is therefore not detectable at the ground surface.

The Plan area is not located in a known subsidence area as identified by the City of Roseville General Plan. In addition, the City's geographic location, soil conditions, and surface terrain combine to minimize risk of major damage from subsidence (gradual shrinking of the earth's surface due to underground resource extraction) or other geologic hazards resulting from seismic activity and related natural forces (City of Roseville 2004b). Therefore, this impact is considered less than significant.

IMPACT 4.4-6 **Geology and Soils – Potential for Damage Associated with Expansive Soils.** *Soil types found in the Plan area are moderately to highly susceptible to expansive soil behavior. Expansive soils may cause differential and cyclical foundation movements that can cause damage and/or distress to overlying structures. However, preparation of geotechnical evaluations would be required to be prepared as part of the building permit process which would identify any needed special construction and/or design methods for alleviating soil constraints. This impact would be considered* ***less than significant.***

Expansive soils comprise mainly clays that increase in volume when water is absorbed and shrink when dry. All of the soil types occurring in the Plan area contain various levels of clay in their compositions. Although expansive soils generally have the ability to shrink and swell with wetting and drying, their shrink-swell potential can result in differential movements beneath foundations. Soils with high clay content tend to be the most affected by expansion. Most important to future urban development envisioned in the Plan area, if the expansive soils are not considered during design and construction, structural damage, warping, and cracking of roads and sidewalks, and rupture of utility lines may occur. According to the NRCS, the soil types found in the Plan area have a moderate shrink-swell potential (NRCS 2008). However, this constraint can be overcome through application of standard engineering practices and compliance with the UBC and City of Roseville Improvement Standards. In addition, site-specific geotechnical evaluations would be required to be prepared by developers in the Plan area as required as part of the building permit process. The geotechnical evaluations would identify locations where special construction and design methods would be needed and would include recommendations for alleviating constraints due to expansive soils or other soil constraints. Developers would be required to comply with recommendations set forth in the geotechnical evaluation as required by the City's building permit process. Therefore, this impact is considered less than significant.

4.4.4 MITIGATION MEASURES

No mitigation measures are necessary for the following less-than-significant impact:

4.4-1: Geology and Soils – Risks to People and Structures Caused by Seismic Hazards, Including Surface Fault Rupture and Strong Ground Shaking

4.4-2: Geology and Soils – Seismically Induced Risks to People and Structures Caused by Liquefaction

4.4-4: Geology and Soils – Construction-Related Erosion Hazards

4.4-5: Geology and Soils – Potential for Subsidence or Compression of Unstable Soils

4.4-6: Geology and Soils – Potential for Damage Associated with Expansive Soils

The following mitigation measures are provided for significant impacts.

Mitigation Measure 4.4-3: Geology and Soils – Seismically-Induced Risks to People and Structures Caused by Landsides

To minimize potential damage from unstable soil (landslides) along Dry Creek, the project applicant shall hire a qualified, licensed geotechnical engineer to map the Dry Creek corridor for clay-rich, weak soils, and high groundwater conditions prior to any construction or grading activities occurring in Dry Creek. Any unstable or

hazardous slopes identified during the geotechnical investigation shall be identified by the geotechnical engineer and the geotechnical engineer shall provide recommendations for preventing landslides during project design and/or construction. These measures shall be included in grading permits prior to approval by the City.

4.4.5 RESIDUAL SIGNIFICANT IMPACTS

Implementation of the above mitigation measures would reduce all significant impacts to a less-than-significant level.

4.5 AESTHETICS

This section describes the existing visual setting of the project site, the regulatory background that applies to the project, and the potential impacts on aesthetic resources that could result from implementation of the Downtown Roseville Specific Plan.

This project DEIR has been prepared to meet the requirements of a project-level EIR. The City's intention in preparing this project EIR is that no further environmental review under CEQA would be required for subsequent projects which are consistent with the Specific Plan to provide for the streamlined approval of projects proposed within the Plan area that are consistent with land use designations, adhere to design guidelines (specifically prototype development), or fall within the scope of the Specific Plan and EIR.

4.5.1 EXISTING CONDITIONS

The descriptions of the existing setting are accompanied by photographs of representative views taken during a site visit on January 19, 2008.

VISUAL CHARACTER OF THE PLAN AREA

The Plan area consists primarily of existing urban development. Views are generally focused down roadways and in-between buildings. Views of surrounding vistas are limited by existing buildings and street trees.

The Plan area has been historically developed as an urban center of the City and is representative of historical downtowns. The Plan area is dominated by single-story and two-story buildings, roadways, sidewalks, and street trees. However, open viewable areas exist in the Plan area including surface parking lots (e.g., Oak Street adjacent to Dry Creek, south of the Vernon and Bulen Street intersection) and business-specific surface parking (e.g., southwestern portion of Vernon Street, surrounding City Hall). Residential neighborhoods are dominated by California bungalow style homes and full-grown trees which are representative of single-family detached housing. Royer/Saugstad Park and Dry Creek dominate the easternmost portion of the Plan area. Dry Creek is bounded by natural vegetation and full-grown trees along with an adjacent recreation trail. Royer/Saugstad Park incorporates large, open grass fields interspersed with full-grown trees, picnic areas, and sport-specific facilities (e.g., baseball diamond, tennis courts). As shown in Exhibit 4.1-1, the UPRR rail yard, adjacent to the central portion of the Plan area, extends in a northeast-southwest direction and creates a mid-ground view from streets located nearby (e.g., Vernon Street, Pacific Street, Lincoln Street).

VISUAL CHARACTER OF THE SURROUNDING AREA

Areas surrounding Downtown Roseville primarily consist of single-family, detached residential neighborhoods (i.e., Cherry Glen, Folsom Road, Enwood, Roseville Heights). In addition, commercial uses extend away from the Plan area along Riverside Avenue to the south, Atlantic Street to the northeast, and Douglas Boulevard to the east, along with industrial uses along Washington Boulevard to the north.

The general character of the surrounding area is described below.

- **North:** Areas to the north of Downtown Roseville primarily consist of single-family residential neighborhoods. In addition, the UPRR tracks border the eastern boundary of the Plan area and extend north and westward.
- **East:** Areas to the east of Downtown Roseville primarily consist of single-family residential neighborhoods along with a mixture of commercial and light-industrial uses adjacent to Atlantic Street. Dry Creek flows into the Plan area from the northeast. In addition, the UPRR tracks extend northeastward adjacent to Atlantic Street.

- **South:** Areas to the south of Downtown Roseville primarily consist of single-family residential neighborhoods, with commercial uses along Riverside Avenue to the southeast. Dry Creek flows away from the Plan area to the south.

- **West:** Areas to the west of Downtown Roseville primarily consist of single-family residential neighborhoods. The primary portion of the UPRR rail yard is located adjacent to the Plan area and is situated between the Plan area and residential neighborhoods beyond the rail yard.

Views of the Plan Area

Distant views of the Plan area from off-site areas are limited because of the relatively flat topography of the City and the presence of full-grown trees throughout the downtown area. Views of the Plan area would primarily be available to people traveling along Park Drive, Douglas Boulevard, Folsom Road, Atlantic Street, Roseville Street, Riverside Avenue, and Church Street in the project vicinity. Travelers along these roads would generally have short-distance, direct views of the Plan area but views would dissipate quickly when traveling further distance away from the Plan area along any connecting roads.

Four viewpoint locations (discussed below) were chosen to represent areas that would be most sensitive to visual change or have relatively unobstructed views of the Plan area. The general nature of views of the Plan area is described from these four representative locations.

Views from Lincoln Street (Viewpoints 1 and 2)

This viewpoint extends along the northeastern edge of the Plan area in Historic Old Town. Two-story buildings fronting on the street dominate the views from sidewalks and the street. Outside of the center of Historic Old Town, detached single-family residences dominate the views along with full-grown street trees lining the sidewalks. The street trees and multi-story buildings at the heart of Historic Old Town obstruct views across the entire Plan area. Similarly, distant background views are not available from any portion of Historic Old Town. Representative views of this portion of the Plan area from Lincoln Street are provided in Exhibit 4.5-1.

Views from Oak Street (Viewpoints 3 and 4)

This viewpoint extends along the central portion of the Plan area near Vernon Street. Single-family, detached residences dominate the views from Oak Street along with full-grown street trees lining the sidewalks. At the northern extent of Oak Street, views of residences give way to dominant views of a multi-story parking garage and the Civic Center. Multi-story buildings lining Vernon Street create the middle-ground views from Oak Street. However, distant background views are not available from along Oak Street because of full grown street trees. Representative views from this portion of the Plan Area are provided in Exhibit 4.5-2.

Views from Vernon Street (Viewpoints 5 and 6)

This viewpoint extends along the northern central portion of the Plan area near the UPRR rail yard. Multi-story buildings associated with Downtown Roseville's retail and commercial businesses dominate views from Vernon Street. The Civic Center stands out from other buildings lining Vernon Street because of the Civic Center building's larger size. The UPRR rail yard can be seen in the middle-ground at breaks between existing buildings and at roadway intersections. Street tree planters within on-street parking stalls dominate foreground views from the street and multi-story buildings fronting on the street dominate views from sidewalks. At the southern end of Vernon Street, the compact building pattern gives way to individual, detached buildings. Distant background views are not available from the northern extent of Vernon Street because of multi-story buildings; however, distant background views can be seen sporadically from the southern extent. Representative views of the Plan area from Vernon Street are provided in Exhibit 4.5-3.



View from intersection of Lincoln Street and Main Street looking west along Main Street (Viewpoint 1)



View from intersection of Lincoln Street and Placer Street looking north along Placer Street (Viewpoint 2)

Representative Photographs of the Plan Area **Exhibit 4.5-1**



View from intersection of Judah Street and Oak Street looking northeast along Oak Street (Viewpoint 3)



View from intersection of Taylor Street and Oak Street looking northeast along Oak Street (Viewpoint 4)

Representative Photographs of the Plan Area **Exhibit 4.5-2**



View from intersection of Vernon Street and Taylor Street looking southwest along Vernon Street (Viewpoint 5)



View from the intersection of Vernon Street and Taylor Street looking east across Vernon Street (Viewpoint 6)

Representative Photographs of the Plan Area **Exhibit 4.5-3**

Views from Douglas Boulevard (Viewpoint 7)

This viewpoint is located along the southern extent of the Plan area. Detached buildings that provide commercial and retail businesses and spaces dominate views along Douglas Boulevard. Full grown trees line the entire stretch of Douglas Boulevard in the Plan area. Sidewalks are sporadic in this portion of Douglas Boulevard; therefore, the street right-of-way is the primary viewpoint along Douglas Boulevard. Single-family, detached residences can be seen in the middle-ground to the north of Douglas Boulevard along with a large canopy of full grown trees. Trees growing along Douglas Boulevard and in the adjacent areas block distant background views. A representative view from Douglas Boulevard is provided in Exhibit 4.5-4.



View from intersection of Douglas Boulevard and Bulen Street looking west along Douglas Boulevard (Viewpoint 7)

Representative Photographs of the Plan Area **Exhibit 4.5-4**

Existing Light and Glare Setting

The project site is developed with urban uses and structures that use nighttime lighting and create daytime glare from reflective surfaces. Nighttime lighting primarily consist of advertising and displays for commercial businesses and street lighting. The nighttime glow from the urban development obscures the night sky with stars not easily visible. However, the nighttime glow created in Downtown Roseville blends in with surrounding development, is consistent with the goals of an active urban environment, and does not standout from surrounding areas.

4.5.2 Regulatory Background

California Scenic Highway Program

The California Department of Transportation (Caltrans) manages the California Scenic Highway Program. The goal of the program is to preserve and protect scenic highway corridors from changes that would affect the aesthetic value of the land adjacent to highways. Caltrans requires developers of projects located adjacent to a

State scenic highway to consult with the agency to determine whether the project would constitute an intrusion to the scenic quality of the corridor. There are no designated scenic highways within the project vicinity and this issue will not be analyzed further in this DEIR.

CITY OF ROSEVILLE GENERAL PLAN

The following City of Roseville General Plan policies are relevant to the project's aesthetic resources:

Community Form Goal 5: Design new development to be integrated, connected and related to existing development areas within the City.

Community Form Goal 6: Roseville will strive to be a balanced community with a reasonable mix of land uses, housing types and job opportunities.

- **Community Form (General) Policy 1:** Ensure high quality development in new and existing development areas as defined through specific plans, the development review process and community design guidelines.
- **Community Form (General) Policy 4:** Promote a diversity of residential living options (e.g., density ranges, housing types, affordability ranges) while ensuring community compatibility and well-designed residential development.
- **Community Form (General) Policy 5:** Promote land use patterns that result in the efficient use of urban lands and preservation of open space as specified in the Open Space and Conservation Element.
- **Community Form (Relationship to Transit, Pedestrian, Air Quality [RTPAQ]) Policy 1:** Promote land use patterns that support a variety of transportation modes and accommodate pedestrian mobility.
- **Community Form (RTPAQ) Policy 2:** Allow for land use patterns and mixed use development that integrate residential and nonresidential land uses, such that residents may easily walk or bike to shopping, services, employment and leisure activities.
- **Community Form (RTPAQ) Policy 3:** Concentrate higher intensity uses and appropriate support uses within close proximity of transit and bikeway corridors as identified in the Bicycle Master Plan. In addition, some component of public use such as parks, plazas, public buildings, community centers and/or libraries should be located within the corridors.
- **Community Form (RTPAQ) Policy 5:** Where feasible, improve existing development areas to create better pedestrian and transit accessibility.
- **Community Form (Downtown, Neighborhoods) Policy 1:** Create and maintain a strong identifiable downtown that offers the surrounding community a cluster of municipal offices and services, commercial, office and higher density residential uses.
- **Community Form (Downtown, Neighborhoods) Policy 4:** Support the redevelopment and revitalization of areas that are in decline or economically underutilized.
- **Community Form (Downtown, Neighborhoods) Policy 5:** Encourage infill development and rehabilitation that:
  - upgrades the quality and enhances the character of existing areas;
  - enhances public transit use and pedestrian access;

- efficiently utilizes and does not overburden existing services and infrastructure; and
- results in land use patterns and densities that provide the opportunity for the construction of household types affordable to all income groups.

Community Design Goal 1: Achieve a consistent level of high quality aesthetic and functional design through the development of, and adherence to, superior design concepts and principles as defined in the Community-wide Design Guidelines.

Community Design Goal 2: Encourage, promote and support the maintenance and expansion of a wide range of programs that serve to increase public understanding, appreciation and enjoyment of cultural and artistic forms, and the display of artistic expression in public spaces to contribute to the cultural experience and the sense of place and community.

Community Design Goal 3: Encourage the planning and building of a city which sensitively integrates open space and natural resources, and promotes compatibility within and between the natural and the urban environments.

Community Design Goal 4: Emphasize the preservation and enhancement of historically and culturally significant buildings, native oak trees, woodlands and other significant features, as a primary element in defining Roseville's community character.

- **Community Design Policy 1:** Through the design review process, apply design standards that promote the use of high quality building materials, architectural and site designs, landscaping signage, and amenities.
- **Community Design Policy 6:** Through the design review process, encourage site and building designs that are in scale and compatible with adjacent development with respect to height, bulk, form mass, and community character.
- **Community Design Policy 8:** Encourage and promote the preservation of historic and/or unique, culturally and architecturally significant buildings, features and visual environments.

CITY OF ROSEVILLE DESIGN REVIEW

The City of Roseville requires all development projects to be reviewed to determine their consistency with City community design guidelines. The primary body responsible for design review is the Design Committee. The Design Committee reviews Design Review Permit applications for multiple-residential, commercial, and industrial land use projects and reviews site plans, architecture, and landscaping for conformance with the City General Plan, specific plans, and community design guidelines.

5.10.3 ENVIRONMENTAL IMPACTS

METHOD OF ANALYSIS

This visual impact analysis evaluates the visual changes that would occur at the project site using the standards of quality, consistency, and symmetry typically used for a visual assessment. The visual impacts were compared against the thresholds of significance discussed below. The visual impacts of the proposed project were evaluated assuming full project buildout. This approach was followed because certain impacts, such as light and glare, would be greatest at full buildout.

THRESHOLDS OF SIGNIFICANCE

The proposed project would cause a significant impact related to aesthetic resources, as defined by the State CEQA Guidelines (Appendix G), if it 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; or
- create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

IMPACTS ANALYSIS

IMPACT 4.5-1 **Aesthetics – Impacts on Scenic Vistas.** *Views on or near the project site include the UPRR yard and surrounding residential neighborhoods. There is not any prominent scenery (e.g., mountain range) viewable form the Plan area and there are no scenic highways within the Plan area. Urban redevelopment projects envisioned as part of the Plan would not block views of any scenic vista from on-site of off-site locations. Therefore, this impact would be* ***less than significant.***

A scenic vista is generally considered a view of an area that has remarkable scenery or a resource that is indigenous to the area. Because of flat topography in the Roseville area, distant views are hampered or blocked by forms (e.g., buildings, trees) located in the foreground and mid-ground. The prominent scenic vistas in the Roseville area encompass the Sierra foothills and very distant Sierra Nevada. These two vista resources are not generally visible from the Plan area because of existing development (e.g., buildings, trees) in and around Downtown Roseville. Existing development tends to obscure or completely block views beyond the foreground or mid-ground into the background. Buildings and full-grown trees currently dominate the Downtown Roseville area and would continue to dominate with implementation of the proposed project. Implementation of the Plan would not reduce or eliminate views of any scenic resources from on-site or off-site locations because future development would be similar in nature to existing development in the Plan area. Therefore, this impact is considered **less than significant**.

IMPACT 4.5-2 **Aesthetics – Degradation of Visual Character.** *Implementation of the project would not substantially alter the existing visual character of the Plan area through redevelopment projects. The Plan area is currently developed primarily with urban land uses and would continue to be developed with urban land uses with implementation of the Plan. The existing open space and natural character of Dry Creek and Royer/Saugstad Park would not change also. Therefore, the project would not degrade the existing visual character in Downtown Roseville. This would be a* ***less-than-significant*** *impact.*

The Plan area consists primarily of urban development in the Downtown Roseville area except for Dry Creek and Royer/Saugstad Park which encompass a recreational, open space, and natural character. The Plan would allow for new development projects to occur in the Plan area, however all new development projects would occur at currently developed sites with existing urban land uses and would be consistent with design criteria specified in the Downtown Roseville Specific Plan. The most noticeable changes to visual characterizations from implementation of the Plan would occur at sites currently absent of any buildings or structures. For example, the parking area adjacent to Oak Street between Grant and Lincoln Streets has the potential to change from a site devoid of any structures to a mixed-use, multi-story building overlooking Dry Creek. Although the visual character would change noticeably at that specific site, the overall urban character in the Plan area would not be degraded. In addition, the City of Roseville has a design review process in place that would require all new development projects in the Plan area to be reviewed for its meeting, or not meeting, design guidelines established

by the Plan. Because the Plan envisions development of urban land uses similar in nature to existing urban development in the Plan area and design review would be required of all new development projects, this impact is considered less than significant.

IMPACT 4.5-3 **Aesthetics – Impacts from Lighting and Reflective Surfaces.** *The Plan area is currently developed with urban land uses that use nighttime lighting and incorporate architectural elements that include reflective surfaces. Redevelopment projects that would occur under the Specific Plan could construct additional facilities with reflective surfaces and nighttime lighting. The potential increase of reflective surfaces and nighttime lighting constructed would not substantially affect day and night views in the Plan area. In addition, the Specific Plan identifies development of a night-lighted golf course that would place high intensity lighting near or adjacent to residents. Although nighttime lighting is currently used at a baseball park at this location that emits nighttime lighting, the proposed golf course would add substantially new high intensity lighting to this portion of Roseville that could affect nearby residential users. This impact is considered* ***potentially significant.***

The Plan area is developed with urban uses and buildings that use nighttime lighting and create daytime glare from reflective surfaces (e.g., windows). Existing nighttime lighting primarily consist of advertising and displays for commercial businesses and street lighting. The nighttime glow from the existing urban development obscures the night sky effectively obscuring views of stars and other features of the night sky.

Redevelopment projects envisioned as part of the Specific Plan would involve development of urban land uses similar in nature to existing urban land uses in Downtown Roseville. Similarly, future urban land uses would incorporate nighttime displays (e.g., signs) and lighting to promote their business or provide safety for visitors and residents in accordance with development standards established in the Specific Plan. These new nighttime light sources would also be similar in nature to existing light sources in Downtown Roseville and would create similar nighttime glow. Although the Specific Plan envisions development of additional commercial square footage and residential units which would result in additional nighttime light sources, the current nighttime glow created in Downtown Roseville blends in with surrounding development and additional nighttime light sources would not standout from surrounding areas.

The Specific Plan also envisions improvements to recreational facilities at Royer/Saugstad Park including development of a pitch-and-putt golf course that would be lighted at night. Although the specific type of lighting that would be used at the golf course is unknown, it is anticipated that nighttime lighting would consist of high-powered floodlights mounted on poles approximately 25 to 30 feet high. These lights are anticipated to create a similar amount of nighttime light and glare as existing lights used to light a baseball field in Royer/Saugstad Park (see Exhibit 4.5-5). Although the golf course would require a substantial amount of light that would be placed in an area that currently experiences nighttime lighting (i.e., Royer/Saugstad Park) and would be located near or adjacent to residences, mitigation is recommended to limit the type of nighttime lighting used at the golf course.

Redevelopment projects in the Plan area would also incorporate windows as an architectural feature of buildings and would have the most potential to create daytime glare. The types of glass and other materials with reflective surfaces used in future redevelopment projects would be similar in nature to existing development in the Plan area. Although the Specific Plan envisions development of additional commercial square footage and residential units which would result in additional sources of glare, increased glare would not change daytime views in the Plan area. Because the increase of daytime glare would not adversely affect existing daytime views in the Plan area, this impact is considered less than significant.



View of Saugstad Park looking south from parking lot adjacent to Douglas Boulevard



View of adjacent house from Saugstad Park looking east

Nighttime Photographs at Saugstad Park **Exhibit 4.5-5**

4.5.4 MITIGATION MEASURES

No mitigation measures are necessary for the following less-than-significant impact:

4.5-1: Aesthetics – Impacts on Scenic Vistas

4.5-2: Aesthetics – Degradation of Visual Character

The following mitigation measures are provided for significant impacts.

Mitigation Measure 4.5-3: Aesthetics – Impacts from Lighting.

Operation of the golf course at nighttime would require the use of high-powered floodlights mounted on poles approximately 25 to 30 feet high that would be placed near or adjacent to existing residences. Prior to installation of nighttime lighting at the golf course, the City shall coordinate with a company specializing in or expertise with exterior lighting systems for golf courses (e.g., Abacus). Floodlighting used shall consist of a double asymmetric beam distribution that ensures minimum upward light and tight control of light overspill into adjacent areas. The golf course shall be designed to incorporate a line of trees located along the outermost boundary between the golf course and all adjacent residences.

This measure would retain existing nighttime lighting and glare impacts after construction of the golf course at a less-than-significant level.

4.5.5 RESIDUAL SIGNIFICANT IMPACTS

With implementation of the mitigation measure described above, all impacts related to aesthetics would be reduced to less than significant.

4.6 TRANSPORTATION AND CIRCULATION

This section provides a description of existing transportation conditions in the Plan area and its vicinity. Included are descriptions of the existing roadway network and transportation facilities as well as current circulation elements including automobiles, pedestrians, bicycles, transit, and parking conditions. Traffic operations at study intersections in and near the Plan area are analyzed. This section also discusses the transportation impacts of the proposed project and recommends mitigation measures to address significant and potentially significant impacts.

The Plan area, other areas within Roseville, and cities and communities throughout Placer and Sacramento Counties are expected to experience significant growth over the next 20 years. As development occurs, traffic volumes are expected to increase on local and regional roadways and freeways. To accommodate the growth in traffic, transportation system improvements will be provided through local and regional funding/fee programs, individual project mitigation, improvements funded by Caltrans, and other sources.

Although there is a reasonable expectation that future roadway system improvements would be provided as planned, many of these improvements rely on fees generated by development that would affect the roadways. While much of this expected development will likely occur in one form or another, it is impossible to predict with certainty which specific projects will proceed. Furthermore, given market conditions and environmental constraints, the timing of future projects is also uncertain. Consequently, this traffic analysis evaluates impacts of the proposed project under two primary scenarios:

- Existing conditions scenario: Existing conditions including the existing roadway system with existing traffic volumes; and

- 2020 scenario: An improved roadway system and increased traffic volumes based on projected regional growth, regional traffic plans, and known transportation system improvement commitments. This condition is evaluated for the year 2020.

These two conditions represent the reasonably foreseeable range of possible roadway scenarios that could be in place as the Plan area develops over time. The specific intersections included in the study area (i.e., in the Plan area or nearby) are listed in Section 4.6.2, "Existing Conditions," and in the analysis methodology portion of Section 4.6.3, "Environmental Impacts." The level of service (LOS) worksheets for all the signalized intersections are included in Appendix B of this DEIR.

4.6.1 EXISTING CONDITIONS

Roseville is located approximately 20 miles northwest of Sacramento and 12 miles north of Folsom. The Plan area is located in Roseville, California, north of Interstate 80 (I-80) and is split into two major districts including the Historic District and the Vernon Street District. The general boundaries of each are described below:

- **Historic District** – This district is bound by the Union Pacific Railroad (UPRR) tracks to the south and east, the Placer County Fairgrounds to the north, and just west of Washington Boulevard to the west.

- **Vernon Street District** – This district is bound by the eastern edge of Royer and Saugstad Parks to the east, Douglas Boulevard to the south, and the UPRR tracks to the north and west.

EXISTING ROADWAY SYSTEM

Regional access to the study area is provided by I-80 and State Route 65 (SR-65) via interchanges with Eureka Road/Atlantic Street, Douglas Boulevard, Riverside Avenue, Galleria Boulevard, and Pleasant Grove Boulevard. Sub-regional access is provided by Vernon Street, Washington Boulevard, and Main Street/Baseline Road. These roadways are described in detail below:

I-80

I-80 is an east-west interstate highway and major freight shipment route; I-80 is the only interstate highway in California that crosses the Sierra Nevada. Through Roseville, I-80 is generally a six- to eight-lane freeway with auxiliary lanes between major interchanges. West of Roseville, high-occupancy vehicle (HOV) lanes are provided to the I-80/Business 80 junction in Sacramento.

SR-65

SR-65 is a north-south facility that begins at I-80 and extends north through the cities of Rocklin, Lincoln, and Wheatland and terminates at SR-70 near the City of Marysville. In Roseville, SR-65 is a four-lane freeway with interchanges at Galleria Boulevard, Pleasant Grove Boulevard, and Blue Oaks Boulevard.

Eureka Road/Atlantic Street

Eureka Road, east of I-80, is generally a six-lane arterial roadway that provides access to major employment and retail destinations within the City. West of I-80 Eureka Road changes names to Atlantic Street. Atlantic Street is a four-lane road that provides access to Downtown Roseville.

Riverside Avenue

Riverside Avenue is a north-south, two- to four-lane arterial roadway beginning at I-80 that extends north to its terminus at the Vernon Street/Douglas Boulevard intersection. North of Darling Way, parallel parking is provided on both sides of the roadway.

Galleria Boulevard

Galleria Boulevard is a north–south, four- to six-lane arterial roadway beginning at SR-65 and extending south to Eureka Road. North of SR-65 Galleria Boulevard changes name to Stanford Ranch Road and South of Eureka Road changes name to Harding Boulevard. Galleria Boulevard provides primary access to major activity centers within Roseville such as the Roseville Galleria Mall and other retail centers near SR-65.

Pleasant Grove Boulevard

Pleasant Grove Boulevard is an east-west, four- to six-lane arterial roadway beginning east of SR-65 (at the Rocklin-Roseville City limit) and extending west past Fiddyment Road. Pleasant Grove Boulevard provides access to retail and housing developments in West Roseville.

Vernon Street

Vernon Street is a two- to four-lane arterial roadway that parallels the UPRR in a southwest to northeast direction. Vernon Street begins just east of the Plan area and extends west past Douglas Boulevard, Riverside Avenue, and Cirby Way and ends at Whyte Avenue in Citrus Heights. Vernon Street, through the Plan area, provides access to retail and office development including access to the Civic Center. In the downtown core, angled parking is provided on both sides of the roadway.

Washington Boulevard

Washington Boulevard is a north–south, two- to four-lane arterial roadway beginning at the SR-65/Blue Oaks Boulevard southbound ramps and extends south to its terminus at Oak Street in Downtown Roseville. North of the Plan area, Washington Boulevard primarily serves industrial and retail land uses. In the Plan area, Washington Boulevard provides access to local residential and retail land uses.

Main Street/Baseline Road

Main Street/Baseline Road is primarily a two-lane collector roadway within the study area. Main Street begins at Lincoln Street within the Historic District and extends west to Foothills Boulevard. West of Foothills Boulevard, Main Street changes name to Baseline Road and continues west into Sutter County. Between Foothills Boulevard and Fiddyment Road, Main Street is a four-lane arterial roadway. Within the Plan area, Main Street/Baseline Road provides access to retail and residential land uses.

Truck Routes

Approved truck routes accommodate significant volumes of large trucks that serve regional and interregional freight movement. While the arterial street system within the Plan area is used by trucks for the delivery of goods and services, there are no designated truck routes in the study area.

Existing Transit System

Amtrak operates heavy rail passenger transit service in the area from its station on Church Street. The train station operates from 6:45 a.m. to 5:00 p.m., Monday through Saturday.

Dial-a-Ride service provides curb-to-curb service in the Plan area. Dial-a-Ride operates Monday through Friday, from 6:00 a.m. to 8:00 p.m., and Saturday and Sunday from 8:00 a.m. to 6:00 p.m.

Roseville Transit operates seven bus lines in the Plan area and operates Monday through Saturday. Most of the routes connect to both the Amtrak station and the Civic Center Transfer Point located on Vernon Street. These routes are shown in Exhibit 4.6-1 and described in detail below.

Route A

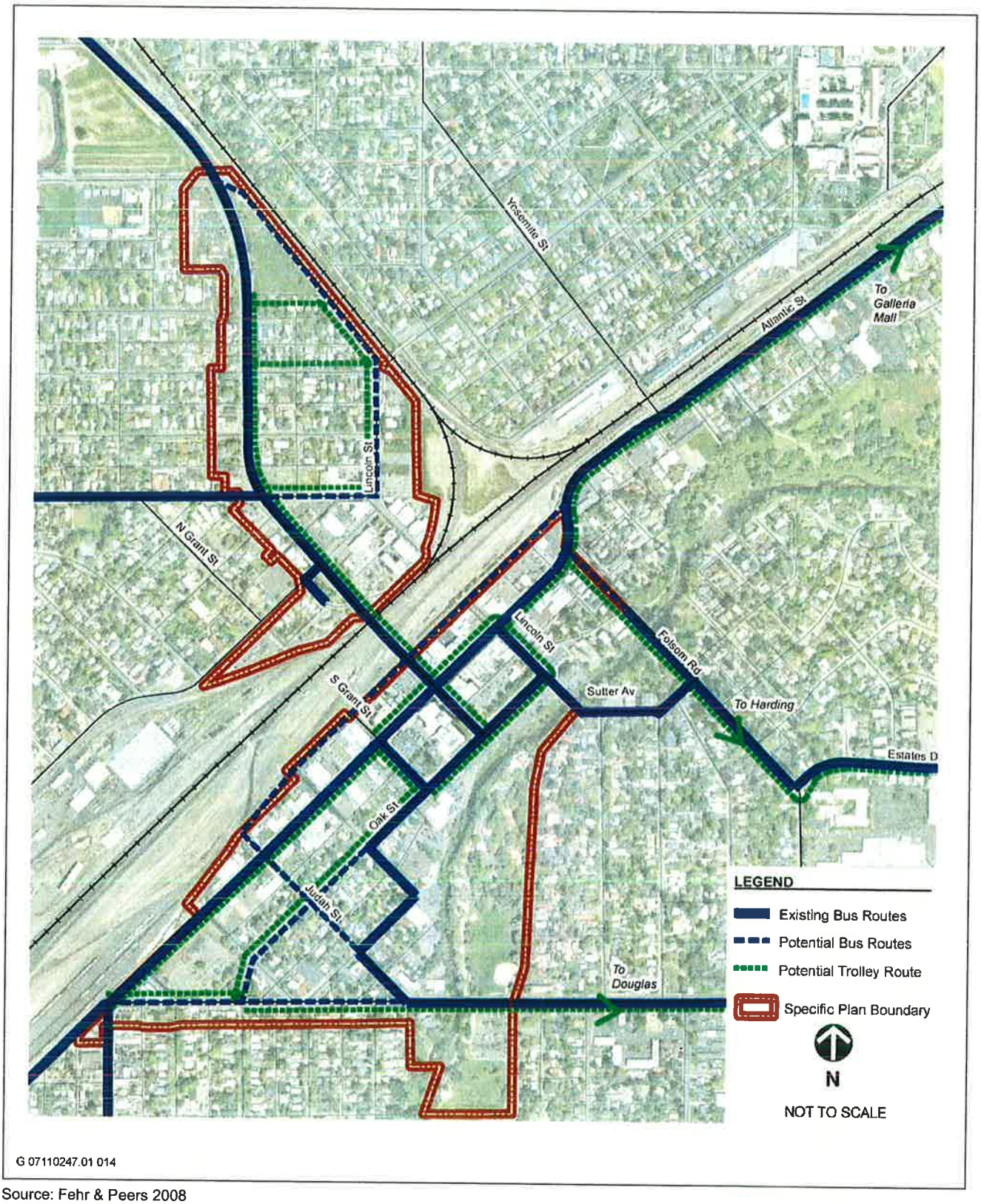
Route A runs northbound on Riverside Avenue and is part of a loop route that connects key points throughout Roseville including the Louis/Orlando Transfer Point, Civic Center, Galleria Transfer Point, Sutter Roseville Medical Center, Sierra Gardens Transfer Point, and the Kaiser Medical Center on Riverside Avenue. Route A is accessible to the Amtrak Station near the Civic Center and operates Monday (from about 6 a.m. to 8 p.m.) through Saturday (from about 8 a.m. to 6 p.m.) on approximately one-hour headways. Bus stops are located at the Tower Theater near Vernon Street/Douglas Boulevard, along Bonita Street, and Darling Way, at Roller King on Riverside Avenue, and along Cirby Way.

Route B

Route B runs southbound on Riverside Avenue and in the opposite direction of the Route A loop and serves the same key destinations and transfer points. Route B operates on about the same schedule and headways as Route A and Route B stops are generally paired with Route A stops.

Route D

Route D connects the Civic Center Transfer Point to Woodcreek High School by way of Washington Boulevard, Main Street, Junction Boulevard, Foothills Boulevard, McAnally Drive, and Woodcreek Oaks Boulevard. Route D operates Monday through Friday between 6:00 a.m. and 7:30 p.m. and on Saturday from 8:00 a.m. to 6:00 p.m. The route operates on one-hour headways throughout the day.



Source: Fehr & Peers 2008

Existing and Proposed Transit Routes **Exhibit 4.6-1**

Route H

Route H begins at the Civic Center Transfer Point and extends north, along Washington Boulevard, to Roseville Parkway. It then loops back to Washington Boulevard via Pleasant Grove Boulevard and returns to the Civic Center Transfer Point. Route H operates Monday through Friday, between 6:00 a.m. and 7:30 p.m. The route operates on Saturday, from 8:00 a.m. to 6:00 p.m. The route operates on one-hour headways throughout the day.

Route I

Route I runs in the opposite direction of the Route D loop and serves the same key destinations and transfer points. Route B operates on the same schedule and headways as Route D.

Route J

Route J connects the Louis/Orlando Transfer Point, Sierra Gardens Transfer Point, and the Civic Center Transfer Point via Riverside Avenue, Cirby Way, Sunrise Avenue, Douglas Boulevard, Judah Street, Vernon Street, Oak Street, and Royer Street. Route J operates Monday through Friday between 6:00 a.m. and 7:30 p.m. and operates on Saturday, from 8:00 a.m. to 6:00 p.m. The route operates on one-hour headways throughout the day.

Route L

Route L connects the Sierra Gardens Transfer Point and the Civic Center Transfer Point via Eureka Road, Douglas Boulevard, Sunrise Avenue, Lead Hill Road, Harding Boulevard, Estates Drive, Folsom Drive, Sutter Street, and Vernon Street. Route L operates Monday through Friday between 6:00 a.m. and 7:30 p.m. and operates on Saturday from 8:00 a.m. to 6:00 p.m. The route operates on one-hour headways throughout the day.

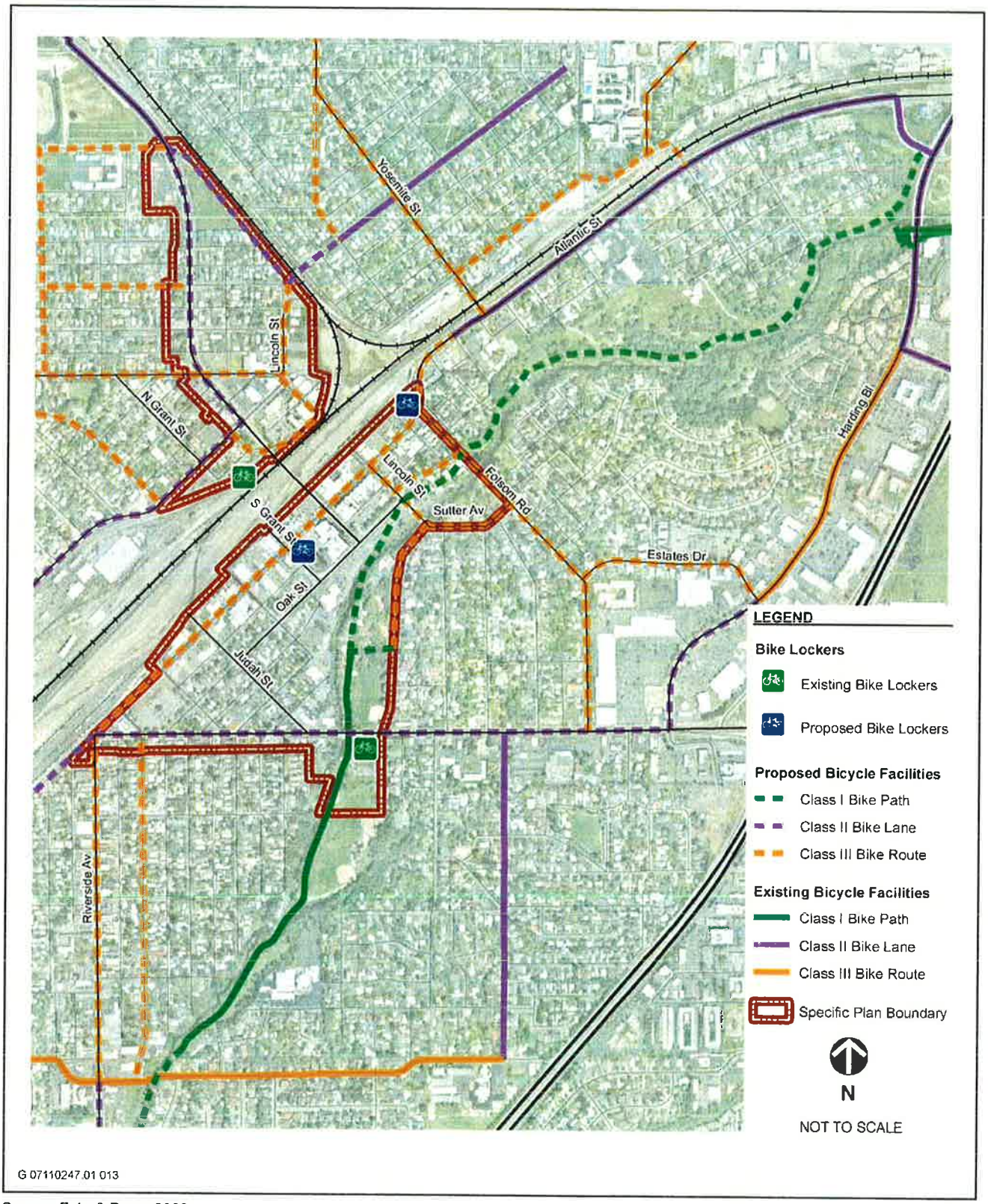
EXISTING BICYCLE AND PEDESTRIAN NETWORK

Bicycle System

The City's bikeway system consists of on- and off-street facilities that interconnect to form a comprehensive citywide network of bikeways. Bicycle facilities in the City of Roseville include:

- **Class I Off-Street Paths**—paved multiuse paths, a minimum of 10 feet wide, within their own alignment, separated from streets.
- **Class II On-Street Bike Lanes**—separate striped and marked lanes on streets. Class II bike lanes are typically 5–6 feet wide.
- **Class III On-Street Routes**—streets designated and signed as bicycle routes, but without separate bicycle facilities. Class III bike routes share travel lanes with other vehicles and are usually located on low-volume and low-speed collector/local streets. Roadway conditions may necessitate relatively wide travel lanes for the comfort and safety of bicyclists.

In the study area, Class I facilities are provided along Saugstad and Royer Parks. Class II facilities are provided on Atlantic Street, east of Vernon Street, and on Sierra Street, east of the Crooked Bridge. Washington Boulevard also has Class II bike lanes north of Lincoln Avenue. Class III bike routes are designated on Church Street, Lincoln Avenue (west of the Crooked Bridge), and Oak Street. Bicyclists are required to walk their bicycles on the pedestrian path through the Washington Boulevard UPRR under-crossing. Exhibit 4.6-2 identifies each of these existing bicycle facilities in the Plan area.



Source: Fehr & Peers 2008

Existing and Proposed Bicycle Facilities **Exhibit 4.6-2**

Pedestrian System

The pedestrian system within the Plan area consists primarily of sidewalks and crosswalks. Sidewalks are provided along most streets within the study area, while crosswalks are provided at most major intersections. Sidewalk widths are consistent with current city requirements. In addition, the pedestrian network has sufficient connectivity to provide pedestrian circulation throughout the entire Plan area.

Sidewalks are not currently provided at two locations where field observations identified appreciable pedestrian activities. Sidewalks are not provided between Atlantic Street and the UPRR in the Vernon Street District and between Lincoln Street and the UPRR in the Historic Old Town District.

EXISTING ROADWAY SYSTEM OPERATIONS

Traffic operations are typically described by transportation professionals in terms of "level of service" (LOS), which measures the quality of the overall operating characteristics of a street or highway. Factors involved in determining LOS include speed and safety, travel time, traffic conflicts and interruptions, freedom to maneuver, and driving convenience and comfort. Traffic conditions are typically evaluated during the peak-hour to determine LOS. LOS scores range from LOS A (no congestion on the system) to LOS F (high levels of congestion on the system). LOS E represents "at capacity" operations.

Intersection Operations

Study Locations

The following 12 intersections were evaluated as part of this assessment:

- Vernon Street/Judah Street
- Oak Street/Judah Street
- Vernon Street/Riverside Avenue
- Vernon Street/Taylor Street
- Oak Street/Taylor Street
- Vernon Street/Grant Street
- Oak Street/Grant Street
- Oak Street/Washington Boulevard
- Vernon Street/Lincoln Street
- Oak Street/Lincoln Street
- Main Street/Washington Boulevard
- Junction Boulevard/Washington Boulevard

Signalized Intersection Level of Service Methodology

For existing and existing plus project conditions, the study intersections were evaluated using the Highway Capacity Manual (HCM) (Transportation Research Board 2000) methodologies. Specifically, the Synchro/ SimTraffic LOS analysis software was used to develop LOS at the study intersections using delay based thresholds. For cumulative conditions, the City defines the LOS for signalized intersections according to the volume-to-capacity ratio (V/C) using methodologies described in Circular 212 (Transportation Research Board 1985). Using Circular 212 methodologies, LOS is assigned based on the capacity of the intersection as a whole and corresponds to the ratio of the total traffic volume at the facility to the maximum capacity of volume allowable at that facility. These thresholds are summarized in Table 4.6-1.

Table 4.6-1
Level of Service Definitions for Signalized Intersections

Level of Service	Delay[1]	V/C Ratio[2]	Description
A	≤ 10	0.00–0.59	Free Flow/Insignificant Delays: No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication.
B	10–20	0.60–0.69	Stable Operation/Minimal Delays: An occasional approach phase is fully utilized. Many drivers begin to feel somewhat restricted within platoons of vehicles.
C	20–35	0.70–0.81	Stable Operation/Acceptable Delays: Major approach phases fully utilized. Most drivers feel somewhat restricted.
D	35–55	0.82–0.89	Approaching Unstable/Tolerable Delays: Drivers may have to wait through more than one red signal indication. Queues may develop but dissipate rapidly without excessive delays.
E	55–80	0.90–0.99	Unstable Operation/Significant Delays: Volumes at or near capacity. Vehicles may wait through several signal cycles. Long queues form upstream from intersection.
F	> 80	1.00+	Forced Flow/Excessive Delays: Represents jammed conditions. Intersection operates below capacity with low volumes. Queues may block upstream intersections.

Source: Transportation Research Board 1985 *Circular 212*, quoted in City of Roseville 2020 General Plan Circulation Element and the Transportation Research Board 2000 *Highway Capacity Manual.*

[1] Average delay at the intersection reported in seconds per vehicle.

[2] The ratio of the traffic volume demand at an intersection to the capacity of the intersection.

Unsignalized Intersection Level of Service Methodology

Unsignalized study intersections were analyzed using HCM 2000 methodologies. Table 4.6-2 summarizes the relationship between the average total delay per vehicle and LOS. Delays are calculated for the movements that operate under traffic control (i.e., the minor-street approach). Total delay is the total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line and includes the time required for the vehicle to travel from the last-in-queue position to the first-in-queue position. The average total delay for any particular minor movement is a function of the service rate or capacity of the approach. The LOS criteria for unsignalized intersections are different from the criteria for signalized intersections because drivers expect different levels of performance at different transportation facilities.

Table 4.6-2
Level of Service Definitions for Unsignalized Intersections

Level of Service	Average Total Delay per Vehicle (sec/veh)
A	≤ 10 sec/veh
B	10–15 sec/veh
C	15–25 sec/veh
D	25–35 sec/veh
E	35–50 sec/veh
F	> 50 sec/veh

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

Existing Traffic Volumes

Intersection Volumes

Existing intersection turning movement counts used for this assessment were obtained from the Final Grant Street Closure Study (City of Roseville 2007). These counts were supplemented with two additional intersection counts, obtained from the City of Roseville, at the Washington Boulevard/Main Street and Washington Boulevard/Junction Boulevard intersections because these intersections were not included in the Grant Street Closure Study.

Existing No Project Conditions

Signalized Intersection Operations

Peak hour traffic volumes, existing lane configurations, traffic control devices (see Exhibits 4.6-3a and 4.6-3b), and signal timing information were incorporated into the LOS assessment to evaluate existing conditions. The results of the assessment are summarized in Table 4.6-3.

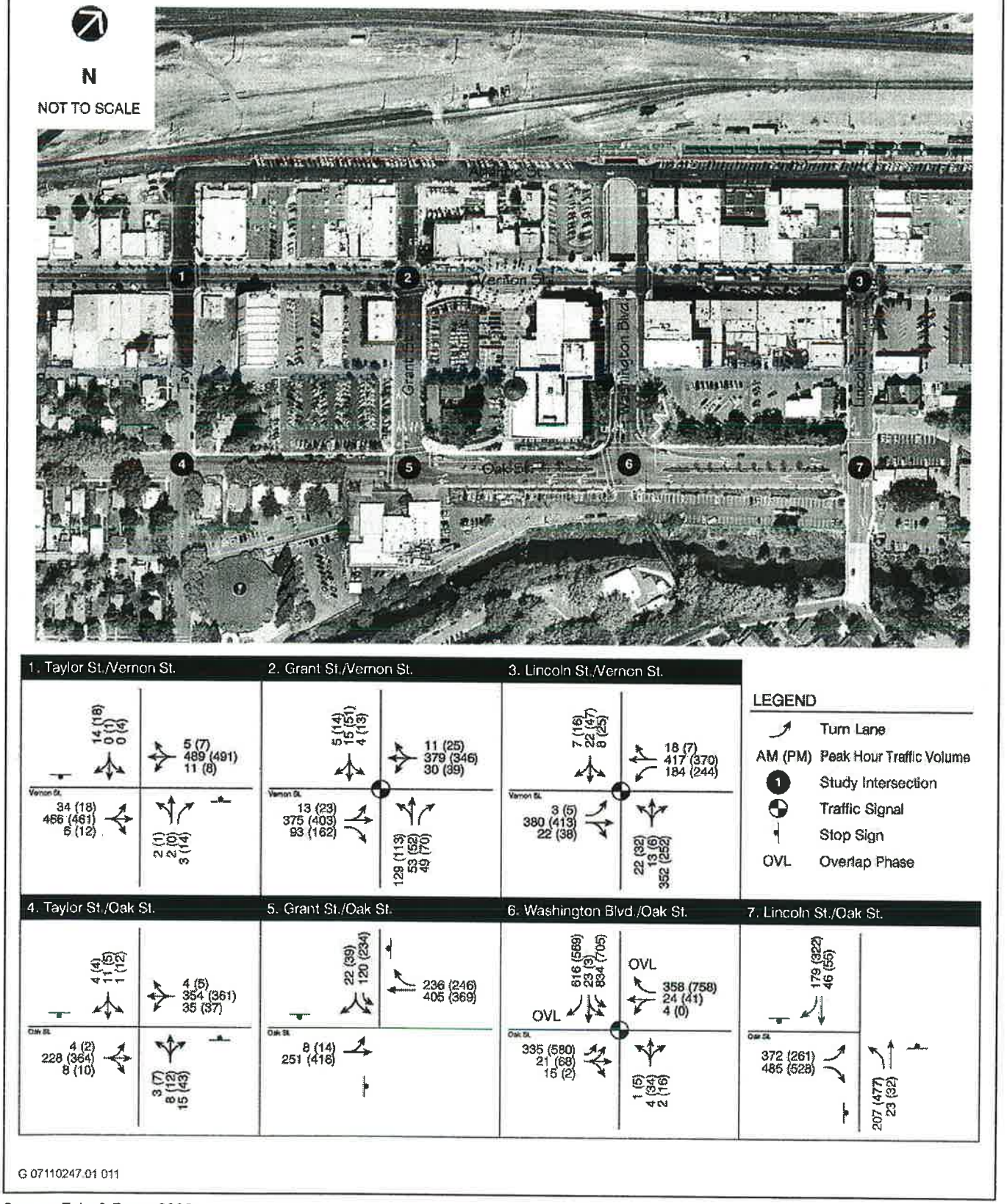
Table 4.6-3
Existing No-Project Conditions - Signalized Intersection Levels of Service

Intersection	Control	a.m. Peak Hour		p.m. Peak Hour	
		Delay	LOS	Delay	LOS
Vernon Street / Grant Street	Signal	8	A	12	B
Vernon Street / Lincoln Street	Signal	13	B	18	B
Oak Street / Washington Blvd.	Signal	19	B	22	C
Vernon Street / Riverside Avenue	Signal	***55***	***D***	***51***	***D***
Vernon Street / Judah Street	Signal	7	A	8	A
Main Street / Washington Blvd.	Signal	***44***	***D***	***101***	***F***
Junction Blvd. / Washington Blvd.	Signal	16	B	26	C

Source: Fehr & Peers 2008
Note: LOS = level of service; Delay = sec/veh
Bold & Italicized = unacceptable LOS
[1] Analysis based on 2000 Highway Capacity Manual using the Synchro/SimTraffic LOS software.
[2] For signalized and all way stop controlled intersections, delay and Level of service are reported for the intersection as a whole. For side street stop controlled intersections, delay and LOS are reported for the worst case movement.

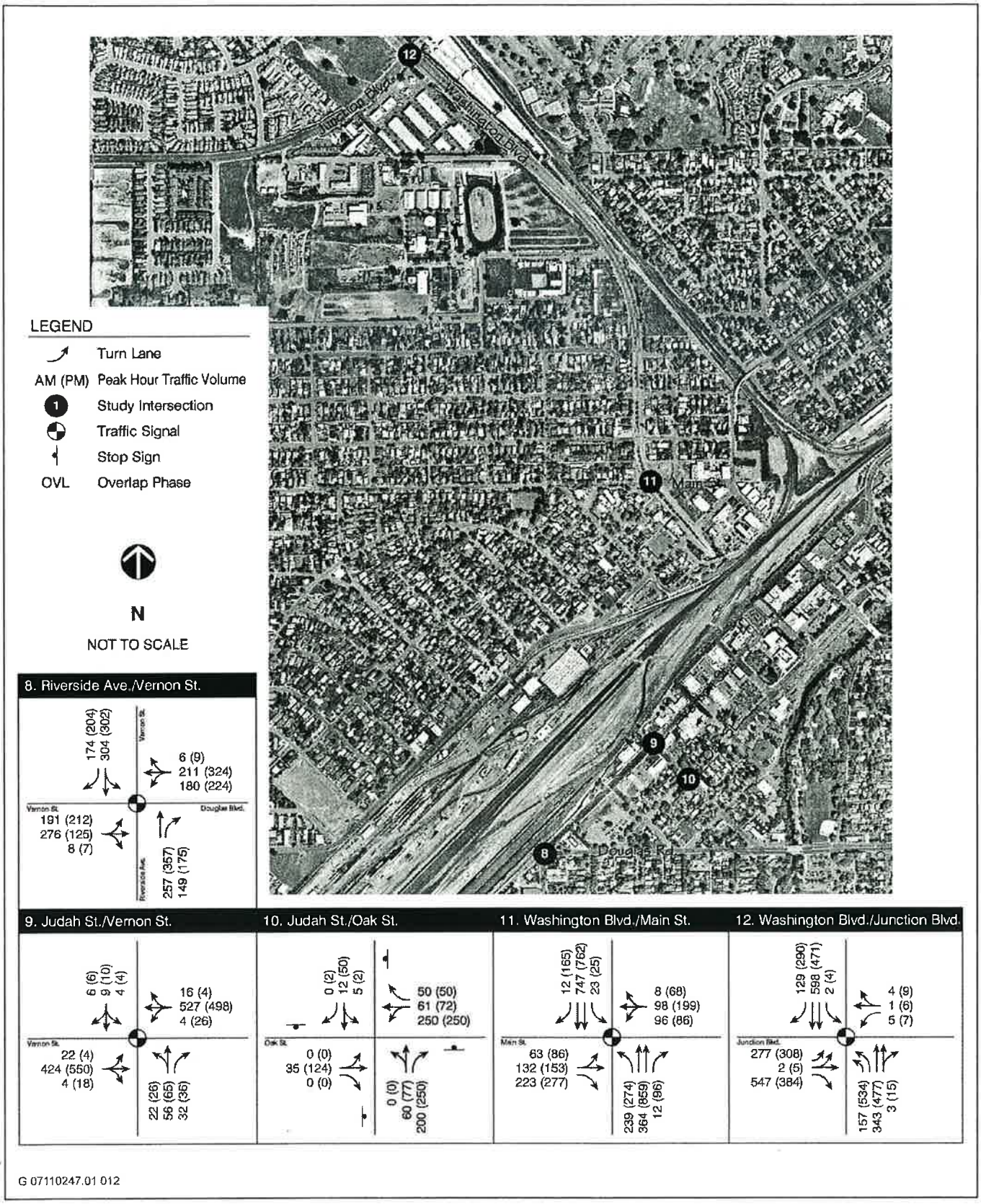
As identified in the City of Roseville's General Plan, Level of Service Policy 1 (see Section 4.6.2, 'Regulatory Setting') requires 70% of the City's signalized intersections to operate at LOS A, B, or C. Therefore, for descriptive purposes, LOS C is considered the minimum acceptable operating level for signalized intersections. Signalized intersections in the study area operating below LOS C include:

- Oak Street/Lincoln Street – LOS D during the p.m. peak hour,
- Vernon Street/Riverside Avenue – LOS D during the a.m. and p.m. peak hours, and
- Main Street/Washington Boulevard – LOS D during the a.m. peak hours and LOS F during the p.m. peak hours.



Source: Fehr & Peers 2008

Existing No-Project Traffic Volumes and Lane Configurations **Exhibit 4.6-3a**



Source: Fehr & Peers 2008

Existing No-Project Traffic Volumes and Lane Configurations **Exhibit 4.6-3b**

Unsignalized Intersection Operations

The City does not have a specific LOS policy for unsignalized intersection operations. It is not uncommon for individual side-street movements at unsignalized intersections (stop-controlled on side streets) along arterial roadways to experience delays that translate to worse than LOS C; however, the overall LOS of the intersection typically would operate at LOS C or better. If the overall intersection LOS is identified as operating at worse than LOS C, the City would evaluate appropriate improvements, such as additional turn lanes and/or signalization. It should be noted that traffic signals are only considered after a traffic signal warrant evaluation is conducted. Unsignalized intersections with relatively low side-street volumes do not typically meet the criteria for traffic signal installation.

EXISTING IMPROVEMENT PROGRAMS

One on-going improvement project is occurring in the study area which consists of the Historic Downtown Streetscape project. This project involves widening sidewalks and adding streetscape features within the Historic Downtown area.

Because these improvements were not completed at the time the intersection turning movement counts were collected, they were not reflected in the analysis as they are not representative of the existing setting.

EXISTING PARKING CONDITIONS

Existing Parking Supply and Demand

As part of the Specific Plan effort, extensive parking supply and occupancy surveys were conducted throughout the Plan area. The results of the parking surveys were used to assess parking adequacy within the Plan area. The parking supply and parking demand, by hour, are summarized on figures in Appendix B of this DEIR.

The entire Plan area contains 2,659 off-street parking spaces and 751 on-street parking spaces for a total of 3,410 spaces. Time restrictions are placed on 268 of the parking spaces. When the parking surveys were conducted, the parking structure in Downtown Roseville was still under construction and is not included in this description. Refer to Exhibit 4.6-4 that illustrates the location of existing and proposed public parking.

Off-Street Parking and Conditions

In general, off-street parking lots are under-utilized throughout the day. However, there are a few lots where parking demand was observed approaching or exceeding the available supply. These are summarized below:

- **Oak Street parking lot** – the public parking lot, located east of Oak Street and between Lincoln Street and Grant Street, has high utilization during the week day, during typical office hours.
- **Amtrak parking lot** – the lot adjacent to the Amtrak station experiences high utilization during the weekday.

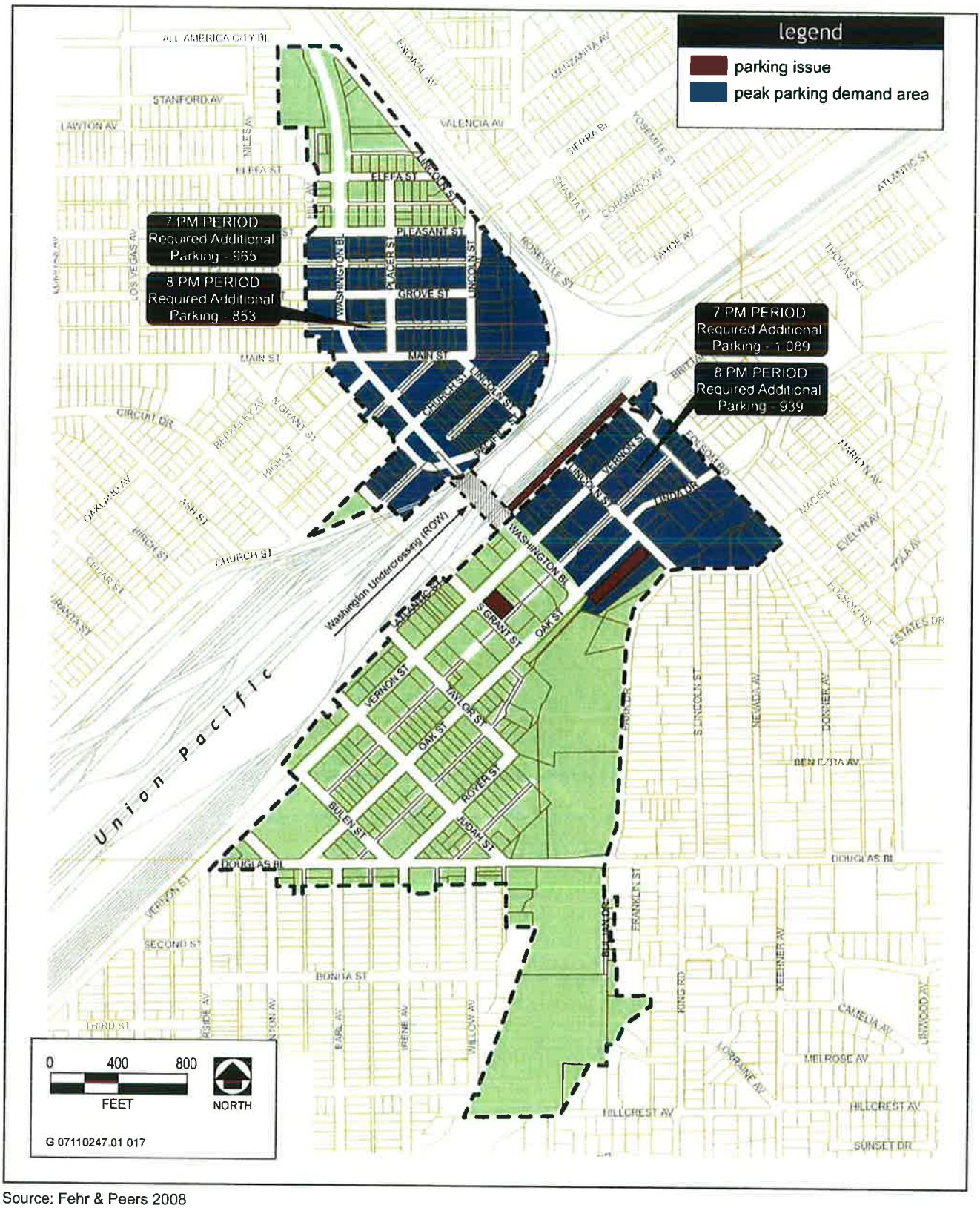
On-Street Parking and Conditions

Tables 4.6-4 and 4.6-5 summarize on-street parking utilization during the weekday and weekend study periods, respectively. Specifically, the tables summarize blocks where parking occupancy represents at least 70% of the existing supply. Also refer to Exhibit 4.6-5 that illustrates the location of parking issues in the Plan area.



Source: Fehr & Peers 2008

Existing and Proposed Parking Locations **Exhibit 4.6-4**



Source: Fehr & Peers 2008

Parking Issues

Exhibit 4.6-5

Table 4.6-4 Blocks With High Hourly Parking Space Occupancy Rates on Weekdays				
Block	**Capacity**	**70–79%**	**80–89%**	**> 90%**
Washington Blvd.				
Westside north of Pleasant Street	9		*12 p.m.–1 p.m.*	*7 a.m.–12 p.m.* *1 p.m.–9 p.m.*
Westside north of Grove Street	14	*3 p.m.–4 p.m.*	*12 p.m.–1 p.m.* *8 p.m.–9 p.m.*	
Eastside north of Main Street	23	*1 p.m.–2 p.m.*	*10 a.m.–12 p.m.* *2 p.m.–4 p.m.*	*12 p.m.–1 p.m.* *4 p.m.–5 p.m.*
Westside north of High Street	9	*7 a.m.–8 a.m.* *11 a.m.–1 p.m.* *2 p.m.–3 p.m.*		
Westside north of Church Street	27	*7 p.m.–8 p.m.*		*8 a.m.–12 p.m.*
Church Street				
Southside – N. Grant Street to Washington Blvd.	17	*7 a.m.–8 a.m.* *10 a.m.–11 a.m.*		
Southside – Circuit Drive to N. Grant Street	76		*1 p.m.–2 p.m.* *5 p.m.–6 p.m.*	*7 a.m.–1 p.m.* *2 p.m.–5 p.m.*
Lincoln Street				
Eastside north of Main Street	54	*5 p.m.–7 p.m.*		
Westside north of Pacific Street	42	*7 a.m.–8 a.m.* *5 p.m.–6 p.m.*	*8 a.m.–10 a.m.*	*10 a.m.–5 p.m.*
Eastside north of Pacific Street	31	*11 a.m.–12 p.m.* *1 p.m.–2 p.m.* *3 p.m.–5 p.m.* *6 p.m.–7 p.m.*		
Douglas Blvd.				
Southside – Willow Avenue to Barjo Alley	9	*1 p.m.–2 p.m.*	*8 a.m.–9 a.m.*	*7 a.m.–8 a.m.* *9 a.m.–1 p.m.* *2 p.m.–4 p.m.*
Southside east of Barjo Alley	103	*9 a.m.–10 a.m.*		
Vernon Street				
Northside east of Lincoln Street	131	*9 a.m.–3 p.m.*		
Northside west of Washington Blvd.	123	*3 p.m.–4 p.m.*		
Southside west of Washington Blvd.	59	*3 p.m.–5 p.m.*	*11 a.m.–12 p.m.* *1 p.m.–3 p.m.*	*10 a.m.–11 a.m.*
Oak Street				
Southside – Taylor Street to Lincoln Street	253	*9 a.m.–1 p.m.* *3 p.m.–4 p.m.*	*1 p.m.–2 p.m.*	*2 p.m.–3 p.m.*
Bulen Street				
Westside north of Douglas Blvd.	9	*8 a.m.–2 p.m.*	*7 a.m.–8 a.m.* *2 p.m.–3 p.m.*	
Source: Fehr & Peers 2008				

Table 4.6-5 Blocks With High Hourly Parking Space Occupancy Rates on Weekends				
Block	**Capacity**	**70–79%**	**80–89%**	**> 90%**
Washington Blvd.				
Westside north of Pleasant Street	6		*12 p.m.–1 p.m.* *3 p.m.–4 p.m.*	*7 a.m.–12 p.m.* *1 p.m.–3 p.m.* *4 p.m.–9 p.m.*
Westside north of Grove Street	14	*11 a.m.–12 p.m.* *1 p.m.–6 p.m.* *8 p.m.–9 p.m.*		
Westside north of Main Street	28	*5 p.m.–6 p.m.*		*6 p.m.–9 p.m.*
Westside north of High Street	9			*1 p.m.–2 p.m.*
Lincoln Street				
Westside north of Pacific Street	88	*8 a.m.–9 a.m.*	*12 p.m.–1 p.m.*	*9 a.m.–12 p.m.*
Eastside north of Pacific Street	31	*9 a.m.–10 a.m.* *12 p.m.–1 p.m.*	*1 p.m.–3 p.m.*	
Douglas Blvd.				
Southside – Irene Avenue to Willow Avenue	20	*11 a.m.–12 p.m.*		
Southside – Earl Avenue to Clinton Avenue	25	*2 p.m.–3 p.m.*		
Church Street				
Southside – N. Grant Street. to Washington Blvd.	17	*8 a.m.–9 a.m.*		
Source: Fehr & Peers 2008				

Ideally, parking demand should represent approximately 85% of the parking supply, as the 15% additional supplied spaces account for circulation and turnover within the parking facility. Areas where parking demand exceeds 90% of the available supply represents a situation where insufficient supply is provided. These areas are summarized below:

- Westside of Washington Boulevard, north of Pleasant Street – Weekdays between 7:00 a.m. and 12:00 p.m., and 1:00 p.m. and 9:00 p.m. Weekends between 7:00 a.m. and 12:00 p.m., 1:00 p.m. and 3:00 p.m., and 4:00 p.m. and 9:00 p.m.
- Eastside of Washington Boulevard, north of Main Street – Weekdays between 12:00 p.m. and 1:00 p.m., and 4:00 p.m. and 5:00 p.m.
- Westside of Washington Boulevard, north of Main Street – Weekends between 6:00 p.m. and 9:00 p.m.
- Westside of Washington Boulevard, north of Church Street – Weekdays between 8:00 a.m. and 12:00 p.m.
- Westside of Washington Boulevard, north of High Street – Weekends between 1:00 p.m. and 2:00 p.m.
- Southside of Church Street, between Circuit Drive and N. Grant Street – Weekdays between 7:00 a.m. and 1:00 p.m., and 2:00 p.m. and 5:00 p.m.
- Westside of Lincoln Street, north of Pacific Street – Weekdays between 10:00 a.m. and 5:00 p.m. Weekends between 9:00 a.m. and 12:00 p.m.

- Southside of Douglas Boulevard, between Willow Avenue and Barjo Alley – Weekdays between 7:00 a.m. and 8:00 a.m., 9:00 a.m. and 1:00 p.m., and 2:00 p.m. and 4:00 p.m.
- Southside of Vernon Street, west of Washington Boulevard – Weekdays between 10:00 a.m. and 11:00 a.m.
- Southside of Oak Street, Between Taylor Street and Lincoln Street – Weekdays between 2:00 p.m. and 3:00 p.m.

City of Roseville Parking Standards

The City's zoning code provides standards for the provision of off-street parking spaces for a variety of land uses. In general, commercial retail land uses are required to provide one space for every 300 square feet (sf) of gross building space (1:300 parking ratio). These standards are somewhat higher for restaurant and entertainment uses, (one space for every 100 sf) and for professional office use (one space for every 250 sf). Automotive sales require one parking space per every 1,000 sf of indoor and outdoor display area.

From inspection, the majority of land uses in the Plan area do not conform to current code-required off-street parking standards. The majority of buildings within the Plan area does not have any associated parking and rely on on-street parking to serve their employees and customers. There are limited shared parking facilities except for the City-owned parking facilities near City Hall.

Conclusions

Overall, there is sufficient parking supply to meet existing demands. However, some blocks approach capacity on weekdays or on weekends as identified in Tables 4.6-4 and 4.6-5.

4.6.2 REGULATORY SETTING

Existing transportation policies, laws, and regulations that apply to the proposed project are summarized below. This information provides a context for the impact discussion related to the project's consistency with applicable regulatory conditions.

FEDERAL AND STATE REGULATIONS

Americans with Disabilities Act Accessibility Standards

The Americans with Disabilities Act (ADA) of 1990 (42 USC 12181) requires that new and altered public sidewalks and street crossings be accessible so that people with disabilities can use the pedestrian routes that connect buildings, facilities, and transportation modes. The following categories have requirements that are included in the ADA's *Checklist for Accessible Sidewalks and Street Crossings in Accessible Rights-of-Way: A Design Guide* (Access Board 1999).

- Curb Ramps
- Sidewalks
- Street Crossings
- Temporary Work
- Other Pedestrian Features

Caltrans Highway Design Manual

The *Caltrans Highway Design Manual* establishes uniform policies and procedures to carry out Caltrans' highway design functions. The highway design criteria and policies in the manual provide a guide for applying standards in the design of projects and are for information and guidance.

CITY OF ROSEVILLE GENERAL PLAN 2020

Most of the guiding and implementing policies in the *City of Roseville General Plan 2020* Circulation Element are relevant to the Plan area. These policies are numerous and are not repeated in their entirety in this report, but generalized descriptions of the General Plan elements are presented below. From a transportation and circulation perspective, the most important component of the General Plan is the Circulation Element. The following components make up the Circulation Element:

- Functional Classification
- Level of Service
- Transit
- Transportation System Management
- Bikeways and Trails

Functional Classification

Goal 1: Provide guidance to the long-range planning of the City's roadway system, including design standards, right-of-way requirements, and coordination with surrounding jurisdictions.

- **Policy 1:** Establish a functional classification system to guide the planning and design of the City's roadway system.
- **Policy 2:** Coordinate with surrounding jurisdictions to achieve compatible functional classifications for roadways that cross the City's boundaries.
- **Policy 3:** Establish a comprehensive set of design standards for the City's roadway system by functional class.
- **Policy 4:** Maintain a system of truck routes to provide for the safe and efficient movement of goods and to avoid impacting residential neighborhoods.

Level of Service

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

- **Policy 1:** Maintain a level of service (LOS) "C" standard at 70% of all signalized intersections and roadway segments in the City during the p.m. peak hours. Exceptions to the LOS "C" standard may be considered for intersections where the City finds that the required improvements are unacceptable based on established criteria identified in the implementation measures. In addition, Pedestrian Districts may be exempted from the LOS standard.
- **Policy 2:** Strive to meet the level of service standards through a balanced transportation system that provides alternatives to the automobile.
- **Policy 3:** Work with neighboring jurisdictions to provide acceptable and compatible LOS on the roadways that cross the City's boundaries.
- **Policy 4:** Secure adequate funding for all components of the City's transportation system to ensure that the level of service policy is maintained.
- **Policy 5:** Enable the City to designate a Pedestrian District over a geographic area for the purpose of implementing measures that promote pedestrian walkability. In these districts, the City recognizes that pedestrian travel takes a higher priority than automobile travel, which could reduce the vehicular level of service.

Transit

Goal 1: Promote a safe and efficient mass transit system, utilizing both rail and bus modes, to reduce congestion, improve the environment, and provide viable non-automobile means of transportation in and through Roseville.

- **Policy 1:** Pursue and support transit services within the community and region and pursue land use, design and other mechanisms that promote the use of such services.
- **Policy 2:** Pursue all available sources of funding for transit services.
- **Policy 3:** Support and actively pursue the extension of light rail service to Roseville.
- **Policy 4:** Support and remain actively involved in the implementation of commuter rail service between Colfax and Davis, as well as other regional linkages.
- **Policy 5:** Consider the transit needs of senior, disabled, minority, low-income, and transit dependent persons when making decisions regarding transit service.

Transportation System Management

Goal 1: Reduce travel demand on the City's roadway system.

Goal 2: Reduce total vehicle emissions in the City of Roseville and the South Placer County Region.

- **Policy 1:** Continue to enforce the City's Transportation Systems Management (TSM) ordinance and monitor its effectiveness.
- **Policy 2:** Work with appropriate agencies to develop measures to reduce vehicular travel demand and vehicle miles traveled and meet air quality goals.

Title 11, Chapter 11.33 of the *City of Roseville Municipal Code* requires the implementation of a Transportation Systems Management Program (TSMP) that focuses on alternative transportation modes to protect the public health, safety, and welfare. The need for travel modes other than single-occupant vehicles to minimize road congestion and air pollution in the region and for fulfillment of the goals, policies, and implementation measures in the General Plan is demonstrated by the adoption of several specific area plans. A TSMP attempts to improve the movement of persons by providing information regarding better and more efficient utilization of existing infrastructure (e.g., streets, roads, freeways) and new and innovative alternative commute modes (e.g., transit, carpooling, bicycling, telecommuting), particularly during the morning and evening peak hours of travel.

Bikeways and Trails

Goal 1: Provide a safe, comprehensive, and integrated bikeway and trail system that encourages the use of bikes and walking for commuting, recreational, and other trips.

- **Policy 1:** Develop a comprehensive and safe system of recreational and commuter bicycle routes and trails that provides connections between the City's major employment and housing areas and between its existing and planned bikeways.
- **Policy 2:** Coordinate Roseville's bikeway and trail system with those of neighborhood jurisdictions to provide both local and regional connections.
- **Policy 3:** Pursue available sources of funding for bikeways and trails.

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS' DESIGN GUIDANCE

A Policy on Geometric Design of Highways and Streets, last published in 2001 by the American Association of State Highway and Transportation Officials (AASHTO), provides general guidance on the design of facilities ranging from interstates to local streets. The AASHTO document or "green book" provides information regarding lane widths, shoulder widths, vertical curvature standards, horizontal curvature standards, median widths, sidewalk widths, and other design elements. Based on this information, the AASHTO standards should be viewed as a compilation of the recommended "best practices" in roadway designs while retaining sufficient flexibility to allow local jurisdictions to vary their standards to suit their needs.

4.6.3 ENVIRONMENTAL IMPACTS

ANALYSIS METHODOLOGY

The following analysis of the effects of the proposed project on traffic conditions is based on the proposed land uses and the existing (and planned) roadway network. Details regarding the analysis methodology utilized in this EIR are described below.

Summary of Model Run Procedures and Assumptions

Buildout under the Specific Plan (including the proposed land use and roadway network modifications) was incorporated into the City's recently developed TransCAD base year model. The model was used to estimate trip generation, trip distribution, and trip assignment for the proposed land uses. In addition, the model accounted for the redistribution of trips given the modified roadway network proposed in the Plan area.

Assumptions Regarding Transportation Facilities

The analysis of transportation impacts assumes that the following facilities would be in place in the Plan area.

Pedestrian and Bicycle Enhancements

The Specific Plan identifies a variety of pedestrian enhancements including mid-block crossings to promote pedestrian activity and pedestrian facilities on all roadways within the Plan area.

Bicycle facility enhancements are also identified in the Specific Plan, consistent with the City of Roseville's Bicycle Master Plan, which includes Class I, Class II, and Class III facilities within the Plan area. The existing and proposed bicycle facilities are identified on Exhibit 4.6-2. New bicycle facilities include:

- Extension of the Class I bike path northward, along Dry Creek, to Harding Boulevard.
- Improved pedestrian crossings of Dry Creek within Royer Park.
- Class II bike facilities on Douglas Boulevard, Washington Boulevard, and Church Street.
- Class III bike facilities on Vernon Street, Lincoln Street, Sutter Avenue, Park Drive, Linda Drive, Main Street, and Pleasant Street

Proposed Transit Enhancements

In addition to the existing public transit facilities in the study area, new public transit routes are identified in the Specific Plan. Transit facilities were divided into two main categories: (1) existing and proposed bus routes; and (2) proposed trolley service connecting the Historic and Vernon Street Districts. These routes are identified on Exhibit 4.6-1. Potential new bus routes have been identified along Oak Street, Judah Street, Douglas Boulevard,

Atlantic Street, Main Street, and Lincoln Street. In addition, trolley service is proposed on Washington Boulevard, Vernon Street, Lincoln Street, Oak Street, Atlantic Street, Folsom Boulevard, Main Street, and Lincoln Street.

Proposed Circulation Enhancements

The Specific Plan identifies additional circulation enhancements which are listed below.

Historic District

Enhancements within the Historic District consist of the following:

- Roadway improvements consistent with the Historic District's on-going streetscape improvement project. This consists of enhancements to the Main Street/Washington Boulevard intersection, including the addition of a northbound U-turn lane.
- A center median on Washington Boulevard, between Main Street and Lincoln Street, restricting side street access to right turns only. The median would break at Pleasant Street, where a full intersection would be constructed (with left-turn and right-turn lanes) to provide access to the adjacent neighborhoods.

Vernon Street District

Improvements within the Vernon Street District consist of the following:

- Widening Oak Street, from Grant Street to Lincoln Street, to provide additional capacity.
- Addition of a second right-turn lane (with receiving lane) from Oak Street to Lincoln Street to provide better lane utilization at the Washington Boulevard/Oak Street Intersection.
- Modifications to Grant Street to provide additional turn lanes at intersections, and enhance the pedestrian character of the street next to the Civic Center.
- Extension of Atlantic Street to Judah Street.
- Realignment of Oak Street to Douglas Boulevard, to intersect opposite Earl Avenue.
- Installation of a signal at the Grant Street/Oak Street intersection.
- Modified signal timings through the Oak Street and Vernon Street Corridors.

Traffic Facility Operations

Analysis Scenarios

The following scenarios were used to analyze impacts associated with implementation of the Specific Plan:

- Existing Plus Project Conditions: This scenario places traffic generated by full buildout of the Plan area on the existing plus project roadway network.
- Cumulative (2020) No-Project: This scenario includes buildout of the City's currently entitled land plus some potential redevelopment and 2020 market rate development outside the City. This scenario is consistent with the City's Capitol Improvement Program (CIP) and General Plan.

- Cumulative (2020) Plus Project: This scenario incorporates the roadway improvements and new traffic generation associated with full buildout of the Plan area in addition to the land uses and roadway improvements assumed under Cumulative No Project Conditions.

Forecasts

The following forecasts were developed for this assessment:

Existing Plus Project

Buildout under the Specific Plan (including the proposed land use and roadway network modifications) was incorporated into the City's recently developed TransCAD base year model. The model was used to estimate trip generation, trip distribution, and trip assignment for the proposed land uses. In addition, the model was able to account for the redistribution of trips given the modified roadway network proposed in the Specific Plan. It should be noted that use of a travel demand forecasting model is state of the practice for developing forecasts for large specific plans and developments with high internalization or new roadway connectivity.

The "with project" model runs were adjusted using the difference method, which identifies the growth in turning movement volumes and adds that growth to existing count data. The adjusted forecasts were then incorporated into the operations analysis for the proposed project.

The gross number of trips (prior to trip matching within the Specific Plan) by each land use type is summarized in Table 4.6-6 below:

Table 4.6-6
Downtown Roseville Specific Plan Trip Generation Estimates by Land Use Type

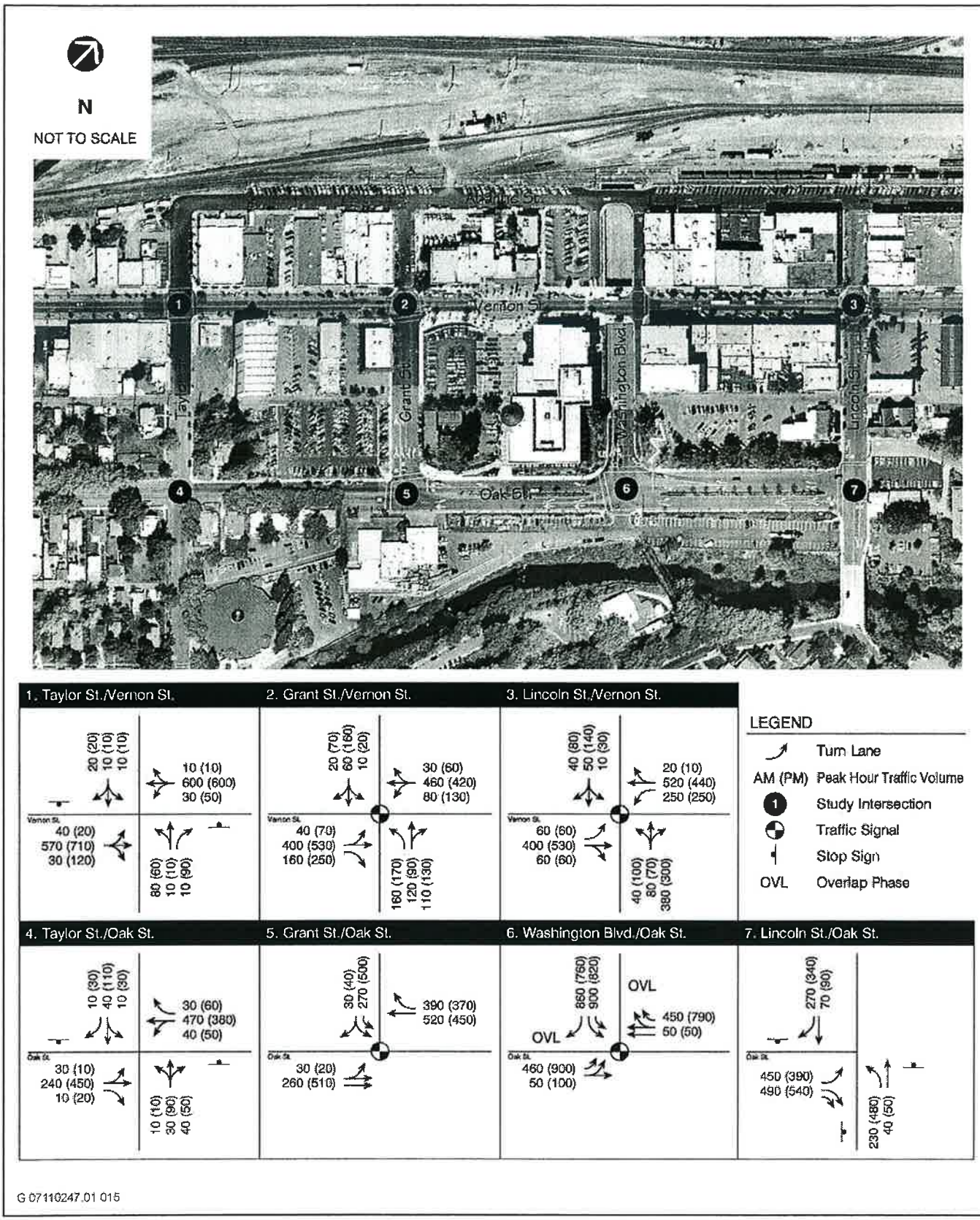
Land Use	a.m. Peak Hour			p.m. Peak Hour			Daily		
	Inbound	Outbound	Total	Inbound	Outbound	Total	Inbound	Outbound	Total
Retail	1,060	427	1,487	989	1,651	2,640	15,769	15,769	31,538
Restaurant	714	285	999	664	1,112	1,776	10,668	10,668	21,336
Office	138	60	198	84	210	294	1,652	1,652	3,304
Single Family Residential	2	5	7	6	3	9	66	66	132
Multi Family Residential	151	322	473	291	161	452	3,266	3,266	6,532
Total	***2,065***	***1,099***	***3,164***	***2,034***	***3,137***	***5,171***	***31,421***	***31,421***	***62,842***

Source: Fehr & Peers 2008
Trip generation rates from the *Roseville Capital Improvement Program Model – Final Travel Demand Model Development Report* (Fehr & Peers 2008)

In general, the trips are distributed as follows:

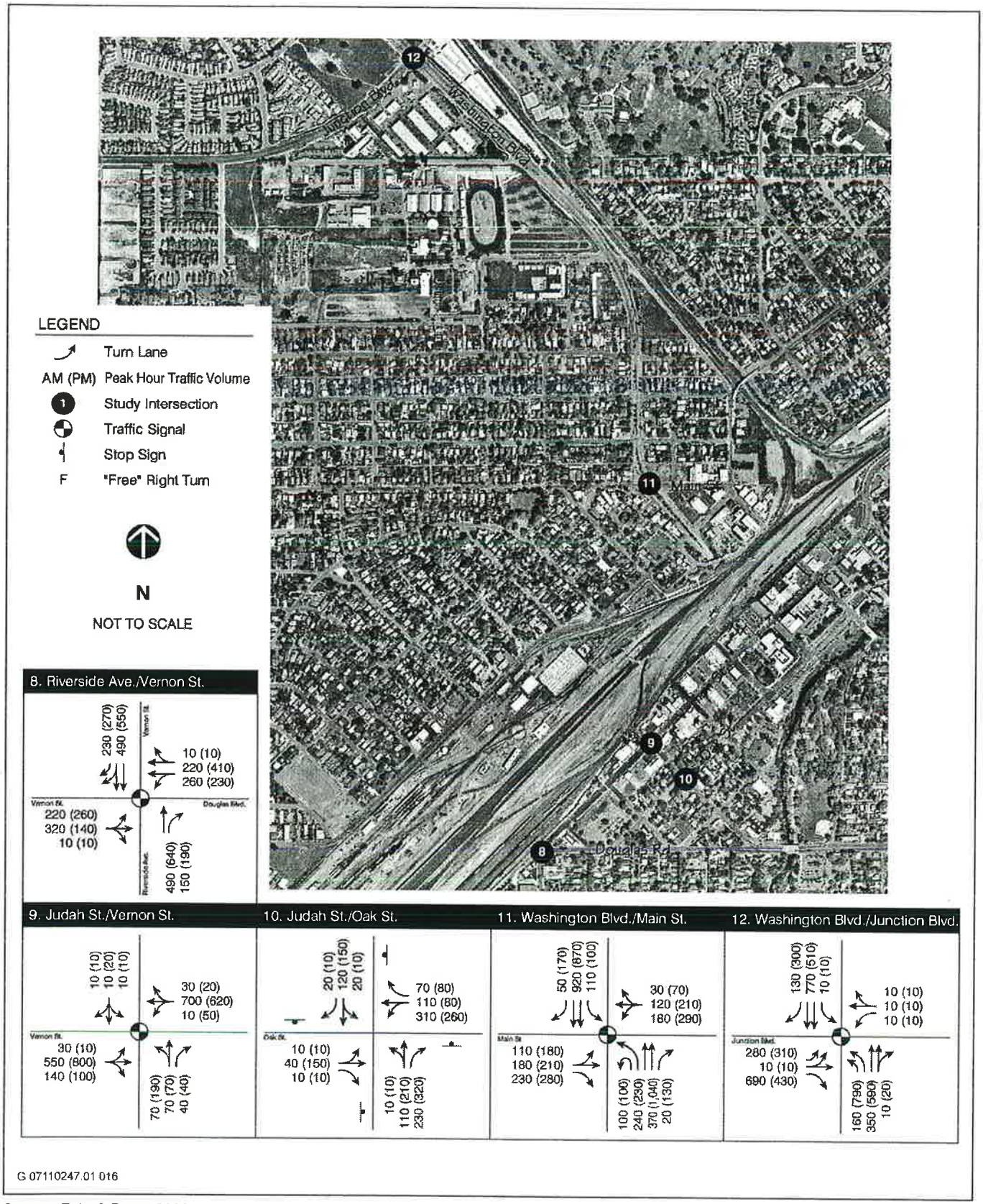
- 25% to the north via Washington Boulevard
- 20% to the south via Riverside Avenue
- 35% to the east via Atlantic Street and Douglas Road
- 20% to the west via Atkinson Road, Main Street, and Foothills Boulevard

Existing Plus Project turning movement volumes are summarized on Exhibits 4.6-6a and 4.6-6b.



Source: Fehr & Peers 2008

Existing Plus Project Traffic Volumes and Lane Configurations **Exhibit 4.6-6a**



Source: Fehr & Peers 2008

Existing Plus Project Traffic Volumes and Lane Configurations **Exhibit 4.6-6b**

Cumulative No Project

Consistent with City of Roseville guidelines for determining cumulative project impacts, forecasts were developed using the City's CIP TP+ travel demand forecasting model. Specifically, the model was used "as is" to be consistent with the City's CIP and General Plan assessments to reflect assumed growth by year 2020.

Cumulative Plus Project

Cumulative Plus Project forecasts were developed by modifying the land use and roadway network within the City's CIP TP+ model to reflect buildout of the Plan area.

TRAFFIC OPERATIONS ANALYSIS

Existing Plus Project

The methodology for evaluating the signalized intersections for the Existing Plus Project scenario is consistent with the Existing No-Project conditions. The Existing Plus Project LOS are shown in Table 4.6-7 and are compared with the Existing No-Project conditions.

Table 4.6-7
Existing Plus Project Conditions Intersection Levels of Service

Intersection	Control	a.m. Peak Hour		p.m. Peak Hour	
		Delay[2]	LOS[1]	Delay[2]	LOS[1]
Vernon Street/ Grant Street	Signal	17	B	***42***	***D***
Vernon Street / Lincoln Street	Signal	30	C	***58***	***F***
Oak Street / Grant Street	Signal	21	C	27	C
Oak Street / Washington Blvd.	Signal	***85***	***F***	***148***	***F***
Vernon Street / Riverside Avenue	Signal	***155***	***F***	***82***	***F***
Vernon Street / Judah Street	Signal	16	B	16	B
Main Street / Washington Blvd.	Signal	***94***	***E***	***243***	***F***
Junction Blvd. / Washington Blvd.	Signal	20	C	26	C

Source: Fehr & Peers 2008
Note: LOS = level of service; Delay = sec/veh.
Bold & Italicized = unacceptable LOS
[1] Analysis based on 2000 Highway Capacity Manual using the Synchro/SimTraffic LOS software.
[2] For signalized and all way stop controlled intersections, delay and Level of service are reported for the intersection as a whole. For side street stop controlled intersections, delay and LOS are reported for the worst case movement.

The results indicate that the following eight signalized intersections would operate below acceptable LOS under Existing Plus Project conditions:

- Vernon Street/Grant Street – LOS D during the p.m. peak hour
- Vernon Street/Lincoln Street – LOS F during the p.m. peak hour
- Oak Street/Washington Boulevard – LOS F during the a.m. and p.m. peak hours
- Vernon Street/Riverside Avenue – LOS F during the a.m. and p.m. peak hours
- Main Street/Washington Boulevard – LOS F during the a.m. and p.m. peak hours

Implementation of the Specific Plan would establish a Pedestrian Overlay District over the Plan area, consistent with Level of Service Policy 5 of City's General Plan. The purpose of the Pedestrian Overlay District is to promote pedestrian walkability and to recognize that pedestrian travel takes a higher priority than automobile travel, which could reduce the vehicular level of service (as allowed under Level of Service Policy 1 of the City's General Plan). With this designation, all of the signalized intersections would be exempt from the City's LOS C policy and, therefore, would operate at an acceptable level.

Cumulative (2020) Analysis

Cumulative (2020) No-Project

Consistent with the City of Roseville traffic impact requirements, the Cumulative (2020) No-Project conditions, the forecasts were incorporated into the Roseville CIP post processor created by DKS Associates to evaluate intersection operations at 179 signalized intersections within the City. Specifically, the travel demand model was created to develop forecasts for buildout of the City's General Plan (year 2020 planning horizon) at all signalized intersections within the City. The forecasts are then incorporated into the post processor, consisting of a TRAFFIX level of service analysis program, which produces levels of service at all 179 signalized intersections within the City using Circular 212 planning analysis methodologies. The results of the Cumulative No Project assessment are summarized in Table 4.6-8.

Based on the City's LOS policy, the City strives to maintain LOS C or better on 70% of its roadway segments and intersections. As shown in Table 4.6-8, under the Cumulative (2020) Condition, the total number of signalized intersections operating at LOS C or better is above 70% in the No-Project scenario.

Table 4.6-8
Cumulative (2020) No-Project - Signalized p.m. Citywide Intersection Levels of Service

Level of Service	Quantity	%
LOS A–C	**137**	**77%**
LOS D–F	**42**	**23%**
LOS D	24	13%
LOS E	9	5%
LOS F	9	5%

Note: **Bold** = unacceptable LOS
Source: Fehr & Peers 2008

Cumulative (2020) Plus Project

The Cumulative (2020) Plus Project scenario is characterized by the Cumulative (2020) No-Project land use assumptions, updated to reflect buildout of the Plan area, as well as roadway improvements anticipated by Year 2020 or implemented in conjunction with the Specific Plan.

The LOS for all signalized intersections under Cumulative (2020) Plus Project conditions are shown in Table 4.6-9. The LOS worksheets for all the signalized intersections are included in Appendix B of this DEIR. As shown in Table 4.6-9, over 70% of signalized intersections are expected to operate at LOS C or better under Cumulative Plus Project conditions which is consistent with the City's General Plan LOS policy.

Table 4.6-9 Cumulative (2020) Plus Project – Signalized p.m. Citywide Intersection Levels of Service		
Level of Service	**Quantity**	**%**
LOS A–C	**135**	**75%**
LOS D–F	**44**	**25%**
LOS D	24	13%
LOS E	10	6%
LOS F	10	6%

Note: **Bold** = unacceptable LOS
Source: Fehr & Peers 2008

Specific intersections where the addition of project-generated traffic degraded LOS operations from an acceptable level to an unacceptable level are shown in Table 4.6-10. Table 4.6-11 shows deficient intersections where the addition of project-generated traffic degraded intersection operations by one full LOS letter grade.

Table 4.6-10 Cumulative (2020) Conditions – Signalized p.m. Citywide Intersections Degrading to LOS D				
Intersection	**2020 No Project**		**2020 Plus Project**	
	LOS	**V/C**	**LOS**	**V/C**
Yosemite Street / Atlantic Street	C	0.80	D	0.82
Orlando Avenue / Marlin Drive / Cirby Way	C	0.80	D	0.82
Harding Blvd. / Estates Drive	C	0.80	D	0.82

V/C = volume-to-capacity ratio
Source: Fehr & Peers 2008

Table 4.6-11 Cumulative (2020) Conditions – Signalized p.m. Citywide Intersections with a Full Letter Grade Decline				
Intersection	**2020 No Project**		**2020 Plus Project**	
	LOS	**V/C**	**LOS**	**V/C**
Sunrise Avenue / Eureka Road	D	0.90	E	0.91
Judah Street / Vernon Street	D	0.86	E	0.93
Washington Blvd. / Main Street	E	0.93	F	1.14

V/C = volume-to-capacity ratio
Source: Fehr & Peers 2008

THRESHOLDS OF SIGNIFICANCE

Vehicular Impacts

The *City of Roseville General Plan 2020* establishes a goal of maintaining LOS C at 70% of its signalized intersections during the p.m. peak hour under a Circular 212 planning analysis. In addition, the City's improvement standards require that no more than 43 intersections function at less than LOS C under an operational analysis.

As identified in the *City of Roseville General Plan 2020*, the LOS standard for intersections is LOS C with some flexibility (see "Level of Service" in Section 4.6.2, "Regulatory Background," above). An impact should only be considered significant under the City's LOS Policy if:

- the LOS degrades from LOS C or better to below LOS C[1]; or
- an intersection operating at worse than LOS C degrades a full letter designation or more (LOS D to E, D to F, or E to F), and the resulting letter designation has not been previously approved by the City Council.

The significance threshold described above is compared against two different baseline conditions:

- Existing No-Project condition. The "Existing Plus Project" scenario evaluates traffic impacts by comparing existing conditions (i.e., Existing No-Project) against the Existing Plus Project traffic. This is the most basic CEQA impact evaluation approach of comparing existing conditions against post-project conditions to determine whether thresholds of significance are exceeded (see State CEQA Guidelines Section 15125[a]). This approach does not take into account additional traffic generated by other development in the region over the buildout period for the proposed project or by foreseeable roadway network improvements that are very likely, if not certain, to occur over this time period.
- Cumulative (2020) No-Project condition. Reasonably foreseeable development expected by Year 2020, according to the City's CIP travel demand forecasting model. The Cumulative Plus Project scenario assumes buildout of the proposed Specific Plan within the CIP travel demand forecasting model.

The Cumulative (2020) scenario, in projecting conditions in future years, accounts for reasonably foreseeable future developments and roadway conditions using the City's traffic model and roadway improvements identified in various plans and funding programs. By using Existing No-Project and Cumulative No-Project conditions as the baseline for the analyses, a reasonable comparison can be made between:

- Existing conditions and full project buildout added to existing traffic conditions, and
- Cumulative (2020) conditions with no-project and projected 2020 cumulative conditions with full project buildout.

Use of these baseline conditions to evaluate LOS standards is considered an appropriate method to identify and describe the full range of traffic impacts generated by the proposed project.

1 A LOS degradation from LOS C or better to below LOS C, where the resulting LOS letter designation has previously been approved by the City Council, and where the total number of signalized intersections operating at LOS C or better does not drop below 70% is not considered a significant impact.

Transit

A significant transit impact is defined to occur if the proposed project would:

- Interfere with any existing transit facility, or
- Conflict or prevent any planned transit facility.

Bicycle and Pedestrian

A significant bicycle and/or pedestrian impact would occur if the proposed project would:

- Interfere with any existing bicycle or pedestrian facility, or
- Conflict or prevent any planned bicycle or pedestrian facilities.

Parking

A significant parking impact would occur if the proposed project would:

- Result in an inadequate parking supply to meet projected demands

Design

A significant design impact would occur if the project would:

- Result in substantially increased hazards due to a design feature or incompatible uses

Emergency Access

A significant emergency access impact would occur if the project would:

- Result in inadequate emergency access

IMPACT ANALYSIS

IMPACT 4.6-1 **Transportation and Circulation—Unacceptable Peak Hour LOS at Signalized Intersections under Existing Plus Project Conditions.** *With the introduction of traffic from the proposed project, peak hour traffic volumes would increase at several signalized study intersections in the Plan area, resulting in an LOS of D or worse at various intersections. However, with implementation of the Pedestrian District Overlay in the Plan area as part of the proposed project, the LOS impact at all Plan area intersections would be considered less than significant. Therefore, all impacts to signalized study intersections under existing plus project conditions are considered* ***less than significant****.*

Peak hour traffic volumes, existing lane configurations, traffic control devices (see Exhibits 4.6-6a and 4.6-6b), and signal timing information were incorporated into the LOS assessment to evaluate Existing Plus Project conditions. Under Existing Plus Project conditions, the addition of project traffic would cause the following signalized intersections to operate at an unacceptable LOS:

- Vernon Street/Grant Street – LOS D during the p.m. peak hour,
- Vernon Street/Lincoln Street – LOS F during the p.m. peak hour,
- Oak Street/Washington Boulevard – LOS F during the a.m. and p.m. peak hours,
- Vernon Street/Riverside Avenue – LOS F during the a.m. and p.m. peak hours, and
- Main Street/Washington Boulevard – LOS E during the a.m. and LOS F during the p.m. peak hour.

In addition, the following improvements (beyond those identified within the Specific Plan) would improve intersection operations in the study area. These improvements include:

- Addition of a northbound right-turn lane at the Vernon Street/Lincoln Street intersection, and
- Addition of a westbound left-turn lane at the Vernon Street/Grant Street intersection.

With construction of the improvements identified in the Specific Plan and those identified above, all signalized intersections in the study area would operate at LOS C or better during the a.m. and p.m. peak hours except at the following intersections:

- Main Street/Washington Boulevard,
- Oak Street/Washington Boulevard, and
- Vernon Street/Riverside Avenue.

Because three intersections would operate unacceptably under Existing Plus Project conditions, these project impacts are considered significant.

IMPACT 4.6-2 **Transportation and Circulation—Unacceptable p.m. Peak Hour LOS at Signalized Intersections under Cumulative (2020) Plus Project Conditions.** *With the introduction of traffic from the proposed project, p.m. peak hour traffic volumes would increase at several signalized study intersections, resulting in an LOS of D or worse. Although certain mechanisms either are or would be in place as part of the proposed project (currently approved exemptions to the City's LOS policy and implementation of the Pedestrian Overlay District) which would allow these impacts to be considered less than significant, some signalized intersections located outside of the City's Pedestrian Overlay Districts would degrade to an unacceptable level or the addition of project traffic would degrade operations by a whole letter grade. This impact is considered* ***significant****.*

Under Cumulative (2020) Plus Project conditions, addition of project traffic volumes would cause the following intersections to operate at an unacceptable LOS:

- Yosemite Street/Atlantic Street – LOS D during the p.m. peak hour,
- Orlando Avenue/Marlin Drive/Cirby Way – LOS D during the p.m. peak hour,
- Harding Drive/Estates Drive – LOS D during the p.m. peak hour,
- Sunrise Avenue/Eureka Road – LOS E during the p.m. peak hour,
- Judah Street/Vernon Street – LOS E during the p.m. peak hour, and
- Washington Boulevard/Main Street – LOS F during the p.m. peak hour.

Although the project is consistent with the City's General Plan LOS policy because more than 70% of the City's signalized intersections would continue to operate at an acceptable level, six intersections would operate unacceptably under Cumulative (2020) Plus Project conditions and these project impacts are considered significant.

IMPACT 4.6-3 **Transportation and Circulation—Transit.** *Implementation of the proposed land uses in the Plan area would increase the demand for public transit services in the plan area. Policies of the Specific Plan would not interfere or conflict with existing or planned transit services. This impact is considered* ***less than significant****.*

The development of additional residential and commercial land uses in the Plan area would increase the demand for public transit services. In addition, the Specific Plan would promote the use of transit facilities with the following policies:

- **Policy 6.4.1:** The City will, as feasible and warranted, enhance transit service in the Downtown.
  - **Strategy 6.4.1a:** Utilize a soft tired trolley system linked to other commercial centers outside of the Downtown to promote connectivity and an alternative mode of travel.

- **Policy 6.4.2:** Promote the use of transit in new developments by requiring the installation of transit facilities where appropriate along transit routes.
- **Policy 6.4.3:** Provide sufficient infrastructure to promote existing and future transit use within Downtown.
    - **Strategy 6.4.2a:** For existing and future transit routes and facilities, use City standards to ensure appropriate turning radii for transit vehicles and waiting areas for transit riders.

In addition to the policies described above, the project designates increased transit facilities within the study area by designating potential transit routes to complement existing routes. Policies of the Specific Plan and the potential transit facilities identified within the Plan area would not interfere or conflict with existing or planned future transit services in the City of Roseville. Therefore, the project would result in a less-than-significant impact.

IMPACT 4.6-4 **Transportation and Circulation—Bicycle and Pedestrian.** *Implementation of the proposed land uses in the Plan area would increase demand for bicycle and pedestrian facilities. Policies of the Specific Plan would not interfere or conflict with existing and planned bicycle and pedestrian systems. This impact is considered* ***less than significant****.*

The development of additional residential and commercial land uses in the plan area would increase the demand for public transit services. In addition, the following policies of the Specific Plan would encourage the development of pedestrian- and bicycle-oriented land uses in the Plan area with the following policies:

- **Policy 6.2.1:** Encourage a pedestrian orientation within the circulation system.
- **Policy 6.2.2:** Designate the Downtown Plan area as a pedestrian district per the City's General Plan.
    - **Strategy 6.2.2.a:** Develop specific improvements to allow an effective vehicular traffic flow through Downtown, but give the pedestrian priority.
    - **Strategy 6.2.2.b:** Promote pedestrian connectivity and walkability throughout the plan through the future construction of physical improvements.
- **Policy 6.2.3:** Pedestrians shall cross no more than five travel lanes at intersections within the Downtown.
- **Policy 6.6.4:** Provide direct pedestrian and bicycle access to and from parking facilities.
- **Policy 6.3:** Implement bicycle facilities consistent with the City's Bicycle Master Plan.

Policies of the Specific Plan described above are designed to complement and improve existing bicycle and pedestrian movement through the Plan area and would not conflict with existing or proposed bicycle and pedestrian systems in the City of Roseville. Therefore, the project would result in a less-than-significant impact.

IMPACT 4.6-5 **Transportation and Circulation—Parking.** *Implementation of the proposed land uses in the Specific Plan area would result in an inadequate parking supply. The Specific Plan would generate demand for parking in excess of existing and proposed parking supply in the Plan area by a maximum of 580 spaces. However, the Specific Plan identifies development of additional parking to meet future demands. This impact is considered* ***less than significant****.*

The development of additional residential and commercial land uses in the Plan area would increase the demand for parking in the plan area. The following policies of the Downtown Roseville Specific Plan are intended to ensure sufficient parking is available to serve future needs:

- **Policy 6.6.1:** Provide adequate parking supply for the specific plan area, as a whole.
- **Policy 6.6.2:** Promote shared parking concepts within the downtown core.
  - **Strategy 6.6.2a:** Establish a parking-in-lieu fee to develop and construct public parking garages.
  - **Strategy 6.6.2b:** Develop and implement a Parking Management Plan (PMP) to manage parking supply and demand in the downtown area.
  - **Strategy 6.6.2c:** Reduce the on-site parking requirements directing parking to public facilities.

As part of the Specific Plan's parking management plan (PMP), a GIS-based parking model was developed to estimate parking demand within the Plan area while incorporating shared parking concepts. Based on that model, the Specific Plan would generate demand in excess of its proposed parking supply by a maximum of 580 spaces, which would occur between 12:00 p.m. and 1:00 p.m. Although the Specific Plan includes a policy requiring adequate parking be supplied in the Plan area (Policy 6.6.1), insufficient parking supply is identified to be developed as part of the Specific Plan to serve future, long-term demands in the Plan area. This is considered a potentially significant impact.

IMPACT 4.6-6 **Transportation and Circulation—Design.** *Implementation of the proposed land uses and transportation facilities in the Plan area may result in hazards due to a design feature. However, policies of the Specific Plan would require circulation improvements in the Plan area to meet design requirements to prevent safety hazards. This impact is considered* ***less than significant.***

As part of implementing the Specific Plan, new transportation facilities would be constructed and improvements to existing transportation facilities would occur. The design of new or improved transportation facilities could result in a safety hazard. The following policies of the Specific Plan are intended to prevent and minimize, to the greatest extent possible, potential safety hazards:

- **Policy 6.6.3:** To the extent feasible, design parking facilities to blend in with the character of downtown.
- **Policy 6.6.5:** To the extent possible, minimize traffic intrusion from Downtown into the surrounding neighborhoods.
- **Goal 6.5:** Utilize land use concepts, transportation options, parking strategy and special programs to reduce single occupant vehicle trips.

The proposed transportation system within the Plan area would be designed to meet standard design requirements of the City of Roseville. In addition, at many locations (e.g., realignment of Oak Street to Douglas Boulevard), the proposed improvements create a more traditional intersection and would improve safety within the roadway network design and policies of the Specific Plan would not increase or create a safety hazard due to a design feature. Therefore, this impact is considered less than significant.

IMPACT 4.6-7 **Transportation and Circulation—Emergency Access.** *Implementation of proposed land uses in the Plan area could result in inadequate emergency access because of transportation facility designs and/or increased traffic. However, the Specific Plan has been developed in coordination with the City's fire department to ensure adequate emergency response is available in the Plan area. This impact is considered* ***less than significant.***

Implementation of the Specific Plan would result in increased traffic, including pedestrian and bicycle traffic, in the Plan area. The Specific Plan was developed through consultation with the City's fire department to ensure adequate access for fire protection vehicles would be maintained throughout the Plan area. Specifically, the

location of a new Fire Station #1 was identified to ensure adequate emergency response to all areas of the City (see Section 4.3, "Public Services," for further discussion). However, the Roseville Police Department expressed concern with traffic congestion that may result from implementation of the Specific Plan (Allison, pers. comm. 2007). New and improved transportation facilities would be constructed in the Plan area as envisioned in the Specific Plan to ensure adequate vehicular and pedestrian movement and access is provided (see Section 4.6.3, *Proposed Circulation Enhancements*, above). Because the Specific Plan has been designed in coordination with the City's fire department, would construct improved transportation facilities, and has been determined to provide adequate emergency access needs in the Plan area, this impact is considered less than significant.

4.6.4 MITIGATION MEASURES

No mitigation measures are necessary for the following less-than-significant impacts.

4.6-3: Transportation and Circulation – Transit.

4.6-4: Transportation and Circulation – Pedestrian and Bicycle.

4.6-6: Transportation and Circulation – Design.

4.6-7: Transportation and Circulation – Emergency Access.

The following mitigation measures are provided for significant traffic impacts.

Mitigation Measure 4.6-1: Transportation and Circulation – Unacceptable Peak Hour LOS at Signalized Study Intersections under Existing Plus Project Conditions.

The Specific Plan would establish a Pedestrian Overlay District within the Plan area. The Pedestrian Overlay District is would construct physical improvements at intersections in the Plan area to encourage pedestrian activity and increase pedestrian safety. Although three signalized intersections in the study area would operate below LOS C, they would be located in the Pedestrian Overlay District which would make the intersections exempt from the City's LOS C policy. Therefore, the project would result in a less-than-significant impact.

Mitigation Measure 4.6-2: Transportation and Circulation – Unacceptable Peak Hour LOS at Signalized Study Intersections under Cumulative (2020) Plus Project Conditions.

The Specific Plan would establish a Pedestrian Overlay District within the Plan area. The Pedestrian Overlay District is would construct physical improvements at intersections in the Plan area to encourage pedestrian activity and increase pedestrian safety. Establishment of a Pedestrian Overlay District would reduce impacts to the Judah Street/Vernon Street and Washington Boulevard/Main Street intersections because it would these intersections exempt from the City's LOS C policy such that the intersections would operate at an acceptable LOS.

The following mitigation measures are identified for the significant impacts under the Cumulative (2020) Plus Project scenario at signalized study intersections:

- **4.6-2a: LOS D at Yosemite Street/Atlantic Street.** The addition of project traffic at this intersection under cumulative 2020 conditions would deteriorate operations from LOS C to LOS D. To mitigate project impacts, the southbound right-turn lane could be restriped as a shared left/right-turn lane. With this restriping, the intersection would operate at an acceptable LOS C. The project would be responsible to pay its fair share toward this improvement. This intersection improvement shall be incorporated into the City of Roseville Capital Improvement Program. Incorporating this intersection improvement into the City's Capital Improvement Program would establish a funding mechanism to collect the remaining funds for this improvement (beyond the project's fair share). Therefore, implementation of the ultimate improvement would be guaranteed and the impact is considered less than significant.

- **4.6-2b: LOS D at Orlando Avenue/Marlin Drive/Cirby Way.** The addition of project traffic at this intersection under cumulative 2020 conditions would deteriorate operations from LOS C to LOS D. To mitigate project impacts, the northbound and southbound approaches should be widened to provide one dedicated left-turn lane, one through lane, and one right-turn lane. With these improvements, the intersection phasing could be modified to provide protected left-turn movements, and would operate at an acceptable LOS C. Please note that, given the curvature of Marlin Drive and Orlando Avenue, the creek just north of the intersection, and right-of-way constraints, the identified mitigation may not be feasible. Therefore, this impact is considered significant and unavoidable.

- **4.6-2c: LOS D at Harding Drive/Estates Drive.** The addition of project traffic at this intersection under cumulative 2020 conditions would deteriorate operations from LOS C to LOS D. To mitigate project impacts, a dedicated southbound right-turn lane would be needed. With this improvement, the intersection would operate at an acceptable LOS C. The project would be responsible to pay a fair share toward this improvement. Please note that existing development is present on all four quadrants of the intersection, limiting the available right-of-way to implement the improvement which may make the identified mitigation infeasible. Therefore, this impact is considered significant and unavoidable.

- **4.6-2d: LOS E at Sunrise Avenue/Eureka Road.** The addition of project traffic at this intersection under cumulative 2020 conditions would deteriorate operations from LOS D to LOS E. To mitigate project impacts, a third eastbound left-turn lane could be added to the intersection. With the improvement, the intersection would operate at LOS D, consistent with the No Project Condition. However, there are potential right-of-way constraints and inherent design complexities of implementing triple left-turn lanes. Therefore, this impact is considered significant and unavoidable.

For each intersection with significant and unavoidable impacts under the Cumulative (2020) Plus Project scenario, a qualitative assessment was performed to assess the increase in average vehicle delay that would occur with implementation of the Plan. As shown in Table 4.6-12 below, the Plan would add up to three seconds in average vehicle delay at these three intersections during the PM peak hour under cumulative (2020) conditions. Although the Plan would increase delay at these three intersections, it is unlikely many drivers would notice a one to three seconds of additional delay.

Table 4.6-12
Cumulative (2020) Conditions – Increase in Delay at Citywide Intersections [1]

Intersection	2020 No Project		2020 Plus Project	
	LOS	Delay	LOS	Delay
Orlando Avenue / Marlin Drive / Cirby Way	C	34	D	35
Harding Blvd. / Estates Drive	C	34	D	35
Sunrise Avenue / Eureka Road	D	55	E	58

[1] The analysis was performed using Circular 212 methodology, which is based on volume-to-capacity ratios. Circular 212 does not measure average vehicle delay. Delay was estimated by comparing volume-to-capacity LOS thresholds to delay-based thresholds provided in the Highway Capacity Manual (TRB, 2000).

Source: Fehr & Peers 2008

Mitigation Measure 4.6-5: Transportation and Circulation—Parking.

To mitigate parking impacts for the Plan area, the project shall provide an additional 580 parking spaces. This shall be accommodated by providing extra spaces within the three planned parking structures, providing additional public parking spaces (as part of developing and implementing the Parking Management Plan), or require development to provide additional parking (e.g., in-lieu fees). With implementation of these measures, the impact would be reduced to a ***less-than-significant*** level.

4.6.5 Residual Significant Impacts

Readers are advised that because long-term traffic analyses inherently deal with "cumulative impacts" as defined by CEQA, the payment of fair-share fees constitutes mitigation for the project's incremental contribution to significant cumulative impacts caused by the project together with other past, present, and reasonably foreseeable future projects. CEQA specifically authorizes the use of such fair-share payments to mitigate a project's incremental contribution to such impacts to less-than-cumulatively-considerable (i.e., less-than-significant) levels (State CEQA Guidelines Section 15130[b][3]). However, because the remaining funding for the identified improvements has not been identified and implementation of measures to effectively mitigate the impact are uncertain, the impacts are considered to remain significant and unavoidable. For these reasons and as described above in Section 4.6.4, "Mitigation Measures," the following impacts would remain significant and unavoidable:

4.6-2a: LOS D at Yosemite Street/Atlantic Street.

4.6-2b: LOS D at Orlando Avenue/Marlin Drive/Cirby Way.

4.6-2c: LOS D at Harding Drive/Estates Drive.

4.6-2d: LOS E at Sunrise Avenue/Eureka Road.

4.6.6 Comments on the Notice of Preparation

The City of Roseville received a comment letter from the Sacramento County Department of Transportation responding to the Notice of Preparation. The letter asked that if the project added significant traffic to Sacramento County facilities (primarily in the Antelope area), they should be included in the assessment. The 2020 (or cumulative year) absorption anticipated by the proposed project is anticipated to exceed current entitled development within the Plan area by less than 70,000 square feet of development. Therefore, the additional development was incorporated into the base year SACMET regional travel demand forecasting model (the forecasting model used to assess development projects in Sacramento County) to determine if the increased 2020 development would satisfy traffic levels identified in the County's guidelines for requiring a traffic impact study. The County's guidelines identify a traffic impact study is required when a project would add a minimum of 100 peak hour trips to study area intersections. The results indicate that the increased development from the proposed project would add less than 100 peak hour trips to the intersections in the Antelope area. Based on the Sacramento County guidelines and because the proposed project would not add more than 100 peak hour trips to Sacramento County facilities, no traffic impact study would be required and the identified facilities in that area are not assessed.

4.7 CULTURAL RESOURCES

This section discusses the potential impacts to cultural resources that could result from implementation of the Downtown Roseville Specific Plan, along with recommended mitigation measures to reduce any significant impacts. This section also provides a summary of the cultural resources assessment for the Plan area.
To determine whether there are potentially significant prehistoric or historic-era resources in could be adversely affected by future development activities, cultural resource specialists conducted documentary research, an archaeological survey, an architectural inventory and evaluation, and an analysis of historical references and maps depicting the Plan area. The documentary research also included a record search conducted at the North Central Information Center (NCIC) of the California Historical Resources Information System (CHRIS).

This project DEIR has been prepared to meet the requirements of a project-level EIR. The City's intention in preparing this project EIR is that no further environmental review under CEQA would be required for subsequent projects which are consistent with the Specific Plan to provide for the streamlined approval of projects proposed within the Plan area that are consistent with land use designations, adhere to design guidelines (specifically prototype development), or fall within the scope of the Specific Plan and EIR.

4.7.1 EXISTING CONDITIONS

ETHNOGRAPHIC SETTING

The Plan area lies within the territory commonly attributed to the ethnographic Nisenan, sometimes referred to as the Southern Maidu (Dixon 1905, Kroeber 1925). Ethnographers generally agree that Nisenan territory included the drainages of the Bear, American, Yuba, and southern Feather Rivers and extended from the Sacramento River east to the crest of the Sierra Nevada (Beals 1933, Faye 1923, Gifford 1927, Kroeber 1925).

The Nisenan built their villages on low, natural rises along streams and rivers or on gentle slopes with a southern exposure, usually in places protected from flooding. Village populations ranged from 15 to 500 people, with one village usually playing a dominant role in the sociopolitical organization of a particular area. Nisenan settlements varied from three to as many as 50 houses. Structures were dome-shaped, 10 to 15 feet in diameter, and covered with earth, tule mats, or grass. A variety of other structures including sweat houses, dance houses, and acorn granaries were also constructed (Kroeber 1925).

The Sacramento Valley and lower foothills were rich in natural resources, and the Nisenan took advantage of the wide variety of food sources. Waterfowl, fish, and freshwater mussels and clams were readily available in the rivers. Acorns were important to their diet and were supplemented with seeds, nuts, berries, herbs, and fruit. Except for lizards, snakes, and grizzly bears, virtually every animal was a food source including tule elk, deer, and antelope. The Nisenan moved with the seasons, following game and collecting plants. Manzanita berries, pine nuts, black oak acorns, skins, bows, and bow wood were traded with the valley people in exchange for fish, roots, grasses, shells, beads, salt, and feathers (Kroeber 1925).

Because early contact with Spanish explorers and missionaries was limited to the southern edge of their territory, the Nisenan were not directly affected by the Spanish incursions during the late 1700s and late 1800s, although they often sheltered Plains Miwok who had escaped from missions. In 1808, Gabriel Moraga crossed Nisenan territory, but it was not until the Hudson's Bay Company trappers journeyed through the region in the 1820s and 1830s that the first impacts on the native residents were felt. The fur trappers introduced malaria into the Central Valley, leading to an epidemic that decimated the local population in 1833. The Valley Nisenan were particularly affected by the disease with entire villages wiped out. Cook (1975) estimates that 75% of the Valley Nisenan population died during this epidemic.

John Sutter initiated further disruption when he introduced Plains Miwok into the region in the early 1840s as workers which further disrupted traditional Nisenan lifeways. The Nisenan who survived the epidemic and Sutter's working conditions, however, had little chance against the gold miners that poured into the valley and

foothills in the later 1840s. Most of the Nisenan population was eliminated by the mid-1850s. The survivors eked out a living by working in agricultural activities, ranching activities, logging, and/or in the domestic sphere (Cook 1975). The Miwok people survive today, and often celebrate and revive their traditional cultural practices.

Historic Setting

The following section provides an overview of historic-era development, trends, and events that contributed to the growth and development of the built environment within the Plan area. Unless otherwise stated, this overview is primarily summarized from *A Brief History of Roseville* by Leonard Davis (Roseville Historical Society 1993).

Roseville, 1850–1900

The first Euro-Americans to settle in the area now known as Roseville were gold-seekers who left the placer mining fields to farm on the plains region of southwestern Placer County. Many of these pioneering farmers formed the nucleus of what would become a bustling railroad town.

The first railroad to pass through this rich farming region was the California Central, an extension of the Sacramento Valley Railroad. Construction of the rail line through this area began in late August/early September of 1861. The route of this rail line was circuitous, passing through present-day Roseville Square Shopping Center, then crossing Dry Creek at Folsom Road where it proceeded northerly to Lincoln and Marysville. In 1864, track-laying crews from the Central Pacific Railroad pushed eastward from Sacramento across the plains on their way to building what would become the western half of the Transcontinental Railroad. In Roseville, the rails of the Central Pacific intersected with those of the California Central. The location of this meeting of the rails was simply labeled as "Junction" on early railroad maps. A small freight and passenger center, soon to be known as Roseville, developed around this junction.

The favorable location of the junction in the heart of a rich agricultural area would make it an important shipping and trading center in years to come. One of the first individuals to capitalize on this was O. D. Lambard, who, in 1864, platted the town-site of a city to be called Roseville. The name Roseville is purported to have been conferred because of the many wild roses growing profusely in and around the area. For the next four decades, Roseville remained a small railroad shipping point of approximately 250 inhabitants, catering to the needs of area farmers and ranchers. The town centered on the railroad depot and a few small businesses which lined the two principal streets of Atlantic and Pacific.

The community that developed was one of the ubiquitous railroad towns that developed in California during the mid to late nineteenth century. Its favorable location in the heart of rich agricultural land made it an important shipping and trading center for local farmers and ranchers.

Roseville, 20th Century

By the turn of the century, Roseville's population was still largely made up of ranchers. However, this setting abruptly changed in 1906 when the railroad roundhouse and repair facilities moved to Roseville from nearby Rocklin which had been the area's major railroad service center. Almost overnight, the quiet ranching town evolved into a bustling city of approximately 3,000 people.

New subdivisions accommodated the new residents. Business and commercial growth during this time was extensive and caused the town to expand outward in all directions. Atlantic Street, which had been one of Roseville two principal business thoroughfares, was moved back approximately 100 feet to accommodate the laying of new track for roundhouse and repair facilities. The business section, which had been limited to Atlantic and Pacific Streets, expanded along Lincoln, Main, Church, and later, Vernon Streets. A Chamber of Commerce was organized to provide needed municipal services such as water, electricity, police, and fire protection.

In 1909, the town was incorporated and steadily grew until it became Placer County's largest city. In one three-year period (1911–1914), more than 110 new buildings were constructed. The population increased from 2,608 in

1910 to 4,477 in 1920, by which time Roseville was divided into two main sections including the North Side centered along Lincoln Street and extending back to and including Church and Main Streets and the rapidly expanding South Side centered along Vernon Street.

The buildings during this time period within the Plan area consisted mostly of commercial properties with the occasional modest-sized dwelling. Roseville continued as a major railroad center well into the post World War II years; however, by the 1950s, interstate trucking and airlines provided stiff competition. The introduction of jet aircraft and the completion of Interstate 80 (I-80) through Roseville in 1956 saw the abrupt decline of the once booming passenger train service.

The town slowly expanded easterly with the completion of I-80. This led to the eventual decline of the Lincoln-Church-Main Street business center and the Vernon Street area. The town's commercial center shifted from downtown to what became known as "East Roseville." By 1968, a significant portion of business activity centered in the Roseville Square-Harding Way and Sunrise Boulevard areas.

A revitalization movement, began in 1977, aimed to restore the physical and economic prominence of Roseville's downtown area to its heyday of the 1920s. Buildings were painted, facades reconstructed, and awnings and overhangs were installed. As part of the revitalization effort, the Plan area also saw new business development and reconstruction efforts during this time. Roseville continues to grow today and has a population of over 100,000 people. The meager beginnings of this ranching village – turned railroad town – blossomed into a vital economic center within Placer County.

FINDINGS

Previous Investigations

Previous cultural resource studies conducted in the vicinity of the Plan area identified several historic-era properties, mostly consisting of early twentieth century commercial and residential buildings. Of the previously recorded resources, three were determined to appear eligible for listing in the California Register of Historical Resources (CRHR): the City Hall Annex (316 Vernon Street), the Tower Theater (419–425 Vernon Street), and the old Vernon Street School (PAR Environmental Services 2000). The Vernon Street School building was demolished in late 2002 because of hazardous materials concerns and its former location is of no specific concern from a historical resources standpoint.

Old Town Roseville, bordered by Main Street on the north, Pacific Street on the south, Washington Boulevard on the west, and Lincoln Street on the east, is designated by the City of Roseville as a historic district (at the local level). This designation however is not formally listed on the CRHR at this time. The location of the first Transcontinental Railroad (Landmark No. 780-1) is also located within Old Town Roseville at the intersection of Lincoln and Pacific Streets.

Archaeological Resources

Pre-field Research

The records search conducted for the this study included reviews of sites listed in the National Register of Historic Places (NRHP), the CRHR, the California Inventory of Historic Resources (1976), California Historical Landmarks (1996), California Points of Historical Interest (1992 and updates), the Historic Property Data File, and the Caltrans State and Local Bridge Survey (1989 and updates), as well as a review of information center maps and files of the findings of previous cultural resource surveys conducted in the Plan area.

Field Methods

Information provided by the records search was supplemented with a pedestrian field survey performed in December 2007. The archaeological survey identified the majority of the proposed Plan area is covered with

impervious surfaces (e.g., concrete, asphalt, gravel) that afford no visibility of the ground surface. Areas immediately surrounding some of the buildings (e.g., residences) are landscaped with manicured lawns.

The NCIC records search and archaeological survey did not result in the identification archaeological resources within the Plan area. As described in Section 4.7.3, there is the potential that archaeological deposits are located beneath buildings and roadways within the Plan area.

Architectural Resources

In December 2007 and January 2008, an architectural historian visited the Plan area to inventory existing architectural resources (see Table 4.7-1). The field visit resulted in the identification of 213 historic-era properties that are currently in excess of 45 years in age. Many of these resources had been previously documented during preceding cultural resources surveys. Only historic-era buildings in the Old Town and Downtown Vernon Districts were evaluated as part of this investigation. In accordance with the California Department of Parks and Recreation (DPR), Office of Historic Preservation (OHP), buildings currently more than 45 years old were photographed in the field and recorded on the appropriate DPR Series 523 forms. Table 4.7-1 provides a list of these buildings and their locations along with Assessor Parcel map reference numbers (APN) corresponding to the location of each property. The 25 buildings within the Plan area that were built after 1963 (referred to as non-historic) were tabulated but not formally documented because of their relatively recent age of construction (see Table 4.7-1). The non-historic-era buildings noted in the Plan area are also listed in Table 4.7-2.

The types of buildings within the Plan area vary in age, style, and function. The majority of resources that were recorded as part of the inventory consist of commercial properties dating from the 1910s to the 1950s. Residential buildings within the Plan area mostly consist of vernacular buildings with the same range of construction dates. Historic-era buildings can sometimes be tangible reminders of distinctive architectural styles or of the foresight of early local businessmen and women who built diversified economic bases that allowed cities to thrive. Such buildings, however, generally require the retention of enough historic integrity to their period(s) of significance in order to reflect that association and meet CRHR eligibility criteria. The majority of buildings within the Plan area have been significantly modified and do not evoke a sense of place and time to their original construction dates. Loss of historic fabric and subsequent infill development over the years has been extensive within the area resulting in a non-cohesive area with a low degree of historic integrity. Of the 213 historic-era buildings located within the Plan area, two appear eligible for listing on the CRHR including the City Hall Annex (located at 316 Vernon Street) and Tower Theater (located at 241 Vernon Street). The Vernon Street Schoolhouse was previously determined eligible for the CRHR but was demolished in 2002. Also, the Old Town Roseville area has been designated as a historic district at the local level by the City of Roseville. The remaining buildings do not appear eligible for CRHR listing due to a lack of significant association and lack of historic integrity.

Certain property types are generally excluded from consideration for listing in the CRHR. One such property type are properties that are less than 50 years old (California Code of Regulations, Title 14, Section 4852 (d)(2)). The buildings listed in Table 4.7-2 are currently less than 45 years old and, therefore, are not considered eligible for listing on the CRHR. However, because the Specific Plan is intended to address potential development over the next 20 years, some of these buildings will reach an age of 45 years or older over time and an evaluation under CRHR criteria may be needed within the timeframe of the Plan (see Section 4.7.3).

Table 4.7-1
Pre-1963 Buildings within the Plan Area

APN	Address	Age	APN	Address	Age
011-101-002	701 Lincoln Street	1940	011-145-006	205 Grove Street	1959
011-101-003	110 Elefa Street	1930	011-145-007	308 Washington Blvd.	1956
011-101-004	114 Elefa Street	1916	011-143-002	119 Pleasant Street	1941
011-101-005	120 Elefa Street	1941	011-143-003	115 Pleasant Street	1928
011-101-006	200 Elefa Street	1943	011-143-004	111 Pleasant Street	1923

Table 4.7-1
Pre-1963 Buildings within the Plan Area

APN	Address	Age	APN	Address	Age
011-101-007	202 Elefa Street	1925	011-143-005	109 Pleasant Street	1917
011-101-009	212 Elefa Street	1924	011-143-009	116 Grove Street	1946
011-100-003	611 Washington Blvd.	1963	011-143-010	120 Grove Street	1906
011-102-004	308 Hill Avenue	1940	011-143-011	122 Grove Street	1917
011-102-007	224 Pleasant Street	1906	011-143-012	126 Grove Street	1920
011-102-008	228 Pleasant Street	1919	011-143-013	200 Placer Street	1910
011-102-009	306 Hill Avenue	1927	011-143-014	204 Placer Street	1910
011-102-010	312 Hill Avenue	1941	011-143-015	210 Placer Street	1910
011-102-011	316 Hill Avenue	1942	011-146-001	120 Placer Street	1936
011-103-003	205 Elefa Street	1925	011-146-004	121 Grove Street	1941
011-103-005	201 Elefa Street	1918	011-146-005	119 Grove Street	1920
011-103-006	200 Pleasant Street	1920	011-146-006	115 Grove Street	1916
011-103-007	204 Pleasant Street	1924	011-146-007	109 Grove Street	1908
011-103-008	208 Pleasant Street	1935	011-146-008	427 Lincoln Street	1918
011-103-011	500 Washington Blvd.	1920	011-146-016	423 Lincoln Street	1912
011-103-013	510 Washington Blvd.	1962	011-146-017	419 Lincoln Street	1905
011-141-001	419 Washington Blvd.	1915	011-146-011	116 Main Street	1939
011-141-002	413 Washington Blvd.	1908	011-146-012	120 Main Street	1961
011-141-003	409 Washington Blvd.	1918	011-146-013	124 Main Street	1915
011-141-004	401 Washington Blvd.	1955	011-146-014	134 Main Street	1920
011-144-001	315 Washington Blvd.	1909	011-146-020	114 Placer Street	1930
011-144-002	309 Washington Blvd.	1920	011-146-021	112 Placer Street	1910
011-142-003	412 Washington Blvd.	1950	011-147-002	506 Lincoln Street	1962
011-142-004	209 Pleasant Street	1920	011-147-003	502 Lincoln Street	1914
011-142-005	219 Placer Street	1920	011-147-012	430 Lincoln Street	1926
011-142-006	217 Placer Street	1938	012-122-001	342 Lincoln Street	1914
011-142-007	215 Placer Street	1948	012-122-003	302 Lincoln Street	1910
011-142-008	209 Placer Street	1920	012-121-001	200 Washington Blvd.	1953
011-142-009	202 Grove Street	1925	012-121-003	120 Church Street	1953
011-142-010	206 Grove Street	1930	012-121-007	101 Main Street	1925
011-142-011	210 Grove Street	1920	012-121-009	104 Church Street	1922
011-145-001	310 Washington Blvd.	1954	012-121-012	113 Main Street, Apt.1	1920
011-145-003	115 Placer Street	1930	012-121-013	113 Main Street, Apt.2	1920
011-145-004	113 Placer Street	1930	012-121-014	113 Main Street, Apt.3	1920
012-123-004	215 High Street	1944	013-164-018	628 Royer Street	1937
012-123-005	211 High Street	1926	013-152-002	600 Oak Street	1940
012-123-008	115 Washington Blvd.	1950	013-152-004	608 Oak Street	1943
012-123-009	109 Washington Blvd.	1951	013-152-005	612 Oak Street	1925
012-124-001	229 Church Street	1918	013-152-007	624 Oak Street	1916
012-124-002	227 Church Street	1940	013-152-008	628 Oak Street	1920
012-124-005	213 Church Street	1938	013-152-009	632 Oak Street	1920

Table 4.7-1
Pre-1963 Buildings within the Plan Area

APN	Address	Age	APN	Address	Age
012-124-007	217 Church Street	1927	013-152-010	623 Vernon Street	1946
012-124-008	221 Church Street	1924	013-152-016	110 Judah Street	1930
013-071-006	124 Vernon Street	1926	013-152-018	106 Judah Street	1945
013-072-001	222 Jefferson Street	1936	013-152-020	616 Oak Street	1929
013-072-003	126 Linda Drive	1923	013-153-001	114 Taylor Street	1937
013-072-004	122 Linda Drive	1915	013-153-003	510 Oak Street	1930
013-072-005	116 Linda Drive	1930	013-153-004	514 Oak Street	1935
013-072-007	100 Lincoln Street	1926	013-153-005	518 Oak Street	1930
013-072-009	104 Lincoln Street	1940	013-153-006	522 Oak Street	1914
013-072-010	119 Vernon Street	1935	013-153-007	526 Oak Street	1924
013-072-011	111 Vernon Street	1927	013-153-008	530 Oak Street	1914
013-073-002	205 Jefferson Street	1929	013-153-009	534 Oak Street	1930
013-073-015	213 Jefferson Street	1919	013-153-013	515 Vernon Street	1927
013-073-017	225 Jefferson Street	1935	013-153-014	501 Vernon Street	1950
013-073-020	223 Jefferson Street	1919	013-153-022	500 Oak Street	1936
013-073-021	221 Jefferson Street	1961	013-154-001	500 Royer Street	1930
013-161-001	801 Vernon Street	1945	013-154-002	504 Royer Street	1905
013-161-002	803 Vernon Street	1937	013-154-005	516 Royer Street	1944
013-164-001	214 Judah Street	1907	013-154-006	520 Royer Street	1919
013-164-002	218 Judah Street	1920	013-154-008	528 Royer Street	1926
013-164-003	222 Judah Street	1925	013-154-009	532 Royer Street	1931
013-164-004	612 Royer Street	1943	013-154-010	531 Oak Street	1963
013-164-005	616 Royer Street	1925	013-154-011	527 Oak Street	1919
013-164-009	629 Oak Street	1920	013-154-012	523 Oak Street	1911
013-164-010	211 Bulen Street	1960	013-154-013	519 Oak Street	1927
013-164-011	625 Oak Street	1910	013-154-014	515 Oak Street	1943
013-164-012	621 Oak Street	1925	013-154-015	511 Oak Street	1955
013-164-013	619 Oak Street	1925	013-154-016	509 Oak Street	1935
013-164-014	615 Oak Street	1915	013-154-017	202 Taylor Street	1925
013-164-015	609 Oak Street	1922	013-131-007	427 Oak Street	1930
013-164-016	605 Oak Street	1930	013-131-008	423 Oak Street	1935
013-164-017	212 Judah Street	1915	013-131-013	415 Oak Street	1935
013-131-014	411 Oak Street	1935	013-092-009	246 Vernon Street	1935
013-131-016	417 Oak Street	1939	013-092-010	343 Atlantic Street	1907
013-131-022	419 Oak Street	1941	013-092-011	319 Atlantic Street	1918
013-121-003	524 Vernon Street	1946	013-093-001	103 Lincoln Street	1934
013-121-004	534 Vernon Street	1960	013-093-003	235 Vernon Street	1925
013-121-005	510 Vernon Street	1930	013-093-004	231 Vernon Street	1928
013-122-001	400 Vernon Street	1949	013-093-005	229 Vernon Street	1950
013-122-002	404 Vernon Street	1948	013-093-006	219 Vernon Street	1921
013-122-003	406 Vernon Street	1938	013-093-007	201 Vernon Street	1927

Table 4.7-1
Pre-1963 Buildings within the Plan Area

APN	Address	Age	APN	Address	Age
013-122-004	408 Vernon Street	1934	013-093-008	103 Lincoln Street	1949
013-122-005	414 Vernon Street	1963	013-171-002	623 Royer Street	1930
013-122-009	432 Vernon Street	1922	013-171-003	619 Royer Street	1930
013-123-014	Taylor Street	1920	013-171-004	615 Royer Street	1930
013-123-018	424 Oak Street	1910	013-171-005	611 Royer Street	1945
013-124-006	329 Vernon Street	1961	013-171-006	417 Douglas Street	1925
013-124-007	325 Vernon Street	1936	013-171-007	300 Judah Street	1943
013-124-008	323 Vernon Street	1960	013-171-009	308 Judah Street	1930
013-101-002	50 Lincoln Street	1950	013-172-007	523 Royer Street	1945
013-101-004	129 Linda Drive	1956	013-172-008	519 Royer Street	1935
013-101-008	307 Sutter Avenue	1923	013-172-009	515 Royer Street	1920
013-101-009	207 Sutter Avenue	1921	013-172-010	509 Royer Street	1945
013-101-014	123 Linda Drive	1963	013-172-016	317 Judah Street	1959
013-101-018	115 Sutter Avenue	1927	013-172-017	313 Judah Street	1950
013-091-002	316 Vernon Street	1936	011-146-024	106 Main Street	1908
013-091-003	320/330 Vernon Street	1935	011-146-025	110 Main Street	1915
013-092-005	214 & 216 Vernon Street	1924; 1978	013-071-001	106 Vernon Street	c.1935
013-092-006	228 Vernon Street	1920	013-072-012	105 Vernon Street	1947
013-092-007	220 Vernon Street	1947	013-123-009	419–425 Vernon Street	1940
013-092-008	240 Vernon Street	1930			

Table 4.7-2
Post-1963 Buildings within the Plan Area

011-101-008	208 Elefa Street	1985	013-154-004	512 Royer Street	2004
011-142-014	400 Washington Blvd.	1979	013-154-007	524 Royer Street	2003
011-143-008	104 Grove Street	1972	013-132-020	165 Park Drive	1996
012-123-014	123 Washington Blvd.	1983	013-121-002	520 Vernon Street	1976
012-124-004	213 Church Street	1988	013-121-006	500 Vernon Street	1975
013-073-011	97 Vernon Street	2000	013-122-010	426 Vernon Street	1966
013-162-001	725 Vernon Street	2006	013-123-017	401 Vernon Street	1982
013-163-005	701 Oak Street	1967	013-124-011	115 S. Grant Street	1972
013-151-004	600 Vernon Street	1991	013-101-013	127 Linda Drive	1974
013-152-012	605 Vernon Street	1964	013-101-021	140 Folsom Road	1973
013-153-019	521 Vernon Street	1965	013-172-014	323 Judah Street	1964
013-153-023	531 Vernon Street	1980	013-172-020	311 Judah Street	1984
013-154-003	508 Royer Street	1980			

Source: Placer County Assessor's Records

4.7.2 REGULATORY SETTING

CALIFORNIA ENVIRONMENTAL QUALITY ACT

According to CEQA, cultural resources include traces of prehistoric habitation and activities, historic-era sites and materials, places used for traditional Native American observances, or places with special cultural significance. In general, any evidence of human activity over 50 years in age is required to be treated as a potentially significant cultural resource. To allow for adequate time for project planning and approval, resources more than 45 years in age are generally considered for historical significance under CEQA. As build-out for the proposed Plan is projected to occur over the next 20 years, this analysis also considered any property within the Plan area currently more than 25 years in age.

CEQA states that if a proposed project would result in impacts to significant historical resources, then alternative plans or mitigation measures must be considered. However, only significant resources need to be addressed. The State CEQA Guidelines define a significant cultural resource as "a resource listed or eligible for listing on the California Register of Historical Resources" (CRHR) (Public Resources Code [PRC] Section 5024.1). Those CRHR-eligible sites, features, artifacts, or places are termed "historical" resources. A historical resource may be eligible for inclusion on the CRHR if it:

- 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 construction, 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.

In addition to meeting one or more of the above criteria, historical resources must also contain enough integrity to be recognizable as a historical resource. Integrity is evaluated with regard to the retention of location, setting, design, workmanship, materials, feeling, and association.

State CEQA Guidelines (Section 15064.5) also require consideration of unique archaeological sites. If an archaeological site does not meet the criteria for inclusion in the CRHR, but does meet the definition of a unique archeological resource as outlined in PRC Section 21083.2, it may be treated as a significant historical resource.

CITY OF ROSEVILLE GENERAL PLAN 2020

The *City of Roseville General Plan 2020* (City of Roseville 2004) contains the following goals and policies related to archaeological, historic, and cultural resources applicable to the proposed project:

Archaeological, Historic and Cultural Resources Goal: Strengthen Roseville's unique identity through the protection of its archaeological, historic, and cultural resources.

- **Archaeological, Historic and Cultural Resources Policy 1:** When items of historical, cultural or archaeological significance are discovered within the City, a qualified archaeologist or historian shall be called to evaluate the find and to recommend proper action.
- **Archaeological, Historic and Cultural Resources Policy 2:** When feasible, incorporate significant archaeological sites into open space areas.

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

- **Archaeological, Historic and Cultural Resources Policy 4:** Preserve and enhance Roseville's historic qualities through the implementation of the Downtown, Old Town, and Riverside Master Plans.

- **Archaeological, Historic and Cultural Resources Policy 5:** Establish standards for the designation, improvement, and protection of buildings, landmarks, and sites of cultural and historic character.

- **Archaeological, Historic and Cultural Resources Policy 6:** Participate in the completion of a countywide inventory of historical sites.

- **Archaeological, Historic and Cultural Resources Policy 7:** Encourage public activities, including the placement of monuments or plaques that recognize and celebrate historic sites, structures, and events.

4.7.3 Environmental Impacts

Analysis Methodology

The analysis of potential impacts to cultural resources was based on documentary research, archaeological and architectural inventories, analysis of historical references and Plan area maps, and the records search conducted at the NCIC.

Thresholds of Significance

The proposed project would cause a significant effect on cultural resources if it would cause a substantial adverse change in the significance of a historical resource as defined in State CEQA Guidelines Section 15064.5. A substantial adverse change includes physical demolition, destruction, relocation or alteration of the resource such that the significance of the resource would be materially impaired (State CEQA Guidelines Section 15064.5[b]).

Impact Analysis

IMPACT 4.7-1 **Cultural Resources – Disturbance of Architectural Resources.** *The architectural inventory and evaluation conducted for the proposed project resulted in the conclusion that 2 of the 213 architectural properties within the Plan area that are at least 45 years old appear individually eligible for listing on the CRHR. In addition, the Old Town Roseville area is designated as a historic district by the City of Roseville at the local level. The remaining buildings in the Plan area are not considered CRHR-eligible. However, 25 additional buildings in the Plan area were built between 1960 and 1980 and will become at least 45 years in age during the 20-year build-out period for the Plan and may be considered eligible for listing in the CRHR when they become of sufficient age. Therefore, the project would have a* ***potentially significant*** *impact on architectural resources.*

Of the 213 historic-era buildings located in the Plan area (i.e., built before 1963), most were evaluated and determined to have no significant associations and no distinctive architectural characteristics during this study and in previous investigations. In addition, the majority of these buildings have been heavily modified over the years resulting in a loss of historic integrity. Two buildings in the Plan area appear to meet the criteria for CRHR eligibility due to either a significant association to local history (CRHR Criterion 1) or distinguishing architectural characteristics (CRHR Criterion 3). These buildings consist of the City Hall Annex (316 Vernon Street), and the Tower Theater (419-425 Vernon Street). The City Hall Annex building (316 Vernon Street) has suffered some loss of historic integrity due to a one-story addition placed at the rear of the main building. The first two-thirds of

this addition exhibit the same exterior cladding (i.e., board-form concrete) and window treatment as the main building, and likely dates to the late 1930s. Despite the use of these sympathetic design elements, the addition features an overall utilitarian appearance and is out of character with the main building. However, because the addition is at the rear of the building and not visible from the public-facing façade, its impact on the overall style of the building is considered minimal. Furthermore, because the addition appears to be roughly contemporaneous with the original 1930s construction, its impact on overall integrity is further diminished. As stated in National Register Bulletin 15, if a property's historic character defining physical features are visible and not covered by non-historic material, its integrity is considered sufficient to convey significance. Because the character defining Spanish Eclectic features of this building are readily apparent on its principal façade, the rear addition is not seen as a significant loss of integrity.

The old Vernon Street School was previously determined eligible for CRHR listing, however was demolished in 2002. Although introduction of visual elements in the immediate area, such as a new town square, could be viewed as diminishing the integrity of the "immediate surrounds" (i.e., the setting) of historical buildings, this aspect of integrity has already been compromised as a result of modern development in the immediate vicinity, was already compromised at the time of their nomination to the CRHR, and does not diminish their significance.

The Old Town Roseville Historic District consists of commercial buildings displaying a variety of architectural styles ranging from late nineteenth century Victorian styles to the Deco-Moderne style of the 1930s and 1940s. Implementation of the Plan could allow future development to physically alter historical resources on Vernon Street and in the Old Town Roseville District which would result in substantial adverse changes in a manner affecting the characteristics that make these resources eligible as a historical resource.

An additional 25 buildings in the Plan area were constructed after 1963. Because of their recent age of construction, they are not currently considered eligible for inclusion in the CRHR as individual properties. However, build-out under the Plan is anticipated to occur over a 20-year period, during which time 15 of these 25 buildings would become at least 45 years old. Future developments that would remove or substantially alter these 15 resources after they become 45 years in age could adversely affect significant historical resources. These impacts are considered potentially significant.

IMPACT 4.7-2 **Cultural Resources – Disturbance of Potential Subsurface Cultural Deposits.** *No archaeological resources are known to occur in the Plan area. However, because of the extensive amount of development in the Plan area, unknown subsurface cultural deposits could be present beneath roads and buildings. Grading and excavation activities associated with the proposed project could disturb buried archaeological deposits. This impact is considered* ***potentially significant****.*

A records search and an archaeological survey of the Plan area were performed and no archaeological sites were found. However, most of the Plan area is covered by roads, sidewalks, and buildings (i.e., impervious materials). Therefore, unrecorded, buried subsurface cultural deposits could be present within the Plan area beneath these developed areas. Grading, excavation, and trenching activities associated with development activities in the Plan area could potentially disturb intact subsurface cultural deposits in the Plan area. This impact is considered potentially significant.

IMPACT 4.7-3 **Cultural Resources – Undiscovered / Unrecorded Human Remains.** *Project-related construction activities could uncover or otherwise disturb previously undiscovered or unrecorded human remains. Any disturbance of human remains would be a* ***potentially significant*** *impact.*

While no evidence for prehistoric or early historic interments was found in the Plan area, this does not preclude the existence of buried subsurface human remains. California law recognizes the need to protect historic-era and Native American human burials, skeletal remains, and items associated with Native American interments from vandalism and inadvertent destruction. The procedures for the treatment of Native American human remains are contained in California Health and Safety Code Section 7050.5 and Section 7052 and California PRC Section

5097. If any human remains were unearthed during grading, excavation, and trenching activities associated with development activities in the Plan area, particularly those that were determined to be Native American in origin, a potentially significant impact could occur.

4.7.4 MITIGATION MEASURES

The following mitigation measures are provided for potentially significant impacts.

Mitigation Measure 4.7-1: Cultural Resources – Disturbance of Architectural Resources.

Two of the historic-era resources located within the Plan area to appear to be eligible for CRHR listing. These resources include: 316 Vernon Street and 419-425 Vernon Street. The Old Town Roseville area is designated as a historic district at the local level by the City of Roseville. Consequently, it is recommended that any alterations made to these eligible resources be conducted in a manner consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties, and the Design Guidelines for Central Roseville. Generally, under CEQA, a project that complies with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or the Secretary of Interior's Standards for Rehabilitation is considered to have mitigated impacts to a historical resource to a less-than-significant level (State CEQA Guidelines Section 15064.5).

Development within the Plan area could result in new land uses, infill development, and streetscape improvements. Over the 20-year build-out period for the Specific Plan, future developments within the Plan area could result in impacts to 25 buildings built between 1963 and 1983. These buildings and their locations are listed in Table 4.7-2. Prior to the approval of demolition or building permits that would result in substantial alteration of any of the 15 buildings that will reach 45 years in age by the build-out date, the City shall ensure that an evaluation of significance according to CRHR criteria shall be performed. If the evaluation indicates the property is not eligible for listing in the CRHR, no further action is necessary. If any of these buildings are found to be eligible for listing in the CRHR in conjunction with future evaluations, the City shall ensure that the proposed development is consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties or develop other methods to avoid significant impacts to these properties in consultation with the State Office of Historic Preservation (OHP). This measure would reduce potentially significant impacts to Architectural Resources to a less-than-significant level.

If it is not feasible to retain an eligible historic resource, prior to demolition, documentation similar to the standards of the Historic American Building Survey (HABS) shall be conducted. A HABS -like recordation would document the site history, construction history, and current appearance of the eligible resource in the context of Roseville's history. The HABS-like recordation shall be completed by an architectural historian who meets the Secretary of the Interior's professional qualifications standards, and an experienced HABS photographer. The final document shall be filed in a local library / repository. Although this type of documentation eliminates one adverse impact of demolition (i.e., loss of historical information) it does not prevent the physical loss of a historically significant resource.

Implementation of the above mitigation measure would reduce impacts related to disturbance of architectural resources. However, the potential loss of a historically significant resource could occur. While implementation of mitigation measure 4.7-1 would lessen project impacts, demolition of a historical resource would be a significant adverse change and, therefore, considered a significant and unavoidable impact.

Mitigation Measure 4.7-2: Cultural Resources – Potential Subsurface Cultural Deposits.

In the event that unrecorded cultural materials are identified during construction-related ground disturbing activities, potentially destructive work in the vicinity of the find shall cease until a qualified archaeologist can

determine the significance of the find and, if appropriate, provide recommendations for treatment to the City. Treatment approved by the City shall be implemented prior to resuming ground disturbing activities.

Implementation of the above mitigation measure would reduce impacts related to unrecorded cultural deposits identified during construction activities. As a result this impact would be reduced to a less-than-significant level.

Mitigation Measure 4.7-3: Cultural Resources – Undiscovered / Unrecorded Human Remains.

If human remains are discovered at any project construction site during any phase of construction, work within 50 feet of the remains shall be suspended immediately, and the City of Roseville, the project applicant, and the county coroner shall be notified immediately. If the remains are determined by the county coroner to be Native American, the Native American Heritage Commission (NAHC) shall be notified within 24 hours, and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. The City or the project applicant shall also retain a professional archaeologist with Native American burial experience who shall conduct a field investigation of the specific site and consult with the Most Likely Descendant (MLD) identified by the NAHC. As necessary, the archaeologist may provide professional assistance to the MLD including the excavation and removal of the human remains. The City or the project applicant shall implement any mitigation before the resumption of activities at the site where the remains were discovered.

Implementation of the above mitigation measure would reduce impacts related to the discovery of human remains during project construction. As a result this impact would be reduced to a less-than-significant level.

4.7.5 Residual Significant Impacts

Implementation of the proposed project includes the possibility of demolishing a historical resource (i.e., 316 Vernon Street). While implementation of mitigation measure 4.7-1 would lessen project impacts to architectural resources to the extent feasible, demolition of a historical resource would be considered a significant adverse change and, therefore, a significant and unavoidable impact.

4.8 HAZARDS AND HAZARDOUS MATERIALS

This section discusses the existing hazardous conditions in the Plan area, in terms of known current and historic contamination, and evaluates the potential hazardous materials and public health impacts of the proposed project. A Phase I Environmental Site Assessment (Phase I) was prepared by Natural Investigations (2007) as part of the EIR evaluation and prepared in support of the proposed project. This Phase I includes an environmental risk management database report for the Plan area and is included as Appendix C of this DEIR.

This project DEIR has been prepared to meet the requirements of a project-level EIR. The City's intention in preparing this project EIR is that no further environmental review under CEQA would be required for subsequent projects which are consistent with the Specific Plan to provide for the streamlined approval of projects proposed within the Plan area that are consistent with land use designations, adhere to design guidelines (specifically prototype development), or fall within the scope of the Specific Plan and EIR.

4.8.1 EXISTING CONDITIONS

The Plan area is a civic planning area located in downtown Roseville. As shown in Exhibit 4.1-1 (see Section 4.1, "Land Use and Planning"), the Plan area contains various industrial, retail/commercial buildings, office buildings, public facilities, residential, vacant lots, and parking lots. The Plan area also contains paved roads, sidewalks, and underground utilities. In addition, the UPRR railyard and rail corridor extends through the middle of the Plan area. As part of the Phase I, Environmental Data Resources, Inc. was contacted to produce an environmental risk management database report for the Plan area and within a 1-mile radius around the Plan area. The report compiled information from federal, state, and local environmental databases on properties with known hazardous environmental conditions or properties that handle, transport, use, or store hazardous materials. This database report is included in the Phase I (see Appendix C). While most Phase I investigations are generally performed for property transfer actions, this Phase I was performed in support of the requirements of the CEQA as it applies to the proposed project. Specifically, the Phase I evaluates the hazards and hazardous materials in the Plan Area, determines potential impacts of hazards and hazardous materials related to the proposed project, and identifies potential mitigation measures to reduce negative impacts of hazardous materials during Plan implementation.

Evidence from the Phase I records research, site reconnaissance, and interviews has determined that known Recognized Environmental Conditions (RECs) currently exist, or have historically existed, within the Plan area. The following text summarizes historical and current areas of concern within, or in the immediate vicinity of, the Plan area that were identified in the Phase I.

The following are historical areas of concern within the Plan area identified during research accomplished as part of the Phase I.

- **316 Vernon Street**, parking lot – one fuel underground storage tank (UST), hydraulic lift, and buried drums were removed in 2000; stockpiled soils were reported to contain petroleum hydrocarbon and lead contamination, but subsequently reused offsite; case was closed in 2002.
- **725 Vernon Street**, Rock of Roseville – search for a suspected abandoned UST revealed nothing.
- **310 Washington Street** – three fuel USTs and one waste oil UST were removed in 1990; petroleum hydrocarbons were detected and the pit over-excavated; case was closed in 2005.
- **300 Lincoln Street**, Barker Hotel – a fuel UST was removed and petroleum hydrocarbon contamination of soil was detected; soils were removed in 2004, and the case was closed.
- **301 Lincoln Street** – a fuel UST was abandoned in place under permit.

The following are current areas of concern within the Plan area identified during Phase I records research:

- **404 Vernon Street** – former Deluxe Dry Cleaners operated a leaking sewer that discharged cleaning fluids. Groundwater and soils were contaminated by tetracloroethylene, trichloroethylene (TCE), and chloroform. Two of the City of Roseville's groundwater wells were impacted. Remedial action included ozone injection in 2003. The Central Valley Regional Water Quality Control Board (CVRWQCB) has required additional remediation and ongoing groundwater monitoring, and the case is still active.

- **120 Church Street** – removal of two heating oil USTs identified soil contaminated with kerosene. The contaminated soil was subsequently removed. The status of contamination is being monitored.

- **121 Church Street** – USTs were abandoned in-place in an alley. Soil testing is proposed.

- **510 Washington Boulevard,** Beacon Service Station – gasoline and MTBE released to groundwater from UST in 1991. A dual-phase extraction system was implemented in 2003 and a final remediation plan was filed in 2005. The RWQCB has required ongoing groundwater monitoring, and the case is still active.

- **412 Lincoln Street** – former gasoline fuel station operated until the mid-1960's. In 2001, a permit and report for removal of one 3,000-gallon fuel UST and two 6,000-gallon buried railcars used as USTs was submitted. Soil and groundwater were contaminated by gasoline and diesel. The CVRWQCB requested a workplan in 2007.

- **97 Vernon Street** – former Tillet Cleaners contaminated groundwater with TCE / perchlorethylene (PCE). Currently in post-remedial, monitoring stage.

- **200 Washington Street** – two abandoned USTs, status unknown.

The following are historical areas of concern located outside of the Plan area but could impact developments within the Plan area.

- **108 Riverside Avenue,** Rose Liquor and Food – a use permit was filed for Bill's Phillips Service to operate a 9,000-gallon gasoline UST in 1971; a permit was filed for Triangle, Inc., to install one 10,000-gallon UST in 1974; permits were filed by P & P Building Wrecking, Inc., to abandon two USTs (4,000-gallon and 5,000-gallon) and install a new tank in 1977; permits were filed for Rose Food and Liquor to install three 12,000-gallon USTs and remove two USTs in 1986; an abandoned 550-gallon UST was discovered and a gasoline release detected in 2002 during dispensing system upgrading; WEGE removed the tank and excavated contaminated soils in 2002; the CVRWQCB required additional groundwater sampling; the case is still active.

- **604 Riverside Avenue,** Eskridge's Chevron #9-29-37 – two 10,000-gallon USTs and one 5,000-gallon UST were installed in 1970; one waste-oil UST (unknown size) was removed and replaced with a new UST and contaminated soils were disposed in 1994; 10 gallons of gasoline were released by a car that tore off the dispenser nozzle, and impacted soil was removed; in 1995, three gasoline USTs (unknown size) were removed and replaced with three 12,000-gallon USTs, petroleum-product contaminated soils were found; site investigation was performed in 1995 and a soil vapor extraction system was installed; sparging wells and monitoring wells were installed through 2002; additional subsurface investigations were performed in 2003 and 2004; CVRWQCB has required ongoing groundwater monitoring, and the case is still active.

- **609B Riverside Avenue,** Sierra Station #13 / Riverside Beacon – release of petroleum hydrocarbons to groundwater detected during upgrade inspections in 1998; a site investigation was performed in 2000; groundwater extraction work plan prepared in 2001; additional site characterization and installation of monitoring wells conducted in 2003; CVRWQCB has required ongoing groundwater monitoring and the coordination of monitoring efforts with the remediation occurring at 604 Riverside Avenue.

- **200 to 1600 Vernon Street and 6125 Atkinson Street,** Union Pacific Rail Road Roseville Yard – a permit was filed to remove one waste oil tank at the yard near Vernon Street and 3rd Street in 1986; in 1984, soil and

groundwater contamination at North Yard Operable Unit was addressed; from 1984 to 1994, approximately 57,000 cubic yards of petroleum hydrocarbon-impacted soils were excavated for off-site disposal and 1,166,000 gallons of impacted ground water were pumped and treated or disposed of off-site according to the 1993 and 1996 Remedial Action Plans; an additional Remedial Action Plan was approved in 2003 for disposal of an additional 250 cubic yards of impacted soil; in 2002, at Building 7244, approximately 1,000 gallons of diesel fuel were spilled, 200 gallons of free product was removed, contaminated soil was removed; in 2003, a leaking locomotive fuel tank released 250 gallons of diesel fuel, impacted soil was excavated and disposed; the 2003 report by Environmental Resources Management entitled "Phase III Remedial Investigation Interim Data Report and Additional Investigation Recommendations" is intended to coordinate, with Department of Toxic Substances Control (DTSC), remedial investigations and actions at the entire Roseville Yard and determine the extent of petroleum hydrocarbon plume(s); the case is still active.

- **100 Elm Street,** Sal's Garage – waste oil was released to soil in 1991; a Phase II ESA was performed in 1994; remedial action was taken, and the case was closed.

- **200 Atlantic Street,** Brick Paolini Texaco – 1970 use permits for two 5,000-gal. gasoline UST, one 2,000-gallon diesel USTs; 1971 use permits for one 2,000-gallon diesel UST and one 14,000-gallon gasoline UST; 1971 install permit (to Triangle Inc.) for one 4,000-gallon UST; 1984 install permit for three 5,000-gallon USTs (Paul Becker Service Station); 1984 abandon/remove permit for three 5,000-gallon USTs and one 2,000-gallon UST; 1995 use permits for one 5,000-gallon diesel UST, two 5,000-gallon gasoline USTs (all installed 1983).

- **1017 Douglas Boulevard,** Former E-Z Serve #100875 – CVRWQCB requested additional remedial action for gasoline contamination of soil and groundwater.

- **1000 Douglas Boulevard,** Douglas Exxon – petroleum hydrocarbon remediation complete; monitoring status.

4.8.2 Regulatory Setting

State and Local Agencies

Several state agencies regulate the transportation and use of hazardous materials to minimize potential risks to public health and safety. These agencies include the California Environmental Protection Agency (Cal/EPA) and the Office of Emergency Services. The California Highway Patrol and Caltrans enforce regulations specifically related to hazardous materials transport. Within Cal/EPA, the DTSC has primary authority to enforce hazardous materials regulations. State hazardous waste regulations are contained primarily in Title 22 of the CCR. Individual RWQCBs are the lead agencies responsible for identifying, monitoring, and cleaning up leaking USTs. The Placer County Environmental Health Division (PCEHD) regulates the cleanup of contaminated properties in its jurisdiction in coordination with Cal/EPA. The Roseville Fire Department is a Certified Unified Program Agency (CUPA), and as such, is the lead hazardous materials management agency for properties within the City of Roseville.

A Phase I is conducted on a property to investigate the potential presence of hazardous materials on the property, in the soil, or in the groundwater. The results of a Phase 1 are generally provided to DTSC for concurrence and to obtain recommendations for further investigation. A Phase I is an initial investigation of the site to identify whether hazardous materials are present and to determine if identified environmental conditions require further evaluation. A Phase II Environmental Site Assessment (Phase II) is a supplemental investigation that generally explores surface and subsurface conditions of those areas of the site that were identified by the Phase I as being a REC at the site. Thus, a Phase II ESA is an added investigative step for those areas found to likely have contamination and confirms whether in fact contamination is present.

In the Phase I prepared for the proposed project, properties were identified in the Plan area as having RECs. A Phase II would normally be recommended in this case because of the RECs identified. However, each area of

concern noted in the Phase I had a site investigation (SI) performed and each of these areas is currently engaged in either remedial actions or subsequent groundwater monitoring activities. Furthermore, local regulatory agencies are overseeing the remedial work and ensuring that environmental conditions are restored to appropriate and legal levels before the cases are closed.

CITY OF ROSEVILLE GENERAL PLAN 2020

The *City of Roseville General Plan 2020* does not specifically address the potential impacts of hazardous materials or safety issues in the Plan area, but includes goals and policies that address hazardous materials storage, transportation, clean-up, and emergency response within the City in the Hazardous Materials Component of the Safety Element – VIII. The Hazardous Materials Component consists of one goal and four policies that apply to the proposed project, as listed below:

Hazardous Materials Goal: Protect the community's health, safety, natural resources, and property through the regulation of use, storage, transport, and disposal of hazardous materials.

- **Policy 1:** Require the disclosure of the use and storage of hazardous materials in existing and proposed industrial and commercial activities and siting of hazardous waste disposal facilities in accordance with Placer County guidelines and state law.
- **Policy 2:** Work with Placer County and other public agencies to inform consumers about household use and disposal of hazardous materials.
- **Policy 3:** Cooperate fully with both public and private agencies, as defined in the City of Roseville Hazardous Materials Emergency Response Plan in the event of a hazardous materials emergency.
- **Policy 4:** Develop a hazardous materials truck route through the City of Roseville and limit pickup and delivery of hazardous materials during peak traffic hours.

4.8.3 ENVIRONMENTAL IMPACTS

ANALYSIS METHODOLOGY

The following reports document potential hazardous conditions in the Plan area and were reviewed for this analysis:

- plans for the proposed project;
- available literature, including documents published by city, county, state, and federal agencies;
- review of applicable elements from the County General Plan and the *City of Roseville General Plan 2020*;
- *Programmatic Phase I Environmental Site Assessment for the Downtown Roseville Specific Plan*, prepared by Natural Investigations Company (2007).

In addition to reviewing the above reports, the U.S. Environmental Protection Agency's (EPA's) Envirofacts website (as described above) was searched to confirm information presented in the Phase I and to identify any new hazardous material sites in the Plan area. Proposed project activities were evaluated against the hazardous materials information gathered from the above sources to determine whether any risks to public health and safety or other conflicts would occur.

THRESHOLDS OF SIGNIFICANCE

The proposed project would cause a significant impact related to hazardous materials and public health if it would:

- create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- create a significant hazard to the public or the environment through the reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment;
- result in a safety hazard for people residing or working in the Plan area, for projects within an airport land use plan or within two miles of a public airport;
- impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan;
- expose construction workers to hazardous materials that would create health risks during construction; or
- create a health or potential health hazard.

IMPACT ANALYSIS

IMPACT 4.8-1 **Hazardous Materials – Use, Storage, or Handling of Hazardous Materials.** *The proposed project would involve the storage, use, and transport of hazardous materials at individual project sites during construction activities. In addition, because the Plan envisions commercial land uses, it is likely that some facilities (e.g., dry cleaners, gas stations) could use hazardous materials during operation. However, use of hazardous materials in the Plan area would require compliance with local, state, and federal regulations. Furthermore, the City of Roseville performs annual inspections of all businesses utilizing hazardous materials and requires each business to file a Hazardous Materials Management Plan. Therefore, impacts related to creation of significant hazards to the public through routine transport, storage, use, disposal, and risk of upset would not occur. This impact is considered* ***less than significant****.*

As identified in the Phase I prepared for the project (Appendix C), the following businesses store and utilize hazardous materials and are regulated by the Roseville Fire Department.

- **323 Judah Street**, Bud's Fabricare – registered use of tetrachloroethylene, 100 gallons per day.
- **242 Lincoln Street**, Verizon Wireless – registered use of electric storage batteries (2,904 pounds), lead-calcium (792 pounds), and Freon FE 1301 (70 pounds).
- **200 Atlantic Street, #A**, Apex Motorsports – hazardous waste generator.
- **308 Washington Boulevard**, Nubbins Drive-Inn – fire inspection.
- **911 Washington Boulevard**, Palmer Sign Company – registered use of hazardous materials.
- **114 Vernon Street** – registered use of 6,000-gallon diesel UST; hydroxymethyl methoxyphenoxy butyryl (HMPB)

- **401 Oak Street**, Roseville Fire Department – registered use of 2,000-gallon diesel UST.
- **600 Vernon Street**, Bertini's German Motors of Roseville – current registered hazardous materials use, 1,100 gallons per year of waste oil.
- **640 Vernon Street**, Ironfox – HMPB; 5 gallons waste oil.
- **1301 Main Street**, First Church of the Nazarene – 205-gallon propane aboveground storage tank (AST).
- **510 Washington Boulevard**, Hira Petroleum / Beacon – Hazardous Materials Management Plan on file; annual inspections performed; facility uses three 12,000-gallon USTs containing gasoline.
- **921 Washington Boulevard, #401**, Aquaservice Engineers – 150 gallons of sodium metabisulfite (boiler treatment).
- **941 Washington Boulevard, #318**, Tuff Coat Spray-on Bedliners of California – hazardous materials inspection reports show compliance.
- **998 Washington Boulevard**, U-Store America – propane AST.

Future land uses in the Plan area, including residential and commercial uses, would involve the storage, use, transport, and disposal of hazardous materials (e.g., asphalt, fuel, lubricants, paint) during construction activities. In addition, commercial uses associated with implementation of the Plan could include facilities such as medical offices and dry cleaners that could use and routinely transport hazardous material to and from the Plan area. The California Highway Patrol and Caltrans regulate transportation of hazardous materials on area roadways, whereas use of these materials is regulated by the DTSC, as outlined in Title 22 of the CCR. The project applicant, builders, contractors, business owners, and others would be required to use, store, transport, and dispose of hazardous materials in compliance with local, state, and federal regulations during project construction and operation. Facilities that would use hazardous materials on-site after the project is constructed would be required to obtain permits and comply with appropriate regulatory agency standards designed to avoid hazardous waste releases. Because the Plan would not inhibit future land uses from implementing and complying with existing hazardous material regulations, impacts related to creation of significant hazards to the public through routine transport, use, disposal, and risk of upset would not occur in the Plan area. Therefore, this impact is considered less than significant.

IMPACT 4.8-2 **Hazardous Materials – Exposure of Construction Workers, Residents, and Others to Hazardous Materials.** *Potential recognized environmental conditions (RECs) have been identified in the Plan area. Existing or past uses were identified to have resulted in contamination of soil and/or groundwater in some locations. In addition, demolition, excavation, and construction activities in the Plan area could result in the exposure of construction workers to hazardous materials such as asbestos, petroleum hydrocarbons, and/or other harmful contaminants. If contaminated sites in the Plan area are not remediated before occupation or use of the site, future residents and others could be exposed to hazardous materials. This impact is considered* ***significant.***

The RECs detailed in Section 4.8.2 are likely to have a negative impact (i.e., significant effect) on the Plan area if they are not fully remediated before implementation of the Specific Plan. The Plan area contains a mix of industrial, commercial, and residential land uses with a minimum of 100 years of historical hazardous material use. Historic dry cleaning operations contaminated groundwater in the Plan area and City-owned wells with volatile organic compounds (i.e., perchloroethylene [PCE], trichloroethylene [TCE]). In addition, petroleum-based contaminant plumes exist in groundwater in several commercial locations in the Plan area. Because residences and businesses in the Plan area and immediate vicinity do not rely upon groundwater for potable water supply, the immediate risk to human health from this contaminated groundwater is not great; supervising agencies have not issued any warnings or restricted uses in the Plan area. However, ground disturbance or excavation

during construction and implementation of the Specific Plan could pose a risk to human health for construction personnel, especially if the identified contaminants were encountered during trenching. Hazards include ignition of flammable liquids or vapors; inhalation of toxic vapors in confined spaces such as trenches; the excavation of undocumented obstructions such as USTs, piping, or solid waste; or skin contact with contaminated soil or water.

Each area of concern identified in the Phase I and described above has previously had a Phase II or SI performed, and each of these areas is currently engaged in either remedial actions or associated groundwater monitoring activities. Furthermore, regulatory agencies are overseeing the remedial actions and ensuring that environmental conditions are restored to appropriate and legal levels before the cases are closed. The Phase I concluded that excavation activities in the Plan area and implementation of the Specific Plan could proceed if appropriate mitigation measures are taken.

In addition, some structures located in the Plan area were constructed prior to 1977. Because of these structure's age, there is a possibility that several of these structures could include asbestos-containing building materials and lead-containing materials (e.g., paint, sealants, pipe solder), which could become friable or mobile during demolition activities and come into contact with construction workers. Asbestos and lead-based paint are considered hazardous materials of potential concern because of their carcinogenic (i.e., cancer-causing) and adverse developmental properties. Asbestos is classified as a known carcinogen by federal, state, and local agencies and was identified as a Toxic Air Contaminant (TAC) in 1986 by the California Air Resources Board (CARB). The use of asbestos in housing materials (e.g., ceiling joints, insulation) was banned in 1977. Lead was used in paint to improve its durability and was commonly used in homes and commercial buildings prior to 1950. The concentrations of lead allowed in household paint were reduced in 1950, and in 1978 the U.S. Consumer Product Safety Commission lowered the legal maximum lead content in most kinds of paint to trace concentrations (i.e., less than 0.06%).

Prior to any demolition or alteration of structures built before 1977 in the Plan area, each structure constructed prior to 1977 would need to be assessed for the presence of asbestos and lead-based paint by a qualified hazardous materials consultant. Any asbestos and/or lead-based paint that is found would require removal and disposal by a licensed abatement contractor in accordance with applicable regulations. Potential exposure of construction workers, residents, and others to hazardous materials in the Plan area is considered a significant impact.

Based on the records research, site reconnaissance, and interviews conducted during the Phase I, it was found that properties exist within and adjacent to the Plan area that may contain hazardous materials releases and/or contamination which could represent a potential hazard to construction workers, the public, or the environment. With implementation of an appropriate Health and Safety Plan, the risk to construction personnel and the public by RECs in the Plan area would be reduced to a less-than-significant level, as discussed below.

4.8.4 Mitigation Measures

No mitigation measures are necessary for the following less-than-significant impact:

4.8-1: Hazardous Materials – Use, Storage, or Handling of Hazardous Materials

The following mitigation measure is provided for significant impacts relating to hazardous materials:

Mitigation Measure 4.8-2: Hazardous Materials – Exposure of Construction Workers, Residents, and Others to Hazardous Materials.

A Health and Safety Plan (HASP) prepared for the construction process, consistent with general industry standards and Occupational Safety and Health Administration (OSHA) requirements, would address the risks to construction personnel and public safety, such that these health and safety risks would be mitigated to an acceptable level. A qualified professional, such as a Certified Industrial Hygienist (CIH), would prepare the HASP to provide guidance for personnel involved in trenching and other excavation work where there is evidence of hydrocarbons or other hazardous materials.

The HASP utilized for each construction phase would describe in detail the health and safety guidelines, procedures, and work practices that must be adhered to and the work to be performed, and would also include special details governing certain work, such as working in confined spaces. Should contaminants be found, appropriate measures would be taken to mitigate potential effects related to construction/implementation of the proposed project. This may include excavation of contaminated soils and disposal at an appropriate facility. The potential contaminants of concern are petroleum hydrocarbons and associated chemicals, such as oxygenates and fuel scavengers, and volatile organic carbons (e.g., PCE, TCE).

The HASP would address appropriate personal protective equipment (PPE), monitoring to protect on-site workers; and the appropriate level of worker training (e.g., Hazardous Waste Operations and Emergency Response training). Monitoring may include visual and olfactory observation (e.g., soil staining or unusual odors), or air monitoring with hand-held devices (e.g., photo-ionization detector) to detect volatile hydrocarbons. Health-risk based action levels should be identified for various contaminants that would trigger modifications to work practices. Work practice modifications may include the cessation of construction activities until soil or groundwater sampling is performed, or an increase in the level of PPE or worker training. A Sampling and Analysis Plan (SAP) would accompany the HASP to determine if contaminants of concern are present and at what concentrations.

The HASP would also address procedures to follow if unknown objects (e.g., USTs, underground piping) are encountered during construction activities. Specialized contractors would be hired to decommission and remove such USTs and perform confirmation sampling as necessary. The implementation of an adequate site-specific HASP would reduce the health risk to construction personnel by these recognized environmental conditions to a less-than-significant level.

In addition, the following measures shall apply to construction activities, as appropriate.

1) The construction contractor shall notify the Roseville Fire Department if evidence of soil or groundwater contamination (e.g., stained soil, unusual odor in groundwater) is encountered during construction activities. Any contaminated areas shall be remediated in accordance with recommendations made by the Fire Department, RWQCB, DTSC, or other appropriate federal, state, or local regulatory agencies.

2) Prior to demolition of any buildings constructed before 1977, the project applicant shall hire a qualified consultant to investigate whether any of these buildings contain lead and/or asbestos-containing materials and lead that could become friable or mobile during demolition activities. If found, the lead and/or asbestos-containing materials shall be removed by an accredited contractor in accordance with EPA and California OSHA standards. In addition, all activities (construction or demolition) in the vicinity of these materials shall comply with California OSHA lead and asbestos worker construction standards. The lead and asbestos-containing materials shall be disposed of properly at an appropriate off-site disposal facility.

The City would require contractors to prepare a site-specific HASP for individual projects within the Plan area to address current or historic RECs identified in the Phase I to verify that contractors are aware of site-specific RECs. As an alternative, the City could prepare a Plan-wide programmatic HASP to address all RECs identified in the Plan area, although preparation of the HASP is the ultimate responsibility of the contractor.

Implementation of Mitigation Measure 4.8-2 would reduce impacts related to exposure to hazardous materials to a less-than-significant level.

4.8.5 Residual Significant Impacts

There would be no residual significant impacts associated with hazardous materials and public health after implementation of the mitigation measures recommended in this section.

4.9 BIOLOGICAL RESOURCES

This section addresses biological resources that could be affected by implementation of the proposed project. The information presented in this section is based on review of existing documents, aerial photography, habitat maps, biological resource databases, and field survey results. The following documents were the primary sources of information for this biological resources analysis.

- Dry Creek Coordinated Resource Management Plan, Placer and Sacramento Counties, California (ECORP 2003)

- Biological Resources Assessment: Downtown Vernon Street and Historic Old Town Specific Plan Area, Roseville, Placer County, California (EDAW 2007) (see Appendix D)

A reconnaissance-level field assessment of the Plan area within 100 feet of Dry Creek was also conducted by EDAW biologists Lynn Hermansen, Erin McDermott, and Dana Terry on October 3, 2006. Additional documents that provided information relevant to this analysis are cited throughout this section, and corresponding references are included in Chapter 9, "References."

This project DEIR has been prepared to meet the requirements of a project-level EIR. The City's intention in preparing this project EIR is that no further environmental review under CEQA would be required for subsequent projects which are consistent with the Specific Plan to provide for the streamlined approval of projects proposed within the Plan area that are consistent with land use designations, adhere to design guidelines (specifically prototype development), or fall within the scope of the Specific Plan and EIR.

4.9.1 EXISTING CONDITIONS

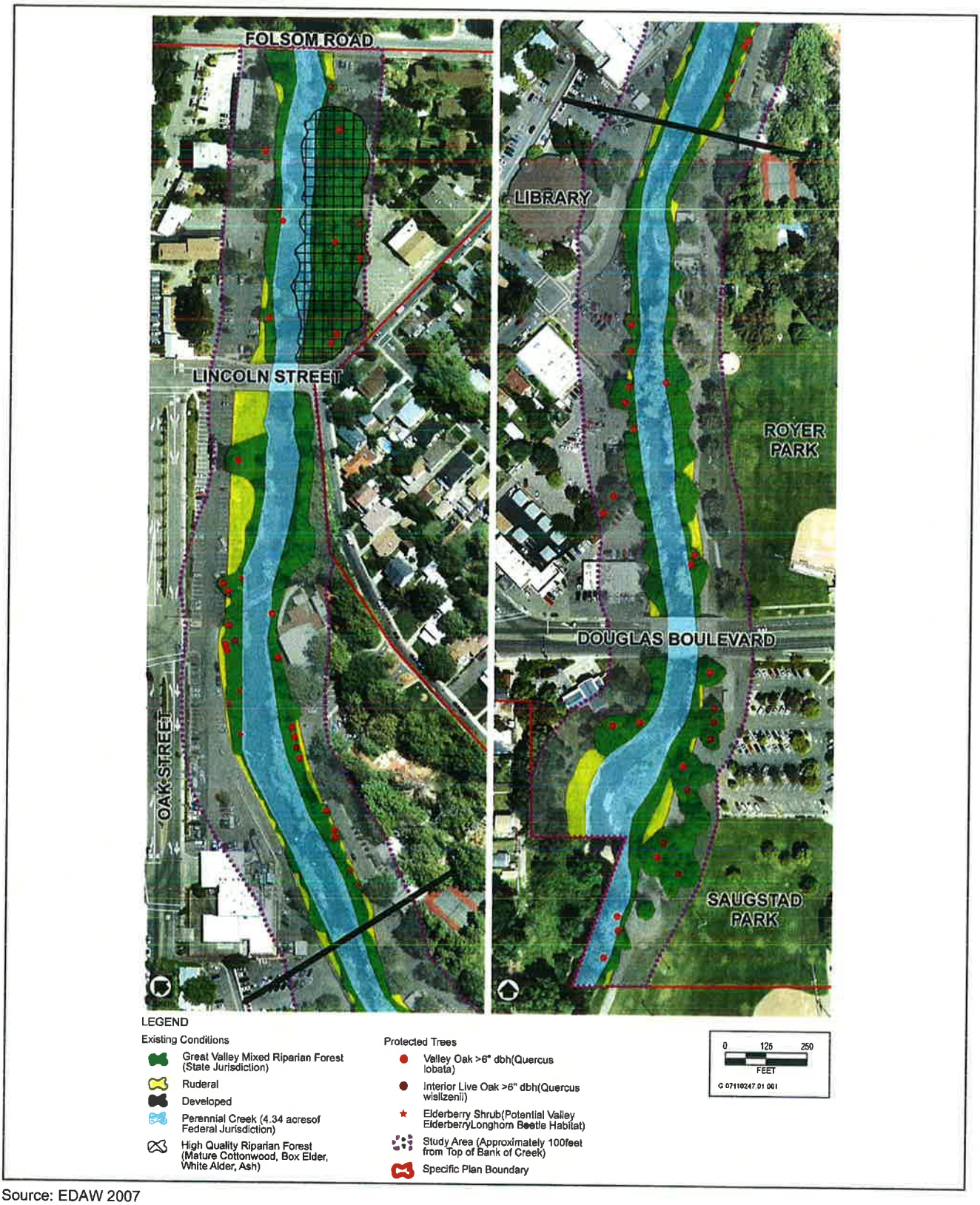
REGIONAL CONTEXT

The Plan area is located in and around the downtown area of the City of Roseville in Placer County (see Exhibit 3-2 in Chapter 3, "Project Description"). The Plan area includes 159 acres in Roseville's Downtown Vernon Street and Historic Old Town districts, and is located within the Citrus Heights and Roseville USGS 7.5-minute topographic quadrangles, in the southeastern portion of the Sacramento Valley.

GENERAL DESCRIPTION

The majority of the Plan area is heavily urbanized and offers little habitat for native plants and wildlife. One important exception is the riparian corridor along Dry Creek which provides habitat for many native species (Exhibit 4.9-1). Dry Creek is a perennial stream and qualifies as a protected "Water of the U.S." subject to U.S. Army Corps of Engineers (USACE) jurisdiction under Section 404 of the federal Clean Water Act. Dry Creek flows through the middle of the City of Roseville within a deeply incised channel. Within the Plan area, the creek flows from north to south and ranges in width between 40 and 80 feet. The creek banks are generally very steep, ranging from 10 to 30 feet in height, and in some places are nearly vertical. There are numerous bank sections where riprap, concrete chunks, gabions, jute netting, and other materials have been placed over time to stabilize the eroding creek banks. Several culverts discharge water from storm drains directly into the creek.

Dense urban development characterizes the area adjacent to the entire west edge of the creek as well as the east edge of the creek north of Lincoln Road. South of Lincoln Road, Dry Creek is bordered by two municipal parks which contain lawns, sports playing fields, playgrounds, and picnic areas. A paved walking/bike path runs along the eastern edge of the creek for a portion of the Plan area. Two vehicular bridges and two pedestrian bridges cross the creek.



Source: EDAW 2007

Existing Dry Creek Habitats

Exhibit 4.9-1

HABITAT TYPES

Vegetation communities in the Plan area include riparian woodland, ruderal, and landscaped/ developed lands (see Exhibit 4.9-1). A large portion of the Plan area consists of the open water channel of Dry Creek which is unvegetated.

Riparian Woodland

Riparian woodland in the Plan area occurs as a narrow band between Dry Creek and developed areas such as parks, walking paths, and parking lots. However, a stand of high quality riparian woodland composed of mature native trees is present adjacent to the creek in the northeast portion of the Plan area, north of Lincoln Road, (see Exhibit 4.9-1). In sections along the east side of the creek, the tree canopy is continuous with planted street and park trees. Characteristic native tree species of within this portion of the Plan area include white alder (*Alnus rhombifolia*), Fremont cottonwood (*Populus fremontii*), valley oak (*Quercus lobata*), Oregon ash (*Fraxinus latifolia*), western sycamore (*Platanus racemosa*), arroyo willow (*Salix lasiolepis*), sandbar willow (*Salix exigua*), and California box elder (*Acer negundo* ssp. *californicum*). Characteristic native plant species present in the understory include coyote brush (*Baccharis pilularis*), mugwort (*Artemisia douglasiana*), California button-willow (*Cephalanthus occidentalis*), western goldenrod (*Euthamia occidentalis*), and western ragweed (*Ambrosia psilostachya*). Non-native plant species present in the understory include Himalayan blackberry (*Rubus discolor*), tree of heaven (*Ailanthus altisimma*), southern catalpa (*Catalpa bignonioides*), glossy privet (*Ligustrum lucidum*), eastern cocklebur (*Xanthium strumarium*), firethorn (*Pyracantha angustifolia*), and sweet fennel (*Foeniculum vulgare*) (EDAW 2007).

Ruderal Vegetation

Ruderal vegetation is typical of disturbed lands on which the native vegetation has been completely removed by human activities such as grading, disking, cultivation, or other surface disturbances. Disturbed areas, if left undeveloped, may become colonized by exotic species as well as native species. Native vegetation may ultimately become at least partially restored if the soils are left intact and there is no further disturbance.

Within the Plan area, ruderal vegetation is present adjacent to paved surfaces such as roads and walking paths. Ruderal vegetation on-site primarily includes non-native annual grasses and forbs typical of local non-native annual grassland including the following observed species: Italian ryegrass (*Lolium multiflorum*), wild oats (*Avena fatua*), rip-gut brome (*Bromus diandrus*), Bermuda grass (*Cynodon dactylon*), hare barley (*Hordeum murinum* var. *leporinum*), black mustard (*Brassica nigra*), bristly ox-tongue (*Picris echioides*), sweet fennel, eastern cocklebur, horseweed (*Conyza canadensis*), and yellow-star thistle (*Centauria soltitialis*). Native species present include tall willow-herb (*Epilobium brachycarpum*), dense-flowered willow-herb (*Epilobium densiflorum*), and mugwort, all of which are common in disturbed habitats (EDAW 2007).

Landscaped and Developed Lands

Landscaped and developed lands cover most of the Plan area. Landscaped areas include Saugstad Park and Royer Park. Ornamental trees planted in the Plan area include London plane tree (*Platanus acerifolia*), magnolia (*Magnolia* sp.), camphor tree (*Cinnamomum camphorum*), ash (*Fraxinus* sp.), elm (*Ulmus* sp.), African sumac (*Rhus lancea*), deodar cedar (*Cedrus deodara*), and coast redwood (*Sequoia sempervirens*), among others (EDAW 2007).

WILDLIFE

Riparian habitat along Dry Creek provides suitable habitat for a wide variety of wildlife species. Large riparian trees along the creek are likely used for nesting and cover by many bird species including western wood-pewee (*Contopus sordidulus*), black-headed grosbeak (*Pheucticus melanocephalus*), tree swallow (*Tachycineta bicolor*),

and Cooper's hawk (*Accipiter cooperii*), and could also be utilized as roosting habitat for some bat species such as red bat (*Lasiurus borealis*) and California myotis (*Myotis californicus*). Riparian canopies also provide nesting and foraging habitat for common mammals such as western gray squirrel (*Sciurus griseus*). Understory shrubs provide cover for ground-nesting birds including spotted towhee (*Pipilo maculatus*). Shrubs and fallen logs also provide cover for small mammals, reptiles, and amphibians that forage among the vegetation and leaf litter. The perennial aquatic habitat also provides potential breeding sites for common amphibian species such as Pacific chorus frog (*Pseudacris regilla*), and foraging habitat for reptiles, mammals, and birds such as common garter snake (*Thamnophis sirtalis*), raccoon (*Procyon lotor*), belted kingfisher (*Ceryle alcyon*), and mallard (*Anas platyrhynchos*).

The grass-dominated ruderal patches within the Plan area are likely to support native mammal and bird species that are common in open, disturbed habitats and feed on seeds or herbaceous growth including California vole (*Microtus californicus*), Botta's pocket gopher (*Thomomys bottae*), California ground squirrel (*Spermophilus beecheyi*), and house finch (*Carpodacus mexicanus*). These prey species and insects such as grasshoppers attract generalist predators that occur in a variety of habitats, including American kestrel (*Falco sparverius*), red-tailed hawk (*Buteo jamaicensis*), gopher snake (*Pituophis catenifer*), and western fence lizard (*Sceloporus occidentalis*).

Urban and landscaped areas do not generally provide important habitat for native wildlife. Non-native species that are common in urban areas include house sparrow (*Passer domesticus*), European starling (*Sturnus vulgaris*), and Norway rat (*Rattus norvegicus*). Native wildlife species found in these environments include raccoon, American crow (*Corvus brachyrhynchos*), and mourning dove (*Zenaida macroura*).

Fisheries

Dry Creek is host to a diverse assemblage of native and introduced fish species, both resident and anadromous (i.e., species that spawn in fresh water after migrating as adults from marine habitat). Native species documented within Dry Creek include the anadromous Central Valley steelhead (*Oncorhynchus mykiss*), Central Valley fall/ late-fall run chinook salmon (*Oncorhynchus tshawytscha*), and Pacific lamprey (*Lampetra tridentata*), and the resident Sacramento pikeminnow (*Ptychocheilus grandis*), hitch (*Lavinia exilicauda*), and Sacramento sucker (*Catostomus occidentalis*) (Vanicek 1993). Dry Creek also supports a variety of introduced species, such as bluegill (*Lepomis macrochirus*), green sunfish (*Lepomis cyanellus*), bass (*Micropterus* spp.), bullhead (*Ameiurus* spp.), common carp (*Cyprinus carpio*), western mosquitofish (*Gambusia affinis*), fathead minnow (*Pimephales promelas*), and golden shiner (*Notemigonus crysoleucas*) (Vanicek 1993, GANDA 1999, ECORP 2003).

Numerous fishery studies have been completed for the Dry Creek watershed and the results are summarized in the Dry Creek Watershed Coordinated Resource Management Plan (ECORP 2003). Fisheries habitat elements were assessed on a reach-by-reach basis within the Dry Creek Watershed Management Plan. The reach of Dry Creek within the Plan area, Douglas Boulevard to Folsom Road (Reach Number 20), is characterized as having fair cover in the form of remnant riparian and landscaped vegetation. Although a few riffles and pools are present, most of the reach is channelized and the overall quality is considered to be fair to poor for native fish species (ECORP 2003).

Special-Status Species

Special-status species include plants and animals that are legally protected or are otherwise considered sensitive by federal, state, or local resource conservation agencies and organizations. Special-status species addressed in this section include:

- Species listed, proposed for listing, or considered candidates for listing as threatened or endangered under the federal and/or state Endangered Species Acts (ESA and/or CESA);

- Species identified by the California Department of Fish and Game (DFG) as California Species of Special Concern;
- Animals fully protected in California under the California Fish and Game Code (Sections 3511, 4700, 5050, and 5515);
- Plants listed as Endangered or Rare under the California Native Plant Protection Act; and/or
- Plants designated by the California Native Plant Society (CNPS) as List 1B (plants rare, threatened or endangered in California and elsewhere) or List 2 (plants rare, threatened or endangered in California but more common elsewhere).

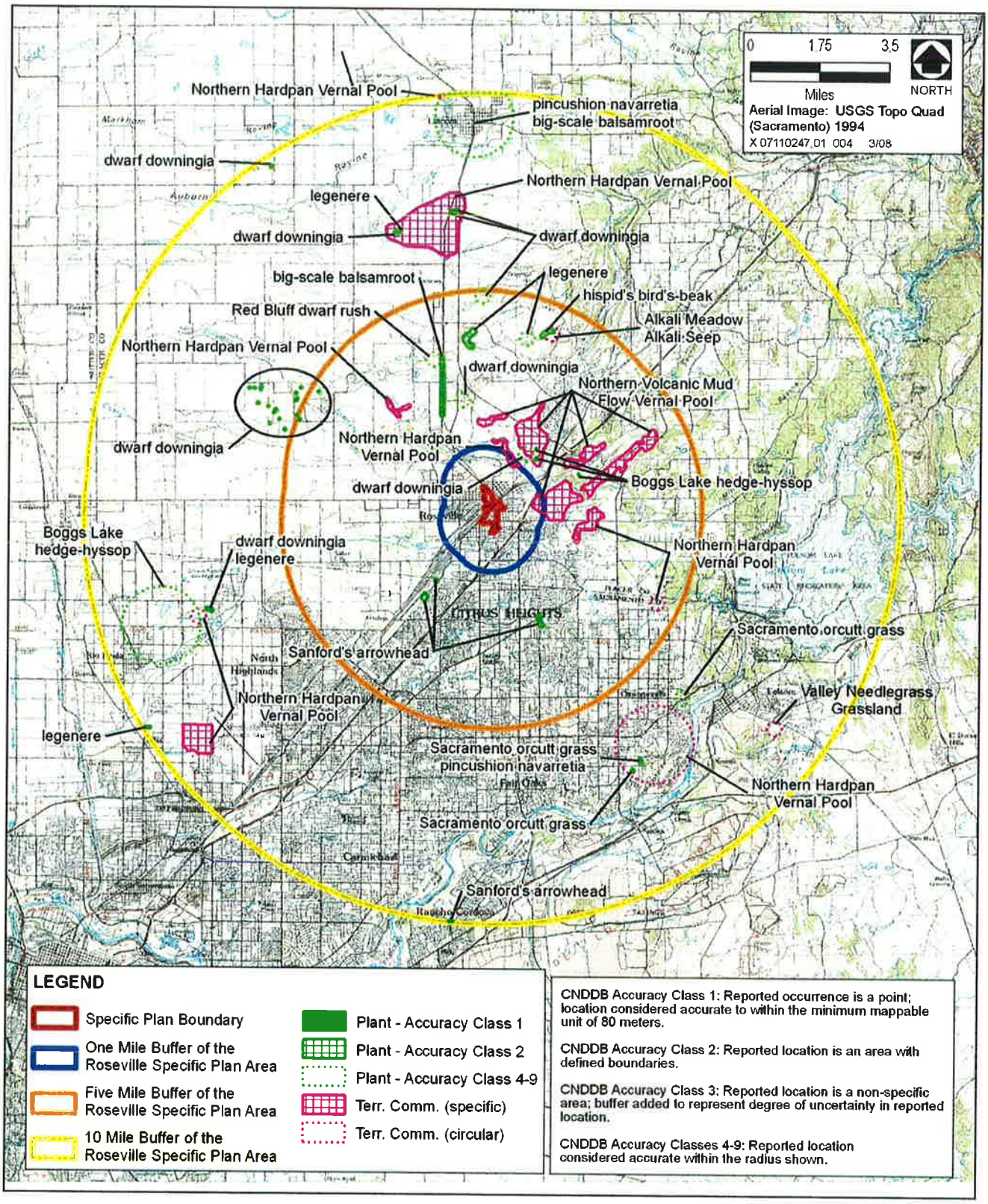
The term "California Species of Special Concern" is applied by DFG to animals that are not listed under ESA or CESA but are nonetheless declining at a rate that could result in future listing, or that historically occurred in low numbers and currently face known threats to their persistence. For species classified as "fully protected" under the California Fish and Game Code, "take" (any activity likely to directly or indirectly kill an individual) is prohibited under any circumstances. CNPS rare plant designations are used by both the U.S. Fish and Wildlife Service (USFWS) and DFG when considering formal species protection under ESA and CESA, and provide one source of evidence used by lead agencies to determine which plants meet the definition of endangered, rare, or threatened species, as described in Section 15380 of the State CEQA Guidelines.

An evaluation of special-status species with potential to occur in and adjacent to the Plan area was conducted and based on searches of DFG's California Natural Diversity Database (CNDDB) (2007), the Sacramento USFWS database of federally listed species that may be affected by projects in the region (USFWS 2006b), and the CNPS Electronic Inventory of Rare and Endangered Plants of California (CNPS 2006), as well as review of existing biological resource documents. CNDDB, USFWS, and CNPS inventory and searches were conducted for the Citrus Heights USGS 7.5-minute quadrangle and the eight adjacent quadrangles. Although the CNDDB is the most current and reliable tool for tracking occurrences of special-status species, it is important to note that is contains only those records that have been reported to DFG and additional species occurrences may exist in the area.

Special-status Plants

Based on literature and database reviews, a reconnaissance-level site evaluation, and a familiarity of the biologists with the region's flora, 17 special-status plant species were evaluated for potential to occur within the greater region surrounding the City of Roseville (EDAW 2007). Seven of these species have been documented within 5 miles of the Plan area: Sanford's arrowhead (*Sagittaria sanfordii*), Boggs Lake hedge-hyssop (*Gratiola heterosepala*), dwarf downingia (*Downingia pusilla*), big-scale balsamroot (*Balsamorhiza macrolepis* var. *macrolepis*), Red Bluff dwarf rush (*Juncus leiospermus* var. *leiospermus*), legenere (*Legenere limosa*), and hispid birds-beak (*Cordylanthus mollis* ssp. *hispidus*); and an additional two species have been documented within 10 miles of the Plan area: Sacramento orcutt grass (*Orcuttia viscida*) and pincushion navarretia (*Navarretia myersii* ssp. *myersii*) (see Exhibit 4.9-2) (CNDDB 2007). The additional eight species considered in this analysis include Brandegee's clarkia (*Clarkia biloba* ssp. *brandegeae*), Ahart's dwarf rush (*Juncus leiospermus* var. *ahartii*), slender orcutt grass (*Orcuttia tenuis*), sylvan microseris (*Microseris sylvatica*), hoary navarretia (*Navarretia eriocephala*), tripod buckwheat (*Eriogonum tripodum*), stinkbells (*Fritillaria agrestis*), and Humboldt lily (*Lilium humboldtii* ssp. *humboldtii*) (EDAW 2007).

None of the 17 special-status plant species evaluated have potential to occur within the Plan area because the required habitat types are not present (EDAW 2007). The Plan area is limited to riparian, ruderal, landscaped, and developed habitats, while the special-status species present in the region are restricted to other specialized natural habitats not present in the Plan area including cismontane woodland, coniferous forest, chaparral, pinyon and juniper woodland, valley/foothill grassland, vernal pools, meadows and seeps, marshes and swamps, and lake margins. A table outlining the listing status and habitat requirements of each individual species is provided in the Biological Resources Assessment (see Appendix D).



Special-status Plant Occurrences within 10 Miles of the Project Site **Exhibit 4.9-2**

Special-status Animals

Based on literature and database reviews, a reconnaissance-level site evaluation and a familiarity with the region's fauna, 63 animal species of conservation concern were considered to have at least some potential to occur within the greater region surrounding the City of Roseville (EDAW 2007). The majority of these species, however, were dismissed from further review either because the Plan area is out of the species' current geographic or elevation range (e.g., California red-legged frog), the species' required habitats (e.g., vernal pools, coniferous forest) are not present in the Plan area, or the species are not formally classified as special-status following the definition above (e.g., great blue heron, great egret). Exhibits 4.9-3 and 4.9-4 identify the locations of where CNDDB-tracked invertebrate and vertebrate species occur within 10 miles of the Plan area (CNDDB 2007).

A total of 13 special-status wildlife and fish species determined to have potential to occur in the Plan area and are discussed below. Table 4.9-1 provides information on the species' regulatory status, habitat requirements, and an assessment of their potential for occurrence, and each species is discussed in more detail following the table. Additional information on these and other species evaluated as part of this analysis is provided in the Biological Resources Assessment (see Appendix D).

Special-status Invertebrates

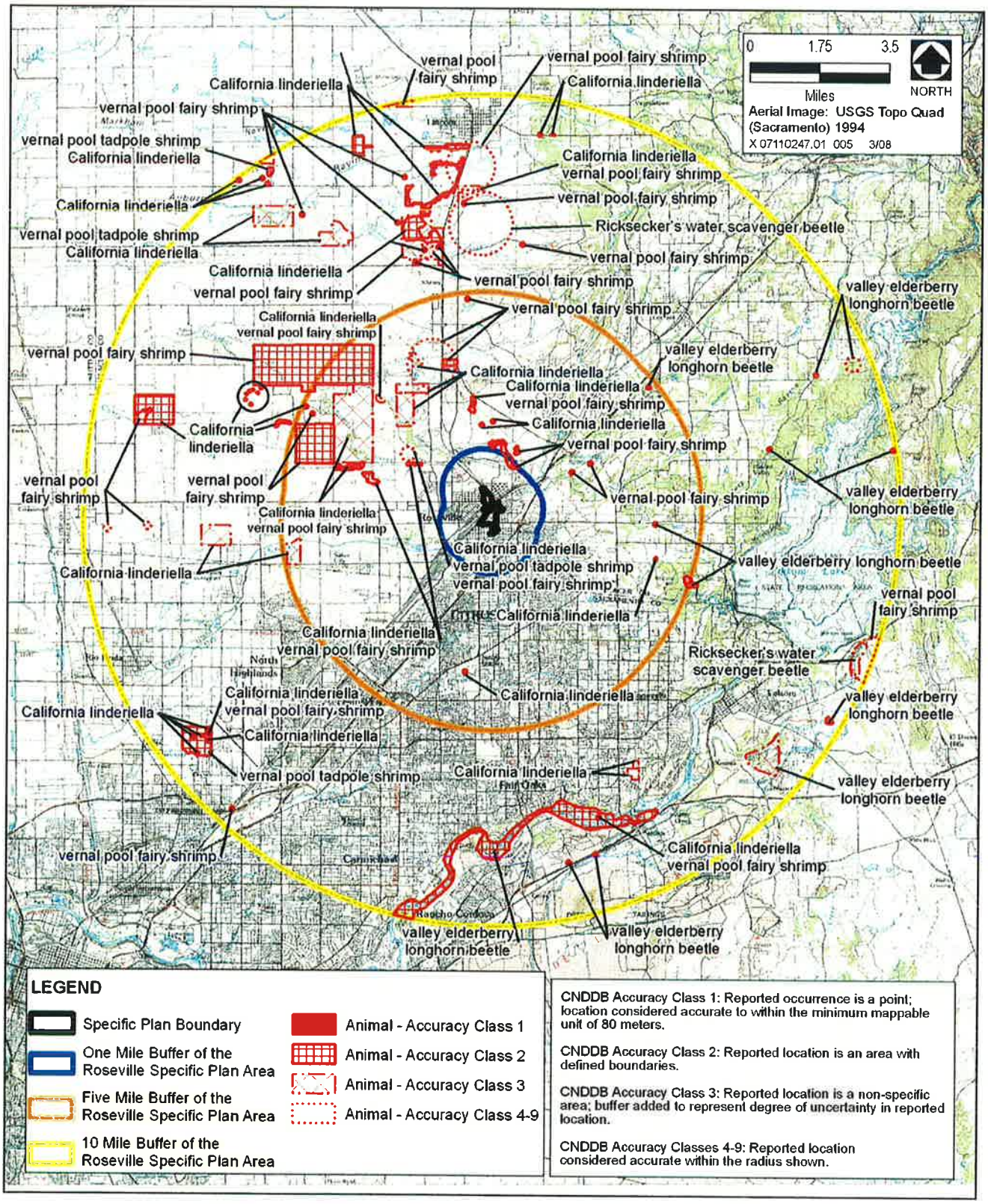
The valley elderberry longhorn beetle was the only special-status invertebrate identified as potentially occurring in the Plan area. Valley elderberry longhorn beetles require elderberry shrubs for reproduction and survival, spending most of their life cycle as larvae within the stems. Many valley elderberry longhorn beetle occurrences have been recorded between 4 and 10 miles from the Plan area (CNDDB 2007), and the species is considered to have a moderate potential to occur within the Plan area. During the site reconnaissance survey conducted on October 3, 2006, six elderberry shrubs were observed in the Plan area, all with stem diameters of 1.0 inch or greater (EDAW 2007). The locations of these shrubs are shown in Exhibit 4.9-1. The USFWS has recently proposed to delist valley elderberry longhorn beetles from their current protected status under the ESA due in part to the success of past riparian habitat restoration projects (USFWS 2006a). The final ruling of whether or not to delist this species will likely take more than a year to complete.

Special-status Fish

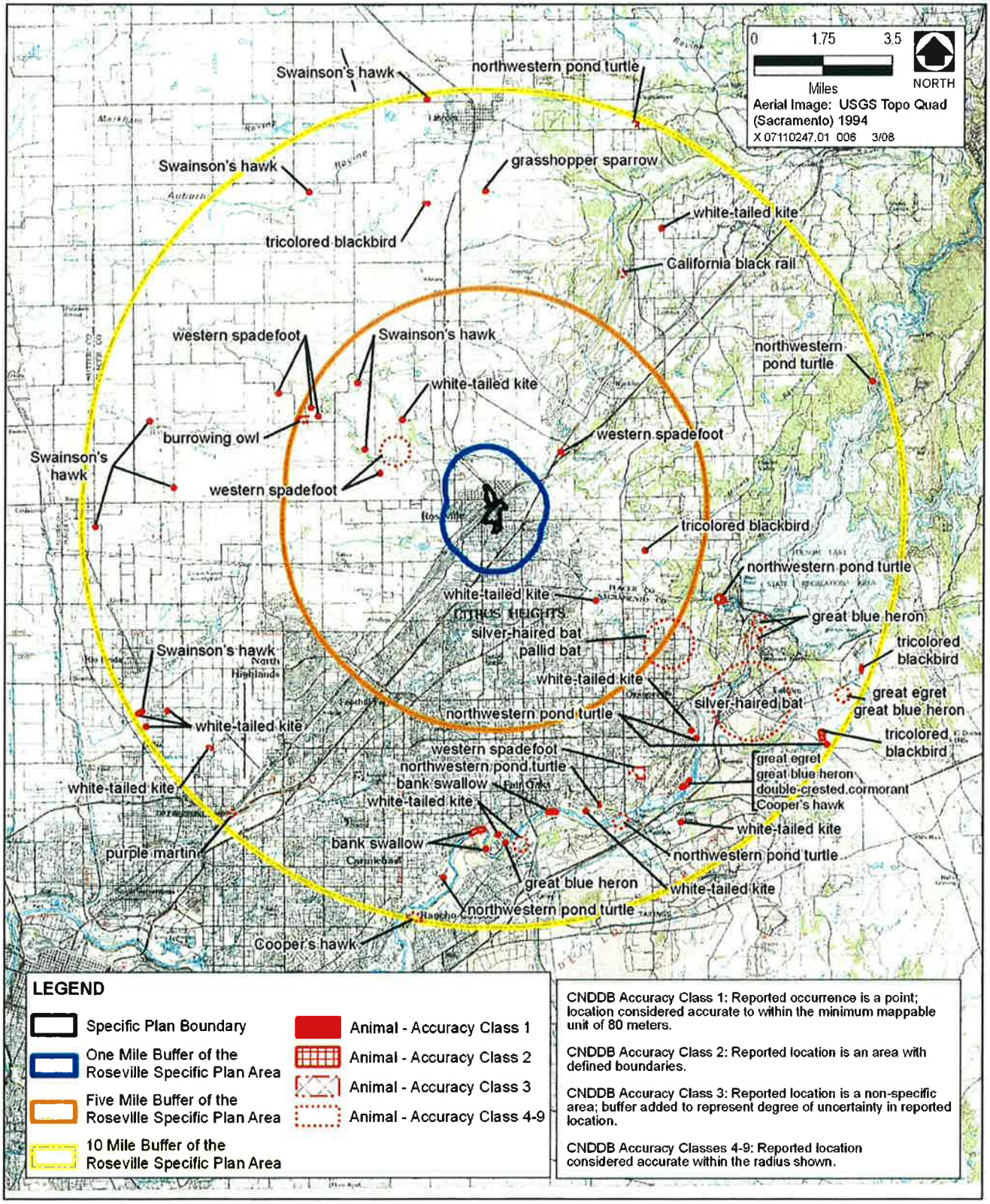
Anadromous salmonids, Central Valley steelhead and Central Valley fall/late-fall run chinook salmon are both seasonally present in Dry Creek during adult upstream and juvenile downstream migration periods and spawn and rear in Secret and Miners Ravines. The section of Dry Creek that runs through the Plan area is located upstream of the Sacramento River and downstream of Dry Creek's confluences with Secret and Miners Ravines. Dry Creek and several of its tributaries including Secret Ravine are included in the Valley-American Hydrologic Unit of critical habitat for Central Valley steelhead (National Marine Fisheries Service [NMFS] 2005). The segment of Dry Creek within the Plan area contains suitable migration habitat for salmonids traveling to upstream spawning areas, but does not contain suitable spawning habitat itself as few riffles with appropriate substrate conditions are present. Upstream spawning migration of adults and downstream migration of juvenile steelhead and chinook salmon generally occur after October 15 and prior to June 15.

Special-status Reptiles

The northwestern pond turtle was the only special-status reptile identified as potentially occurring in the Plan area. Northwestern pond turtles generally occur in slow-moving streams, ponds, freshwater marshes, and lakes. They prefer aquatic habitat with refugia such as undercut banks and submerged vegetation and require emergent basking sites such as mud banks, rocks, logs, and roots to regulate their body temperatures. In addition to adult use of aquatic habitats, pond turtles may reside underground in terrestrial habitats at any time of year either as eggs (April–October), hatchlings (September–April), or hibernating adults (October–April) (NatureServe 2007).



Special-status Invertebrate Occurrences within 10 Miles of the Project Site **Exhibit 4.9-3**



Special-status Vertebrate Occurrences within 10 Miles of the Project Site **Exhibit 4.9-4**

Table 4.9-1
Special-status Wildlife and Fish Species with Potential to Occur in the Plan Area

Common Name	Scientific Name	Status	Habitat	Potential for Occurrence
Invertebrates				
Valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	Federal: threatened	Elderberry shrubs, typically in riparian habitats below 3,000 feet in elevation	High: Documented along Dry Creek within 5 miles of project site; elderberry shrubs and suitable riparian habitat present
Fish				
Central Valley fall/late fall-run chinook salmon	*Oncorhynchus tshawytscha*	Federal: species of concern CA: species of special concern	Sacramento and San Joaquin Rivers and their tributaries; spawning occurs in gravel of shallow, upstream reaches	Known to occur in Dry Creek during passage to and from spawning habitat upstream in Secret and Miner's Ravines
Central Valley steelhead	*Oncorhynchus mykiss*	Federal: threatened	Sacramento and San Joaquin Rivers and their tributaries; spawning occurs in gravel of shallow, upstream reaches	Known to occur in Dry Creek during passage to and from spawning habitat upstream in Secret and Miner's Ravines
Reptiles				
Northwestern pond turtle	*Actinemys marmorata marmorata*	CA: species of special concern	Ponds, marshes, slow-moving streams, sloughs, and irrigation/drainage ditches; nest in nearby uplands with low, sparse vegetation	Low: marginally suitable habitat is present
Birds				
White-tailed kite	*Elanus leucurus*	CA: fully protected	Forage in grasslands and agricultural fields; nest in open woodlands, woodland margins, and scattered trees	Low: Suitable nesting habitat present and suitable foraging habitat present within a few miles, but more likely to nest outside of urban areas where suitable foraging habitat is less than a mile away
Cooper's hawk	*Accipiter cooperii*	CA: species of special concern	Forage and nest in open woodlands and woodland margins, and occasionally in residential areas	Moderate: Suitable nesting and foraging habitat present
Swainson's hawk	*Buteo swainsoni*	CA: threatened	Forage in grasslands and agricultural fields; nest in open woodlands, woodland margins, and scattered trees	Low: Suitable nesting habitat present and suitable foraging habitat present within a few miles, but more likely to nest outside of urban areas where suitable foraging habitat is less than a mile away

Table 4.9-1
Special-status Wildlife and Fish Species with Potential to Occur in the Plan Area

Common Name	Scientific Name	Status	Habitat	Potential for Occurrence
Loggerhead shrike	*Lanius ludovidianus*	CA: species of special concern	Forage primarily in grasslands and agricultural fields; nest in scattered shrubs and trees as well as woodland/scrub edges of open habitats	Low: Suitable nesting habitat and marginally suitable foraging habitat present
California yellow warbler	*Dendroica petechia brewsteri*	CA: species of special concern	Nests primarily in riparian areas dominated by willows, cottonwoods, sycamores, or alders; may also inhabit oak and coniferous woodlands and urban areas near streams	Low: Suitable nesting and foraging habitat present; however, no nesting records are known from the Roseville area
Yellow-breasted chat	*Icteria virens*	CA: species of special concern	Nest and forage in riparian thickets of willow and other brushy tangles near water and thick understory in riparian woodland	Moderate: Suitable nesting and foraging habitat present
Mammals				
Pallid bat	*Antrozous pallidus*	CA: species of special concern	Typically roosts in caves or rock crevices; however, occasionally roost in buildings or tree cavities. Forages in a variety of habitats including riparian and urban, though most commonly in open, arid lands	Low: Marginally suitable roosting and foraging habitat present
Townsend's big-eared bat	*Corynorhinus townsendii*	CA: species of special concern	Typically roosts in caves; however, occasionally roost in buildings or bridges. Forages in all habitats except alpine and subalpine, though most commonly in forests and woodlands	Low: Marginally suitable roosting and foraging habitat present
Western mastiff bat	*Eumops perotis californicus*	CA: species of special concern	Roosts in trees, rock crevices, and buildings. Forages in a variety of habitats including riparian and urban areas, though most commonly in open, arid lands	Low: Marginally suitable roosting and foraging habitat present

Notes:
CA = California
Sources: CNDDB 2007, EDAW 2007, USFWS 2006b

Females have been reported ranging as far as 500 meters (1,640 feet) from a watercourse to nest (Reese and Welsh 1997), although such long distances are rare and typically occur only where suitable nest sites are not available nearby (Zeiner et al. 1990). Nest sites are most often situated on unshaded south- or west-facing slopes and are sparsely vegetated with short grasses or forbs; these features increase nest temperature and are important for egg development. Nests have been observed in many soil types from sandy to very hard clay (Zeiner et al. 1990).

Potential habitat for northwestern pond turtles within the Plan area is of marginal quality as the banks of Dry Creek are generally steep and offer few exposed areas for basking. Few sites within the Plan area are suitable for pond turtle nesting as the majority of the Dry Creek corridor is dominated by either riparian trees or by hardscape such as rip-rap or gabions. Predators of turtle eggs and hatchlings (e.g., dogs, raccoons, skunks) are also expected to be abundant in the Plan area's urban-creek interface. This species is known to occur between 6 and 10 miles from the Plan area (CNDDB 2007), but is not known to occur near the City of Roseville within waters hydrologically connected to Dry Creek and is considered to have a low potential to occur on-site.

Special-status Birds

Six special-status bird species may potentially occur in the Plan area. Swainson's hawks and white-tailed kites typically nest in scattered riparian or woodland trees adjacent to grasslands and/or row crop fields that provide suitable foraging habitat. Both species are known to occur within 5 miles of the Plan area (CNDDB 2007). The Plan area's riparian trees along Dry Creek provide potential nesting habitat for both Swainson's hawks and white-tailed kites, and suitable foraging habitat is present in grasslands and agricultural fields within an available distance of downtown Roseville. Swainson's hawks have been recorded foraging up to 18.6 miles from nest sites (Estep 1989), and foraging ranges during the breeding season have been estimated at approximately 1,000–7,000 acres (Bechard 1982, Estep 1989, Johnsgard 1990). While both species have potential to nest on-site, they are more likely to nest in closer proximity to prime foraging habitat and in less urban areas that are less subject to human disturbance.

Cooper's hawks are woodland raptors with moderate potential to occur in the Dry Creek riparian corridor on-site. This species hunts small avian prey primarily in riparian habitats, and occasionally forages in residential developments with abundant trees. Cooper's hawks could nest in the Plan area's riparian and ornamental trees and forage in the riparian corridor and adjacent parks.

Loggerhead shrikes forage primarily in open habitats such as grassland, savannah, shrub-steppe, and agricultural fields. They nest in scattered shrubs and trees within foraging areas and along wooded margins of open habitats. Shrikes are known to nest in riparian habitats in the Central Valley but have a low probability of occurrence in the Plan area due to the marginally suitable foraging habitat on-site.

Yellow warblers and yellow-breasted chats typically nest in willow thickets and other riparian habitat types with a dense shrub layer. They typically nest in the brushy riparian understory, 2–16 feet above the ground, and prey primarily on insects. Both species are relatively uncommon breeders in the Central Valley, and have low to moderate potential to occur in the suitable riparian habitat that flanks Dry Creek either during the breeding season or during migration.

Special-status Mammals

Three special-status bat species have potential to occur in the Plan area: pallid bat, Townsend's western big-eared bat, and western mastiff bat. Pallid bat and western mastiff bat are more common in drier, open habitats, while Townsend's western big-eared bat is more common in mesic sites. All three species, however, are known to forage in a wide variety of habitats and may occur in urban, riparian, grassland, shrubland, oak woodland and savannah, coniferous and deciduous forests, chaparral, and desert habitats (Zeiner et al. 1990). These species use mature trees, snags, rock crevices, caves, and man-made structures such as buildings and bridges for roosting either for winter roosting (hibernacula) or for forming nursery colonies. Pallid bat and western mastiff bat

typically roost in relatively small colonies (less than 100 individuals, often as few as 12) (Zeiner et al. 1990). Townsend's western big-eared bat also roosts in small colonies in some locations and may nest in colonies of over 1,000 where suitable caves are available. Bats generally exhibit high site fidelity and will not abandon an established roosting area unless disturbed. One pallid bat occurrence has been documented by CNDDB within 10 miles of the Plan area; however, this occurrence was based on a single female specimen collected from the area in 1941 (CNDDB 2007). Bats that nest in small colonies are typically under-reported in databases such as CNDDB, however, due to their nocturnal nature and the relatively sparse research and monitoring of these species. Based on the presence of suitable roosting and foraging habitat, special-status bat species are considered to have a low potential to occur within the Plan area, although these species may roost in trees lining Dry Creek or under any of several pedestrian and road bridges which span the creek.

SENSITIVE HABITATS

Sensitive habitats include those that are of special concern to resource agencies or are afforded specific consideration through CEQA, Section 1602 of the California Fish and Game Code, Section 404 of the Clean Water Act, or the State's Porter-Cologne Act, as discussed in the Section 4.9.2, "Regulatory Setting," below. Sensitive habitats may be of special concern to these agencies and to conservation organizations for a variety of reasons including their locally or regionally rare or declining status or because they provide important habitat to common and special-status species. Sensitive habitats also provide other important ecological functions such as enhancing flood and erosion control and maintaining water quality. Many of these habitats are tracked in the CNDDB. Habitats in the Plan area that are considered sensitive include Dry Creek and its associated riparian habitat, and oak trees protected under the City of Roseville Municipal Code. Dry Creek receives regulatory protection under the jurisdiction of the USACE, RWQCB, and DFG. The creek's adjacent riparian woodland is also under DFG jurisdiction. Exhibit 4.9-1 identifies the locations and extent of sensitive and other habitats in the Plan area within the study area for biological resources which consisted of a 100-foot-wide corridor from the top of the banks of Dry Creek.

4.9.2 REGULATORY SETTING

Biological resources in California are protected by a variety of federal, state and local laws and regulations. Important regulations pertaining to biological resources in the Plan area are discussed below.

FEDERAL REGULATORY ISSUES

Federal Endangered Species Act

Pursuant to the federal ESA, the USFWS and the NMFS have authority over projects that may affect the continued existence of a federally listed threatened or endangered species. Section 9 of the ESA and federal regulations prohibit the take of federally listed fish or wildlife species. "Take" is defined under the ESA, in part, as killing, harming, or harassing. Under federal regulations, take is defined further to include habitat modification or degradation where it actually results or is reasonably expected to result in death or injury to wildlife by significantly impairing essential behavioral patterns including breeding, feeding, or sheltering.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) implements domestically a series of international treaties that provide for migratory bird protection. The MBTA authorizes the Secretary of the Interior to regulate the taking of migratory birds; the act provides that it shall be unlawful, except as permitted by regulations, "to pursue, take, or kill any migratory bird, or any part, nest or egg of any such bird…" (USC Title 16, Section 703). This prohibition includes both direct and indirect acts, although harassment and habitat modification are not included unless they result in direct loss of birds, nests, or eggs. The list of species protected by MBTA has recently been updated by USFWS; the current list can be found in the August 24, 2006 Federal Register (71 FR 50194). This list includes several

hundred species and essentially includes all native birds. Permits for take of nongame migratory birds can be issued only for specific activities, such as scientific collecting, rehabilitation, propagation, education, taxidermy, and protection of human health and safety and personal property.

Clean Water Act

Section 404 of the federal Clean Water Act (CWA) establishes a requirement for a project applicant to obtain a permit before engaging in any activity that involves any discharge of dredged or fill material into waters of the United States, including wetlands. Waters of the United States include navigable waters of the United States; interstate waters; all other waters where the use, degradation, or destruction of the waters could affect interstate or foreign commerce; tributaries to any of these waters; and wetlands that meet any of these criteria or that are adjacent to any of these waters or their tributaries. Wetlands are defined as those areas that are inundated or saturated by surface water 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. Jurisdictional wetlands must meet three wetland delineation criteria: hydrophytic vegetation, hydric soil types, and wetland hydrology. Many surface waters and wetlands in California meet the criteria for waters of the United States, including intermittent streams and seasonal lakes and wetlands.

Dry Creek is considered a water of the United States. Based on a reconnaissance-level field delineation conducted by EDAW on October 3, 2006, the portion of Dry Creek that flows through the Plan area supports a total of 4.34 acres of jurisdictional waters, located below the ordinary high water mark of the creek (EDAW 2007).

State Regulatory Issues

California Endangered Species Act

Pursuant to the California Endangered Species Act (CESA), a permit from DFG is required for projects that could result in take of a species that is state listed as threatened or endangered (California Fish and Game Code Section 2050 et seq.). Under CESA, take is defined as an activity that would directly or indirectly kill an individual of a species. The definition does not include "harm" or "harass" as in the federal ESA. As a result, the threshold for take under CESA is higher than that under the ESA (i.e., habitat modification is not necessarily considered take under CESA). California Fish and Game Code Section 2081 authorizes DFG to issue a permit for the take of state-listed species incidental to otherwise lawful activities, or to coordinate with USFWS during the Section 10(a) process to make the federal permit consistent with CESA.

Section 1602 of the California Fish and Game Code – Streambed Alteration

Sections 1600–1603 of the California Fish and Game Code state that it is unlawful for any person or agency to substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake in California that supports wildlife resources, or to use any material from the streambeds, without first notifying DFG of such activity and receiving a Streambed Alteration Agreement if impacts are expected to occur. The regulatory definition of a stream is a body of water that flows at least periodically or intermittently through a bed or channel having banks and that supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation. DFG's jurisdiction within altered or artificial waterways is based upon the value of those waterways to fish and wildlife.

Fully Protected Species under the California Fish and Game Code

Four sections of the California Fish and Game Code (Sections 3511, 4700, 5050, and 5515) list 37 fully protected species. These statutes prohibit take or possession at any time of fully protected species. DFG is unable to authorize incidental take of fully protected species when activities are proposed in areas inhabited by those species. DFG has informed nonfederal agencies and private parties that they must avoid take of any fully protected species in carrying out projects.

California Fish and Game Code Sections 3503–3503.5 – Protection of Birds

Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 specifically states that it is unlawful to take, possess, or destroy any raptors (i.e., hawks, owls, eagles, and falcons), including their nests or eggs. Typical violations of these codes include destruction of active nests resulting from removal of vegetation in which the nests are located. Violation of Section 3503.5 could also include failure of active raptor nests resulting from disturbance of nesting pairs by nearby project construction.

Porter-Cologne Water Quality Control Act

Under the Porter-Cologne Water Quality Control Act, waters of the state fall under jurisdiction of the RWQCB. Under the act, the RWQCB must prepare and periodically update water quality control basin plans. Each basin plan sets forth water quality standards for surface water and ground water, as well as actions to control non-point and point sources of pollution to achieve and maintain these standards. Projects that affect wetlands or waters must meet the waste discharge requirements of the Regional Board.

Pursuant to Section 401 of the CWA and EPA 404 (b)(1) guidelines, in order for a USACE federal permit applicant to conduct any activity which may result in discharge into navigable waters, they must provide a certification from the RWQCB that such discharge will comply with state water quality standards. The RWQCB has a policy of no-net-loss of wetlands and typically requires mitigation for all impacts to wetlands before it will issue a Section 401 water quality certification.

Local Regulatory Issues

City of Roseville General Plan

The *City of Roseville General Plan 2020* (City of Roseville 2004) contains several goals, policies, and implementation measures for the conservation of open space, native vegetation, and wildlife. General plan policies relevant to the proposed project are listed below.

- **Open Space and Conservation – Vegetation and Wildlife – Policy 1:** Incorporate existing trees into development projects, and where preservation is not feasible, require mitigation for the loss of removed trees.
- **Open Space and Conservation – Vegetation and Wildlife – Policy 2:** Preserve and rehabilitate continuous riparian corridors and adjacent habitat along the City's creeks and waterways.
- **Open Space and Conservation – Vegetation and Wildlife – Policy 5:** Limit recreation activities within the 100-year flood plain and require additional setback areas for trails and other public recreation uses so that natural resource areas are not adversely impacted.
- **Open Space and Conservation – Vegetation and Wildlife – Policy 6:** Provide for protection and enhancement of native fishery resources.
- **Open Space and Conservation – Vegetation and Wildlife – Policy 10:** Manage public lands with special-status species to encourage propagation of the species and discourage non-indigenous, invasive species.
- **Open Space and Conservation – Vegetation and Wildlife – Policy 11:** Preserve and mitigate for creeks and riparian areas within the defined boundaries of impacting projects where long-term resource viability is feasible and desirable.
- **Open Space and Conservation – Vegetation and Wildlife – Policy 12:** Consider the use of City property for habitat preservation and mitigation requirements resulting from development proposals when such efforts do not conflict with existing resources, recreational opportunities, or other City goals, policies, or programs.

Roseville Municipal Code

The City of Roseville recognizes the value of native trees through adoption of a tree preservation ordinance in Chapter 19.66 of its Municipal Code (Roseville Municipal Code 2006). This ordinance defines a protected tree as a native oak tree equal to or greater than 6 inches in diameter at breast height, measured as a total of a single trunk or multiple trunks. The Municipal Code defines a native oak tree as any tree of the species valley oak (*Quercus lobata*), blue oak (*Quercus douglasii*), or interior live oak (*Quercus wislizenii*), or hybrids thereof. During the field reconnaissance survey of October 3, 2006, EDAW identified 40 valley oak trees and 11 interior live oak trees within 100 feet of Dry Creek (EDAW 2007) that qualify for protection under this code.

4.9.3 Significance Thresholds, Impacts, and Mitigation Measures

Methodology

A reconnaissance-level field assessment of the Plan area within 100 feet of Dry Creek was conducted by EDAW biologists Lynn Hermansen, Erin McDermott, and Dana Terry on October 3, 2006. The purpose of the reconnaissance survey was to assess current site conditions, classify and map habitats, and evaluate the potential of the project site to support sensitive biological resources including special-status species. Searches of DFG's CNDDB (2007), the Sacramento USFWS database of federally listed species that may be affected by projects in the region (USFWS 2006b), and the CNPS Electronic Inventory of Rare and Endangered Plants of California (CNPS 2006) were also conducted for the Citrus Heights USGS 7.5-minute quadrangle and eight adjacent quadrangles, and existing biological resource documents for the project vicinity (e.g., ECORP 2003, EDAW 2007) were reviewed. Potential impacts to biological resources resulting from implementation of the proposed project were determined by overlaying project plans with the habitat map for the Plan area (see Exhibit 4.9-1), and evaluating potential effects to common and sensitive biological resources that could result from potential temporary (i.e., construction-related) and long-term (i.e., habitat restoration or structural changes) effects.

Thresholds of Significance

The significance thresholds below are based on relevant provisions of CEQA, the State CEQA Guidelines, environmental questions in Appendix G of the Guidelines, and significance criteria used in other relevant environmental compliance documents for similar projects.

The proposed project would be considered to have a significant effect on biological resources if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a special-status species in local or regional plans, policies, or regulations, or by DFG, USFWS, or NMFS;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by DFG, USFWS, or NMFS;
- Have a substantial adverse effect on federally protected waters or wetlands as defined by Section 404 of the Clean Water Act 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;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation or resource management plan; or

- Substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; or substantially reduce the number or restrict the range of an endangered, rare, or threatened species.

Environmental Impacts and Mitigation Measures

IMPACT 4.9-1 **Biological Resources – Effects on Special-status Fish Species.** *The proposed project includes several restoration and enhancement components that would improve the aquatic and riparian habitat quality along Dry Creek and would benefit special-status fish species in the long term. Implementation of the proposed project could also result in temporary disturbance and/or degradation of habitat for special-status fish within Dry Creek during the period of project construction. This impact would be* ***potentially significant.***

Central Valley steelhead and Central Valley fall/late-fall run chinook salmon occur seasonally within the Plan area as they migrate to and from suitable spawning habitats in tributaries upstream of Dry Creek. Upstream spawning migration of adults and downstream migration of juvenile steelhead and chinook salmon generally occur after October 15 and prior to June 15. Dry Creek has also been designated by NMFS as critical habitat for Central Valley steelhead.

Several project features would improve instream habitat for migrating steelhead and salmon as well as resident native fish species. These activities include restoring diverse flow habitats (e.g., riffle/pool complex) and large woody debris to the creek, planting native riparian vegetation along the creek banks, and diverting pavement sheet runoff away from Dry Creek. Project construction activities within Dry Creek's aquatic habitat, including bank and creek restoration/stabilization treatments, may also result in temporary disturbance to fisheries habitat or death or injury to individuals during the construction period. Several construction activities in the riparian habitat along Dry Creek's upper banks, including placement of bridge abutments and associated scour protection, slope re-grading for bank stabilization, construction of trails, construction of the library amphitheater, and floodwall reconstruction, may also result in temporary degradation of aquatic habitats through sediment runoff or vegetation removal. If degradation of habitat occurs and/or individual steelhead or salmon are present within construction areas and are incidentally injured or killed, the proposed project would result in a potentially significant impact.

IMPACT 4.9-2 **Biological Resources – Effects on Valley Elderberry Longhorn Beetles.** *Implementation of the proposed project could result in removal or disturbance of elderberry shrubs, which may provide habitat for valley elderberry longhorn beetles. If elderberry shrubs with stem diameters 1.0 inch or greater are removed or disturbed, this impact would be* ***potentially significant.***

During site reconnaissance, six elderberry shrubs were detected within the Plan area's riparian habitat, all with stems over 1.0 inch in diameter and with potential to support valley elderberry longhorn beetles. All blue elderberry shrubs of this size in the Central Valley are considered by USFWS to have the potential to harbor valley elderberry longhorn beetle larvae, and are regulated as such to facilitate the species' recovery under the ESA (USFWS 1999). Although no known occurrences of the beetle have been documented in the Plan area, valley elderberry longhorn beetles are known to occur nearby and could utilize Plan area shrubs.

Several project components would be expected to benefit valley elderberry longhorn beetles in the long term such as riparian habitat enhancement and bioengineered bank stabilization treatments that may protect existing elderberry shrubs. However, if elderberry shrubs in which larvae are present are removed during project implementation, for example during bridge or trail construction or the application of hardscape for bank stabilization, such removal could result in the loss of beetles. Mortality of beetle larvae could also result from project activities if the health of the shrubs is adversely affected, for example by earthmoving activities near shrub roots or the application of herbicides during site restoration. Adverse impacts to elderberry shrubs could affect valley elderberry longhorn beetles even if larvae are absent at the time of impact, due to the loss of potential

habitat. If project implementation includes removal or disturbance to elderberry shrubs with diameters 1.0 inch or greater at ground level, the proposed project would have a potentially significant impact.

IMPACT 4.9-3 **Biological Resources – Effects on Raptors and Special-status Birds.** *The riparian habitat restoration components of the proposed project would increase the quality of habitat available to special-status birds, an impact considered beneficial in the long term. However, implementation of the proposed project could also result in short-term construction-related impacts to special-status birds nesting in the Plan area. This temporary impact would be considered* ***potentially significant****.*

Several special-status birds have the potential to nest within the Plan area (see Table 4.9-1), primarily within the riparian corridor along Dry Creek. Swainson's hawks, white-tailed kites, and Cooper's hawks may nest in large riparian trees (e.g., oak, sycamore) in the Plan area; loggerhead shrikes, yellow warblers, and yellow-breasted chats may nest in Plan area riparian shrubs and small trees (e.g., willow, alder).

Removal of trees or shrubs containing active special-status bird nests could occur with project implementation, and visual or noise disturbance of active nests could result in nest abandonment and mortality of eggs or chicks. The potential loss of nests of special-status birds that could result from implementation of the proposed project would be potentially significant.

IMPACT 4.9-4 **Biological Resources – Effects on Special-status Bats.** *The riparian habitat restoration components of the proposed project would increase the quality of potential habitat available to special-status bats, an effect considered beneficial in the long term. Temporary adverse impacts to special-status bats could also occur as a result of project construction activity if special-status bat maternity roosts occur in the Plan area and are incidentally removed or disturbed during construction. This potential impact would be considered* ***less than significant*** *because no bat colonies are known to occur within the project area and few individuals are expected to occur there.*

Three special-status bat species have the potential to roost within the Plan area (see Table 4.9-1), primarily within the riparian corridor along Dry Creek. Although western mastiff bat, pallid bat, and Townsend's big-eared bat may roost in trees, under bridges, and in buildings within the Plan area, these species have a low probability of roosting on-site because the marginal habitat quality meets only their minimum requirements.

Several components of the proposed project have potential to increase the quality of roosting and foraging habitat for both common and special-status bat species. The planting of additional trees and building of additional pedestrian bridges may increase the number of potential roost sites adjacent to Dry Creek, and habitat enhancement measures may increase available insect prey associated with creek riffles and riparian plants. Implementation of the proposed project could also result in short-term construction-related loss and/or disturbance of special-status bats if any existing trees, bridges, or buildings planned for removal harbor roosting bats on the day they are removed. However, because the potential for these species to roost on-site is low, any temporary impacts to special-status bats would be expected to be in very low numbers. This impact would thus be considered less than significant.

IMPACT 4.9-5 **Biological Resources – Effects on Northwestern Pond Turtles.** *Although implementation of the proposed project could result in temporary construction-related loss and/or disturbance northwestern pond turtles, this species has a low potential for occurrence on-site and effected individuals are expected to be few, if any. This impact would thus be considered* ***less than significant****.*

Potential habitat for northwestern pond turtles within the Plan area is of marginal quality because the banks of Dry Creek are generally steep and offer few exposed areas for basking and thermoregulation. Predators of turtle eggs and hatchlings (e.g., dogs, raccoons, skunks) are also expected to be abundant in the Plan area's urban-creek interface. This species is known to occur in the region, but is not known to occur near the City of Roseville within

waters hydrologically connected to Dry Creek. Northwestern pond turtles are considered to have a low potential to occur on-site, and are not expected to nest or hibernate there.

Project construction, including creek restoration and bank stabilization treatments, is expected to temporarily disturb aquatic and riparian habitats on-site. If northwestern pond turtles are present within construction areas, particularly during bridge construction and bank stabilization, they could be inadvertently harmed by construction equipment. This impact is unlikely, however, because of this species' low probability of occurrence and because of its ability to swim away from construction areas at the first sign of disturbance. Any construction-related impacts to northwestern pond turtles would thus be expected in very low numbers, if any, and this impact would be considered less than significant.

IMPACT 4.9-6 **Biological Resources – Impacts to Jurisdictional Waters and Sensitive Natural Communities.** *Implementation of the proposed project would include enhancement of the aquatic and riparian woodland habitats within and along Dry Creek, providing a beneficial long-term impact. Project implementation could also result in temporary disturbance and/or degradation of riparian and aquatic habitat during the period of project construction, as well as both temporary and permanent impacts to waters of the United States due to bank stabilization treatments and bridge construction. These impacts would be* ***potentially significant.***

The segment of Dry Creek within the Plan area is considered a water of the United States subject to USACE jurisdiction under Section 404 of the CWA. The riparian woodland corridor that flanks Dry Creek is also considered a sensitive natural community by DFG and the *City of Roseville General Plan*. In the Plan area, approximately 4.34 acres of the channel of Dry Creek below the ordinary high water mark are subject to USACE and RWQCB jurisdiction. DFG jurisdiction in the Plan area encompasses the entire Dry Creek riparian corridor including the 4.34 acres of federally jurisdictional waters and all land to the outer edge of the existing riparian vegetation.

Several project features may require temporary construction-related or permanent placement of fill within waters of the United States. These proposed plan elements include: bank stabilization treatments that require hardscape, placement of bridge abutments and associated scour protection, construction of trails, construction of the library amphitheater, floodwall reconstruction, bank recontouring for flood conveyance or restoration, and construction of step pools or riffles for salmonid habitat enhancement. In addition, water features such as the one proposed for the town square may discharge into Dry Creek, requiring outfall pipe installation or upgrades. Riparian woodland habitat would be enhanced in the long term through the planting of native vegetation and control of invasive plants, but may be temporarily removed during bank recontouring efforts. Temporary and permanent placement of fill within federal and state jurisdictional waters and temporary disturbance to riparian habitat would be considered potentially significant impacts.

IMPACT 4.9-7 **Biological Resources – Wildlife Movement Corridors.** *Habitat enhancement components of the proposed project would have a long-term beneficial effect on the wildlife movement corridor along Dry Creek. Project construction is not expected to block wildlife movement; temporary impacts to the corridor would thus be considered* ***less than significant.***

A wildlife movement corridor is generally a topographical/landscape feature or movement area that connects two areas of natural habitat. Wildlife corridors link areas of suitable wildlife habitat that are otherwise separated by changes in vegetation, rugged terrain, and/or human disturbance. The section of Dry Creek within the Plan area serves as a movement corridor for a variety of aquatic species including freshwater invertebrates, anadromous and stream-dwelling fish, frogs and other amphibians, aquatic reptiles such as garter snakes, and potentially semi-aquatic mammals such as beavers. Dry Creek's associated riparian woodland also provides a movement corridor for terrestrial wildlife, including small mammals and mammalian carnivores, riparian birds, terrestrial insects including native pollinators, and terrestrial reptiles.

The proposed project is not expected to adversely impact the wildlife movement corridors provided by Dry Creek and its associated riparian habitat. Although some project elements may include the introduction of hardscape to small areas along the waterside edge of the corridor (e.g., bridge abutments), these structures are not expected to entirely bisect the corridor or block wildlife movement. Further, additional project features (e.g., planting native vegetation, removing exotics, bioengineered bank stabilization) are planned to increase the overall habitat quality of the Dry Creek corridor in the long term. Any impacts to the corridor are thus likely to be restricted to the period of active construction, and are expected to be less than significant during that time.

IMPACT 4.9-8 **Biological Resources – Impacts to Protected Trees.** *Proposed project features, grading, and construction activities may overlap or may occur within the drip line of protected trees. Depending upon the configuration of the approved site plans and the final extent of grading, the project may result in* ***potentially significant*** *impacts to protected trees.*

The Tree Preservation Ordinance of the Roseville Municipal Code contains provisions for preservation, removal, and replacement of protected trees. The Municipal Code defines a protected tree as a native oak tree equal to or greater than 6 inches in diameter at breast height, measured as a total of a single trunk or multiple trunks. The Municipal Code defines a native oak tree as any tree of the species valley oak (*Quercus lobata*), blue oak (*Quercus douglasii*), or interior live oak (*Quercus wislizenii*) or hybrids thereof. During site reconnaissance, EDAW biologists identified and mapped the locations of 40 protected valley oak trees and 11 protected interior live oak trees in the Plan area within 100 feet of Dry Creek (see Exhibit 4.9-1). Additional native oaks may be present along the streets of the developed portions of the Plan area. Depending on the final configuration of future development projects in the Plan area and the extent of grading needed, impacts to some protected trees may occur. This is considered a potentially significant impact.

4.9.4 MITIGATION MEASURES

No mitigation measures are necessary for the following less-than-significant impacts.

4.9-4: Biological Resources – Effects on Special-status Bats.

4.9-5: Biological Resources – Effects on Northwestern Pond Turtles.

4.9-7: Biological Resources – Wildlife Movement Corridors.

The following mitigation measures are provided for potentially significant impacts.

Mitigation Measure 4.9-1: Special-status Fish

The following measures shall be implemented to mitigate adverse effects to special-status fish species potentially resulting from the proposed project. To the extent feasible, the project shall be designed and constructed to avoid and minimize adverse effects to special-status fish species and aquatic habitats within the Specific Plan area.

- Project construction activities within the aquatic habitat of the active creek channel shall be conducted between June 15 and October 15, during the season that migrating chinook salmon and steelhead are not likely to be present. Construction within the riparian habitat along the upper banks of the creek need not be restricted to this timeframe, provided that the following measures (and those described in Section 4.12, Hydrology and Water Quality") are implemented to avoid or minimize sediment runoff into the creek.

- Silt fencing shall be placed around the construction areas within the aquatic habitat of the active creek channel. Silt fencing shall protect upstream and downstream areas from any construction related impacts. All construction activities within the aquatic habitat of the active creek channel shall be conducted within the silt fence area. Cofferdams shall be used if construction in a live channel is necessary. To the extent feasible, they shall be designed to maintain an open channel to allow continued movement of aquatic species. If dewatering

of a construction area is needed, it shall occur according to a Fish Translocation and Salvage Plan prepared by a qualified biologist.

- All outflow from any project-related dewatering that may be necessary when excavating the outfall installation areas shall be filtered and pumped downstream of the construction area.

- After completion of construction within the aquatic habitat of the active creek channel, all remaining side cast shall be removed from the work area and silt fencing shall be removed.

- Revegetation of disturbed areas within the riparian habitat of the active creek channel with native riparian plants shall be accomplished prior to the onset of the winter rains in the year of construction.

Mitigation Measure 4.9-2: Valley Elderberry Longhorn Beetles

The following measures shall be implemented to mitigate adverse effects to valley elderberry longhorn beetles potentially resulting from the proposed project. If valley elderberry longhorn beetles are delisted in the future, as has recently been proposed by USFWS (USFWS 2006a), these measures may be amended to conform to any revised USFWS guidelines regarding this species.

- To the extent feasible, implementation of the project shall be designed and constructed to avoid and minimize adverse effects to elderberry shrubs.

- Before project construction within the riparian habitat of the active creek channel would begin, focused surveys for elderberry shrubs shall be conducted within the Dry Creek riparian corridor and adjacent municipal parks in and within 100 feet of proposed construction-sites. Such surveys will not be required within areas lacking suitable habitat for elderberry shrubs (i.e., areas already in residential development).

- Where elderberry shrubs with 1.0 inch or greater stem diameter are found, USFWS conservation guidelines for valley elderberry longhorn beetles shall be followed by establishing a 100-foot buffer around the dripline of such shrubs wherever feasible to completely avoid potential impacts to valley elderberry longhorn beetles (USFWS 1999). All buffers shall be marked with brightly colored flags or fencing and shall be maintained until project construction is complete. Earthmoving activities, herbicide use, and other construction and maintenance activities with potential to impact valley elderberry longhorn beetles and/or their host shrubs would be avoided within these buffer zones. A qualified biologist will provide project contractors and construction crews working in the vicinity of an elderberry shrub buffer zone with a worker-awareness program before such work begins. This program will be used to describe the species, its habits and habitats, its legal status and required protection, and all applicable mitigation measures.

- If complete avoidance of shrub buffer zones is not feasible, USFWS shall be consulted. It is anticipated that either a new buffer width would be agreed upon along with additional protections for the safety of the beetles and shrubs, or that shrubs that could not be adequately protected would be transplanted to a protected location before construction would begin, in accordance with established USFWS guidelines (USFWS 1999) and a USFWS-approved mitigation and monitoring plan. Shrubs shall be transplanted to an area protected in perpetuity as habitat for valley elderberry longhorn beetles through a conservation easement or similar mechanism. Replacement mitigation plantings shall also be provided based on USFWS guidelines, which require replacement ratios ranging from 1:1 to 8:1 for lost stems at least 1 inch in diameter, depending on the size of the affected stems. Associated native species will be planted at ratios ranging from 1:1 to 2:1 for each elderberry planting. Transplants and mitigation plantings shall be monitored to ensure that USFWS success criteria are met (i.e., 60 percent survival of elderberry plants and associated riparian plantings). The proponent may elect either 10 years of monitoring, with surveys and reports to USFWS every year; or 15 years of monitoring, with surveys and reports on years 1, 2, 3, 5, 7, 10, and 15. The mitigation and monitoring plan shall describe both short- and long-term maintenance and management of the mitigation site; and specify remedial measures to be undertaken if mitigation success criteria are not met. Long-term management of

mitigation lands shall be ensured by establishing a management endowment or other suitable funding source. The mitigation shall be implemented in a preserved portion of the project site in Dry Creek's riparian corridor, elsewhere within the Dry Creek watershed, or in suitable habitat elsewhere in Placer County or an adjacent county. If mitigation occurs off-site, it shall be at a location that would provide at least equal-quality habitat for valley elderberry beetles as the project site after implementation of the mitigation.

Mitigation Measure 4.9-3: Raptors and Special-status Birds

The following measures shall be implemented to mitigate adverse effects to raptors and special-status birds potentially resulting from the proposed project.

- Potential disturbance of nesting special-status birds and raptors shall be reduced by limiting vegetation removal and grading to the non-breeding season (generally September 1 to February 28) to the extent feasible.

- To avoid nest disturbance and a potential reduction in fledging success resulting from construction activities within the riparian habitat of the active creek channel and during the breeding season (March 1 to August 31), focused surveys for raptors and special-status birds would be conducted by a qualified biologist no more than 15 days prior to the beginning of construction. Surveys for raptors and special-status birds would include suitable nesting habitat within 500 feet of construction areas. If no active nests are found, no further measures would be needed.

- If active raptor or special-status bird nests are found, impacts would be avoided by the establishment of appropriate buffers and/or nest monitoring by a qualified biologist. The size of the buffer would be determined by a qualified biologist and may vary, depending on the species biology, location, nest stage, and specific construction activities to be performed while the nest is active. A qualified biologist shall monitor active nests to determine when the young have fledged and are feeding on their own, or the nest has failed. No construction activities would occur within a buffer zone until a qualified biologist confirms that the nest is no longer active.

Mitigation Measure 4.9-6: Jurisdictional Waters and Sensitive Habitats

The following measures shall be implemented to mitigate adverse effects to jurisdictional waters and sensitive habitats potentially resulting from the proposed project.

- To the extent feasible, the project shall be designed and constructed to avoid and minimize adverse effects to jurisdictional waters of the United States and riparian habitat within the Specific Plan area. Bioengineering bank stabilization techniques shall be used to the extent feasible and the installation of hardscape within jurisdictional waters of the United States shall be minimized to the greatest extent feasible to achieve the overall project objectives.

- Wherever possible, riparian woodland habitat shall be avoided and preserved; the connectivity of the Dry Creek riparian corridor shall be maintained and enhanced. Areas of riparian woodland to remain undisturbed shall be clearly marked for avoidance during construction by methods such as fencing of flagging and construction personnel shall be educated about the need to avoid adverse effects on this resource.

- The project shall incorporate restoration and enhancement of the riparian corridor into the final design plans and construction specifications. Loose rock and concrete debris along the creek banks shall be removed as appropriate. The riparian corridor along the creek channel shall be enhanced by the planting of native shrub, tree, and understory species to create a more diverse vegetation structure and thus a higher quality habitat for wildlife. Enhancement should include planting, establishment, and maintenance of suitable riparian species native to the region as well as removal and control of exotic plant species.

- Before any ground disturbing activities begin within the aquatic or riparian habitat of the active creek channel, a qualified biologist shall map potential waters of the United States as part of a formal delineation of waters of the United States and shall identify all riparian habitat that could be affected by the project. The findings shall be documented in a detailed report and submitted to the USACE for verification as part of the formal Section 404 wetland delineation process. If there would be unavoidable effects under USACE jurisdiction, the Section 404 process shall be completed and the acreage of affected jurisdictional habitat shall be replaced and/or rehabilitated. The acreage of jurisdictional wetland affected shall be replaced on a "no-net-loss" basis is accordance with USACE regulations. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by feasible methods agreeable to USACE. All minimization and compensation measures adopted through the permitting process shall be implemented.

- Approval by the RWQCB, as determined during the Section 401 and Section 404 permitting processes, shall be required. All mitigation requirements determined through this process shall be implemented before any ground disturbing activities begin.

- If there would be unavoidable effects to habitats under DFG jurisdiction, a streambed alteration agreement shall be obtained and affected habitat shall be replaced and/or rehabilitated. Because project implementation could result change to the natural flow and/or bed and bank of Dry Creek, the project could require a Section 1602 streambed alteration agreement from DFG. If complete avoidance of indentified riparian habitat is not feasible, the acreage of riparian habitat that would be removed shall be replaced or rehabilitated on a "no-net-loss" basis in accordance with DFG regulations and as specified in the streambed alteration agreement, if needed. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by feasible methods agreeable to DFG. All minimization and compensation measures adopted through the permitting process shall be implemented.

Mitigation Measure 4.9-8: Protected Trees

The following measures shall be implemented to mitigate adverse effects to protected trees potentially resulting from the proposed project. Tree removal shall be avoided unless 1) necessary for project construction, 2) identified as safety hazards in a Certified Arborist Tree Survey and located in existing or planned public access areas (e.g., streets, trails), or 3) if exotic invasive species (e.g., tree of heaven). In the Dry Creek riparian corridor, snags, dead wood and branches on live trees, and fallen branches shall be retained to the maximum extent possible due to the important habitat functions that they provide for wildlife.

- Based on final approved project plans, the project applicant shall determine where protected trees are present within areas proposed for construction and shall identify trees for avoidance or removal.

- A Tree Preservation Plan shall be prepared for the protected trees within the Plan area that shall be avoided by the project to ensure that they are adequately protected during construction activities. A Certified Arborist shall prepare a Tree Preservation Plan in accordance with the Title 19 Article IV of the Roseville Municipal Code, which shall contain detailed recommendations for tree preservation and removal based on construction and grading plans. The Tree Preservation Plan shall address each tree potentially affected by construction and recommend preservation or removal based on its suitability for preservation, proximity to construction activities, and ability to tolerate impacts. The Tree Preservation Plan shall also include general preservation and construction guidelines to assist in the protection of trees within or near the grading limits or near construction zones. The Tree Preservation Plan shall include recommendations for specific protective measures for trees before, during, and after construction to reduce impacts to trees from development and maintain their health throughout the construction process. The Tree Preservation Plan shall be prepared using information in a Tree Survey and Assessment or similar report including information on each tree's species, size, location, condition, and suitability for preservation.

- Where the removal of protected oaks is deemed necessary, the loss shall be mitigated according to Section 19.66.070 of the Roseville Municipal Code which requires that the replacement be calculated based upon an inch-for-inch replacement of the diameter at breast height of the tree removed. Mitigation trees shall be planted at appropriate sites and with appropriate maintenance to ensure their long-term self-sustaining survival. Where possible, mitigation oaks will be planted in canopy gaps along Dry Creek's riparian corridor within the Plan area, or elsewhere within the City of Roseville. A performance standard of 80 percent of the established mitigation trees shall be met after 5 years. The mitigation trees shall not be dependent upon significant maintenance measures within the last 2 years of monitoring, including supplemental irrigation and staking. Alternatively, an in-lieu fee payment can be made to the City of Roseville Native Oak Tree Propagation Fund, which is calculated per inch based on the diameter at breast height of the tree removed.

4.9.5 RESIDUAL SIGNIFICANT IMPACTS

With implementation of the mitigation measures described above, all impacts to Biological Resources would be reduced to a less-than-significant level.

4.10 AIR QUALITY

This section includes a description of existing air quality conditions, a summary of applicable regulations, and analyses of potential short-term and long-term air quality impacts of the proposed project. The methods of analysis for short-term construction, long-term operational, local mobile-source, odor, and toxic air contaminant (TAC) emissions are consistent with the recommendations of the Placer County Air Pollution Control District (PCAPCD). Mitigation measures are recommended, as necessary, to reduce significant air quality impacts.

This project DEIR has been prepared to meet the requirements of a project-level EIR. The City's intention in preparing this project EIR is that no further environmental review under CEQA would be required for subsequent projects which are consistent with the Specific Plan to provide for the streamlined approval of projects proposed within the Plan area that are consistent with land use designations, adhere to design guidelines (specifically prototype development), or fall within the scope of the Specific Plan and EIR.

4.10.1 EXISTING CONDITIONS

The Plan area is located in the western portion of Placer County, California (western Placer County), which is located within the Sacramento Valley Air Basin (SVAB). The SVAB also comprises all of Butte, Colusa, Glenn, Sacramento, Shasta, Sutter, Tehama, Yolo and Yuba counties along with the eastern portion of Solano County. Western Placer County is also part of the Sacramento Federal Ozone Nonattainment Area which comprises of Sacramento and Yolo Counties and parts of El Dorado, Solano, and Sutter Counties all of which affect each other's air quality. PCAPCD works in conjunction with Air Pollution Control Districts and Air Quality Management Districts of these contiguous jurisdictions to develop plans to bring the entire ozone nonattainment area into compliance. Ambient concentrations of air pollutants are determined by the amount of emissions released by pollutant sources and the atmosphere's ability to transport and dilute such emissions. Natural factors which affect transport and dilution include terrain, wind, atmospheric stability, and the presence of sunlight. Therefore, existing air quality conditions in the area are determined by such natural factors as topography, meteorology, and climate in addition to the amount of emissions released by existing air pollutant sources, each of which are discussed separately below.

TOPOGRAPHY, CLIMATE, AND METEOROLOGY

The SVAB is relatively flat and bordered by the North Coast Ranges to the west and the Northern Sierra Nevada Mountains to the east. Air flows into the SVAB through the Carquinez Strait, the only breach in the western mountain barrier, and moves across the Sacramento–San Joaquin River Delta from the San Francisco Bay Area Air Basin.

The Mediterranean climate type of the SVAB is characterized by hot, dry summers and cool, rainy winters. During the summer, daily temperatures range from 50°F to more than 100°F. The inland location and surrounding mountains shelter the area from much of the ocean breezes that keep the coastal regions moderate in temperature.

Most precipitation in the SVAB results from air masses that move in from the Pacific Ocean, usually from the west or northwest during the winter months. More than half the total annual precipitation falls during the winter rainy season (November through February) and the average winter temperature is a moderate 49°F. Characteristic of SVAB winters also include periods of dense and persistent low-level fog which are most prevalent between storms. The prevailing winds are moderate in speed and vary from moisture laden breezes from the south to dry land flows from the north.

The mountains surrounding the SVAB create a barrier to airflow which leads to the entrapment of air pollutants when meteorological conditions are unfavorable for transport and dilution. The highest frequency of poor air movement occurs in the fall and winter when high-pressure cells are present over the SVAB. The lack of surface wind during these periods combined with the reduced vertical flow because of less surface heating reduces the

influx of air and leads to the concentration of air pollutants under stable metrological conditions. Surface concentrations of air pollutant emissions are highest when these conditions occur in combination with agricultural burning activities or temperature inversions which hamper dispersion by creating a ceiling over the area and trapping air pollutants near the ground.

May through October is ozone season in the SVAB which is characterized by poor air movement in the mornings with the arrival of the delta sea breeze from the southwest in the afternoons. In addition, longer daylight hours provide a plentiful amount of sunlight to fuel photochemical reactions between reactive organic gases (ROG) and oxides of nitrogen (NO_X) which result in ozone formation. Typically, the delta breeze transports air pollutants northward out of the SVAB; however, a phenomenon known as the Schultz Eddy prevents this from occurring during approximately half of the time from July to September. The Schultz Eddy phenomenon causes the wind pattern to shift southward resulting in air pollutants being blown back into the SVAB. This phenomenon exacerbates the concentration of air pollutant emissions in the SVAB and contributes to violations of the ambient air quality standards.

The winds and unstable atmospheric conditions associated with the passage of winter storms result in periods of low air pollution and excellent visibility. Precipitation and fog tend to reduce or limit some pollutant concentrations. For instance, clouds and fog block sunlight, which is required to fuel photochemical reactions that form ozone. Because carbon monoxide (CO) is partially water-soluble, precipitation and fog also tend to reduce concentrations in the atmosphere. In addition, respirable particulate matter with an aerodynamic diameter of 10 micrometers or less (PM_{10}) can be washed from the atmosphere through wet deposition processes (e.g., rain). However, between winter storms, high pressure and light winds lead to the creation of low-level temperature inversions and stable atmospheric conditions resulting in the concentration of air pollutants (e.g., CO, PM_{10}).

Local meteorology of the proposed Plan area is represented by measurements recorded at the Sacramento station. The normal annual precipitation, which occurs primarily from November through February, is approximately 18 inches. January temperatures range from a normal minimum of 38°F to a normal maximum of 53°F. July temperatures range from a normal minimum of 58°F to a normal maximum of 93°F (National Oceanic and Atmospheric Administration 1992). The predominant wind direction and speed is from the south-southwest at 10 mph (California Air Resources Board 1994).

CRITERIA AIR POLLUTANTS

Concentrations of the following air pollutants: ozone, CO, nitrogen dioxide (NO_2), sulfur dioxide (SO_2), PM_{10}, and fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less ($PM_{2.5}$), and lead are used as indicators of ambient air quality conditions. Because these are the most prevalent air pollutants known to be deleterious to human health, and because there is extensive documentation available on health-effects criteria for these pollutants, they are commonly referred to as "criteria air pollutants."

A brief description of each criteria air pollutant, including source types, health effects, and future trends, is provided below along with the most current attainment area designations and monitoring data for the Plan area and vicinity.

Ozone

Ozone is a photochemical oxidant, a substance whose oxygen combines chemically with another substance in the presence of sunlight, and the primary component of smog. Ozone is not directly emitted into the air but forms through complex chemical reactions between precursor emissions of ROG and NO_x in the presence of sunlight. ROG are volatile organic compounds that are photochemically reactive. ROG emissions result primarily from incomplete combustion and the evaporation of chemical solvents and fuels. NO_x are a group of gaseous compounds of nitrogen and oxygen that results from the combustion of fuels. As a highly reactive molecule, ozone readily combines with many different components of the atmosphere. Consequently, high levels of ozone

tend to exist only while high ROG and NO_x levels are present to sustain the ozone formation process. Once the precursors have been depleted, ozone levels rapidly decline. Because these reactions occur on a regional scale, ozone is a regional pollutant.

Ozone located in the upper atmosphere (stratosphere) acts in a beneficial manner by shielding the earth from harmful ultraviolet radiation that is emitted by the sun. However, ozone located in the lower atmosphere (troposphere) is a major health and environmental concern. Meteorology and terrain play a major role in ozone formation. Generally, low wind speeds or stagnant air coupled with warm temperatures and clear skies provide the optimum conditions for formation. As a result, summer is generally the peak ozone season. Because of the reaction time involved, peak ozone concentrations often occur far downwind of the precursor emissions. In general, ozone concentrations over or near urban and rural areas reflect an interplay of emissions of ozone precursors, transport, meteorology, and atmospheric chemistry (Godish 2004).

The adverse health effects associated with exposure to ozone pertain primarily to the respiratory system. Scientific evidence indicates that ambient levels of ozone affect not only sensitive receptors (e.g., asthmatics, children) but healthy adults as well. Exposure to ambient levels of ozone ranging from 0.10 to 0.40 part per million (ppm) for 1 to 2 hours has been found to significantly alter lung functions by increasing respiratory rates and pulmonary resistance, decreasing tidal volumes (the amount of air inhaled and exhaled), and impairing respiratory mechanics. Ambient levels of ozone above 0.12 ppm are linked to symptomatic responses that include such symptoms as throat dryness, chest tightness, headache, and nausea. In addition to the above adverse health effects, evidence also exists relating ozone exposure to an increase in permeability of respiratory epithelia; such increased permeability leads to an increased response of the respiratory system to challenges, and a decrease in the immune system's ability to defend against infection (Godish 2004).

Ozone precursor emissions of ROG and NO_x have decreased over the past several years because of more stringent motor vehicle standards and cleaner burning fuels. The ozone problem in the SVAB ranks among the most severe in the state. Peak levels have not declined as much as the number of days that standards are exceeded has declined. From 1990 to 2006, the maximum peak 8-hour indicator decreased by 12%. The number of State and national 8-hour exceedance days has declined by 43% and 40%, respectively. Most of this progress has occurred since 2003. However, the number of exceedance days in 2005 and 2006 were among the lowest in this 17-year period (ARB 2007a). Data from 2005 showing the trend in 3-year averages of 8-hour ozone data indicates that only the northern portion of the SVAB now attains the national 8-hour ozone standard (ARB 2007a).

Carbon Monoxide

CO is a colorless, odorless, and poisonous gas produced by incomplete burning of carbon in fuels, primarily from mobile (transportation) sources. In fact, 77% of the nationwide CO emissions are from mobile sources. The other 23% consists of CO emissions from wood-burning stoves, incinerators, and industrial sources.

CO enters the bloodstream through the lungs by combining with hemoglobin, which normally supplies oxygen to the cells. However, CO combines with hemoglobin much more readily than oxygen does and results in a drastic reduction in the amount of oxygen available to the cells. Adverse health effects associated with exposure to CO concentrations include such symptoms as dizziness, headaches, and fatigue. CO exposure is especially harmful to individuals who suffer from cardiovascular and respiratory diseases (EPA 2008a).

The highest concentrations are generally associated with cold, stagnant weather conditions that occur during the winter. In contrast to problems caused by ozone, which tends to be a regional pollutant, CO problems tend to be localized.

Nitrogen Dioxide

NO_2 is a brownish, highly reactive gas that is present in all urban environments. The major human-made sources of NO_2 are combustion devices, such as boilers, gas turbines, and mobile and stationary reciprocating internal

combustion engines. Combustion devices emit primarily nitric oxide (NO), which reacts through oxidation in the atmosphere to form NO_2 (EPA 2008a). The combined emissions of NO and NO_2 are referred to as NO_x and reported as equivalent NO_2. Because NO_2 is formed and depleted by reactions associated with photochemical smog (ozone), the NO_2concentration in a particular geographical area may not be representative of the local NO_x emission sources.

Inhalation is the most common route of exposure to NO_2. Because NO_2 has relatively low solubility in water, the principal site of toxicity is in the lower respiratory tract. The severity of the adverse health effects depends primarily on the concentration inhaled rather than the duration of exposure. An individual may experience a variety of acute symptoms including coughing, difficulty with breathing, vomiting, headache, and eye irritation during or shortly after exposure. After a period of approximately 4 to 12 hours, an exposed individual may experience chemical pneumonitis or pulmonary edema with breathing abnormalities, cough, cyanosis, chest pain, and rapid heartbeat. Severe, symptomatic NO_2 intoxication after acute exposure has been linked on occasion with prolonged respiratory impairment with such symptoms as chronic bronchitis and decreased lung functions (EPA 2008a).

Sulfur Dioxide

SO_2 is produced by such stationary sources as coal and oil combustion, steel mills, refineries, and pulp and paper mills. The major adverse health effects associated with SO_2 exposure pertain to the upper respiratory tract. SO_2 is a respiratory irritant with constriction of the bronchioles occurring with inhalation of SO_2 at 5 ppm or more. On contact with the moist, mucous membranes, SO_2 produces sulfurous acid which is a direct irritant. Concentration rather than duration of the exposure is an important determinant of respiratory effects. Exposure to high SO_2 concentrations may result in edema of the lungs or glottis and respiratory paralysis.

Particulate Matter

Respirable particulate matter with an aerodynamic diameter of 10 micrometers or less is referred to as PM_{10}. PM_{10} consists of particulate matter emitted directly into the air such as fugitive dust, soot, and smoke from mobile and stationary sources, construction operations, fires and natural windblown dust, and particulate matter formed in the atmosphere by condensation and/or transformation of SO_2 and ROG (EPA 2008a). Fine particulate matter ($PM_{2.5}$) is a subgroup of PM_{10} consisting of smaller particles that have an aerodynamic diameter of 2.5 micrometers or less (ARB 2007a).

The adverse health effects associated with PM_{10} depend on the specific composition of the particulate matter. For example, health effects may be associated with metals, polycyclic aromatic hydrocarbons, and other toxic substances adsorbed onto fine particulate matter (referred to as the "piggybacking effect") or with fine dust particles of silica or asbestos. Generally, adverse health effects associated with PM_{10} may result from both short-term and long-term exposure to elevated concentrations and may include breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular diseases, alterations to the immune system, carcinogenesis, and premature death (EPA 2008a). $PM_{2.5}$ poses an increased health risk because the particles can deposit deep in the lungs and may contain substances that are particularly harmful to human health. Based on reviews of the latest scientific literature, ARB has concluded that $PM_{2.5}$ is more dangerous than previously estimated. New research suggests that even small increases (10 $\mu g/m^3$) in exposure increase the potential for increased cancer risk. State ambient air quality standards are periodically reviewed to assess their adequacy in protecting public health, and this new information will be considered when the PM standards are next reviewed. Nonetheless, the new information indicates the importance of efforts to reduce public exposures to $PM_{2.5}$ (ARB 2008i).

Direct emissions of PM_{10} increased in the SVAB from 1975 and 2005 and are projected to increase through 2020. PM_{10} emissions in the SVAB are dominated by emissions from area-wide sources, primarily fugitive dust from vehicle travel on unpaved and paved roads, dust from farming operations, fugitive dust from construction and demolition, and residential fuel combustion. Annual average $PM_{2.5}$ concentrations in the SVAB have remained

relatively steady from 1975 through 2005 and are projected to increase slightly through 2020. The State annual average concentrations decreased slightly from 1999 through 2005, with more significant drops in 2001 and 2003. The differences in trends are due to differences in State and national monitoring methods. $PM_{2.5}$ emissions in the SVAB are dominated by emissions from the same area-wide sources as PM_{10} (ARB 2007a).

Lead

Lead is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been mobile and industrial sources. As a result of the phase-out of leaded gasoline, as discussed in detail below, metal processing is currently the primary source of lead emissions. The highest levels of lead in air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery manufacturers.

Twenty years ago, mobile sources were the main contributor to ambient lead concentrations in the air. In the early 1970s, the U.S. Environmental Protection Agency (EPA) set national regulations to gradually reduce the lead content in gasoline. In 1975, unleaded gasoline was introduced for motor vehicles equipped with catalytic converters. EPA banned the use of leaded gasoline in highway vehicles in December 1995 (EPA 2008a).

As a result of EPA's regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector have declined dramatically (95% between 1980 and 1999) and levels of lead in the air decreased by 94% between 1980 and 1999. Transportation sources, primarily airplanes, now contribute only 13% of lead emissions. A National Health and Nutrition Examination Survey reported a 78% decrease in the levels of lead in people's blood between 1976 and 1991. This dramatic decline can be attributed to the move from leaded to unleaded gasoline (EPA 2008a).

The decrease in lead emissions and ambient lead concentrations over the past 25 years is California's most dramatic success story with regard to air quality management. The rapid decrease in lead concentrations can be attributed primarily to phasing out the lead in gasoline. This phase-out began during the 1970s, and subsequent California Air Resources Board (ARB) regulations have virtually eliminated all lead from gasoline now sold in California. All areas of the state are currently designated as attainment for the state lead standard (EPA does not designate areas for the national lead standard). Although the ambient lead standards are no longer violated, lead emissions from stationary sources still pose "hot spot" problems in some areas. As a result, ARB identified lead as a TAC.

Monitoring Station Data and Attainment Area Designations

Criteria air pollutant concentrations are measured at several monitoring stations in the SVAB. The Roseville-N Sunrise Blvd station is the closest in proximity to the proposed Plan area with recent data for ozone, CO, PM_{10} and $PM_{2.5}$. In general, the ambient air quality measurements from these stations are representative of the air quality in the vicinity of the proposed Plan area. Table 4.10-1 summarizes the air quality data from the most recent 3 years.

Both ARB and the EPA use this type of monitoring data to designate areas according to their attainment status for criteria air pollutants. The purpose of these designations is to identify those areas with air quality problems and thereby initiate planning efforts for improvement. The three basic designation categories are nonattainment, attainment, and unclassified. Unclassified is used in an area that cannot be classified on the basis of available information as meeting or not meeting the standards. In addition, the California designations include a subcategory of the nonattainment designation, called nonattainment-transitional. The nonattainment-transitional designation is given to nonattainment areas that are progressing and nearing attainment. The most recent attainment designations with respect to the Plan area are shown in Table 4.10-2 for each criteria air pollutant.

Table 4.10-1
Summary of Annual Ambient Air Quality Data (2004–2006)[1]

	2004	2005	2006
OZONE			
Maximum concentration (1-hr/8-hr, ppm)	0.106/ 0.085	0.118/ 0.106	0.121/ 0.097
Number of days state standard exceeded (1-hr)	5	13	16
Number of days national standard exceeded (1-hr/8-hr)	0/1	0/9	0/9
CARBON MONOXIDE			
Maximum concentration (1-hr/8-hr, ppm)	2.6/1.93	2.0/1.27	–
Number of days state standard exceeded (8-hr)	0	0	–
Number of days national standard exceeded (1-hr/8-hr)	0	0	–
FINE PARTICULATE MATTER ($PM_{2.5}$)			
Maximum concentration ($\mu g/m^3$) National/California[2]	47.8	59.2	54.10
Number of days national standard exceeded (measured[3])	0	0	0
RESPIRABLE PARTICULATE MATTER (PM_{10})			
Maximum concentration ($\mu g/m^3$, National/California[2])	43.0	58.0	55.0
Number of days state standard exceeded (Measured/Calculated[3])	0	1	1
Number of days national standard exceeded (Measured/Calculated[3])	0	0	0

Where, ppm = parts per million; µg/m3 = micrograms per cubic meter; - = data not available

1 Measurements from the Roseville – N Sunrise Blvd station.

2 State and national statistics may differ for the following reasons: State statistics are based on California approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods. State and national statistics may therefore be based on different samplers. State statistics are based on local conditions National statistics are based on standard conditions. State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.

3 Measured days are those days that an actual measurement was greater than the level of the state daily standard or the national daily standard. Measurements are typically collected every 6 days. Calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year.

Sources: ARB 2008a, EPA 2008b

Table 4.10-2
Summary of Ambient Air Quality Standards and Western Placer County Designations

Pollutant	Averaging Time	California		National Standards[1]		
		Standards[2,3]	Attainment Status[4]	Primary[3,5]	Secondary[3,6]	Attainment Status[7]
Ozone	1-hour	0.09 ppm (180 µg/m^3)	N (Serious)	–	–	–
	8-hour	0.07 ppm (137 µg/m^3)	–	0.08 ppm (157 µg/m^3)	Same as Primary Standard	N (Serious)
Carbon Monoxide (CO)	1-hour	20 ppm (23 mg/m^3)	A	35 ppm (40 mg/m^3)	–	U/A
	8-hour	9 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)		
Nitrogen Dioxide (NO_2)[8]	Annual Arithmetic Mean	0.030 ppm (56 µg/m^3)	–	0.053 ppm (100 µg/m^3)	Same as Primary Standard	U/A
	1-hour	0.18 ppm (338 µg/m^3)	A	–		–
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	–	–	0.030 ppm (80 µg/m^3)	–	U
	24-hour	0.04 ppm (105 µg/m^3)	A	0.14 ppm (365 µg/m^3)	–	
	3-hour	–	–	–	0.5 ppm (1300 µg/m^3)	
	1-hour	0.25 ppm (655 µg/m^3)	A	–	–	–
Respirable Particulate Matter (PM_{10})	Annual Arithmetic Mean	20 µg/m^3	N	-	Same as Primary Standard	A
	24-hour	50 µg/m^3		150 µg/m^3		
Fine Particulate Matter ($PM_{2.5}$)	Annual Arithmetic Mean	12 µg/m^3	N	15 µg/m^3	Same as Primary Standard	U
	24-hour	–	–	35 µg/m^3		
Lead[9]	30-day Average	1.5 µg/m^3	A	–	–	–
	Calendar Quarter	–	–	1.5 µg/m^3	Same as Primary Standard	
Sulfates	24-hour	25 µg/m^3	A	**No National Standards**		
Hydrogen Sulfide	1-hour	0.03 ppm (42 µg/m^3)	U			
Vinyl Chloride[9]	24-hour	0.01 ppm (26 µg/m^3)	U/A			

Table 4.10-2
Summary of Ambient Air Quality Standards and Western Placer County Designations

Pollutant	Averaging Time	California		National Standards [1]		
		Standards [2,3]	Attainment Status [4]	Primary [3,5]	Secondary [3,6]	Attainment Status [7]
Visibility-Reducing Particle Matter	8-hour	Extinction coefficient of 0.23 per kilometer—visibility of 10 miles or more (0.07—30 miles or more for Lake Tahoe) because of particles when the relative humidity is less than 70%.	U	**No National Standards**		

Notes: $\mu g/m^3$ = micrograms per cubic meter; ppm = parts per million.

[1] National standards (other than ozone, PM, and those based on annual averages or annual arithmetic means) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. The PM_{10} 24-hour standard is attained when 99% of the daily concentrations, averaged over 3 years, are equal to or less than the standard. The $PM_{2.5}$ 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standard. Contact U.S. Environmental Protection Agency (EPA) for further clarification and current federal policies.

[2] California standards for ozone, CO (except Lake Tahoe), SO_2 (1- and 24-hour), NO_2, PM, and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards (CAAQS) are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[3] Concentration expressed first in units in which it was issued (i.e., parts per million [ppm] or micrograms per cubic meter [$\mu g/m^3$]). Equivalent units given in parentheses are based on a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[4] Unclassified (U): a pollutant is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment.
Attainment (A): a pollutant is designated attainment if the state standard for that pollutant was not violated at any site in the area during a 3-year period.
Nonattainment (N): a pollutant is designated nonattainment if there was a least one violation of a state standard for that pollutant in the area.
Nonattainment/Transitional (NT): a subcategory of the nonattainment designation. An area is designated nonattainment/transitional to signify that the area is close to attaining the standard for that pollutant.

[5] National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

[6] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[7] Nonattainment (N): any area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the national primary or secondary ambient air quality standard for the pollutant.
Attainment (A): any area that meets the national primary or secondary ambient air quality standard for the pollutant.
Unclassifiable (U): any area that cannot be classified on the basis of available information as meeting or not meeting the national primary or secondary ambient air quality standard for the pollutant.

[8] On February 19, 2008, the Office of Administrative Law approved a new NO_2 ambient air quality standard, which lowers the 1-hr standard to 0.19 ppm and establishes a new annual standard of 0.030 ppm. These changes will become effective March 20, 2008.

[9] ARB has identified lead and vinyl chloride as toxic air contaminants with no threshold of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

Sources: ARB 2008b, 2008c; EPA 2008c

Emissions Inventory

With respect to Placer County, mobile sources are the largest contributor to the estimated annual average air pollutant levels of ROG, CO, and NO_x accounting for approximately 58%, 69%, and 87%, respectively, of the total emissions. Area-wide sources account for approximately 87%, and 76% of the County's PM_{10} and $PM_{2.5}$ emissions, respectively. Stationary and mobile sources account for approximately 15%, and 61%, respectively, of the County's SO_X emissions (ARB 2008d).

Toxic Air Contaminants

Concentrations of TACs, or in federal parlance, hazardous air pollutants (HAPs), are also used as indicators of ambient-air-quality conditions. A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or in serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations.

According to the *California Almanac of Emissions and Air Quality* (ARB 2007a), the majority of the estimated health risk from TACs can be attributed to relatively few compounds, the most important being particulate matter exhaust emissions from diesel-fueled engines (diesel PM). Diesel PM differs from other TACs in that it is not a single substance but rather a complex mixture of hundreds of substances. Although diesel PM is emitted by diesel-fueled internal combustion engines, the composition of the emissions varies depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emission control system is present.

Unlike the other TACs, no ambient monitoring data are available for diesel PM because no routine measurement method currently exists. However, ARB has made preliminary concentration estimates based on a PM exposure method. This method uses the ARB emissions inventory's PM_{10} database, ambient PM_{10} monitoring data, and the results from several studies to estimate concentrations of diesel PM. In addition to diesel PM, the TACs for which data are available that pose the greatest existing ambient risk in California are benzene, 1,3-butadiene, acetaldehyde, carbon tetrachloride, hexavalent chromium, *para*-dichlorobenzene, formaldehyde, methylene chloride, and perchloroethylene.

Diesel PM poses the greatest health risk among these 10 TACs. Based on receptor modeling techniques, ARB estimated the diesel PM health risk in the SVAB in 2000 to be 360 excess cancer cases per million people. Since 1990, the health risk of diesel PM in the SVAB has been reduced by 52%. Overall, levels of most TACs have gone down since 1990 except for para-dichlorobenzene, acetaldehyde and formaldehyde (ARB 2007a). As stated earlier, new research suggests that diesel PM, which is a component of $PM_{2.5}$, is more toxic than previously estimated (ARB 2008i). Thus, ARB's diesel PM reduction efforts and reductions in public exposure to diesel PM are of increased importance.

Emission Sources

Stationary

According to ARB Community Health Air Pollution Information System, there are no major existing stationary sources of TACs within two miles of the Plan area (ARB 2008e, 2008f). The closest stationary source of TACs to the Plan area is H.B. Fuller Co., which is approximately 3.5 miles to the northwest.

Mobile

Rail Traffic

The Union Pacific Railroad J.R. Davis Roseville Rail Yard (UPRR Yard) is situated within the Plan area. The Yard encompasses approximately 950 acres and is the largest service and maintenance rail yard in the West with

over 30,000 locomotives passing through annually (ARB 2004). For the majority of the arriving locomotives, approximately 75% are processed through the service area where they undergo routine service or maintenance. The other 25% are refueled at the subway for rapid turn-around and eventual departure from the Yard.

In October 2004, ARB released the *Roseville Rail Yard Study* (Study) that provided a health risk assessment (HRA) of diesel PM from locomotives at the Yard (ARB 2004). To summarize, the key findings of the Study were:

- The diesel PM emissions in 2000 from locomotive operations at the UPRR Yard were estimated to be approximately 25 tons per year (tpy).
- Moving, idling, and testing of locomotives were estimated to account for approximately 50%, 45%, and 5%, respectively, of the total diesel PM at the UPRR Yard.
- The HRA predicted potential cancer risks greater than 500 in a million (based on 70 years of exposure) northwest of the service track area, and the hump and trim area.
- The HRA showed elevated concentrations of diesel PM and associated cancer risk impacting a large area. These elevated concentrations of diesel PM, which are above the regional background level, contribute to an increased risk of cancer and premature deaths due to cardiovascular disease and non cancer health effects such as asthma and chronic obstructive pulmonary disease.

Exhibit 4.10-1 shows the estimated cancer risk contours in excess cases per one million for 2003 conditions as presented in the Study for the Roseville meteorological data set (ARB 2004). It is important to note that these risk levels represent the predicted risk due to diesel PM above the existing background risk levels. In addition, these risks assume a continuous exposure period of 70 years and an 80th percentile breathing rate. The risk levels displayed in this figure were calculated prior to the availability of the latest research on toxicity of $PM_{2.5}$ (ARB 2008i). Current efforts to reduce diesel PM emissions from locomotive and rail yard sources include state and local agreements with the rail industry to implement cleaner emissions technology.

On-Road Vehicle Traffic

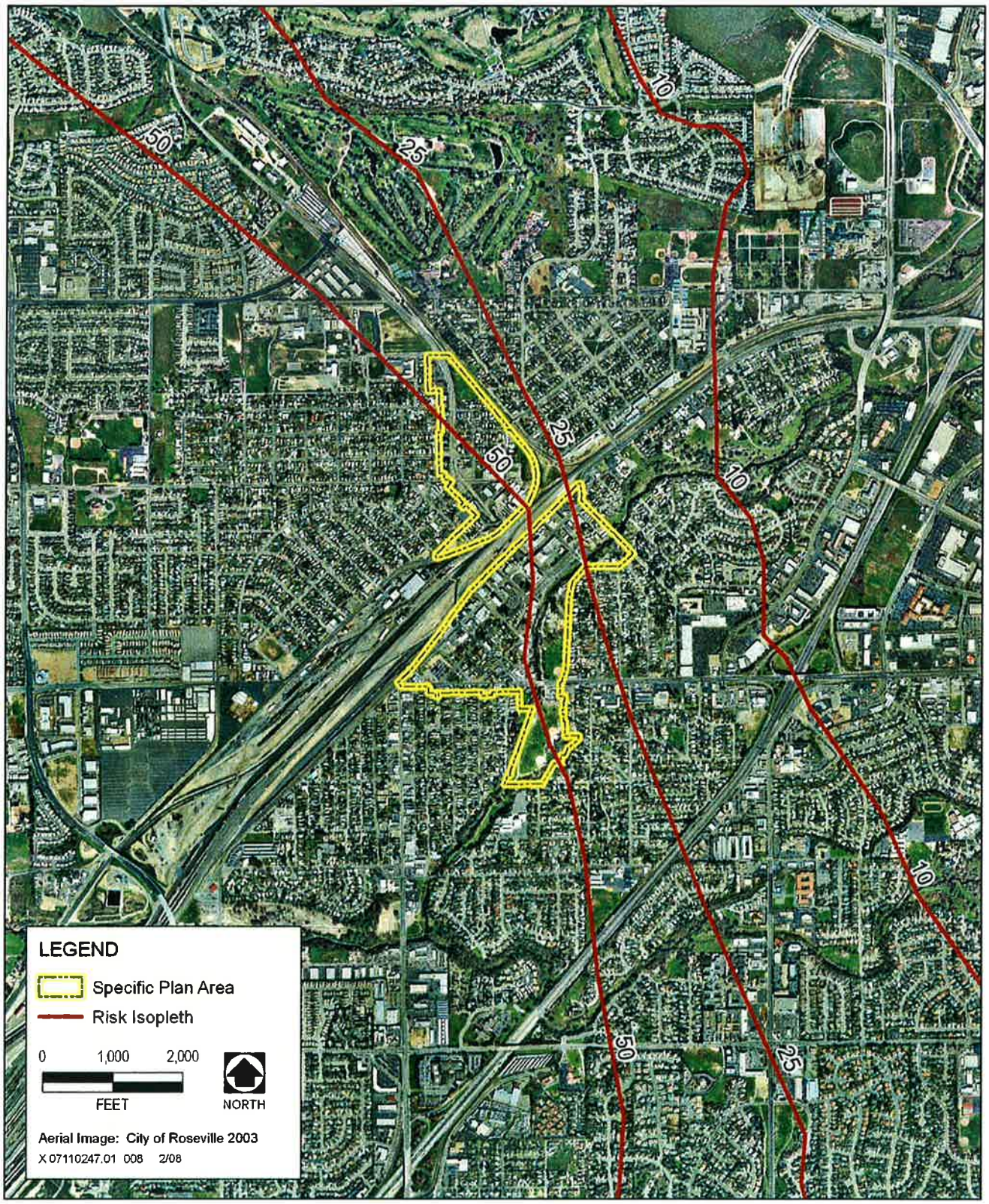
Vehicles on Plan area roadways, specifically Washington Boulevard, Douglas Boulevard and Vernon Street, are sources of diesel PM and other TACs associated with vehicle exhaust.

Naturally Occurring Asbestos

Naturally occurring asbestos (NOA) may be found in at least 44 of California's 58 counties. Asbestos is the name for a group of naturally occurring silicate minerals. Exposure to asbestos may result in inhalation or ingestion of asbestos fibers, which over time may result in damage to the lungs or membranes that cover the lungs, leading to illness or even death.

Naturally occurring asbestos, often found in serpentine rock formations, is present in several foothill areas of Placer County. When material containing naturally occurring asbestos is disturbed, asbestos fibers may be released and become airborne, thereby creating a potential health hazard.

The California Geological Survey has recently developed an enhanced 1:1,000,000 scale map that has improved the overall identification of locations in Placer County. The map denotes areas of Placer County that are more or less likely to contain naturally occurring asbestos based on available soil and geologic studies and some field verification. Where an area is characterized as having a lower overall probability of presence of naturally occurring asbestos, the likelihood of presence is slight, but in some instances naturally occurring asbestos might be found within such an area. Similarly, a location in the area identified as being most likely to have naturally occurring asbestos may not contain it.



2003 Estimated Cancer Risk Contours (excess cases per one million people) **Exhibit 4.10-1**

The California Geological Survey's map shows areas of higher probability for asbestos-containing rock within the broad zone of faults that follow the low foothills and lie in a southeast-to-northwest band. The Placer County communities of Auburn, Colfax, Meadow Vista, and Foresthill are among those that are within this fault band. Generally, there are no areas of high probability of occurrence of naturally occurring asbestos in areas of Placer County west of Folsom Lake or south of Wise Road. The communities of Roseville, Granite Bay, Rocklin, Lincoln, Loomis, Penryn, and Newcastle lie within geologic areas that have a lower probability for the presence of naturally occurring asbestos. There are some isolated areas of higher probability of presence of naturally occurring asbestos within the Tahoe National Forest.

Deposits of naturally occurring asbestos have been found in rock other than ultramafic and serpentine rock; for example, deposits have been found in metavolcanic rocks such as the Copper Hill Volcanics in the Folsom vicinity. Metavolcanic rock formations are prevalent to the northeast, north, and west of Auburn. Finally, in areas of sedimentary or alluvial rock deposits like those in western Placer County, it is possible that analytically detectible naturally occurring asbestos may be found.

According to *Relative Likelihood for the Presence of Naturally Occurring Asbestos in Placer County, California* (Higgins and Clinkenbeard 2006) and *A General Location Guide for Ultramafic Rocks in California—Areas More Likely to Contain Naturally Occurring Asbestos* (Churchill and Hill 2000), the Plan area is located in an area that is least likely to contain NOA.

Odors

Odors are generally regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, headache).

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals have the ability to smell very minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; an odor that is offensive to one person may be perfectly acceptable to another (e.g., fast food restaurant). It is important to also note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word strong to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air. When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

Potential existing sources of odor in the vicinity of Downtown Roseville include commercial and industrial land uses (e.g., UPRR Yard, Aggregate Group, Inc.), which are located approximately two to three miles of the Plan area.

GREENHOUSE GASES

The Greenhouse Effect

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. Prominent GHGs contributing to the greenhouse effect are CO_2, methane (CH_4), nitrous oxide (N_2O), and fluorinated compounds. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface, and a smaller portion of this radiation is reflected back toward space. The absorbed radiation is then emitted from the earth, not as high-frequency solar radiation, but lower frequency infrared radiation. Most solar radiation passes through GHGs; however, infrared radiation is selectively absorbed by GHGs. As a result, infrared radiation released from the earth that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the "greenhouse effect," is responsible for maintaining a habitable climate on Earth. Without the greenhouse effect, Earth would not be able to support life as we know it.

Individual GHGs have different atmospheric lifetimes, and varying degrees of global warming potential (GWP), which defines the potential of a GHG to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. The GWP of a GHG is measured in units of CO_2e (carbon dioxide equivalent), which identifies the lifetime, or persistence, of the gas molecule in the atmosphere. Expressing emissions in CO_2e takes the contributions of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted. For example, as described in Appendix C, "Calculation References," of the General Reporting Protocol of the California Climate Action Registry (CCAR) (CCAR 2007), 1 ton of CH_4 has the same contribution to the greenhouse effect as approximately 23 tons of CO_2. Therefore, CH_4 is a much more potent GHG than CO_2.

Sources of Greenhouse Gases

Sources of GHGs include both natural and anthropogenic (human-caused) processes. Anthropogenic emissions of these GHGs in excess of natural ambient concentrations are responsible for intensifying the greenhouse effect and have led to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. It is extremely unlikely that global climate change over the past 50 years can be explained without the contribution from human activities (IPCC 2007).

Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors (ARB 2008h). In California, the transportation sector is the largest emitter of GHGs, followed by electricity generation (California Energy Commission [CEC] 2006a). Emissions of CO_2 are by-products of fossil fuel combustion. CH_4, a highly potent GHG, results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) largely associated with agricultural practices and landfills. CO_2 sinks, or reservoirs, include vegetation and the ocean, which absorb CO_2 through photosynthesis and dissolution, respectively, two of the most common processes of CO_2 sequestration.

California is the 12th to 16th largest emitter of CO_2 in the world (CEC 2006a). California produced 484 million gross metric tons of CO_2 equivalent (CO_2e) in 2004 (ARB 2008f).

Combustion of fossil fuel in the transportation sector was the single largest source of California's GHG emissions in 2004, accounting for 41% of total GHG emissions in the state (CEC 2006a). This sector was followed by the electric power sector (including both in-state and out-of-state sources) (22%) and the industrial sector (21%) (CEC 2006a).

Impacts of Global Climate Change

Climate change has the potential to affect a variety of resource areas and environmental conditions in California including:

- Human Health.
  - Exposure to air pollution (i.e., increased emissions associated with energy demands in response to an increase in the number of days requiring air conditioning).
  - Exposure to vector borne diseases due to changing ecosystems and climate.
  - Weather-related mortality (e.g., flooding from altered precipitation patterns, heat-related death; global average temperature is expected to increase by 3–7°F by the end of the next century (IPCC 2007)).
- Water Resources.
  - Sea level rise. Sea level rose approximately 7 inches during the last century (CEC 2006b) and it is predicted to rise an additional 7 to 22 inches by 2100 depending on the future levels of GHG emissions (IPCC 2007) and up to 16 inches of sea level rise by 2050, and 55 inches by 2100 (California Resources Agency 2008). If this occurs, resultant effects could include increased coastal flooding, saltwater intrusion (especially a concern in the low-lying Sacramento–San Joaquin River Delta, where pumps delivering potable water could be threatened), and disruption of wetlands (CEC 2006b).
  - Changing rainfall and snow pack. Reduction in the Sierra Nevada snowpack and a faster melting (runoff) period would lead to less overall water storage in the mountains (the largest "reservoir" in the state). According to the CEC (2006b), the snowpack portion of the water supply could potentially decline by 30–90% by the end of the 21st century. A study cited in a report by the California Department of Water Resources (DWR) projects that approximately 50% of the statewide snowpack will be lost by the end of the century (Knowles and Cayan 2002).
- Ecosystem/Habitat Impacts.
  - Changing habitat and species distribution.
  - Increased risk of wildfires due to changes in rainfall patterns and plant community make-up.

Impacts of GHGs are borne globally, as opposed to localized air quality effects of criteria air pollutants and TACs. The quantity of GHGs that it takes to ultimately result in climate change is not precisely known; suffice to say, the quantity is enormous, and no single project alone would be expected to measurably contribute to a noticeable incremental change in the global average temperature, or to global, local, or micro climate. Nevertheless this analysis will quantify the anticipated GHG emissions of the project, and evaluate the cumulative contribution of the project relative to global climate change.

4.10.2 Regulatory Background

Air quality within the SVAB is regulated by EPA, ARB, and PCAPCD. Each of these agencies develops rules, regulations, policies, and/or goals to comply with applicable legislation. Although EPA regulations may not be superseded, both state and local regulations may be more stringent.

CRITERIA AIR POLLUTANTS

Federal Plans, Policies, Regulations, and Laws

At the federal level, EPA has been charged with implementing national air quality programs. EPA's air quality mandates are drawn primarily from the CAA, which was enacted in 1970. The most recent major amendments made by Congress were in 1990.

The CAA required EPA to establish NAAQS. As shown in Table 4.10-2, EPA has established primary and secondary NAAQS for the following criteria air pollutants: ozone, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and lead. The primary standards protect the public health and the secondary standards protect public welfare. The CAA also required each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP). The federal Clean Air Act Amendments of 1990 (CAAA) added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is modified periodically to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. EPA must review all state SIPs to determine whether they conform to the mandates of the CAA and the amendments thereof, and to determine whether implementing them will achieve air quality goals. If EPA determines a SIP to be inadequate, a Federal Implementation Plan (FIP) that imposes additional control measures may be prepared for the nonattainment area. Failure to submit an approvable SIP or to implement the plan within the mandated time frame may cause sanctions to be applied to transportation funding and stationary air pollution sources in the air basin.

State Plans, Policies, Regulations, and Laws

ARB is the agency responsible for coordination and oversight of state and local air pollution control programs in California and for implementing the California Clean Air Act (CCAA). The CCAA, which was adopted in 1988, required ARB to establish CAAQS (Table 4.10-2). ARB has established CAAQS for sulfates, hydrogen sulfide, vinyl chloride, visibility-reducing particulate matter, and the above-mentioned criteria air pollutants. In most cases the CAAQS are more stringent than the NAAQS. Differences in the standards are generally explained by the health effects studies considered during the standard-setting process and the interpretation of the studies. In addition, the CAAQS incorporate a margin of safety to protect sensitive individuals.

The CCAA requires that all local air districts in the state endeavor to achieve and maintain the CAAQS by the earliest practical date. The act specifies that local air districts should focus particular attention on reducing the emissions from transportation and areawide emission sources, and provides districts with the authority to regulate indirect sources.

Among ARB's other responsibilities are overseeing local air district compliance with California and federal laws, approving local air quality plans, submitting SIPs to EPA, monitoring air quality, determining and updating area designations and maps, and setting emissions standards for new mobile sources, consumer products, small utility engines, off-road vehicles, and fuels. There are 15 nonattainment areas for the national ozone standard and two nonattainment areas for the $PM_{2.5}$ standard. The Ozone SIP and $PM_{2.5}$ SIP must be adopted and sent to EPA by June 2007 and April 2008, respectively. The SIP must show how each area will attain the federal standards. To do this, the SIP will identify the amount of pollution emissions that must be reduced in each area to meet the standard and the emission controls needed to reduce the necessary emissions.

ARB and local air pollution control districts are currently developing plans for meeting new national air quality standards for ozone and $PM_{2.5}$. The Draft Statewide Air Quality Plan was released in April 2007 (ARB 2008g).

Local Plans, Policies, Regulations, and Laws

Placer County Air Pollution Control District

The PCAPCD attains and maintains air quality conditions in Placer County through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. The clean air strategy of the PCAPCD includes the preparation of plans for the attainment of ambient air quality standards, adoption, and enforcement of rules and regulations concerning sources of air pollution, and issuance of permits for stationary sources of air pollution. The PCAPCD also inspects stationary sources of air pollution and responds to citizen complaints, monitors ambient air quality and meteorological conditions, and implements programs and regulations required by the CAA, CAAA, and the CCAA. Air quality plans applicable to the proposed project are discussed below.

The PCAPCD in coordination with the air quality management districts and air pollution control districts of El Dorado, Sacramento, Solano, Sutter, and Yolo counties prepared and submitted the 1991 Air Quality Attainment Plan (AQAP) in compliance with the requirements set forth in the CCAA, which specifically addressed the nonattainment status for ozone and to a lesser extent, CO and PM_{10}. The CCAA also requires a triennial assessment of the extent of air quality improvements and emission reductions achieved through the use of control measures. As part of the assessment, the attainment plan must be reviewed and, if necessary, revised to correct for deficiencies in progress and to incorporate new data or projections. The requirement of the CCAA for a first triennial progress report and revision of the 1991 AQAP was fulfilled with the preparation and adoption of the 1994 Ozone Attainment Plan (OAP). The OAP stresses attainment of ozone standards and focuses on strategies for reducing ROG and NO_X. It promotes active public involvement, enforcement of compliance with PCAPCD rules and regulations, public education in both the public and private sectors, development and promotion of transportation and land use programs designed to reduce vehicle miles traveled (VMT) within the region, and implementation of stationary and mobile-source control measures. The OAP became part of the SIP in accordance with the requirements of the CAAA and amended the 1991 AQAP. However, at that time the region could not show that the national ozone (1-hour) standard would be met by 1999. In exchange for moving the deadline to 2005, the region accepted a designation of "severe nonattainment" coupled with additional emission requirements on stationary sources. Additional triennial reports were also prepared in 1997, 2000, and 2003 in compliance with the CCAA that act as incremental updates.

As a nonattainment area, the region is also required to submit rate-of-progress milestone evaluations in accordance with the CAAA. Milestone reports were prepared for 1996, 1999, and 2002. These milestone reports include compliance demonstrations that the requirements have been met for the Sacramento nonattainment area. The air quality attainment plans and reports present comprehensive strategies to reduce ROG, NO_X, and PM_{10} emissions from stationary, area, mobile, and indirect sources. Such strategies include the adoption of rules and regulations; enhancement of CEQA participation; implementation of a new and modified indirect source review program; adoption of local air quality plans; and stationary-, mobile-, and indirect-source control measures.

In July of 1997, the EPA promulgated a new 8-hour ozone standard. This change lowered the standard for ambient ozone from 0.12 ppm averaged over one hour to 0.08 ppm averaged over eight hours. In general, the 8-hour standard is more protective of public health and more stringent than the 1-hour standard. The promulgation of this standard prompted new designations and nonattainment classifications in June 2004, and resulted in the revocation of the 1-hour standard in June 2005. The region has been designated as a nonattainment (serious) area for the national (8-hour) ozone standard with an attainment deadline of June 2013.

Although the region has made significant progress in reducing ozone, a problem has arisen with regard to another issue. The region's transportation plan must conform and show that implementation will not harm the region's chances of attaining the ozone standard. The SIP is tied to a "motor vehicle emissions budget" and thus, transportation planners must ensure that emissions anticipated from plans and improvement programs remain

within this budget. The region is not required to update the SIP before the ozone (8-hour) plans are due in 2006. However, since a conformity lapse began October 4, 2004, an expedited process to prepare a plan is underway.

In the March 14, 2006 Federal Register, EPA found that the motor vehicle emissions budgets for 2008 were determined to be adequate for transportation conformity purposes by the United States Environmental Protection Agency. SACOG was able to demonstrate that the 2006 Metropolitan Transportation Plan and the 2006/08 Metropolitan Transportation Improvement Program for the Sacramento region were below the 2008 budgets.

The Sacramento Regional Nonattainment Area 8-Hour Attainment Demonstration Plan currently being developed will update the allowable motor vehicle emissions budgets for ROG and NOx for 2008 using the new EMFAC model (EMFAC2007) and population and travel activity figures. In addition, it will establish new budgets for several other years up to and including the attainment deadline year. After EPA finds these new budgets adequate, then SACOG must demonstrate that emissions from subsequent transportation plans will be below the emission budget levels established in this new air quality plan (SMAQMD 2008).

As mentioned above, the PCAPCD adopts rules and regulations. All projects are subject to PCAPCD rules and regulations in effect at the time of construction. Specific rules applicable to the construction of the proposed project may include, but are not limited to:

- ***Rule 202-Visible Emissions.*** A person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more that three minutes in any one hour which is as dark or darker in shade as that designated as number 1 on the Ringelmann Chart, as published by the United States Bureau of Mines.

- ***Rule 205-Nuisance.*** A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause to have a natural tendency to cause injury or damage to business or property. The provisions of Rule 205 do not apply to odors emanating from agriculture operations necessary for the growing of crops or raising of fowl or animals.

- ***Rule 217-Cutback and Emulsified Asphalt Paving Materials.*** A person shall not manufacture for sale nor use for paving, road construction or road maintenance any: rapid cure cutback asphalt; slow cure cutback asphalt containing organic compounds which evaporate at 500°F or lower as determined by current American Society for Testing and Materials (ASTM) Method D402; medium cure cutback asphalt except as provided in Section 1.2.; or emulsified asphalt containing organic compounds which evaporate at 500°F or lower as determined by current ASTM Method D244, in excess of 3% by volume.

- ***Rule 218-Application of Architectural Coatings.*** No person shall manufacture, blend, or repackage for sale within PCAPCD; supply, sell, or offer for sale within PCAPCD; or solicit for application or apply within the PCAPCD, any architectural coating with a volatile organic carbon (VOC) content in excess of the corresponding specified manufacturer's maximum recommendation.

- ***Rule 228-Fugitive Dust.***

    - ***Visible Emissions Not Allowed Beyond the Boundary Line:*** A person shall not cause or allow the emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area (including disturbance as a result of the raising and/or keeping of animals or by vehicle use), such that the presence of such dust remains visible in the atmosphere beyond the boundary line of the emission source.

    - ***Visible Emissions from Active Operations:*** In addition to the requirements of Rule 202, Visible Emissions, a person shall not cause or allow fugitive dust generated by active operations, an open storage pile, or a disturbed surface area, such that the fugitive dust is of such opacity as to obscure an observer's

view to a degree equal to or greater than does smoke as dark or darker in shade as that designated as number 2 on the Ringelmann Chart, as published by the United States Bureau of Mines.

- ***Concentration Limit:*** A person shall not cause or allow PM_{10} levels to exceed 50 micrograms per cubic meter ($\mu g/m^3$) (24-hour average) when determined, by simultaneous sampling, as the difference between upwind and downwind samples collected on high-volume particulate matter samplers or other EPA-approved equivalent method for PM_{10} monitoring.

- ***Track-Out onto Paved Public Roadways:*** Visible roadway dust as a result of active operations, spillage from transport trucks, and the track-out of bulk material onto public paved roadways shall be minimized and removed.

  - The track-out of bulk material onto public paved roadways as a result of operations, or erosion, shall be minimized by the use of track-out and erosion control, minimization, and preventative measures, and removed within one hour from adjacent streets such material anytime track-out extends for a cumulative distance of greater than 50 feet onto any paved public road during active operations.

  - All visible roadway dust tracked-out upon public paved roadways as a result of active operations shall be removed at the conclusion of each work day when active operations cease, or every 24 hours for continuous operations. Wet sweeping or a High Efficiency Particulate Air (HEPA) filter equipped vacuum device shall be used for roadway dust removal.

  - Any material tracked-out, or carried by erosion, and clean-up water, shall be prevented from entering waterways or storm water inlets as required to comply water quality control requirements.

- ***Minimum Dust Control Requirements:*** The following dust mitigation measures are to be initiated at the start and maintained throughout the duration of the construction or grading activity, including any construction or grading for road construction or maintenance.

  - Unpaved areas subject to vehicle traffic must be stabilized by being kept wet, treated with a chemical dust suppressant, or covered.

  - The speed of any vehicles and equipment traveling across unpaved areas must be no more than 15 miles per hour unless the road surface and surrounding area is sufficiently stabilized to prevent vehicles and equipment traveling more than 15 miles per hour from emitting dust exceeding Ringelmann 2 or visible emissions from crossing the project boundary line.

  - Storage piles and disturbed areas not subject to vehicular traffic must be stabilized by being kept wet, treated with a chemical dust suppressant, or covered when material is not being added to or removed from the pile.

  - Prior to any ground disturbance, including grading, excavating, and land clearing, sufficient water must be applied to the area to be disturbed to prevent emitting dust exceeding Ringelmann 2 and to minimize visible emissions from crossing the boundary line.

  - Construction vehicles leaving the site shall be cleaned to prevent dust, silt, mud, and dirt, from being released or tracked offsite.

  - When wind speeds are high enough to result in dust emissions crossing the boundary line, despite the application of dust mitigation measures, grading and earthmoving operations shall be suspended.

- No trucks are allowed to transport excavated material off-site unless the trucks are maintained such that no spillage can occur from holes or other openings in cargo compartments, and loads are either covered with tarps; or wetted and loaded such that the material does not touch the front, back, or sides of the cargo compartment at any point less than six inches from the top and that no point of the load extends above the top of the cargo compartment.

- ***Wind-Driven Fugitive Dust Control:*** A person shall take action(s), such as surface stabilization, establishment of a vegetative cover, or paving, to minimize wind-driven dust from inactive disturbed surface areas.

- ***Rule 501-General Permit Requirement:*** Any person operating an article, machine, equipment or other contrivance, the use of which may cause, eliminate, reduce, or control the issuance of air contaminants, shall first obtain a written permit from the Air Pollution Control Officer (APCO). Stationary sources subject to the requirements of Rule 507, Federal Operating Permit Program, must also obtain a Title V permit pursuant to the requirements and procedures of that rule.

City of Roseville

The following goals, objectives, and policies are included in the *City of Roseville General Plan Air Quality Element* (City of Roseville 2004).

Goals:

Air Quality Goal 1: Improve Roseville's air quality by: a) Achieving and maintaining ambient air quality standards established by EPA and the ARB; and b) Minimizing public exposure to toxic or hazardous air pollutants and any pollutants that create a public nuisance though irritation to the senses (such as unpleasant odors).

Air Quality Goal 2: Integrate air quality planning with the land use and transportation planning process.

Air Quality Goal 3: Encourage the coordination and integration of all forms of public transport while reducing motor vehicle emissions through a decrease in the average daily trips and vehicle miles traveled and by increasing the commute vehicle occupancy rate by 50% to 1.5 or more persons per vehicle.

Air Quality Goal 4: Increase the capacity of the transportation system, including the roadway system and alternate modes of transportation.

Air Quality Goal 5: Provide adequate pedestrian and bikeway facilities for present and future transportation needs.

Air Quality Goal 6: Promote a well-designed and efficient light rail and transit system.

Air Quality Goal 7: While recognizing that the automobile is the primary form of transportation, the City of Roseville should make a commitment to shift from the automobile to other modes of transportation.

Policies:

- **Air Quality Policy 1:** Cooperate with other agencies to develop a consistent and effective approach to air pollution planning.

- **Air Quality Policy 2:** Work with PCAPCD to monitor all air pollutants of concern on a continuous basis.

- **Air Quality Policy 3:** Develop consistent and accurate procedures for evaluating the air quality impacts of new projects.
- **Air Quality Policy 4:** As part of the development review process, develop mitigation measures to minimize stationary and area source emissions.
- **Air Quality Policy 5:** Develop transportation systems that minimize vehicle delay and air pollution.
- **Air Quality Policy 6:** Develop consistent and accurate procedures for mitigating transportation emissions from new and existing projects.
- **Air Quality Policy 7:** Encourage alternative modes of transportation including pedestrian, bicycle, and transit.
- **Air Quality Policy 8:** Separate air pollution-sensitive land uses from sources of air pollution.
- **Air Quality Policy 9:** Encourage land use policies that maintain and improve air quality.
- **Air Quality Policy 10:** Conserve energy and reduce air emissions by encouraging energy efficient building designs and transportation systems.

Toxic Air Contaminants

Air quality regulations also focus on TACs or in federal parlance HAPs. In general, for those TACs that may cause cancer, there is no concentration that does not present some risk. In other words, there is no threshold level below which adverse health impacts may not be expected to occur. This contrasts with the criteria air pollutants for which acceptable levels of exposure can be determined and for which the ambient standards have been established (Table 4.10-2). Instead, EPA and ARB regulate HAPs and TACs, respectively, through statutes and regulations that generally require the use of the maximum or best available control technology for toxics (MACT and BACT) to limit emissions. These in conjunction with additional rules set forth by PCAPCD establish the regulatory framework for TACs.

Federal Hazardous Air Pollutant Programs

EPA has programs for identifying and regulating HAPs. Title III of the CAAA directed EPA to promulgate national emissions standards for HAPs (NESHAP). The NESHAP may differ for major sources than for area sources of HAPs. Major sources are defined as stationary sources with potential to emit more than 10 tons per year (TPY) of any HAP or more than 25 TPY of any combination of HAPs; all other sources are considered area sources. The CAAA called on EPA to promulgate emissions standards in two phases. In the first phase (1992–2000), EPA developed technology-based emission standards designed to produce the maximum emission reduction achievable. These standards are generally referred to as requiring MACT. For area sources, the standards may be different, based on generally available control technology. In the second phase (2001–2008), EPA is required to promulgate health risk–based emissions standards where deemed necessary to address risks remaining after implementation of the technology-based NESHAP standards.

The CAAA also required EPA to promulgate vehicle or fuel standards containing reasonable requirements that control toxic emissions, at a minimum to benzene and formaldehyde. Performance criteria were established to limit mobile-source emissions of toxics, including benzene, formaldehyde, and 1,3-butadiene. In addition, Section 219 of the CAAA required the use of reformulated gasoline in selected areas with the most severe ozone nonattainment conditions to further reduce mobile-source emissions.

State and Local Toxic Air Contaminant Programs

TACs in California are primarily regulated through the Tanner Air Toxics Act (Assembly Bill (AB) 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588). AB 1807 sets forth a formal procedure for ARB to designate substances as TACs. Research, public participation, and scientific peer review must occur before ARB can designate a substance as a TAC. To date, ARB has identified more than 21 TACs and adopted EPA's list of HAPs as TACs. Most recently, diesel PM was added to the ARB list of TACs.

Once a TAC is identified, ARB then adopts an Airborne Toxics Control Measure for sources that emit that particular TAC. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If there is no safe threshold, the measure must incorporate BACT to minimize emissions (e.g., the Airborne Toxic Control Measure limits truck idling to 5 minutes (13 CCR Chapter 10 Section 2485)).

The Hot Spots Act requires that existing facilities that emit toxic substances above a specified level prepare a toxic-emission inventory, prepare a risk assessment if emissions are significant, notify the public of significant risk levels, and prepare and implement risk reduction measures.

ARB has adopted diesel-exhaust control measures and more stringent emission standards for various on-road mobile sources of emissions, including transit buses and off-road diesel equipment (e.g., tractors, generators). In February 2000, ARB adopted a new public-transit bus fleet rule and emission standards for new urban buses. These new rules and standards provide for 1) more stringent emission standards for some new urban bus engines, beginning with 2002 model year engines; 2) zero-emission bus demonstration and purchase requirements applicable to transit agencies; and 3) reporting requirements, under which transit agencies must demonstrate compliance with the public-transit bus fleet rule. Current and future milestones include the low-sulfur diesel fuel requirement and tighter emission standards for heavy-duty diesel trucks (2007) and off-road diesel equipment (2011) nationwide. Over time, the replacement of older vehicles will result in a vehicle fleet that produces substantially lower levels of TACs than under current conditions. Mobile-source emissions of TACs (e.g., benzene, 1,3-butadiene, diesel PM) have been reduced significantly over the last decade, and will be reduced further in California through a progression of regulatory measures (e.g., Low Emission Vehicle/Clean Fuels and Phase II reformulated gasoline regulations) and control technologies. With implementation of ARB's Risk Reduction Plan, it is expected that diesel PM concentrations will be reduced by 75% in 2010 and 85% in 2020 from the estimated year-2000 level. Adopted regulations are also expected to continue to reduce formaldehyde emissions from cars and light-duty trucks. As emissions are reduced, it is expected that risks associated with exposure to the emissions will also be reduced.

ARB published the *Air Quality and Land Use Handbook: A Community Health Perspective*, which provides guidance concerning land use compatibility with TAC sources (ARB 2005a). While not a law or adopted policy, the handbook offers advisory recommendations for the siting of sensitive receptors near uses associated with TACs, such as freeways and high-traffic roads, commercial distribution centers, rail yards, ports, refineries dry cleaners, gasoline stations, and industrial facilities, to reduce exposure of sensitive populations.

At the local level, air pollution control or management districts may adopt and enforce ARB control measures. Under PCAPCD Rule 501 (General Permit Requirements), Rule 502 (New Source Review), and Rule 507 (Federal Operating Permit), all sources that possess the potential to emit TACs are required to obtain permits from the district. Permits may be granted to these operations if they are constructed and operated in accordance with applicable regulations, including new source review standards and air toxics control measures. The PCAPCD limits emissions and public exposure to TACs through a number of programs. The PCAPCD prioritizes TAC-emitting stationary sources based on the quantity and toxicity of the TAC emissions and the proximity of the facilities to sensitive receptors.

Sources that require a permit are analyzed by the PCAPCD (e.g., HRA) based on their potential to emit toxics. A HRA is a tool used to determine the exposure of sensitive receptors to TAC emissions based on a 70-year exposure period. If it is determined that the project will emit toxics in excess of PCAPCD's threshold of significant for TACs, as identified below, sources have to implement the best available control technology for TACs (T-BACT) in order to reduce emissions. If a source cannot reduce the risk below the threshold of significance even after T-BACT has been implemented, the PCAPCD will deny the permit required by the source. This helps to prevent new problems and reduces emissions from existing older sources by requiring them to apply new technology when retrofitting with respect to TACs. It is important to note that the air quality permitting process applies to stationary sources; and properties, which may be exposed to elevated levels of non-stationary type sources of TACs, and the non-stationary type sources themselves (e.g., on-road mobile) are not subject to this process or any requirements of T-BACT implementation. Rather, emissions controls on such sources (e.g., vehicles) are subject to regulations implemented on the state and federal level.

Odors

PCAPCD has identified some common types of facilities that have been known to produce odors: wastewater treatment facilities, chemical manufacturing plants, painting/coating operations, feed lots/dairies, composting facilities, landfills, and transfer stations. Because offensive odors rarely cause any physical harm and no requirements for their control are included in federal or state air quality regulations, neither PCAPCD has rules or standards related to odor emissions other than Rule 205 (Nuisance). Any actions related to odors are based on citizen complaints to local governments and PCAPCD.

Two situations increase the potential for odor problems. The first occurs when a new odor source is located near existing sensitive receptors. The second occurs when new sensitive receptors are developed near existing sources of odor. In the first situation, PCAPCD recommends operational changes, add-on controls, process changes, or buffer zones where feasible to address odor complaints. In the second situation, the potential conflict is considered significant if the Plan area is at least as close as any other site that has already experienced significant odor problems related to the odor source. For projects locating near a source of odors where there is no nearby development that may have filed complaints, and for odor sources locating near existing sensitive receptors, PCAPCD recommends that the determination of potential conflict be based on the distance and frequency at which odor complaints from the public have occurred in the vicinity of a similar facility.

PCAPCD Rule 205 (Nuisance) addresses odor exposure and states that no person shall discharge from any source whatsoever such quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons, or to the public; that endanger the comfort, repose, health, or safety of any such persons, or the public; or that cause or have a natural tendency to cause injury or damage to business or property.

Greenhouse Gases

Federal

The U.S. Supreme Court ruled on April 2, 2007 that CO_2 is an air pollutant as defined under the CAA, and that EPA has the authority to regulate emissions of GHGs. However, there are no federal regulations or policies regarding GHG emissions applicable to the proposed project at the time of writing.

Various statewide and local initiatives to reduce the state's contribution to GHG emissions have raised awareness that, even though the various contributors to and consequences of global climate change are not yet fully understood, global climate change is under way, and there is a real potential for severe adverse environmental, social, and economic effects in the long term. Because every nation emits GHGs and therefore makes an incremental cumulative contribution to global climate change, cooperation on a global scale will be required to

reduce the rate of GHG emissions to a level that can help to slow or stop the human-caused increase in average global temperatures and associated changes in climatic conditions.

State

Assembly Bill 1493

California Assembly Bill 1493 (Pavley), enacted July 2002, requires that ARB develop and adopt, by January 1, 2005, regulations that reduce GHG emissions from passenger vehicles and light duty trucks. California has not received the appropriate authorization from EPA to implement more stringent standards, which were requested in the form of a CAA section 209, subsection (b) waiver in 2005. EPA denied California's request for the waiver to implement AB 1493 in late December 2007. The state of California has filed suit against EPA for its decision to deny the CAA waiver.

Executive Order S-3-05

Executive Order S-3-05, which was signed by Governor Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra's snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the Executive Order established total greenhouse gas emission targets. Specifically, emissions are to be reduced to the 2000 level by 2010, the 1990 level by 2020, and to 80% below the 1990 level by 2050.

To comply with the Executive Order, the California Climate Action Team (CCAT) made up of members from various state agencies and commissions will submit recommendations proposed to achieve the targets by building on voluntary actions of California businesses, local government and community actions, as well as through state incentive and regulatory programs.

Assembly Bill 32, California Global Warming Solutions Act of 2006

In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Global Warming Solutions Act of 2006 (See Stats. 2006, ch. 488, enacting Health & Safety Code, Sections 38500 – 38599.) AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. This reduction will be accomplished through an enforceable statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs ARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then ARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires that ARB adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrives at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the state achieves the reductions in GHG emissions necessary to meet the cap. AB 32 also includes guidance to institute emissions reductions in an economically efficient manner and conditions to ensure that businesses and consumers are not unfairly affected by the reductions.

Senate Bill 1368

Senate Bill (SB) 1368 is the companion bill of AB 32 and was signed by Governor Schwarzenegger in September 2006. SB 1368 requires the California Public Utilities Commission (PUC) to establish a GHG emission performance standard for baseload generation from investor owned utilities by February 1, 2007. The CEC must establish a similar standard for local publicly owned utilities by June 30, 2007. These standards cannot exceed the

GHG emission rate from a baseload combined-cycle natural gas fired plant. The legislation further requires that all electricity provided to California, including imported electricity, must be generated from plants that meet the standards set by the PUC and CEC.

Executive Order S-1-07

Executive Order S-1-07, signed by Governor Schwarzenegger in 2007, proclaims that the transportation sector is the main source of GHG emissions in California, generating over 40% of statewide emissions. It establishes a goal that carbon intensity of transportation fuels sold in California should be reduced by a minimum of 10% by 2020. This order also directed ARB to determine if this Low Carbon Fuel Standard (LCFS) could be adopted as a discrete early action measure pursuant to meeting the mandates in AB 32.

Senate Bill 97

SB 97, signed August 2007, acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA (Stats. 2007, ch. 185 (enacting Pub. Resources Code, Sections 21083.05 and 21097.) This bill directs the State Office of Planning and Research (OPR) to prepare, develop, and transmit to the Resources Agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA by July 1, 2009. The Resources Agency is required to certify and adopt those guidelines by January 1, 2010. This bill also removes, both retroactively and prospectively, as legitimate litigation causes of action any claim of inadequate CEQA analysis of effects of GHG emissions associated with environmental review for projects funded by the Highway Safety, Traffic Reduction, Air Quality and Port Security Bond Act of 2006, or the Disaster Preparedness and Flood Protection Bond Act of 2006 (Proposition 1B or 1E). This provision will be repealed by operation of law on January 1, 2010, at which time such projects, if any remain unapproved, will no longer enjoy the protection against litigation claims based on failure to adequately address climate change issues. This bill would only protect a handful of public agencies from CEQA challenges on certain types of projects for a few years time.

Greenhouse Gas Emissions and Land Use Linkage

Land use development projects generate GHG emissions from multiple sectors (e.g., transportation, electricity, waste, etc). both on- and off-site. For example, electricity demand generated by the proposed project would generate GHG emissions at an off-site source of electricity generation; and the project would generate GHG associated with vehicle trips.

Currently, there are no laws or regulations pertaining to GHG emissions and land use. However, the City of Roseville General Plan includes policies that reduce GHGs, some of which are oriented to land use planning, and that would be applied to the proposed project.

4.10.3 Environmental Impacts

Analysis Methodology

Short-term construction-related and long-term operation-related (regional and local) impacts, as well as impacts from TACs and odors, were assessed in accordance with PCAPCD-recommended methodologies. Project-generated, short-term construction-related emissions of criteria air pollutants (e.g., PM) and ozone precursors (e.g., ROG and NO_X) were assessed in accordance with PCAPCD-recommended methods. Where quantification was required, project-generated, construction-related emissions were modeled using the ARB-approved URBEMIS 2007 Version 9.2.4 (URBEMIS) computer program (Rimpo and Associates 2008) as recommended by the PCAPCD. URBEMIS is designed to model construction emissions for land use development projects and allows for the input of project-specific information. Exact project-specific data (e.g., construction equipment types and number requirements, and maximum daily acreage disturbed) were not available at the time of this analysis.

Project-generated emissions were modeled based on general information provided in the project description and default URBEMIS settings in order to estimate worst-case conditions.

Project-generated, regional area- and mobile-source emissions of criteria air pollutants and ozone precursors were also modeled using URBEMIS. URBEMIS allows land use selections that include project location specifics and trip generation rates. URBEMIS accounts for area emissions from the usage of natural gas, landscape maintenance equipment, and consumer products; and mobile sources emissions associated with vehicle trip generation. Project-generated emissions were modeled based on general information provided in the project description and trip generation from the transportation analysis prepared for this project (see Section 4.6, "Transportation and Circulation," of this DEIR).

Long-term operation-related local CO impacts were evaluated in accordance with PCAPCD guidance and a screening methodology developed by the Sacramento Metropolitan Air Quality Management District (SMAQMD).

At this time, PCAPCD has not adopted a methodology for analyzing short-term construction-related emissions of TACs and/or the exposure thereof. Therefore, project-generated, construction-related emissions of TACs were assessed in a qualitative manner. The exposure of proposed sensitive land uses to existing sources of TAC's was also discussed qualitatively based on information provided in the Study for the UPRR Yard and other ARB resources (ARB 2005b).

Determinations of significance for construction- and operation-related emissions were based on the comparison of project-generated emissions to applicable PCAPCD thresholds.

Other air quality impacts (e.g., odors) were assessed in accordance with methodologies recommended by ARB and/or PCAPCD.

Project-generated construction- and operation-related emissions of GHGs were calculated using URBEMIS and methodologies established by CCAR (CCAR 2007).

THRESHOLDS OF SIGNIFICANCE

For the purpose of this analysis, the following thresholds of significance, as identified by the State CEQA Guidelines (Appendix G) and PCAPCD, have been used to determine whether implementation of the proposed project would result in significant air quality impacts.

Based on Appendix G of the State CEQA Guidelines, an air quality impact is considered significant if implementation of the proposed project would do any of the following:

- conflict with or obstruct implementation of the applicable air quality plan,
- violate any air quality standard or contribute substantially to an existing or projected air quality violation,
- result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable NAAQS or CAAQS (including releasing emissions which exceed quantitative thresholds for ozone precursors),
- expose sensitive receptors to substantial pollutant concentrations, or
- create objectionable odors affecting a substantial number or people.

As stated in Appendix G, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the above determinations. Thus, implementation of the proposed project would result in significant air quality impacts if:

- Short-term construction-related emissions of ROG, NO_X or PM_{10} exceed the PCAPCD-recommended mass emissions threshold of 82 pounds per day (lb/day);
- Long-term operation-related (regional) emissions of ROG, NO_X or PM_{10} exceed the PCAPCD-recommended mass emissions threshold of 82 lb/day;
- Long-term operation-related emissions of ROG and NO_x exceed the PCAPCD-recommended cumulative mass emissions threshold of 10 lb/day (applicable during summer months only).
- exposure of sensitive receptors to a substantial incremental increase in TAC emissions (e.g., stationary or mobile-source) that result in excess cancer risk greater than 10 in one million for or a hazard Index (HI) greater than 1 for noncancer risk at the Maximally Exposed Individual (MEI).

No air district or other regulatory agency in California, including PCAPCD, has identified a significance threshold for GHG emissions generated by a proposed project, or a methodology for analyzing impacts related to GHG emissions or global climate change. By adoption of AB 32 and SB 97, however, the State of California has established GHG reduction targets and has determined that GHG emissions as they relate to global climate change are a source of adverse environmental impacts in California that should be addressed under CEQA. Although AB 32 did not amend CEQA, the legislation does include language identifying the various environmental problems in California caused by global warming (Health & Saf. Code, Section 38501(a).) SB 97, in contrast, did amend CEQA to require OPR to prepare CEQA Guidelines revisions addressing the mitigation of GHGs or their consequences. By only giving certain limited projects protection against CEQA claims based on the alleged failure to properly assess climate change impacts in the environmental documents used to approve them, the Legislature implied that the environmental review for other projects would have to address the issue of global warming when impacts are potentially significant (project or cumulative). In any event, the proper context for addressing the issue in an EIR is the discussion of cumulative impacts, since while the emissions of one single project will not cause global climate change, GHG emissions from multiple projects throughout the world could result in a cumulative impact with respect to global climate change.

To meet GHG emission targets of AB 32, California would need to generate in the future less GHG emissions than current levels. It is recognized, however, that for most projects there is no simple metric available to determine if a single project would substantially increase or decrease overall GHG emission levels or conflict with the goals of AB 32.

Although the text of AB 32 strongly suggests that, when ARB interprets and applies the definition of "Greenhouse gas emission source," the regulations promulgated pursuant to the legislation will apply primarily, if not exclusively, to stationary sources of GHG emissions (see Health & Safety Code, Section 38505(i)), this mandate demonstrates California's commitment to reducing the rate of GHG emissions and the state's associated contribution to climate change, without intent to limit population or economic growth within the state. Thus, to achieve the goals of AB 32, which are tied to GHG emission rates of specific benchmark years (i.e., 1990), California would have to achieve a lower rate of emissions per unit of population (per person) than it has now. Further, in order to accommodate future population and economic growth, the state would have to achieve an even lower rate of emissions per unit than was achieved in 1990. (The goal to achieve 1990 quantities of GHG emissions by 2020 means that this will need to be accomplished with 30 years of population and economic growth beyond 1990 in place.) Thus, future projects that would not encourage reductions in GHG emissions (or continue at "Business as Usual" emission rates) would conflict with the policy decisions contained in the spirit of AB 32, thus impeding California's ability to comply with the mandate. In addition, if a project would be affected by the

reasonably foreseeable effects of climate change, the project should be designed to adapt to altered future conditions.

While the text of AB 32 focuses on major stationary and area sources of GHG emissions, the primary objective of AB 32 is to reduce California's contribution to global warming by reducing California's total annual production of GHG emissions. The impact that GHG emissions have on global climate change is not dependent on whether they were generated by stationary, mobile, or area sources, or whether they were generated in one region or another. Thus, the consistency with the state's requirements for GHG emissions reductions is the best metric for determining whether the proposed project would contribute to global warming. In the case of the proposed project, if the project does not conform with the state mandate to reduce GHG emissions to 1990 levels by the year 2020 and the associated increase in the amount of mass emissions is considered to be substantial, then the impact of the project would be cumulatively considerable (significant). Because the nature of global climate change impacts of GHG emissions are cumulative, this impact is discussed further in Chapter 5, "Cumulative Impacts," of this DEIR. Specifically, please refer to Section 5.4 "Global Climate Change" for the cumulative impact analysis of GHG emissions associated with the proposed project.

IMPACT ANALYSIS

IMPACT 4.10-1 **Generation of Short-term Construction-Related Emissions of Criteria Air Pollutants and Precursors.** *Modeled short-term project-generated ozone precursor and fugitive dust emissions from construction activities in Plan area would exceed PCAPCD's significance threshold of 82 lbs/day. Thus, project-generated, construction- related emissions of ROG, NO_x and PM_{10} could violate or contribute substantially to an existing or projected air quality violation and/or expose sensitive receptors to substantial pollutant concentrations, especially considering the nonattainment status of Western Placer County. As a result, this impact is considered* ***significant.***

Construction-related emissions are described as "short-term" or temporary in duration and have the potential to represent a significant impact with respect to air quality. Construction-related activities associated with the proposed project would result in project-generated emissions of criteria air pollutants (PM_{10} and $PM_{2.5}$) and ozone precursors (ROG and NO_x) from site preparation (e.g., excavation, grading, and clearing); off-road equipment, material transport, and worker commute exhaust emissions; vehicle travel on unpaved roads; paving; application of architectural coatings; and other miscellaneous activities.

Emissions of fugitive PM dust (e.g., PM_{10} and $PM_{2.5}$) are associated primarily with ground disturbance activities during site preparation (e.g., grading) and vary as a function of such parameters as soil silt content, soil moisture, wind speed, acreage of disturbance area, and VMT on- and off-site. Exhaust emissions from diesel equipment and worker commute trips also contribute to short-term increases in total PM emissions, but to a much lesser extent. Emissions of ozone precursors are primarily associated with off-road (e.g., gas and diesel) construction equipment exhaust. Worker commute trips and other construction-related activities (e.g., application of architectural coatings) also contribute to short-term increases in such emissions.

Project-generated, construction-related emissions of criteria air pollutants and precursors were modeled in accordance with PCAPCD-recommended methodologies. Exact project-specific data (e.g., construction equipment types and number requirements, and maximum daily acreage disturbed) were not available at the time of this analysis. Project-generated emissions were modeled based on general information provided in the project description and default URBEMIS settings and parameters attributable to the construction period and site location. In order to estimate worst-case conditions, construction of the entire project was assumed to be completed in a single stage with potential overlap between construction phases.

Table 4.10-3 summarizes the modeled emissions for the construction phases. Construction-related air quality effects were determined by comparing these modeling results with applicable PCAPCD significance thresholds. Refer to Appendix F of this DEIR for detailed modeling input parameters and results.

As shown in Table 4.10-3, construction-related activities associated with buildout of the worst-case day would result in project-generated daily unmitigated emissions of approximately 420 lb/day of ROG, 137 lb/day of NO_x and 322 lb/day of PM_{10}.

Table 4.10-3
Summary of Modeled Project-Generated, Short-Term Construction-Related Daily Emissions of Criteria Air Pollutants and Precursors (Unmitigated and Mitigated)

Phase/Year	Emissions Pounds Per Day (lb/day)			
	ROG	NO_x	PM_{10}	$PM_{2.5}$[1]
Site Grading[2]	10.41	87.76	318.48	69.69
Paving[2]	12.86	49.64	3.06	2.74
Building Construction	11.80	65.92	4.41	3.46
Architectural Coating	408.25	0.27	0.04	0.02
Worst-Case Total Daily Emissions (Unmitigated)	420.3	137.4	322.4	75.9
Worst-Case Total Daily Emissions (Mitigated)[5]	399.3	109.9	83.7	20.8
PCAPCD Significance Threshold	*82*	*82*	*82*	-

[1] PCAPCD has not adopted a significance threshold for $PM_{2.5}$, however the emissions are included for disclosure purposes.
[2] Begins in December 2008 and continues into 2009. Emissions shown are for 2008, emissions in 2009 would be slightly lower.
[3] Worst case ROG emissions occur on the days when building construction and architectural coating activities would occur simultaneously.
[4] Worst case NO_x, PM_{10} and $PM_{2.5}$ emissions occur on the days when grading and paving operations would occur simultaneously.
[5] It was assumed that implementation of mitigation measure 4.10-1 would result in approximately 5%, 20%, and 45% reductions in mobile-exhaust emissions of ROG, NO_x and PM_{10}, respectively, and a 75% reduction from fugitive dust emissions of PM_{10}.
Note: Total daily emissions rounded to the nearest whole number.
Refer to Appendix F for detailed assumptions and modeling output files.
Source: Data modeled by EDAW 2008.

Based on the modeling conducted, construction-related activities would result in ROG, NO_X, and PM_{10} emissions that exceed PCAPCD's significance threshold of 82 lb/day. Thus, project-generated construction-related emissions of criteria air pollutants and precursor emissions could violate or contribute substantially to an existing or projected air quality violation, and/or expose sensitive receptors to substantial pollutant concentrations. As a result, this impact would be significant.

IMPACT 4.10-2 **Generation of Long-Term Operation-Related (Regional) Emissions of Criteria Air Pollutants and Ozone Precursors.** *Operation-related activities would result in project-generated emissions of ROG, NO_x or PM_{10} that exceed PCAPCD's significance threshold of 82 lb/day. Project-generated operation-related emissions of ROG and NO_x would also exceed PCAPCD's recommended cumulative summertime threshold of 10 lb/day In addition, the proposed project would require a General Plan amendment to allow for development of desired land uses in downtown Roseville. Thus, project-generated, operation-related emissions of criteria air pollutants and precursors could violate or contribute substantially to an existing or projected air quality violation, expose sensitive receptors to substantial pollutant concentrations and/or conflict with air quality planning efforts. As a result, this impact is considered* ***significant.***

Area- and Mobile-Source Emissions

Project-generated, regional area- and mobile-source emissions of ROG, NO_X, and PM_{10} were modeled using URBEMIS. URBEMIS allows land use selections that include project location specifics and trip generation rates.

URBEMIS accounts for area-source emissions from the usage of natural gas, landscape maintenance equipment, and consumer products; and mobile-source emissions associated with vehicle trip generation. Regional area- and mobile-source emissions were modeled based on proposed land uses types and sizes as described in Chapter 3, "Project Description," and the trip generation data described in Section 4.6 "Transportation and Circulation." The trip generation data (50,852 average daily trips [ADT]) includes data for internal and pass-by trips. Therefore, the net trip generations were used in the model, and the model options for internal trips and pass-by were not selected.

Table 4.10-4 summarizes the modeled project-generated, operation-related emissions of criteria air pollutants and precursors under the worst-case (2009) buildout year. Operation-related air quality impacts were determined by comparing these modeling results with applicable PCAPCD significance thresholds. Refer to Appendix F of this DEIR for detailed modeling input parameters and results.

Table 4.10-4
Summary of Modeled Long- Term Project-Generated, Operation-Related Emissions

Source	Emissions- pounds per day (lb/day)			
	ROG	NO_X	PM_{10}	$PM_{2.5}$[1]
Project Operational[2] Emissions				
Area Sources	270.69	42.18	173.47	166.97
Mobile Sources	436.78	637.39	752.27	146.98
Total Unmitigated at 20-Year Buildout (Assuming 1990 Emission Levels)	707.5	679.6	925.7	314.0
PCAPCD Significance Threshold:	82	82	82	-

[1] PCAPCD has not adopted a significance threshold for $PM_{2.5}$, however the emissions are included for disclosure purposes.
Refer to Appendix F for detailed assumptions and modeling output files.
[2] For modeling purposes, emissions were estimated using 2009 as the first year of full project operation, even though the project would not become fully operational for over a period of twenty years. The earliest phases of the project were conservatively estimated to become operational in the year 2009. However, mobile-source emission factors at full project buildout would be lower due to more stringent vehicle emissions standards and assumed vehicle fleet turnover. Areas source emissions would also be lower, as the table does not reflect energy-efficient construction and appliances,
Source: Data modeled by EDAW 2008.

As shown in Table 4.10-4, operation-related activities would result in a net increase in project-generated daily unmitigated emissions of approximately 708 lb/day of ROG, 680 lb/day of NO_x and 926 lb/day of PM_{10} under buildout conditions. In the years subsequent to 2009, vehicle emissions would be less, as older vehicles with higher per-vehicle emissions are retired and new, cleaner vehicles come into service. This is a conservative approach to calculating emissions, since the project would not be fully operational for approximately 20 years. Under this approach, full project operational emissions were estimated during 2009, which is considered a worst-case.

Based on the modeling conducted, operation-related activities would result in project-generated emissions of ROG, NO_X and PM_{10} that exceed PCAPCD's applicable thresholds of 82 lb/day. Consequently, project-generated operation-related emissions of ROG and NO_x would also exceed PCAPCD's recommended summertime cumulative significance threshold of 10 lb/day. In addition, PCAPCD relies, to a certain degree; on land use designations contained in general plan documents applicable to its jurisdiction. PCAPCD refers to the contents of approved general plans in order to forecast, inventory, and allocate regional emissions from land use and development-related sources. These emissions budgets are used in statewide air quality attainment planning efforts. Because the proposed project would require a general plan amendment to allow for development of the desired land uses in downtown Roseville, emissions that would be associated with the new land use types would

not already be accounted for in regional air quality planning efforts. Thus, project-generated, operation-related emissions could violate or contribute substantially to an existing or projected air quality violation and result in a cumulatively considerable net increase of criteria pollutants, especially considering the nonattainment status of the Placer County portion of the SVAB, expose sensitive receptors to substantial pollutant concentrations, and/or conflict with air quality planning efforts. As a result, this would be a significant impact.

Stationary Source Emissions

The proposed project would likely include stationary sources of pollutants that would be required to obtain permits to operate under PCAPCD Rule 501-General Permit Requirements and Rule 507-Federal Operating Permit Program. These sources could include, but not be limited to, a diesel-engine generator for emergency power generation; central heating boilers; kitchen equipment at restaurants; and dry cleaning equipment. The permit process would assure that these sources would be equipped with the required emission controls, and that individually, these sources would not cause a significant environmental impact. Nonetheless, the emissions from these sources would be additive to the estimated area and mobile source emissions described above.

IMPACT 4.10-3 **Exposure of Sensitive Receptors to Toxic Air Contaminant Emissions.** *The proposed project would not expose sensitive receptors to substantial emissions of TACs during construction because construction emissions would be temporary and would rapidly dissipate with distance from the source. However, implementation of the Specific Plan could result in the exposure of sensitive receptors, especially those within close proximity to the Rail Yard and proposed commercial uses, to TAC emissions that exceed the significance threshold of 10 in one million for the cancer risk level. As a result, this impact would be considered* ***significant.***

The exposure of sensitive receptors from on-site, project-generated, construction-related and operation-related sources is discussed separately below.

On-Site Project-Generated Construction-Related Emissions

Construction-related activities would result in short-term project-generated emissions of diesel PM from the exhaust of off-road heavy-duty diesel equipment for site preparation (e.g., excavation, grading, and clearing); paving; application of architectural coatings; and other miscellaneous activities. Diesel PM was identified as a TAC by ARB in 1998. The potential cancer risk from the inhalation of diesel PM, as discussed below, outweighs the potential non-cancer health impacts (ARB 2003). At this time, PCAPCD has not adopted a methodology for analyzing such impacts.

The dose to which receptors are exposed is the primary factor used to determine health risk (i.e., potential exposure to TAC to be compared to applicable standards). Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for the MEI. Thus, the risks estimated for a MEI are higher if a fixed exposure occurs over a longer period of time. According to the Office of Environmental Health Hazard Assessment (OEHHA), health risk assessments, which determine the exposure of sensitive receptors to TAC emissions, should be based on a 70-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the proposed project (Salinas, pers. comm., 2004). Thus, because the use of off-road heavy-duty diesel equipment would be temporary in combination with the highly dispersive properties of diesel PM (Zhu and Hinds 2002) and further reductions in exhaust emissions, project-generated, construction-related emissions of TACs would not expose sensitive receptors to substantial emissions of TACs.

Because the Plan area is located in an area that is least likely to contain NOA, ground disturbance activities during construction would not have the potential to expose construction workers and surrounding residents to dust from naturally-occurring asbestos rocks and soil.

On-Site Project-Generated Operation-Related Stationary-Source Emissions

Project implementation would provide development of commercial uses which may include stationary sources of TACs (e.g. dry cleaners and diesel generators). Pursuant to PCAPCD Rule 513, all stationary sources having the potential to emit TACs are required to obtain permits. Permits may be granted to these operations if they are constructed and operated in accordance with applicable regulations, including PCAPCD Rules 902-906. Given that compliance with applicable standards is required for the development and operation of commercial uses that emit TACs, emissions from such stationary sources both within and adjacent to the Plan area, would be anticipated to be within established standards.

On-Site Project-Generated Operation-Related Mobile- and Area-Source Emissions

Mobile sources of TACs could include proposed land uses that involve the long-term use of heavy-duty diesel trucks. Implementation of the proposed project would include development of commercial land uses which may include facilities that require the long-term use of heavy-duty diesel trucks (e.g., loading docks). The operation of such a source could result in the exposure of sensitive receptors, especially those within close proximity, to toxic air emissions that exceed the significance threshold.

Sources of TAC emissions include diesel-fueled engines and some food-service facility operations. Delivery truck travel, truck idling, and operation of the emergency back-up power generator are emission sources of particulate matter from diesel-fueled engines. Trucks entering and leaving the proposed project would include deliveries associated with the retail stores and possible food service establishments. Trucks idling would occur in the shipping and receiving delivery dock areas. Commercial trucks that weigh over 10,000 pounds are limited to an idle time not to exceed 5 minutes for entering or exiting the truck delivery well, in accordance with California State Legislation. The loading delivery docks are the only locations where routine truck idling associated with operation of the project would be expected.

Specific types of tenants that would occupy retail space in the Plan area are unknown. It is possible that restaurants serving the residential uses could be included as tenants. Restaurants emit organic gases from the cooking of animal fats and oils. Emissions would be controlled by an exhaust manifold (i.e., hood) to a roof-top vent. It is possible that operation of the restaurant would require use of trucks equipped with transportation refrigeration storage units (TRUs) to deliver cold-stored food items. Trucks equipped with TRUs typically result in higher TAC emissions, because they are equipped with diesel generator sets to keep perishable food cold, in addition to diesel engine exhaust from the truck. However, it is not anticipated that the scale of retail establishments would generate high truck volumes (i.e., greater than 100 commercial trucks per day or 40 TRU-equipped trucks per day as defined by ARB as the screening level) delivering materials on a frequent basis. Therefore, on- or off-site sensitive receptors would not be exposed to substantial TAC concentrations from these sources.

Off-Site Existing Rail Traffic

The Plan area is bisected by the UPPR Yard, with the Plan area on the north and south sides of the UPRR, connected by Washington Boulevard underpass that runs under the railroad tracks. The UPRR Yard encompasses approximately 950 acres and is the largest service and maintenance rail yard in western U. S., with over 30,000 locomotives visiting annually. Approximately 75% of the arriving locomotives are processed through the service area where they undergo routine service or maintenance. The other 25% percent are refueled for rapid turn-around and eventual departure from the UPRR Yard.

In October 2004, ARB released the Roseville Rail Yard Study (Study) which provided a health risk assessment (HRA) of the airborne diesel PM emissions from locomotives at the UPRR Yard (ARB 2004). Key findings of the study include:

- The diesel PM emissions in 2000 from locomotive operations at the UPRR Yard were estimated to be about 25 tons per year.

- Moving locomotives were estimated to account for about 50%, idling locomotives account for about 45%, and locomotive testing accounts for about 5% of the total diesel PM emissions at the UPRR Yard.

- Computer modeling predicted potential cancer risks greater than 500 in a million (based on 70 years of exposure) northwest of the service track area, and the hump and trim area.

- The HRA showed elevated concentrations of diesel PM and associated cancer risk impacting a large area around the UPRR Yard. These elevated concentrations of diesel PM, which are above the regional background level, contribute to an increased risk of cancer and premature deaths due to cardiovascular disease and non-cancer health effects such as asthma and chronic obstructive pulmonary disease.

As shown in Exhibit 4.10-1, the Study indicates that locomotive-related activities at the UPRR Yard would result in the exposure of sensitive receptors proposed as part of the project to a cancer risk level of 50 excess chances in one million. This predicted cancer risk level at the proposed Plan area would be in addition to the existing background conditions for which the Study showed a cancer risk level of 360 in a million. It should be noted that the study assumes a continuous exposure period of 70 years and an 80th percentile breathing rate.

On June 24, 2005, the Executive Officer of ARB entered into an agreement with UPRR to implement short-term measures for diesel PM emissions reductions (ARB 2005b). The agreement focused on reducing diesel PM on and around rail yards by approximately 20 percent. Actions included as part of the agreement are summarized below:

- Install idling reduction devices on 70% of unequipped intrastate locomotives by June 30, 2007.

- Ensure that at least 80% of the fuel supplied to locomotives fueled in California after December 31, 2006 meets the specifications for either ARB diesel fuel or EPA on-highway diesel fuel.

- Evaluate remote sensing to identify high-emitting locomotives.

- Evaluate the feasibility of developing diesel particulate filters or diesel oxidation catalysts for use on a typical switch locomotive representative of the current California switcher fleet.

The most recent semi-annual status report on the implementation of the agreement shows that the railroads and staff have met, or are on schedule to meet, the requirements specified for the implementation of the agreement. ARB staff estimates that these efforts have provided about a 15% reduction in rail yard diesel PM emissions between 2005 and 2007. Measures to be applied between 2007 and 2010 are expected to provide another 30 to 50 percent reduction in that period (ARB 2007b).

The Roseville Railyard Air Monitoring Project has focused on air quality monitoring at locations upwind and downwind of the UPRR Yard from 2005 through 2007 for black carbon, an indicator of diesel PM; NO_x; $PM_{2.5}$; and, wind speed and direction. There are four sites established for monitoring pollutants from the UPRR Yard as a part of this monitoring project including Denio, Church, Pool, and Vernon. The concentrations at both downwind sites (Denio and Church) are significantly higher than at their corresponding upwind sites (Pool and Vernon). Church and Vernon are in closest proximity to the Plan area. The predominant wind direction is verified to be from the southeast to the northwest, as a part of this monitoring study (PCAPCD 2006b).

The risk exposure of the proposed project from the UPRR Yard may be no greater than that associated with diesel PM exposure from adjacent high-volume freeways (Garvey & Cooper 2004). However, project implementation could result in the exposure of sensitive receptors to substantial emissions of TACs emissions that could cause both cancer and non-cancerous health effects. As a result, this impact is considered significant.

Off-Site Emissions from Mobile Sources

The Plan area is located close to Interstate 80 (I-80). Implementation of the proposed project would develop up to 1,020 new residential units, of which the nearest would be within approximately 3,000 feet of I-80. In April 2005, the ARB published a guidance document entitled *Air Quality and Land Use Handbook: A Community Health Perspective* which includes the recommendation to avoid the siting of new sensitive land uses (e.g., residences, schools) within 500 feet of freeways, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day (ARB 2005a). Therefore, the location of the proposed sensitive uses would be in concurrence with ARB recommendations. The ARB guidance document is advisory, not regulatory. However, in absence of guidelines from PCAPCD, ARB recommendations were used to assess compatibility of the proposed uses in proximity to mobile-source emissions.

Based on the findings in the ARB guidance document, it can be ascertained that the proposed project would have the potential to expose sensitive receptors to TACs from mobile sources to an extent that health risks could result (ARB 2005a).

In summary, the proposed project would not expose sensitive receptors to excessive TAC concentrations associated with on-site short-term construction-generated emissions, on-site long-term operational-generated emissions, or off-site mobile-source emissions. However, the project would have the potential to result in the exposure of sensitive receptors to excessive TAC concentrations associated with off-site locomotive emissions. This impact is considered significant.

IMPACT 4.10-4 **Generation of Long-Term Operation-Related (Local) Mobile-Source Emissions of Carbon Monoxide.** *Project-generated, long-term operation-related (local) mobile-source emissions of CO would not violate or contribute substantially to a violation of the CAAQS or NAAQS, or expose sensitive receptors to substantial pollutant concentrations. This impact would be* ***less than significant.***

CO concentration is a direct function of motor vehicle activity (e.g., idling time and traffic flow conditions), particularly during peak commute hours, and meteorological conditions. Under specific meteorological conditions (e.g., stable conditions that result in poor dispersion), CO concentrations may reach unhealthy levels with respect to local sensitive land-uses such as residential areas, schools, and hospitals. As a result, PCAPCD recommends analysis of CO emissions at a local rather than a regional level.

An appropriate qualitative screening procedure is provided in the procedures and guidelines contained in *Transportation Project-Level Carbon Monoxide Protocol* (the Protocol) to determine whether a project poses the potential for a CO hotspot (UCD ITS 1997). A CO hotspot is an area of localized CO pollution that is caused by severe vehicle congestion on major roadways, typically near intersections. According to the Protocol, projects may worsen air quality if they significantly increase the percentage of vehicles in cold start modes by 2 percent or more; significantly increase traffic volumes (by 5% or more) over existing volumes; or worsen traffic flow, defined for signalized intersections as increasing average delay at intersections operating at Level of Service (LOS) E or F or causing an intersection that would operate at LOS D or better without the project, to operate at LOS E or F.

The project's traffic analysis (see Section 4.6, "Transportation and Circulation") indicates that some of the signalized intersections that were analyzed would operate at LOS E or LOS F under cumulative conditions without and with the project. While mitigation measures have been proposed that would alleviate the congestion, the lack of adequate funding leads to the conclusion that the mitigation measures may not be in place prior to the completion of the proposed project. Therefore, further investigation of potential CO impacts is warranted.

The Protocol prescribes a quantitative screening analysis to determine a project's CO impacts. However, the screening analysis has become obsolete because it uses emission factors from an older version of ARB's EMFAC model. As a substitute, various air quality agencies in California have developed conservative screening methods.

The PCAPCD has not developed quantitative CO screening criteria; therefore, the methods of SMAQMD are used (SMAQMD 2004). The method is based on background CO concentrations and project trip generation and is not dependent on the traffic volumes or geometry for a specific intersection. The screening is based on the background concentration of CO and a conservative estimate of project related CO as a function of peak hour trip generation. The screening analysis for the proposed project's potential CO impacts at a generalized intersection is shown in Table 4.10-5.

As shown in Table 4.10-5, project-generated long-term operation-related local mobile-source emissions of CO would not violate or substantially contribute to a violation of the CAAQS or NAAQS, or expose sensitive receptors to substantial pollutant concentrations. As a result, this impact is considered less than significant.

Table 4.10-5
Summary of Carbon Monoxide Hot Spot Screening Level Analysis

Concentration (ppm)	1-Hour	8-Hour
Background[1]	0.35	N/A
Project-Related[2]	12.26	N/A
Anticipated Total[3]	12.61	8.83
NAAQS	35	9.0
CAAQS	20	9.0
Exceed standards?	No	No

[1] Rolled back to 2010
[2] Peak hour trip generation is 5,171 vehicles in the evening peak hour. CO contribution is interpolated from SMAQMD table as 12.26 ppm.
[3] Eight-hour concentration assumed to be 0.7 times 1-hour concentration.
Sources: Data compiled by EDAW 2008, SMAQMD 2004

IMPACT 4.10-5 **Exposure of Sensitive Receptors to Odors.** *The project would not involve the siting of any major sources of odors. However, the nature of the businesses that would occupy the commercial development is not known, and one or more of the businesses could be a minor source of objectionable odors, which could adversely affect nearby existing sensitive receptors. The proposed project would be located near the UPRR Yard, a major source of odors due to diesel PM. Therefore, this is considered a* ***significant*** *impact.*

The occurrence and severity of odor impacts depend on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the presence of sensitive receptor. Although offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress and often generating citizen complaints to local governments and regulatory agencies.

The proposed project would result in diesel exhaust emissions from on-site construction equipment during project construction. The construction phase diesel exhaust emissions would be intermittent and temporary and would dissipate rapidly from the source with an increase in distance.

In addition the project would not include the long-term operation of any new sources of odor. However, implementation of the Specific Plan would include development of commercial land uses which may include minor odor sources (e.g. dry cleaners, diesel generators). Also, due to the project's proximity to the UPRR Yard, the project could expose sensitive receptors to odors from diesel exhaust emissions. However, overall odors in the project area would be typical of odors associated with urban uses. Because the proposed project involves siting of sensitive receptors near to a major odor source (i.e., the UPRR Yard) the proposed project could result in objectionable odors affecting a substantial number of people. This impact is considered significant.

4.10.4 MITIGATION MEASURES

Mitigation Measure 4.10-1

In accordance with the PCAPCD, the applicant shall comply with all applicable rules and regulations as listed above (e.g., Rule 202, 218 and 228). In addition, the following mitigation measures shall be implemented to reduce short-term construction-related air quality impacts. In addition, dust control measures are required to be implemented by all projects in accordance with the City of Roseville Grading Ordinance, and the PCAPCD Fugitive Dust Rule 228.

1. The applicant shall submit to PCAPCD a Construction Emission / Dust Control Plan within 30 days prior to groundbreaking. If the PCAPCD does not respond within 20 days, the plan shall be considered approved. The plan must address the minimum requirements found in section 300 and 400 of District Rule 228, Fugitive Dust (www.placer.ca.gov/airpollution/airpolut.htm). The applicant shall keep a hard or electronic copy of Rule 228, Fugitive Dust on-site for reference.

2. The Construction Emission/Dust Control Plan shall include a comprehensive inventory (i.e. make, model, year, emission rating) of all heavy-duty off-road equipment (50 horsepower (HP) of greater) that will be used an aggregate of 40 or more hours for the construction project. The project representative shall provide PCAPCD with the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreman. The plan shall demonstrate that the heavy-duty (> 50 HP) off-road vehicles to be used in the construction project, including owned, leased and subcontractor vehicles, will achieve a project wide fleet-average 20% NO_X reduction and 45% particulate reduction compared to the most recent ARB fleet average. PCAPCD shall be contacted for average fleet emission data. Acceptable options for reducing emissions may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available. Contractors can access the Sacramento Metropolitan Air Quality Management District's web site to determine if their off-road fleet meets the requirements listed in this measure (http://www.airquality.org/ceqa/Construction_Mitigation_Calculator.xls).

3. Clean earth moving construction equipment with water or sweep clean, once per day, or as necessary (e.g., when moving onsite), consistent with National Pollutant Discharge Elimination System Best Management Practices, local ordinances, and municipal codes. Water shall be applied to control dust as needed to prevent dust impacts offsite. Operational water truck(s), shall be on-site, as required, to control fugitive dust. Construction vehicles leaving the site shall be cleaned, as needed, to prevent dust, silt, mud, and dirt from being released or tracked off-site.

4. Spread soil binders on unpaved roads and employee/equipment parking areas. Soil binders shall be non-toxic in accordance with state and local regulations. Apply approved chemical soil stabilizers, or vegetated mats, etc. according to manufacturers' specifications, to all-inactive construction areas (previously graded areas which remain inactive for 96 hours).

5. Minimize diesel idling time to a maximum of 10 minutes.

6. Utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary diesel power generators, if feasible.

7. Measures specific to 20+ acre project sites:

- A pre-construction meeting shall be held to review the construction emission/dust control plan for projects requiring grading of 20+ acres. PCAPCD shall be notified and may attend.

- The applicant shall comply with PCAPCD Fugitive Dust Rule 228; including suspending grading operations when conditions exceed designated wind speeds, and executing proper control of lime or other drying agents.

- An applicant representative, ARB-certified to perform Visible Emissions Evaluations (VEE), shall routinely (i.e., once per week) evaluate project related off-road and heavy-duty on-road equipment emissions for compliance with this requirement for projects grading more than 20 acres in size, regardless of how many acres are to be disturbed daily.

- Construction equipment exhaust emissions shall not exceed the PCAPCD Visible Emissions Rule 202. Fugitive dust is not to exceed 40% opacity and not go beyond property boundary at any time. Operators of vehicles and equipment found to exceed opacity limits are to be immediately notified and the equipment must be repaired within 72 hours.

Significance after Mitigation

Implementation of these Mitigation Measures 4.10-1 would reduce short-term ROG, NO_x and PM_{10} emissions from off-road mobile equipment by a minimum of approximately 5%, 20%, and 45% respectively. Emissions of PM_{10} from fugitive dust would be reduced by 75%. The fugitive dust measures would prevent dust beyond the project property lines, and daily emissions would be reduced to below the PCAPCD's threshold of 82 lb/day. However, the mitigated emissions of ROG and NO_x would still be anticipated to exceed the PCAPCD's threshold of 82 lb/day for these pollutants and would potentially contribute to concentrations that exceed the NAAQS or CAAQS. As a result, this impact is considered significant and unavoidable.

Mitigation Measure 4.10-2

The following is a list of mitigation measures developed by PCAPCD to reduce long-term operational impacts to local and regional air quality. Due to the severe nonattainment designation in western Placer County for federal standards, all projects should implement those measures that are logical and feasible.

1. Exceed California Title 24 energy requirements. Areas of Title 24 to be exceeded shall be determined by the applicant and the City.

2. All truck loading and unloading docks shall be equipped with one 110/208-volt power outlet for every two-dock door. Diesel trucks shall be prohibited from idling more than five minutes and must be required to connect to the 110/208-volt power to run any auxiliary equipment. Signage shall be provided.

3. Install a gas outlet in all outdoor recreational fire pits, and permanently installed cooking appliances.

4. Only natural gas fireplace appliances are permitted. Where propane or natural gas service is not available, only EPA Phase II certified wood-burning devices shall be allowed in single-family residences. The emission potential from each residence shall not exceed 7.5 grams per hour. Wood-burning or Pellet appliances shall not be permitted in multi-family developments.

5. Where feasible, install solar electric generation systems. Recommend participation in Roseville Electric incentive programs for energy-efficient development.

Significance after Mitigation

Implementation of Mitigation Measure 4.10-2 would further reduce operations emissions of ROG, NO_X and PM_{10}. However, the results of implementing these measures can not be reasonably quantified. Therefore, the impact is considered significant and unavoidable.

Mitigation Measure 4.10-3

The following mitigation measures shall be implemented to reduce the exposure of sensitive receptors to TACs:

- All proposed homes in the Plan area shall be equipped with filter systems with high Minimum Efficiency Reporting Value (MERV) for removal of small particles (such as 0.3 micron) at all air intake points to the home. All proposed dwelling units shall be constructed with mechanical ventilation systems which would allow occupants to keep windows and doors closed and allow for the introduction of fresh outside air, without the requirement of open windows.

- Proposed commercial uses that have the potential to emit TACs (e.g., diesel-fueled engines) shall be located as far away as possible from existing and proposed receptors.

- Proponents of projects with a residential component shall provide disclosure to future residents advising them of the proximity to the JR Davis Rail Yard and associated health risk impacts.

- When determining the exact type of facility that would occupy the proposed commercial space, the project shall take into consideration its toxic-producing potential.

- Proposed facilities that would require the long-term use of diesel equipment and heavy-duty trucks shall develop a plan to reduce emissions, which may include such measures as scheduling such activities when the residential uses are the least occupied, and requiring such equipment to be shut off when not in use and prohibiting heavy-trucks from idling.

- To the extent feasible, sensitive receptors shall be located as far away from the UPRR maintenance facility as possible.

- Implement Mitigation Measure 4.10-2-2, described above, with respect to electrification of commercial loading dock areas to reduce emissions associated with truck idling.

Significance after Mitigation

Implementation of Mitigation Measures 4.10-3 would reduce concentrations that sensitive receptors would be exposed to for time spent indoors and would disclose to those considering residing in the project the potential risks involved. In addition, the Plan identifies the Atlantic Street Promenade located between Atlantic Street and the UPRR railyard. Landscaping (e.g., trees, shrubs) would be planted as part the promenade which would also assist in reducing pollutant concentrations. However, the mitigation and landscaping would not reduce exposure of sensitive receptors to substantial pollutant concentrations for time spent outdoors. The impact cannot be shown to be reduced to a level considered less-than-significant level and, therefore, is considered significant and unavoidable.

Mitigation Measure 4.10-5

Implementation of Mitigation Measure 4.10-3 to reduce indoor exposure to TACs would also result in a reduction in the intensity of offensive odors from the surrounding odor sources. In addition, the applicant shall require all businesses that occupy the property to install odor-controls as necessary to prevent a substantial dispersion of odors to adjacent residential areas.

Significance after Mitigation

Implementation of Mitigation Measure 4.10-3 and 4.10-5 would provide adequate controls for minor odor sources. As a result, this impact would be reduced to less-than-significant level.

4.11 NOISE

This section includes a description of the properties of sound and the human perception of noise, ambient noise conditions in the vicinity of the Downtown Roseville Specific Plan (Plan) area and a summary of applicable regulations. This section also provides an analysis of noise impacts associated with the implementation of the Plan including a discussion of short-term construction noise, long-term operational noise sources, and compatibility of surrounding land uses with on-site noise levels. Mitigation measures are recommended, as necessary, to reduce significant and potentially significant noise impacts.

This project DEIR has been prepared to meet the requirements of a project-level EIR. The City's intention in preparing this project EIR is that no further environmental review under CEQA would be required for subsequent projects which are consistent with the Specific Plan to provide for the streamlined approval of projects proposed within the Plan area that are consistent with land use designations, adhere to design guidelines (specifically prototype development), or fall within the scope of the Specific Plan and EIR.

4.11.1 EXISTING CONDITIONS

ACOUSTIC FUNDAMENTALS

Noise is generally defined as sound that is loud, disagreeable, unexpected, or unwanted. Sound, as described in more detail below, is mechanical energy transmitted in the form of a wave caused by a disturbance or vibration which results in variations of air pressure detectable by the human ear.

Sound Properties

A sound wave is introduced into a medium (air) by a vibrating object. The vibrating object (e.g., vocal chords, the string and sound board of a guitar, the diaphragm of a radio speaker) is the source of the disturbance that moves through the medium. Regardless of the type of source creating the sound wave, the particles of the medium through which the sound moves are vibrating in a back and forth motion at a given frequency (pitch).
The frequency of a wave refers to how often the particles vibrate when a wave passes through the medium. The frequency of a wave is measured as the number of complete back-and-forth vibrations of a particle per unit of time. If a particle of air undergoes 1,000 longitudinal vibrations in 2 seconds, then the frequency of the wave will be 500 vibrations per second. A commonly used unit for frequency is hertz (Hz).

Each particle vibrates due to the motion of its nearest neighbor. The first particle of the medium begins vibrating, for example at 500 Hz, and sets the second particle of the medium into motion at the same frequency (500 Hz). The second particle begins vibrating at 500 Hz and then sets the third particle into motion at 500 Hz. The process continues throughout the medium and hence each particle vibrates at the same frequency. Subsequently, a guitar string vibrating at 500 Hz will set the air particles in the room vibrating at the same frequency, thereby carrying a sound wave with a frequency of 500 Hz to the detector.

The back-and-forth vibration motion of the particles in the medium is not the only observable phenomenon occurring at a given frequency. Since a sound is a pressure wave, oscillations in pressure from a high pressure to a low pressure are also observable. Compression (high pressure) and rarefaction (low pressure) disturbances moving through a medium will reach the detector at a given frequency. For example, a compression will reach the detector 500 times per second if the frequency of the wave is 500 Hz. Similarly, a rarefaction will reach the detector 500 times per second if the frequency of the wave is 500 Hz. Therefore, the frequency of a sound wave not only refers to the number of back-and-forth vibrations of the particles per unit of time but also refers to the number of compression or rarefaction disturbances that pass a given point per unit of time. The frequency of these pressure oscillations over a given period of time can also be measured with a detector. The period of the sound wave can be found by measuring the time between successive high pressure points (corresponding to the compressions) or the time between successive low pressure points (corresponding to the rarefactions).

The frequency is the reciprocal of the period and, thus, an inverse relationship exists so that as frequency increases the period decreases.

Sound and the Human Ear

Directly measuring sound pressure fluctuations would require the use of a very large and cumbersome range of numbers. To avoid this and have a more useable numbering system the decibel scale was introduced. A sound level expressed in decibels is ten times the logarithm of the ratio of two like pressure quantities, with one pressure quantity being a reference sound pressure. For sound in air the standard reference quantity generally considered to be 20 micropascals (μPa), which directly corresponds to the threshold of human hearing. The use of the logarithmic decibel is a convenient way to handle the million-fold range of sound pressures the human ear is sensitive to. A sound level increase of 20 decibels (dB) equates to a 100 fold increase in acoustical energy.

The loudness of sound preserved by the human ear is dependent primarily on the overall sound pressure level and frequency content of the sound source. The human ear is not equally sensitive to loudness at all frequencies in the audible spectrum. To better relate overall sound levels and loudness to human perception frequency-dependent weighting networks were developed. The standard weighting networks are identified as A through E. There is a strong correlation between the way humans perceive sound and A-weighted sound levels, (abbreviated dBA). For this reason, the dBA can be used to predict community response to environmental and transportation noise sound levels. Sound levels expressed as dB in this section are A-weighted sound levels, unless noted otherwise. Typical indoor and outdoor noise levels are presented in Exhibit 4.11-1.

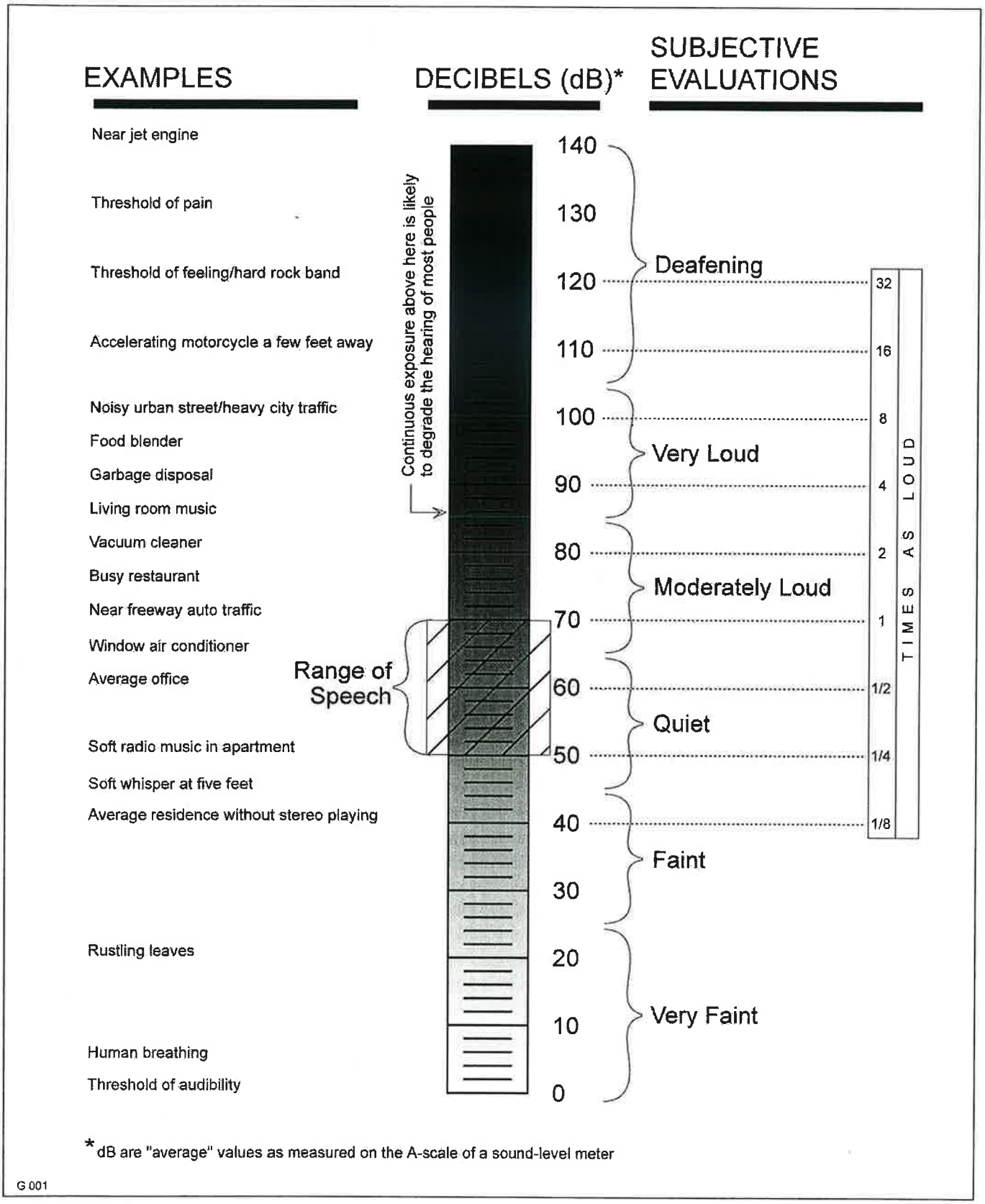
With regard to human perception of increases in sound levels expressed in dB, a change of 1 dB is generally not perceivable, excluding controlled conditions and pure tones. Outside of controlled laboratory conditions the average human ear barely perceives a change of 3 dB. A change of 5 dB generally fosters a noticeable change in human response, and an increase of 10 dB is subjectively heard as a doubling of loudness.

Sound Propagation

As sound (noise) propagates from the source to the receptor, the attenuation, or manner of noise reduction in relation to distance, is dependent on surface characteristics, atmospheric conditions and the presence of physical barriers. The inverse-square law describes the attenuation over distance in relation to the radiation pattern in which sound travels from the source to receptor. A point source generates sound uniformly outward in a spherical pattern with an attenuation rate of 6 dB per doubling of distance (dB/DD). Conversely, a line source generates sound uniformly outward in a cylindrical pattern with an attenuation rate of 3 dB/DD. The surface characteristics between the source and the receptor may result in additional sound absorption and/or reflection. Atmospheric conditions such as wind speed, temperature, and humidity also have a propensity to alter the propagation of the sound and affect noise levels at a receiver. Furthermore, the presence of a large object (i.e., barrier) between the source and the receptor can provide significant attenuation of noise levels at the receiver. The amount of attenuation or "shielding" provided by a barrier is dependent upon the size of the barrier, the location of the barrier in relation to the source and receivers, and the frequency spectra of the noise. Natural barriers such as berms, hills, or dense woods and manmade features such as buildings and walls can be used as noise barriers.

Noise Descriptors

The intensity of environmental noise changes over time, and several different descriptors of time-averaged noise levels are used. The selection of a proper noise descriptor for a specific source depends on the spatial and temporal distribution, duration, and fluctuation of both the noise source and the environment. The noise descriptors most often used to describe environmental noise are defined below:



Source: EDAW 2005

Typical Noise Levels **Exhibit 4.11-1**

- L_{max} (Maximum Noise Level): The highest A/B/C weighted integrated noise level occurring during a specific period of time.
- L_{min} (Minimum Noise Level): The lowest A/B/C weighted integrated noise level during a specific period of time.
- Peak: The highest weighted or un-weighted instantaneous peak to peak value occurring during a measurement period.
- L_n (Statistical Descriptor): The noise level exceeded n percent of a specific period of time, generally accepted as an hourly statistic. An L_{10} would be the noise level exceeded 10 % of the measurement period.
- L_{eq} (Equivalent Noise Level): The energy mean (average) noise level. The steady state sound level which, in a specified period of time contains the same acoustical energy as a varying sound level over the same time period.
- L_{dn} (Day-Night Noise Level): The 24-hour L_{eq} with a 10 dB "penalty" applied during nighttime noise-sensitive hours, 10:00 p.m. through 7:00 a.m. The L_{dn} attempts to account for the fact that noise during this specific period of time is a potential source of disturbance with respect to normal sleeping hours.
- CNEL (Community Noise Equivalent Level): The CNEL is similar to the L_{dn} described above, but with an additional 5 dB "penalty" for the noise-sensitive hours between 7:00 p.m. to 10:00 p.m., which are typically reserved for relaxation, conversation, reading, and television. If using the same 24-hour noise data, the CNEL is typically 0.5 dB higher than the L_{dn}.
- SEL (Sound Exposure Level): The SEL describes the cumulative exposure to sound energy over a stated period of time.
- SENEL (Single Event Noise Exposure Level): An SEL where, the measurement period is defined by the start and end times of a single noise event, such as an automobile passby, aircraft flyover, or individual industrial operations.

Negative Effects of Noise on Humans

Excessive and chronic exposure to elevated noise levels can result in both psychological and physiological effects in humans. Physiologically, exposure to excessive noise may result in damage to the auditory system, leading to gradual or traumatic hearing loss. Gradual and traumatic hearing loss both have a potential to result in permanent hearing damage. Gradual hearing loss can result from sustained exposure to moderately high noise levels over a period of time compared to traumatic hearing loss which results from sudden exposure to extremely high noise levels over a short time period. Furthermore, noise along with a number of environmental and physical variables may lead to interference with or interruption of sleep, relaxation, recreation, and communication. These interferences can result in varying degrees of annoyance. Although most interference may be classified as annoying, the inability to hear a warning signal may be considered dangerous. Noise can also be a contributor to diseases associated with stress (i.e., hypertension, anxiety, heart disease). The degree to which noise contributes to such both physiological and psychological effects on humans depends on the noise frequency, bandwidth, level, and exposure time.

VIBRATION

Vibration is the periodic oscillation of a medium or object with respect to a given reference point. Sources of vibration include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) and those introduced by human activity (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, such as operating factory machinery, or transient in nature, such as explosions. Vibration levels can be depicted in terms of amplitude and frequency, relative to displacement, velocity, and acceleration.

Vibration amplitudes are commonly expressed in peak-particle-velocity (PPV) or root-mean-square (RMS) vibration velocity. PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is typically used in the monitoring of transient and impact vibration, and has been found to correlate well to the stresses experienced by buildings (Federal Transit Administration (FTA) 2006, California Department of Transportation (Caltrans) 2004). PPV and RMS vibration velocity are normally described in inches per second (in/sec).

Although PPV is appropriate for evaluating the potential for building damage, it is not always suitable for evaluating human response. The response of the human body to vibration relates well to average vibration amplitude; therefore, vibration impacts on humans are evaluated in terms of RMS vibration velocity. Similar to airborne sound, vibration velocity can be expressed in decibel notation as vibration decibels (VdB). The logarithmic nature of the decibel serves to compress the broad range of numbers required to describe vibration.

Typical outdoor sources of perceptible ground-borne vibration include construction equipment, steel-wheeled trains, and traffic on rough roads. Although the effects of vibration may be imperceptible at low levels, effects may result in detectable vibrations and slight damage to nearby structures at moderate and high levels, respectively. At the highest levels of vibration, damage to structures is primarily architectural (e.g., loosening and cracking of plaster or stucco coatings) and rarely results in damage to structural components. The range of vibration important to the proposed project occurs from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings (FTA 2006).

EXISTING NOISE ENVIRONMENT

Existing Noise-Sensitive Land Uses

Noise-sensitive land uses generally include those uses where exposure to noise would result in adverse effects, as well as uses where quiet is an essential element of the intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels.

The area comprising the proposed project consists of residential, mixed-use, general commercial, service commercial, and light industrial land uses. Noise-sensitive land uses located in the vicinity of the Plan area consist of residential dwellings, Royer Park, Saugstad Park, multiple churches, and Woodbridge Elementary School. Existing land uses are identified further in Chapter 3, "Description of the Proposed Project," of this document.

Ambient Noise Survey

An ambient noise survey was conducted from November 7th through 9th, 2007 to document the existing noise environment at various locations, specifically at noise-sensitive receptors within the project area. Dominant noise sources identified during the ambient noise survey originated from vehicle traffic and railroad operations. Short-term noise level measurements were taken in accordance with American National Standards Institute (ANSI) standards at eight locations using a Larson Davis Laboratories (LDL) Model 824 precision integrating sound level meter (SLM). Long-term continuous noise level monitoring was conducted at two locations within the Plan area using an LDL Model 820 SLM. The SLMs were calibrated before and after use with an LDL Model CAL200 acoustical calibrator to ensure that the measurements would be accurate. The equipment used meets all pertinent specifications of the ANSI for Type 1 SLMs (ANSI S1.4-1983[R2006]).

Ambient noise survey locations are shown in Exhibit 4.11-2. The L_{eq}, L_{max}, and L_{50} values taken at each ambient noise measurement location are presented in Table 4.11-1. During the survey, average daytime hourly noise levels within the Plan area ranged from approximately 50 dB to 69 dB L_{eq}, with maximum noise levels that ranged from 63 dB to 82 dB L_{max}. Ambient noise levels depended on the relative distance from nearby roadways, railroad lines, and the rail yard to noise measurement locations; and shielding provided by nearby existing structures.



Source: City of Roseville 2008

Ambient Noise Survey Locations **Exhibit 4.11-2**

Table 4.11-1
Ambient Noise Survey Measurements

Site	Location		L_{dn}	Average Measured Hourly Noise Levels, dB					
				Daytime (7 a.m.–10 p.m.)			Nighttime (10 p.m.–7 a.m.)		
				L_{eq}	L_{50}	L_{max}	L_{eq}	L_{50}	L_{max}
A	Washington Corridor –	North Grant Street, South of Church Street	71.8	65.0	57.1	82.1	65.4	57.7	82.9
B	Washington Corridor –	Washington Blvd., South of Grove Street	71.7	69.3	67.5	82.1	64.0	57.8	78.0
1	Washington Corridor –	Hill Avenue, South of Elefa Street	—	54.0	—	67.9		—	
2	Old Town Bungalows –	Papaya Street, East of Placer Street	—	50.2	46.3	70.7		—	
3	Old Town Commercial –	Between Main Street and Church Street	—	58.2	53.5	76.9		—	
4	Vernon Street –	Vernon Street, South of Jefferson Street	—	66.7	57.5	82.0		—	
5	Dry Creek Mixed-Use –	North of Lincoln and Oak Streets	—	54.3	53.2	63.2		—	
6	Royer Park –	Park Drive and Dietrich Drive	—	56.4	54.4	73.5		—	
7	Vernon Street –	Vernon Street and South Grant Street	—	66.3	63.7	80.8		—	
8	Vernon Bungalow/ Dry Creek Mixed Use –	Gopher Gulch Alley, North of Judah Street	—	51.0	49.8	64.1		—	

Notes: dB = A-weighted decibels; L_{dn} = day-night average noise level; L_{eq} = the equivalent hourly average noise level; L_{50} = the noise level exceeded 50% of a specific period of time; L_{max} = maximum noise level.
Source: Data collected by EDAW 2007

Existing Noise Sources

The existing noise conditions in the Plan area are influenced primarily by surface transportation noise emanating from vehicle traffic on area roadways (e.g., Vernon Street, Washington Boulevard, Douglas Boulevard) and railroad operations in the vicinity (i.e., Union Pacific Railroad (UPRR), and the J. R. Davis Rail Yard [rail yard]). Noise from UPRR lines and the rail yard occur primarily in the central portion of the Plan area. Noise from interspersed industrial and commercial land uses and noise from outdoor neighborhood activities (e.g., people talking, dogs barking, and operation of landscaping equipment) contribute to the existing noise environment to a lesser extent. Existing noise levels from roadway vehicle traffic and railroad operations are described in greater detail below. The UPRR line and operational activities at the rail yard are also considered a potentially significant source of ground-borne vibrations at sensitive receptors in the immediate vicinity. The Plan area is located approximately 5 miles southeast of the nearest airstrip (Fiddyment Fields private airstrip) and this facility was not found to contribute to the existing noise environment.

In addition to vehicle traffic and railroad operation noise, the All American Speedway is another potential existing noise source in the vicinity of downtown Roseville. The All American Speedway is located at the intersection of Washington Boulevard and All America Boulevard and holds auto races on Saturday evenings from April through

the first week in October. Noise generated by races held at the All American Speedway is considered intermittent and seasonal and, therefore, is not assumed in the calculation of overall noise levels.

Traffic Noise

One of the dominant noise sources in the Plan area is vehicle traffic on major area roadways. Existing vehicle traffic noise levels in vicinity of the Plan area were modeled using the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA-RD-77-108) and traffic data provided by the project traffic consultant (Pack, pers. comm., 2008). The FHWA model is based on CALVENO reference noise factors for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and ground attenuation factors. Truck usage and vehicle speeds on study area roadways were estimated from field observations and Caltrans data where available (Caltrans 2007).

Table 4.11-2 summarizes the modeled traffic noise levels, provides noise levels at 100 feet from the centerline of each major roadway in the immediate area of the Plan area and lists distances from the roadway centerlines to the 60 dB, 65 dB, and 70 dB L_{dn} traffic noise contours. These traffic noise modeling results are based on existing average daily traffic (ADT) volumes. As shown in Table 4.11-2, the location of the 60 dB L_{dn} contour ranges from 17 to 324 feet from the centerline of the modeled roadways. The extent to which existing land uses in the Plan area are affected by existing traffic noise depends on their respective proximity to the roadways and their individual sensitivity to noise. Refer to Appendix G of this DEIR for complete modeling inputs and results.

Table 4.11-2
Summary of Modeled Existing Traffic Noise Levels in the SPA

Roadway	Segment Location	L_{dn}, 100 feet from Roadway Centerline	Distance (feet) from Roadway Centerline to L_{dn} Contour		
			70 dB	65 dB	60 dB
Washington Boulevard	North of Junction	65.3 dB	49	106	227
Washington Boulevard	South of Junction	66.2 dB	56	120	259
Washington Boulevard	North of Main	66.4 dB	57	123	265
Washington Boulevard	South of Main	67.1 dB	65	139	300
Washington Boulevard	North of Oak	67.7 dB	70	151	324
Main Street	West of Washington	58.8 dB	18	39	83
Main Street	East of Washington	56.2 dB	12	26	56
Vernon Street	North of Douglas	61.2 dB	26	56	120
Vernon Street	West of Judah	61.3 dB	26	56	121
Vernon Street	East of Judah	61.3 dB	26	57	123
Vernon Street	West of Grant	61.1 dB	25	55	118
Vernon Street	East of Grant	60.3 dB	23	49	105
Vernon Street	West of Lincoln	60.3 dB	22	48	104
Vernon Street	East of Lincoln	62.0 dB	29	63	136
Oak Street	West of Washington	59.2 dB	19	41	89
Oak Street	East of Washington	60.2 dB	22	48	103
Lincoln Street	North of Vernon	48.3 dB	4	8	17
Lincoln Street	South of Vernon	56.1 dB	12	26	55
Judah Street	South of Vernon	50.7 dB	5	11	24
Grant Street	South of Vernon	55.0 dB	10	22	47

Notes: dB = A-weighted decibels; L_{dn} = day-night average noise level
Source: Modeled by EDAW 2008

Railroad Operations

Railroad operations in the City of Roseville include freight and passenger train operations on the UPRR tracks and activities at the rail yard. The UPRR tracks and rail yard are centrally located in downtown Roseville, bisecting the Old Town and Vernon Street Districts of the Plan area. Noise levels associated with the rail yard include master and group retarder noise, recurring impulsive noises, and train pass-bys. Retarders are mechanized rail braking systems used to slow rail cars; retarder noise is a distinct "squeal" which occurs primarily at the southern end of the Rail Yard as a result of rail cars passing through retarders at the head of the classification area. The recurring impulsive noise generally occurs at the north and central portions of the rail yard as a result of rail cars coupling and decoupling. Additional stationary source noise is generated from the maintenance and repair of locomotives and rail cars; maintenance activities typically occur on the northern portion of the rail yard. Noise generated by maintenance activities includes impact tools, power tools, coupling and decoupling of cars, idling locomotives, and engine load testing.

Noise associated with train pass-bys along the UPRR railroad line occurs throughout the Plan area, but is more distinguishable near the northern and southern ends of the rail yard. Operations along the UPRR main line result in stationary- and transportation-source related noise from warning horns/wayside horns, at-grade crossing bells, as well as locomotive engine and rail car noise.

Railroad noise contours are reflected in the *City of Roseville General Plan Noise Element* (City of Roseville 2004). According to the UPRR, railroad operations within the Roseville area are not anticipated to change substantially in the future. Therefore, significant modifications to the existing noise contours documented in the *City of Roseville General Plan* are not anticipated (City of Roseville 2004).

4.11.2 Regulatory Background

Various private and public agencies have established noise guidelines and standards to protect citizens from potential hearing damage and various other adverse physiological and social effects associated with noise. Applicable standards and guidelines are discussed below.

Federal Plans, Policies, Regulations, and Laws

The U.S. Environmental Protection Agency (EPA) Office of Noise Abatement and Control was originally established to coordinate federal noise control activities. After its inception the EPA's Office of Noise Abatement and Control issued the Federal Noise Control Act of 1972, establishing programs and guidelines to identify and address the effects of noise on public health and welfare, and the environment. Administrators of the EPA determined in 1981 that subjective issues such as noise would be better addressed at lower levels of government. Consequently, in 1982 responsibilities for regulating noise control policies were transferred to state and local governments. However, noise control guidelines and regulations contained in the rulings of the EPA in prior years remain upheld by designated federal agencies, allowing more individualized control for specific issues by designated federal, state, and local government agencies.

State Plans, Policies, Regulations, and Laws

The State of California has adopted noise standards in areas of regulation not preempted by the federal government. State standards regulate noise levels of motor vehicles, sound transmission through buildings, occupational noise control, and noise insulation.

Title 24 of the California Code of Regulations establishes standards governing interior noise levels that apply to all new multi-family residential units in California. These standards require that acoustical studies be performed before construction at building locations where the existing exceeds 60 dB L_{dn}. Acoustical studies are required to establish mitigation measures that will limit maximum levels to 45 dB L_{dn} in any habitable room. Although there

are no generally applicable interior noise standards pertinent to all uses, many communities in California have adopted 45 dB L_{dn} as an upper limit for interior noise in all residential units.

The State of California General Plan Guidelines (Governor's Office of Planning and Research 2003), published by the state Governor's Office of Planning and Research (OPR), provides guidance for the acceptability of projects within areas of specific noise exposure. Table 4.11-3 presents acceptable and unacceptable community noise exposure limits for various land use categories. The guidelines also present adjustment factors that may be used to arrive at noise acceptability standards that reflect the noise control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution.

Table 4.11-3
OPR Land Use Noise Compatibility Guidelines

Land Use Category	Community Noise Exposure (L_{dn} or CNEL, dB)			
	Normally Acceptable[1]	Conditionally Acceptable[2]	Normally Unacceptable[3]	Clearly Unacceptable[4]
Residential-Low Density Single Family, Duplex, Mobile Home	<60	55–70	70–75	75+
Residential-Multiple Family	<65	60–70	70–75	75+
Transient Lodging, Motel, Hotel	<65	60–70	70–80	80+
School, Library, Church, Hospital, Nursing Home	<70	60–70	70–80	80+
Auditorium, Concert Hall, Amphitheater		<70	65+	
Sports Arenas, Outdoor Spectator Sports		<75	70+	
Playground, Neighborhood Park	<70		67.5–75	72.5+
Golf Courses, Stable, Water Recreation, Cemetery	<75		70-80	80+
Office Building, Business Commercial and Professional	<70	67.5–77.5	75+	
Industrial, Manufacturing, Utilities, Agriculture	<75	70–80	75+	

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

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

[3] New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design. Outdoor areas must be shielded.

[4] New construction or development should generally not be undertaken.

Notes: dB = A-weighted decibels; L_{dn} = day-night average noise level; CNEL = Community Noise Equivalent Level.

Source: Governor's Office of Planning and Research 2003

Local Plans, Policies, Regulations, and Ordinances

City of Roseville General Plan

The *City of Roseville General Plan Noise Element* contains goals and policies to protect citizens from exposure to excessive noise. The Noise Element establishes standards for various land use categories with respect to transportation and non-transportation noise sources. According to the Noise Element, transportation noise sources are defined as traffic on public roadways, railroad line operations and aircraft in flight. Non-transportation noise sources may include industrial operations; outdoor recreation facilities; heating, ventilating, and air conditioning

(HVAC) units; loading docks; construction equipment; and others. The standards provide the basis for decisions on determining noise mitigation requirements. The following policies are applicable to the proposed project:

- **Transportation Noise Sources Policy 1:** Allow the development of new noise-sensitive land uses (which include but are not limited to residential, schools, and hospitals) only in areas exposed to existing or projected levels of noise from transportation noise sources which satisfy the levels specified in Table 4.11-4. Noise mitigation measures may be required to reduce noise levels at outdoor activity areas and interior spaces.

- **Transportation Noise Sources Policy 2:** Require new roadway improvement projects to be mitigated so as not to exceed the noise levels specified in Table 4.11-4 at outdoor activity areas or interior spaces of existing noise-sensitive land uses.

- **Transportation Noise Sources Policy 3:** Evaluate new transportation projects, such as light and heavy rail, using the standards contained in Table 4.11-4. However, noise from these projects may be allowed to exceed the standards if the City Council finds that there are special overriding circumstances.

- **Transportation Noise Sources Policy 4:** Require and acoustical analysis where:

  - Noise-sensitive land uses are proposed in areas exposed to existing or projected noise levels exceeding the levels specified in Table 4.11-4.

  - Proposed transportation noise source projects are likely to produce noise levels exceeding the levels specified in Table 4.11-4 at existing or planned noise-sensitive uses.

Table 4.11-4
Maximum Allowable Noise Exposure Transportation Noise Sources

Land Use	Outdoor Activity Areas[1]	Interior Spaces	
	L_{dn}/CNEL, dB	L_{dn}/CNEL, dB	L_{eq}, dB[2]
Residential	60[3]	45	–
Transient Lodging	60[3]	45	–
Hospitals, Nursing Homes	60[3]	45	–
Theaters, Auditoriums, Music Halls	–	–	35
Churches, Meeting Halls	60[3]	–	40
Office Buildings	65	–	45
Schools, Libraries, Museums	–	–	45
Playground, Neighborhood Parks	70	–	–

[1] Outdoor activity areas for residential developments are considered to be the back yard patios of decks of single family dwelling, and the patios or common areas where people generally congregate for multi-family development.
Outdoor activity areas for non-residential developments are considered to be those common areas where people generally congregate, including pedestrian plazas, seating areas and outside lunch facilities.
Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use.

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

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

[4] Where a proposed use is not specifically listed on this table, the use shall comply with the noise exposure standards for the nearest similar use as determined by the Planning Department. Commercial and industrial uses have not been listed because such uses are not considered to be particularly sensitive to noise exposure.

Notes: dB = A-weighted decibels; L_{dn} = day-night average noise level; L_{eq} = the equivalent hourly average noise level.

Source: City of Roseville General Plan Noise Element 2004, Table IX-1

An acoustical analysis shall be required as part of the environmental review process so that noise mitigation may be considered in the project design (Table 4.11-5).

Table 4.11-5
Requirements for an Acoustical Analysis

An acoustical analysis prepared pursuant to the Noise Element shall:

A. Be the financial responsibility of the applicant.

B. Be prepared by a qualified person experienced in the fields of environmental noise assessment and architectural acoustics.

C. Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions and the predominant noise sources.

D. Estimate existing and projected cumulative (20 years) noise in terms of L_{dn}/CNEL and/or standards of Table 4.11-4, and compare those levels to the adopted policies of the Noise Element.

E. Recommend appropriate mitigation to achieve compliance with the adopted policies and standards of the Noise Element. Where the noise source in question consists of intermittent single events, the repot must address the effects of maximum nose levels in sleeping rooms in terms of possible sleep disturbance.

F. Estimate noise exposure after the prescribed mitigation measures have been implemented.

G. Describe a post-project assessment program which could be used to evaluate the effectiveness of the proposed mitigation measures.

Source: City of Roseville General Plan Noise Element 2004, Table IX-2.

- **Transportation Noise Sources Policy 5:** Work in cooperation the Caltrans and the Union Pacific Transportation Company to maintain noise level standards for both new and existing projects in compliance with Table 4.11-4.

- **Transportation Noise Sources Policy 6:** Allow the development of new noise-sensitive uses only where the noise level due to fixed (non-transportation) noise sources satisfies the noise level standards of Table 4.11-6. Noise mitigation may be required to meet Table 4.11-6 performance standards.

- **Transportation Noise Sources Policy 7:** Require proposed fixed noise sources adjacent to noise-sensitive uses to be mitigated so as not to exceed the noise level performance standards of Table 4.11-6.

Table 4.11-6
Performance Standards For Non-Transportation Noise Sources or Projects Affected by Non-Transportation Noise Sources (As Measured at the Property Line of Noise-Sensitive Uses)

Noise Level Descriptor	Daytime (7 a.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)
Hourly L_{eq}, dB	50	45
Maximum level, dB	70	65

Each of the noise levels specified above should be lowered by five dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. Such noises are generally considered by residents to be particularly annoying and are a primary source of noise complaints. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings).

No standards have been included for interior noise levels. Standard construction practices should, with exterior noise levels identified, result in acceptable interior noise levels.

Notes: dB = A-weighted decibels; L_{eq} = the equivalent hourly average noise level; L_{max} = maximum noise level.

Source: City of Roseville General Plan Noise Element 2004, Table IX-3

- **Transportation Noise Sources Policy 8:** Require an acoustical analysis where proposed non-residential or other fixed noise sources are likely to produce noise levels exceeding the performance standards of Table 4.11-6 at existing or planned noise-sensitive uses.

  An acoustical analysis shall be required as part of the environmental review process so that noise mitigation may be considered during project design (see Table 4.11-5).

- **Transportation Noise Sources Policy 9:** Where noise mitigation measures are required to achieve the standards of Tables 4.11-4 and 4.11-6, the emphasis of such measures should be placed on site planning and project design. These measures may include, but are not limited to, building orientation, setbacks, landscaping, and building construction practices. The use of noise barriers, such as soundwalls, should be considered as a means of achieving the noise standards only after all other practical design-related noise mitigation measures have been integrated into the project.

- **Transportation Noise Sources Policy 10:** Regulate construction-related noise to reduce impacts on adjacent uses consistent with the City's Noise Ordinance.

City of Roseville Municipal Code Noise Ordinance

The *City of Roseville Municipal Code* contains performance standards for the purpose of preventing unnecessary, excessive and annoying sound levels from all sources and includes noise standards for non-transportation sources and railroad sources. Non-transportation noise levels are not allowed to exceed 3 dB above ambient sound levels or exceed the hourly performance standards presented in Tables 4.11-6 by 3 dB, which ever is greater. The Code specifically prohibits excessive noise from train horns and whistles between the hours of 10:00 pm and 7:00 am to less than 89 dB L_{max}, at a distance of 300 feet or greater from the source.

Section 9.24.30 of the *City of Roseville Municipal Code* establishes conditions which are considered exempt from the provisions of the Code. The following exemptions are applicable to the proposed project:

A. Sound sources typically associated with residential uses (e.g., children at play, air conditioning and similar equipment, but not including barking dogs).

B. Sound sources associated with property maintenance (e.g., lawn mowers, edgers, blowers, pool pumps, power tools, etc.) provided such activities take place between the hours of eight a.m. and nine p.m.

C. Safety, warning and alarm devices, including house and car alarms, and other warning devices that are designed to protect the health, safety and welfare, provided such devices are not negligently maintained or operated.

D. The normal operation of public and private schools typically consisting of classes and other school-sponsored activities.

E. Maintenance (e.g., lawn mowers, edgers, aerators, blowers, etc.) of golf courses, provided such activities take place between the hours of 5 a.m. and 9 p.m. May through September, and 6 a.m. and 9 p.m. October through April.

F. Emergencies, involving the execution of the duties of duly authorized governmental personnel and others providing emergency response to the general public, including but not limited to sworn peace officers, emergency personnel, utility personnel, and the operation of emergency response vehicles and equipment.

G. Private construction (e.g., construction, alteration or repair activities) between the hours of seven a.m. and seven p.m. Monday through Friday, and between the hours of eight a.m. and eight p.m. Saturday and Sunday. Provided, that all construction equipment shall be fitted with factory installed muffling devices and that all construction equipment shall be maintained in good working order.

Community Ambient Noise Degradation

In addition to the criteria discussed above, another consideration in defining impact criteria is based on the degradation of the existing noise environment. In community noise assessments, it is "generally not significant" if no noise-sensitive sites are located within the Plan area, or if increases in community noise levels associated with implementation of the project would not exceed 3 dB at noise-sensitive locations in the project vicinity (Caltrans 1998).

Vibration Criteria

The California Environmental Quality Act (CEQA) states that the potential for any excessive ground-borne noise and vibration levels must be analyzed, however, it does not define the term "excessive" vibration. Numerous public and private organizations and governing bodies have provided guidelines to assist in the analysis of ground-borne noise and vibration; however, the federal, state, and local governments have yet to establish specific ground-borne noise and vibration requirements. Publications of the FTA and Caltrans are two of the seminal works for the analysis of ground-borne noise and vibration relating to transportation and construction induced vibration. Caltrans guidelines recommend a standard of 0.2 inches per second (in/sec) PPV not be exceeded for the protection of normal residential buildings and 0.08 in/sec PPV not be exceeded for the protection of old or historically significant structures (Caltrans 2004). With respect to human response within residential uses (i.e., annoyance), the FTA recommends a maximum acceptable vibration standard of 80 VdB (FTA 2006).

4.11.3 Environmental Impacts

Analysis Methodology

Noise-sensitive land uses and major noise sources in the vicinity of the project area were identified based on existing documentation (e.g., equipment noise levels and attenuation rates) and site reconnaissance data.

To assess potential short-term construction noise impacts, sensitive receptors and their relative exposure (considering topographic barriers and distance) were identified. Noise levels of specific construction equipment were determined and resultant noise levels at those receptors were calculated.

With respect to traffic noise, EDAW conducted traffic noise modeling based on ADT traffic volumes obtained from the traffic analysis prepared for this project (Pack, pers. comm., 2008). The FHWA Highway Traffic Noise Prediction Model (FHWA RD 77-108) was used to calculate traffic noise levels along affected roadways and based on the trip distribution estimates obtained from the project traffic consultant (Pack, pers. comm., 2008). The project's contribution to the existing traffic noise levels along area roadways was determined by comparing the predicted noise levels at 100 feet from the roadway centerline, with and without project-generated traffic.

Potential long-term (operational) stationary source noise impacts were assessed based on existing documentation (e.g., equipment noise levels) and site reconnaissance data. This analysis also included an evaluation of the proposed noise-generating uses that could affect noise-sensitive receptors in the vicinity of the Plan area.

To assess the land use compatibility of the proposed project with on-site noise levels, predicted traffic noise contours, and documented railroad noise contours from the *City of Roseville General Plan Noise Element* were used to determine if development of the proposed land uses would exceed the applicable noise criteria for those land uses.

Predicted noise levels were compared with applicable standards for determination of significance. Mitigation measures were developed for significant and potentially significant noise impacts.

Ground-borne vibration impacts were qualitatively assessed based on existing documentation (e.g., vibration levels produced by specific construction equipment and railroad locomotive operations) and the distance of sensitive receptors from the given source.

The project includes a proposed General Plan Amendment to Transportation Noise Source Policy 1 to address the railyard as a noise source within the Plan area. Recognizing that in increasingly urban areas it is difficult to maintain rural noise standards, and in order to facilitate the City's goals to encourage reinvestment and economic development in the Downtown, Riverside, and Historic District Specific Plan areas, the proposed amendment would allow the City to elect to allow new noise-sensitive land uses on a case by case basis in proximity to sources of transportation noise. Noise mitigation, including an acoustical analysis, would be required to reduce interior space noise levels to the standards specified in Table IX-1 of the City's General Plan (refer to 4.11-4). Exterior noise levels would require mitigation to the extent feasible using building orientation, construction, and design features; however ultimately, exterior noise levels may exceed the outdoor activity area noise standards identified in Table IX-1 of the City's General Plan (refer to Table 4.11-4).

THRESHOLDS OF SIGNIFICANCE

For the purpose of this analysis, the following applicable thresholds of significance, as identified in the *City of Roseville General Plan Noise Element* and *City of Roseville Noise Ordinance* have been used. Implementation of the proposed project would result in a significant noise impact if it would result in any of the following:

- Expose persons to or generate noise levels in excess of applicable standards (e.g., *City of Roseville General Plan* and *City of Roseville Municipal Code* exterior and interior noise levels as shown in Tables 4.11-4 through 4.11-6;
- Result in a substantial permanent increase in ambient noise levels in the project vicinity above the City's noise standard. Where existing noise levels currently exceed the City's noise standards, where the project would substantially contribute to noise levels (3 dB or greater);
- Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above the City's noise standards;
- Expose people residing or working in the area to excessive noise levels, for a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport;
- Expose people residing or working in the project area to excessive noise levels, for a project within the vicinity of a private airstrip; or
- Expose persons to or generate excessive ground-borne vibration or ground-borne noise levels. Specifically, vibration impacts would be significant if levels exceed the Caltrans recommended standard of 0.2 in/sec PPV with respect to the prevention of structural damage for normal buildings or FTA's maximum acceptable vibration standard of 80 VdB with respect to human response (i.e., annoyance) at nearby vibration-sensitive land uses (i.e., residential).

Generally, a project may have a significant effect on the environment if it would substantially increase the ambient noise levels for adjoining areas or expose people to severe noise levels. In practice, more specific professional standards have been developed. These standards state that a noise impact may be considered significant if it would generate noise that would conflict with local planning criteria or ordinances, or substantially increase noise levels at noise-sensitive land uses.

For the proposed project, the significance of anticipated noise effects is based on a comparison between predicted noise levels and noise criteria defined by the City of Roseville. For this project, noise impacts are considered

significant if existing or proposed noise-sensitive land uses would be exposed to noise levels in excess of the *City of Roseville General Plan Noise Element* and *City of Roseville Municipal Code* standards as described above (see Section 4.11.2, "Regulatory Background,") or if implementation of the proposed project would result in an increase in the traffic noise level of 3 dB or more. The Plan area is not located within 2 miles of a public or private airstrip; therefore, it is not discussed further in this DEIR.

IMPACT ANALYSIS

IMPACT 4.11-1 **Short-Term Construction-Generated Noise Levels.** *Implementation of the proposed project would result in short-term construction activities associated with individual development projects in the Plan area. These construction activities could potentially expose sensitive receptors to noise levels in excess of the applicable noise standards and/or result in a noticeable increase in ambient noise levels. Therefore, this impact is considered* ***potentially significant.***

Construction noise levels in the project vicinity would fluctuate depending on the particular type, number, and duration of usage for various types of equipment. The effects of construction noise largely depends on the type of construction activities occurring on any given day, noise levels generated by those activities, distances to noise sensitive receptors, and the existing ambient noise environment in the receiver's vicinity. Construction generally occurs in several discrete stages, with each operation varying the equipment mix, and the associated noise characteristics. These stages alter the characteristics of the noise environment generated on a project site and in the surrounding community for the duration of the construction process.

The site preparation phase typically generates the most substantial noise levels due to on-site equipment grading, compacting, and excavating the site which often utilizes the noisiest construction equipment. Specific site preparation equipment can include: backhoes, bulldozers, loaders; excavation equipment such as, graders and scrapers; and compaction equipment. Erection of large structural elements and mechanical systems could require the use of a crane for placement and assembly tasks which may also generate a substantial noise levels. Although a detailed construction equipment list is not currently available for the proposed project, it is anticipated that the primary sources of noise would include backhoes, compressors, bulldozers, excavators, and other related equipment. Table 4.11-7 shows the noise levels generated by various types of construction equipment.

To assess noise levels associated with the various equipment types and operations, construction equipment can be considered to operate in two modes including mobile and stationary. Mobile equipment sources move around a construction site performing tasks in a recurring manner (e.g., loaders, graders, dozers). Stationary equipment operates in a given location for an extended period of time to perform continuous or periodic operations. Therefore, determining the location of stationary sources during specific phases, or the effective acoustical center of operations for mobile equipment during various phases of the construction process is necessary. Operational characteristics of heavy construction equipment are additionally typified by short periods of full power operation followed by extended periods of operation at lower power, idling, or powered off conditions.

As indicated in Table 4.11-7, operational noise levels for typical construction activities would generate noise levels ranging from 74 dB to 90 dB at a distance of 50 feet. Continuous combined noise levels generated by the simultaneous operation of the loudest pieces of equipment would result in noise levels of 93 dB at 50 feet. Accounting for the usage factor of individual pieces of equipment, topographical shielding and absorption effects, construction activities on a project site are expected to result in hourly average noise levels of 88 dB L_{eq}, at a distance of 50 feet. Maximum noise levels generated by construction activities are not anticipated to exceed 93 dB L_{max} at 50 feet.

Table 4.11-7 Construction Equipment Noise Emission Levels	
Equipment Type	**Typical Noise Level (dB) @ 50 feet**
Air Compressor	78
Asphalt Paver	77
Backhoe	78
Compactor	83
Concrete Breaker	82
Concrete Pump	81
Concrete Saw	90
Crane, Mobile	81
Dozer	82
Front-end Loader	79
Generator	81
Grader	85
Hoe Ram Extension	90
Jack Hammer	89
Pneumatic Tools	85
Scraper	84
Trucks	74–81
Water Pump	81

Notes: dB = A-weighted decibels
*All equipment fitted with properly maintained and operational noise control device, per manufacturer specifications.
Source: Bolt Beranek, and Newman 1981, FTA 2006; Data Compiled by EDAW 2008.

Noise from localized point sources (e.g., construction sites) typically decreases by 6 dB to 7.5 dB with each doubling of distance from source to receptor. Conservatively assuming an attenuation rate of 6 dB per doubling of distance, construction operations and related activities would have the potential to generate exterior hourly noise levels exceeding 55 dB L_{eq} at receptors located within approximately 4,000 feet of the acoustical center for construction operations.

The *City of Roseville Municipal Code* exempts construction-generated noise that occurs between the hours of 7 a.m. to 7 p.m. Monday through Friday, and 8 a.m. and 8 p.m. Saturday and Sunday from the applicable noise standards, provided that all construction equipment is fitted with factory installed muffling devices and maintained in good working order. In addition, the City's Noise Ordinance would be enforced to restrict construction activities to occur between the hours of 7 a.m. to 7 p.m. Monday through Friday, and 8 a.m. to 8 p.m. Saturday and Sunday. Because construction activities would occur only during hours that are exempt from applicable noise standards, this impact is considered less than significant.

IMPACT 4.11-2 **Long-Term Traffic Noise Levels at Existing Noise-Sensitive Receivers.** *Implementation of the proposed project would result in an increase of average daily vehicle trips in the Plan area. In some locations, the increased traffic volumes would result in a noticeable (3 dB or greater) increase in traffic noise along roadways, however, impacts from the project would not exceed the city's General Plan noise standards (see Table 4.11-4); or, in areas where existing noise levels exceed those standards, the estimated increase in noise levels would be considered less than perceptible (less than 3dB). Therefore, this impact is considered* ***less than significant.***

Long-term operation of the proposed project would result in an increase in ADT volumes on the local roadway network and, consequently, an increase in noise levels from traffic sources along affected segments. To examine the affect of project-generated traffic increases, traffic noise levels associated with the proposed project were calculated for roadway segments in the project study area using the FHWA Highway Noise Prediction Model (FHWA-RD-77-108). Traffic noise levels were modeled under existing and cumulative (2020) conditions, with and without the implementation of the Specific Plan. ADT volumes and the distribution thereof were obtained from the project traffic consultant (Pack, pers. comm., 2008). Vehicle speeds and truck volumes on local area roadways were determined based on field observations and vehicle counts conducted by EDAW. Tables 4.11-8 and 4.11-9 summarize the modeled traffic noise levels at 100 feet from the centerline of affected roadway segments in the Plan vicinity. Additional input data included day/night percentages of autos, medium and heavy trucks, vehicle speeds, ground attenuation factors, and roadway widths. Refer to Appendix G of this DEIR for complete modeling inputs and results.

Based on the modeling conducted, implementation of the proposed project in addition to existing conditions would result in traffic noise level increases ranging from +0.5 dB to +5.8 dB L_{dn}, compared to noise levels without the project. Implementation of the proposed project in addition to cumulative (2020) conditions would result in a net change in traffic noise levels ranging from -0.1 to +2.9 dB L_{dn}, compared to noise levels without the project. Therefore, long-term noise levels from project-generated traffic sources would result in permanent increase in ambient noise levels (3 dB or greater) in certain locations under current conditions.

Significant traffic noise impacts at existing noise-sensitive areas due to community growth are generally difficult to mitigate, particularly within a developed community such as Downtown Roseville. Existing noise-sensitive land uses may contain previously constructed noise barriers may not sufficiently buffer the additional increases in traffic noise levels. The construction of new noise barriers could be infeasible from a cost standpoint and would require openings in the barrier for existing roadways and driveways. Gaps in noise barriers would substantially limit the effectiveness of mitigating project-related traffic noise levels at existing noise-sensitive uses. Additionally, inclusion of noise barriers in this area would not be consistent with the City's planning strategy which encourages improvement projects that would revitalize the area's physical, economic, and commercial segments including entertainment and eating/drinking establishments within a pedestrian-friendly environment. However, impacts from implementation of the Plan would not exceed the city's General Plan noise standards (see Table 4.11-4); or, in areas where existing noise levels exceed those standards, the estimated increase in noise levels would be considered less than perceptible (less than 3dB). Therefore, this impact is considered less than significant.

Table 4.11-8
Predicted Traffic Noise Levels, Existing Conditions

Roadway	Segment Location	L_{dn} at 100 Feet, dB			
		No Project	Plus Project	Net Change	Significant Impact?
Washington Boulevard	North of Junction	65.3	65.8	+0.5	No
Washington Boulevard	South of Junction	66.2	67.1	+0.9	No
Washington Boulevard	North of Main	66.4	67.3	+0.9	No
Washington Boulevard	South of Main	67.1	68.1	+1.0	No
Washington Boulevard	North of Oak	67.7	68.7	+1.0	No
Main Street	West of Washington	58.8	59.6	+0.8	No
Main Street	East of Washington	56.2	58.2	+2.1	No
Vernon Street	North of Douglas	61.2	63.2	+2.0	No
Vernon Street	West of Judah	61.3	63.2	+2.0	No
Vernon Street	East of Judah	61.3	62.7	+1.4	No
Vernon Street	West of Grant	61.1	62.6	+1.5	No
Vernon Street	East of Grant	60.3	61.9	+1.6	No
Vernon Street	West of Lincoln	60.3	61.9	+1.6	No
Vernon Street	East of Lincoln	62.0	62.8	+0.8	No
Oak Street	West of Washington	59.2	60.8	+1.6	No
Oak Street	East of Washington	60.2	60.8	+0.6	No
Lincoln Street	North of Vernon	48.3	54.1	+5.8	**No**
Lincoln Street	South of Vernon	56.1	57.8	+1.7	No
Judah Street	South of Vernon	50.7	54.9	+4.2	**No**
Grant Street	South of Vernon	55.0	57.9	+2.8	No

Notes: dB = A-weighted decibels; L_{dn} = day-night average noise level
*Traffic noise levels are predicted at a standard distance of 100 feet from the roadway centerline and do not account for shielding from existing noise barriers or intervening structures. Traffic noise levels may vary depending on actual setback distances and localized shielding.
Source: Data modeled by EDAW 2008

Table 4.11-9
Predicted Traffic Noise Levels, Cumulative (2020) Conditions

Roadway	Segment Location	L_{dn} at 100 Feet, dB			
		No Project	Plus Project	Net Change	Significant Impact?
Washington Boulevard	North of Junction	67.8	67.8	0.0	No
Washington Boulevard	South of Junction	68.0	68.1	+0.1	No
Washington Boulevard	North of Main	68.1	68.3	+0.2	No
Washington Boulevard	South of Main	69.3	69.4	+0.1	No
Washington Boulevard	North of Oak	69.5	69.7	+0.2	No
Main Street	West of Washington	59.8	60.1	+0.3	No
Main Street	East of Washington	57.9	58.4	+0.5	No
Vernon Street	North of Douglas	63.8	63.9	+0.1	No
Vernon Street	West of Judah	64.0	64.1	+0.1	No
Vernon Street	East of Judah	64.4	64.4	0.0	No
Vernon Street	West of Grant	64.1	64.2	+0.1	No
Vernon Street	East of Grant	62.1	62.4	+0.3	No
Vernon Street	West of Lincoln	62.2	62.5	+0.3	No
Vernon Street	East of Lincoln	64.0	64.0	0.0	No
Oak Street	West of Washington	60.8	61.1	+0.3	No
Oak Street	East of Washington	62.2	62.2	0.0	No
Lincoln Street	North of Vernon	52.4	55.3	+2.9	No
Lincoln Street	South of Vernon	58.6	58.7	+0.1	No
Judah Street	South of Vernon	53.2	53.8	+0.7	No
Grant Street	South of Vernon	58.6	58.4	-0.1	No

Notes: dB = A-weighted decibels; L_{dn} = day-night average noise level
*Traffic noise levels are predicted at a standard distance of 100 feet from the roadway centerline and do not account for shielding from existing noise barriers or intervening structures. Traffic noise levels may vary depending on actual setback distances and localized shielding.
Source: Data modeled by EDAW 2008

IMPACT 4.11-3 **Long-Term Operational Stationary Source Noise Levels.** *Implementation of the proposed project would result in increases in stationary source noise associated with the proposed residential and commercial land uses. These stationary noise sources could potentially exceed the City's noise standards (hourly and maximum) and result in a noticeable increase in ambient noise levels. Therefore, this impact is considered* ***potentially significant.***

A variety of noise sources are associated with future development within the Plan area which have the potential to create noise levels that exceed applicable City noise standards or result in annoyance at existing and future noise-sensitive developments within the Plan area. Specific land uses with the potential to result in annoyance at existing and future noise-sensitive developments include commercial, retail, and construction of infrastructure (e.g., parking lots, water distribution system) as discussed below.

Because specific uses are not yet known and detailed site and grading plans have not yet been developed for the Plan area, it is not feasible to identify specific noise impacts associated with development at individual project sites. However, a general discussion and assessment of impacts is provided based on the possible types of uses associated with envisioned land uses of the Specific Plan.

Commercial/Office Uses

The specific types of commercial and office uses that would be developed in the Plan area have not yet been determined and the potential sources of noise associated with these types of uses can vary substantially. Stationary noise sources associated with these operations can be periodic or continuous and may contain tonal components which commonly result in annoyance at lower levels. Primary noise sources typically would include mechanical building equipment (e.g., HVAC), property maintenance, landscaping, parking lots, trash collection, on-site truck circulation, commercial deliveries. Potential noise sources are discussed separately below.

HVAC equipment could be a primary noise source associated with commercial or industrial uses. Equipment is often mounted on rooftops, located on the ground, or located within mechanical rooms. Associated noise sources could take the form of fans, pumps, air compressors, chillers, or cooling towers. Noise levels from HVAC equipment vary significantly depending on unit efficiency, size, and location, but generally range from 45 dB to 70 dB L_{eq} at a distance of 50 feet (EPA 1971). Therefore, operation of HVAC equipment could result in the exposure of existing and future noise-sensitive receptors to noise levels exceeding the City of Roseville daytime and nighttime hourly noise standards for residential uses.

According to the EPA, noise attributable to property maintenance equipment in use at proposed commercial uses could result in levels that range from approximately 80 dB to 90 dB L_{eq}, 3 feet from the source (EPA 1971). Although maintenance activities would be intermittent and of limited duration, these activities could result in exterior noise levels of 65 dB L_{eq} or greater at a distance of 50 feet. The *City of Roseville Municipal Code* provides an exemption for noise generated by property maintenance equipment, if operation occurs between 8 a.m. and 9 p.m. However, if property maintenance activities occur during more noise-sensitive hours (e.g., evening, nighttime, and early morning), noise levels from these sources could exceed the applicable standards at nearby noise-sensitive receptors or result in a substantial temporary increase in the ambient noise environment.

Noise sources from the proposed commercial uses could also include occasional parking lot related noise (e.g., opening and closing of vehicle doors, people talking, car alarms), commercial delivery activities (e.g., use of forklifts, hydraulic lifts), trash compactors, and air compressors. Noise from such equipment can reach intermittent levels of approximately 90 dB, 50 feet from the source (EPA 1971). Early morning truck deliveries also may be a source of elevated noise levels at nearby noise-sensitive receptors.

Overall, stationary source noise levels associated with commercial and retail operations in the Plan area could potentially exceed the City of Roseville noise standards at nearby existing and future noise-sensitive receptors. Therefore, impacts from commercial/retail land uses are considered significant.

Parking Structure Uses

Future development in the Plan area would include the construction of several parking garages incorporated with proposed mixed-use catalyst projects and one stand alone parking structure. The City Hall Annex/Post Office site would include a parking garage providing 132 parking stalls. The proposed mixed-use project at the corner of Grant and Vernon Streets would contain a subterranean parking garage of unknown size. A four-level public parking structure would be constructed at Pacific and Church Streets and would provide approximately 385 parking stalls.

Previously conducted reference noise level measurements of parking lot activities indicate that average sound exposure levels (SEL) associated with a single parking event are approximately 71 dB at 50 feet from the center

of activity. Activities making up a single parking event include vehicle arrival, limited idling, occupants exiting the vehicle, door closures, conversations among passengers, occupants entering the vehicle, startup, and departure of the vehicle. Assuming that peak operation would result in each parking stall filling and emptying twice per hour, each parking stall would have four associated parking events per hour. Table 4.11-10 summarizes modeled noise levels associated with each of the proposed parking structures.

Table 4.11-10
Predicted Peak Hour Parking Structure Noise Levels

Structure/Location	Parking Stalls	One-Way Vehicle Trips	*Peak Hour L_{eq}	Distance (feet) to L_{eq} Noise Contour	
				55 dB	45 dB
City Hall Annex/Post Office	132	528	56.6 dB	120	380
Corner of Grant and Vernon Streets	Unknown	—	—	—	—
Pacific/Church Streets	385	1,540	61.3 dB	207	653

Notes: dB = A-weighted decibels; L_{eq} = equivalent hourly noise level
* Noise levels are predicted at a standard distance of 100 feet from the acoustical center of the structure and do not account for shielding from existing noise barriers or intervening structures. Noise levels may vary depending on actual setback distances and localized shielding.
Source: Data modeled by EDAW 2008

Specific construction details for parking structures, such as site design and orientation are not yet known; therefore, the specific noise impact of each proposed parking structure can not be fully analyzed. However, based on the modeling results shown in Table 4.11-10 and assuming a standard attenuation rate of 6 dB/DD, noise-sensitive uses located within 653 feet of the Pacific/Church Street parking structure and 380 feet of the City Hall Annex/Post Office parking garage have the potential to be exposed to noise levels exceeding 45 dB L_{eq}. As a result, stationary source noise levels associated with the proposed parking structures could potentially exceed the City of Roseville daytime and nighttime hourly noise level standards for residential land uses. Therefore, noise impacts generated by parking garage activities are considered potentially significant.

Impact 4.11-4 **Land Use Compatibility of On-site Sensitive Receptors with Future Traffic Noise Levels.** *Implementation of the proposed project would result in future traffic noise that could expose proposed new land uses to levels that exceed the City's standards. This traffic noise could result in annoyance and/or sleep disruption to nearby noise-sensitive receptors. Therefore, this impact is considered* ***potentially significant.***

To determine the land use compatibility of on-site noise-sensitive receptors with noise levels from future vehicle traffic sources, the FHWA Traffic Noise Prediction Model was used. Traffic noise contours for roadways in the Plan area were modeled under cumulative (2020) plus project conditions (Table 4.11-11). Future traffic noise contours were modeled in the same manner as discussed in Impact 4.11-2 for project-generated traffic noise levels at existing uses. ADT volumes and the distribution thereof were obtained from the project traffic consultant (Pack, pers. comm., 2008). Table 4.11-11 summarizes the traffic noise level at 100 feet from the centerline of affected roadways and distances to the 60 dB, 65 dB, and 70 dB L_{dn} traffic noise contours for cumulative (2020) plus project conditions. The predicted noise contour distances do not take into account shielding or reflection of noise from existing structures. In addition, actual noise levels could vary from day to day depending on factors such as local traffic volumes, shielding from existing structures, intervening topography, landscaping, and meteorological conditions.

Table 4.11-11
Summary of Modeled Cumulative 2020 Plus Project Traffic Noise Levels in the Plan Area

Roadway	Segment Location	L_{dn}, 100 feet from Roadway Centerline	Distance (feet) from Roadway Centerline to L_{dn} Contour		
			70 dB	65 dB	60 dB
Washington Boulevard	North of Junction	67.8 dB	72	155	333
Washington Boulevard	South of Junction	68.1 dB	75	162	349
Washington Boulevard	North of Main	68.3 dB	77	166	358
Washington Boulevard	South of Main	69.4 dB	91	197	424
Washington Boulevard	North of Oak	69.7 dB	95	205	442
Main Street	West of Washington	60.1 dB	22	47	102
Main Street	East of Washington	58.4 dB	17	36	78
Vernon Street	North of Douglas	63.9 dB	39	84	181
Vernon Street	West of Judah	64.1 dB	40	86	186
Vernon Street	East of Judah	64.4 dB	42	91	196
Vernon Street	West of Grant	64.2 dB	41	89	191
Vernon Street	East of Grant	62.4 dB	31	67	145
Vernon Street	West of Lincoln	62.5 dB	31	68	146
Vernon Street	East of Lincoln	64.0 dB	40	86	185
Oak Street	West of Washington	61.1 dB	25	55	118
Oak Street	East of Washington	62.2 dB	30	65	140
Lincoln Street	North of Vernon	55.3 dB	11	23	49
Lincoln Street	South of Vernon	58.7 dB	18	38	82
Judah Street	South of Vernon	53.8 dB	8	18	39
Grant Street	South of Vernon	58.4 dB	17	36	78

Notes: dB = A-weighted decibels; L_{dn} = day-night average noise level
Source: Modeled by EDAW 2008

Noise-sensitive receptors in the Plan area are proposed at two of the five mixed-use development prototype projects (i.e., catalyst sites). The approximately two-acre catalyst site on the corner of Washington Boulevard and Lincoln Street would include residential uses on the 2nd and 3rd floors of a three-story building. The Dry Creek Frontage catalyst site accessed from Oak Street would include 48 residential units in one building and up to 14 two-story and three-story attached town homes. Construction details, site plans and building orientations are not yet available; therefore, future traffic noise levels can not specifically be addressed for each proposed residential land use. However, noise-sensitive receptors located within the 60 dB L_{dn} noise contour, as shown in Table 4.11-11, could be exposed to noise levels exceeding the *City of Roseville General Plan Noise Element* standard of 60 dB L_{dn} for residential uses affected by transportation noise sources. Therefore, impacts related to land use compatibility are considered potentially significant.

IMPACT 4.11-5 **Land Use Compatibility of On-site Sensitive Receptors with Future Railroad Noise Levels.** *Implementation of the proposed project would result in locating new noise-sensitive land uses within 60 dB L_{dn} railroad noise contours. Therefore, this impact is considered* ***potentially significant.***

Noise contours for railroad operations are reflected in the *City of Roseville General Plan Noise Element* (City of Roseville 2004). Railroad operations within the Roseville area are not anticipated to change substantially in the near future. Therefore, significant modifications to the reflected noise contours presented in the *City of Roseville General Plan Noise Element* are not anticipated.

Noise-sensitive residential uses envisioned as part of the Specific Plan would be located at the corner of Washington Boulevard and Lincoln Street and at the Dry Creek Frontage site on Oak Street. According to the railroad noise contours depicted in the *City of Roseville Noise Element*, the 60 dB L_{dn} noise contour from railroad operations fully encompasses the Washington/Lincoln site. Specifically, the 60 dB L_{dn} railroad noise contour extends 500 feet from the centerline of the UPRR tracks. Assuming a standard transportation-source attenuation rate of 4.5 dB/DD, noise-sensitive land uses located on the eastern portion of the Washington/Lincoln site could be exposed to railroad noise levels above 73 dB L_{dn}. As a result, implementation of the proposed project would result in exposing noise-sensitive receptors (e.g., residential units) to daily railroad-generated noise levels exceeding the City of Roseville's exterior noise level standard of 60 dB L_{dn} for residential land uses (Table 4.11-4). Therefore, this impact is considered potentially significant.

IMPACT 4.11-6 **Future Interior Noise Levels at On-site Sensitive Receptors.** *Implementation of the proposed project would result in exposing new noise-sensitive receptors to interior noise levels that exceed the City's noise standards. This would result in annoyance and/or sleep disruption to noise-sensitive receptors. Therefore, this impact is considered* ***potentially significant.***

Modern residential construction consistent with the universal building code (UBC) typically provides an exterior-to-interior noise level reduction of 25 dB to 30 dB with all exterior openings sealed. The City of Roseville establishes a maximum allowable noise level of 45 dB L_{dn} for interior spaces of noise-sensitive uses. Thus, noise-sensitive receptors with exposure to exterior noise levels greater than 70 dB L_{dn} could experience interior noise levels exceeding the City of Roseville's 45 dB L_{dn} standard.

Residential units envisioned as part of the Specific Plan at the Washington/Lincoln catalyst site are anticipated to be exposed to exterior noise levels of 73 dB L_{dn} from vehicular traffic along Washington Boulevard located to the west and 73 dB L_{dn} from UPRR train operations located to the east. Therefore, an exterior-to-interior noise level reduction of 28 dB would be required to comply with the City of Roseville interior noise level standard of 45 dB L_{dn}. Because implementation of the proposed project has a potential to expose noise-sensitive receptors to interior noise levels that exceed the City of Roseville maximum allowable interior noise levels standard of 45 dB L_{dn} for residential land uses, this impact is considered potentially significant.

IMPACT 4.11-7 **Ground-Borne Noise and Vibration Levels at Sensitive Receptors.** *Implementation of the proposed project would result in exposing new sensitive noise-receptors to ground-borne noise and vibration levels that exceed the FTA and Caltrans guidelines. These ground-borne noise and vibration levels could result in annoyance or architectural/structural damage. Therefore, this impact is considered* ***potentially significant.***

The Plan area is an urban environment with existing ground-borne vibration generated by light industrial operations, traffic, and railroad operations. In addition, short-term intermittent ground-borne noise and vibration may be generated by construction activities. Ground-borne vibration levels associated with light-rail transit and roadway traffic rarely exceed criteria established for evaluation of building damage or human annoyance (Caltrans 2004). Specific ground-borne noise and vibration sources located in the Plan vicinity are discussed below.

Railroad-Induced Vibration

Railroad operations (e.g., heavy-rail trains) have a potential to generate excessive ground-borne vibration levels depending on train speed, load, condition of track and wheels, amount of ballast used to support the track, and soil conditions. The FTA generalized ground surface vibration curves and parametric modeling of locomotive powered trains indicate that ground-borne vibration levels would exceed 80 VdB at distances less than 100 feet could potentially result in human annoyance (Busch et al. 2005). Assuming a crest factor of 4, 80 VdB RMS is approximately equivalent to 0.04 in/sec PPV, which is substantially less than the Caltrans recommended guideline of 0.2 in/sec PPV pertaining to the prevention of structural damage. The eastern project boundary of the Washington/Lincoln catalyst is located approximately 75 feet from the UPRR centerline. Because this catalyst site

is located within 100 feet of a ground-borne vibration source (i.e., UPRR), implementation of the proposed project could result in the exposure of sensitive noise-receptors to excessive ground-borne vibration levels. Therefore, impacts from railroad-induced vibration are considered potentially significant.

Construction-Induced Vibration

Construction activities in the Plan area have the potential to result in varying degrees of temporary ground vibration depending on the specific construction equipment used and operations involved. Ground vibration levels associated with various types of construction equipment are summarized in Table 4.11-12. Based on the representative vibration levels identified for various construction equipment types, sensitive receptors located in close proximity to construction activities could be exposed to ground-borne vibration levels exceeding the recommended FTA and Caltrans guidelines of 80 VdB and 0.2 in/sec PPV, respectively. However, three future parking garages would be constructed in the Plan area and would require the use of construction equipment that has the potential to create temporary ground vibrations. Exhibit 4.11-3 shows the location of the known, future parking garages in the Plan area and the extent of vibration levels that could be experienced during construction activities. Therefore, impacts from construction-induced vibration are considered potentially significant.

Table 4.11-12
Representative Vibration Source Levels for Construction Equipment

Equipment		PPV at 25 feet (in/sec)[1]	Approximate L_v (VdB) at 25 feet[2]
Pile Driver (impact)	Upper range	1.518	112
	Typical	0.644	104
Pile Driver (sonic)	Upper range	0.734	105
	Typical	0.170	93
Large Bulldozer		0.089	87
Caisson Drilling		0.089	87
Trucks		0.076	86
Jackhammer		0.035	79
Small Bulldozer		0.003	58

[1] Where PPV is the peak particle velocity

[2] Where L_v is the RMS velocity expressed in vibration decibels (VdB), assuming a crest factor of 4.

Source: Federal Transit Administration 2006

4.11.4 MITIGATION MEASURES

No mitigation measures are necessary for the following less-than-significant impact:

Mitigation Measure 4.11-2: Long-Term Project-Generated Traffic Noise Levels at Existing Noise-Sensitive Receivers

The following mitigation measures are provided for significant or potentially significant impacts relating to noise:

Mitigation Measure 4.11-1: Short-Term Construction-Generated Noise Levels:

Although impacts related to short-term construction-generated noise were considered to be less than significant with implementation of the project, the following mitigation is provided to ensure impacts remain at a less-than-significant level. Construction contractors shall implement the following measures during construction activities.

- Construction equipment shall be properly maintained per manufacturers' specifications and fitted with the best available noise suppression devices (i.e., mufflers, silencers, wraps, etc). Shroud or shield all impact tools, and muffle or shield all intake and exhaust ports on power equipment.

- Construction operations and related activities associated with the proposed project shall comply with the operational hours outlined in the City of Roseville Municipal Code Noise Ordinance; construction operations shall be limited to between the hours of 7 a.m. and 7 p.m. Monday through Friday and between 8 a.m. and 8 p.m. Saturday and Sunday.

- Construction equipment should not be idled for extended periods of time in the vicinity of noise-sensitive receptors.

- Locate fixed and/or stationary equipment as far as possible from noise sensitive receptors (e.g., generators, compressors, rock crushers, cement mixers). Shroud or shield all impact tools, and muffle or shield all intake and exhaust ports on powered construction equipment.

- Where feasible, temporary barriers shall be placed as close to the noise source or as close to the receptor as possible and break the line of sight between the source and receptor where modeled levels exceed applicable standards. Acoustical barriers shall be constructed material having a minimum surface weight of 2 pounds per square foot or greater, and a demonstrated Sound Transmission Class (STC) rating of 25 or greater as defined by American Society for Testing and Materials (ASTM) Test Method E90. Placement, orientation, size, and density of acoustical barriers shall be specified by a qualified acoustical consultant.

Implementation of the above mitigation measure and compliance with requirements identified in *City of Roseville Municipal Code* would reduce construction-generated noise levels by 15 dB to 25 dB at noise-sensitive receptors in the Plan vicinity. Therefore, short-term construction-generated noise levels would remain less than significant.

Mitigation Measure 4.11-3: Long-Term Operational Stationary Source Noise Levels:

Project applicant(s) for industrial and commercial/office land uses shall implement the following measures to reduce exposure of sensitive receptors to excessive noise levels from future stationary sources.

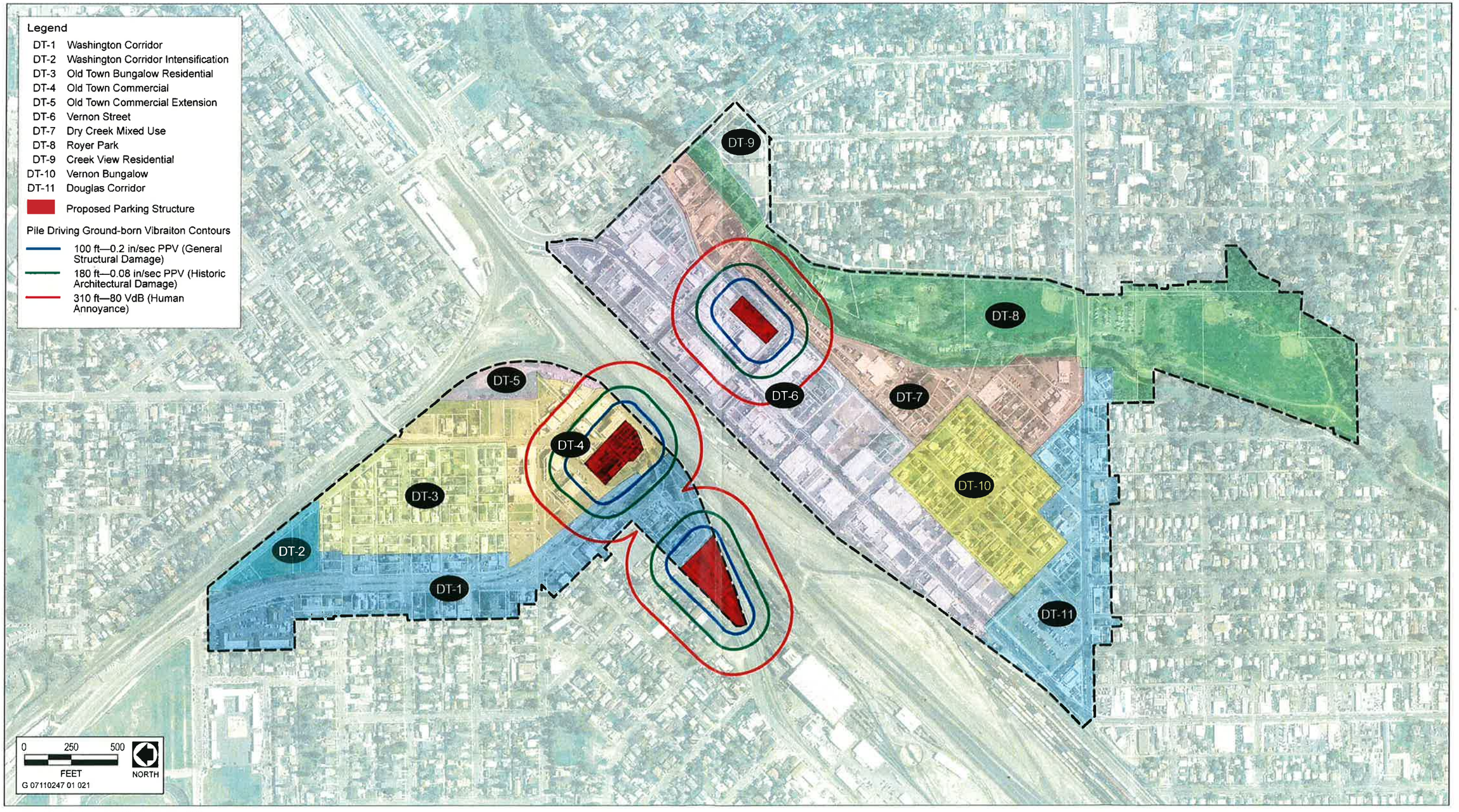
1. **Industrial and Commercial/Office Land Uses.** Where these land uses adjoin common property lines with noise-sensitive uses, the following mitigation measures shall be incorporated into the project design to reduce noise exposure from future stationary sources.

    a. During project review the City's Planning Department shall determine if the proposed use would likely generate noise levels adversely affecting the adjacent noise-sensitive uses. If a proposed project has the potential to generate or expose noise-sensitive uses to noise levels exceeding the City of Roseville noise standards (Tables 4.11-4 through 4.11-6) or result in a substantial (3 dB or greater) permanent increase in ambient noise levels, the project applicant shall prepare a site-specific acoustical analysis. The acoustical analysis shall be conducted in accordance with the City of Roseville General Plan requirements shown in Table 4.11-5.

    b. Loading and unloading areas shall be located so that commercial buildings shield nearby residential land uses from noise generated by loading dock and delivery activities. If necessary, additional sound barriers shall be constructed on the commercial sites to protect nearby noise-sensitive uses.

    c. Loading dock activity and delivery truck activity at the commercial uses developed on the project site shall only occur during the daytime hours of 7 a.m. to 10 p.m., in order to prevent evening and nighttime sleep disturbance at nearby residential land uses.

    d. All commercial HVAC machinery shall be located within mechanical equipment rooms wherever possible. Equipment manufacturer's specifications for venting and access to outside air shall be maintained.



Source: City of Roseville 2008, EDAW 2008

Pile Driving Ground-born Vibration Contours **Exhibit 4.11-3**

e. Localized noise barriers or rooftop parapets shall be constructed around the HVAC, cooling towers, and mechanical equipment so that line-of-site to the noise source from the property line of the noise-sensitive receptors is blocked. Equipment manufacturer's specifications for venting and access to outside air shall be maintained.

f. Property maintenance activities at commercial and office uses shall be restricted to daytime hours between 8 a.m. and 9 p.m.

Project applicant(s) for parking structures shall implement the following measures to reduce exposure of sensitive receptors to excessive noise levels from future stationary sources.

2. **Parking Structures.** Parking structures located in the immediate vicinity of noise-sensitive land uses shall include the following mitigation measures.

   a. Orientate parking structures so that nearby noise-sensitive receptors would be shielded from all on-site circulation routes (entrances, exits, and internal routes). If maintaining visibility is required transparent acoustical screens shall be installed on openings with direct line-of-sight to noise-sensitive receptors.

   b. Parking structures driveways and entrances shall be located so that the structure serves as a barrier to nearby noise-sensitive receptors.

   c. Interior reflective surfaces (i.e., ceilings), exposing nearby noise-sensitive receptors to elevated noise levels shall have an acoustically absorptive treatment, such as spray-in cellulose applied.

   d. Parking structure capacity shall be limited during more sensitive evening and nighttime hours (7 p.m. to 7 a.m.). (i.e., 50% capacity from 7 p.m. to 10 p.m., 30% capacity from 10 p.m. to 7 a.m.).

   e. To ensure compliance, further analysis of on-site noise generation from the proposed parking structures shall be conducted when tentative maps become available.

   Implementation of the above mitigation measures and compliance with *City of Roseville Municipal Code* requirements would substantially reduce long-term stationary-source noise associated with the development of industrial land uses, commercial/office land uses, and parking structures to comply of the *City of Roseville General Plan* noise standards. Therefore, long-term operational stationary source noise levels would be reduced to a less-than-significant level.

Mitigation Measure 4.11-4: Land Use Compatibility of On-site Sensitive Receptors with Future Traffic Noise Levels

Project applicant(s) shall implement the following measures to substantially reduce the exposure of sensitive receptors to excessive roadway traffic noise levels.

- During project review, the City's planning staff shall determine if the proposed land use would potentially be exposed to noise levels exceeding the City's noise level standards. If a proposed project has the potential to generate or be exposed to noise levels exceeding the City of Roseville noise standards (refer to Tables 4.11-4 through 4.11-6) or result in a substantial permanent increase in ambient noise levels (3 dB or greater), the project applicant shall prepare a site-specific acoustical analysis. The acoustical analysis shall be conducted in accordance with the *City of Roseville General Plan* requirements shown in Table 4.11-5.

- Disclose all transportation noise (i.e., roadway, railway, race track), vibration levels, and their meanings to purchasers and/or renters prior to contract or title transfer for residential property within the Plan area.

- Incorporate site specific design considerations to reduce exterior noise exposure levels. Site design shall include the following measures as applicable to the project-specific site and when feasible:

- Common outdoor activity areas, such as play structures, swimming pools, or other outdoor congregation areas included in multi-family residential and/or mixed-use developments shall be located such that the building(s) serve as a sound barrier to the nearest predominant noise source.

- Distances between noise sources and noise-sensitive uses shall be maximized through the use of noise buffers/setbacks. Setback areas can take the form of open space, frontage roads, recreational areas, storage yards, or other City approved setback.

- Noise barriers shall be constructed to provide shielding of noise-sensitive uses and outdoor activity areas. Barriers may include manmade walls, earthen berms, a combination of walls and berms, and other structures breaking line of sight from noise source to receptor. Barriers shall be located in close proximity to either the noise source or the sensitive receptor.

- A site specific acoustical analysis shall be performed consistent with Table 4.11-5, and determine effectiveness of various site design measures based on specific construction plans.

Implementation of the above mitigation measure may not always be considered feasible due to the urban nature of the Plan area. As an example, it may not be feasible to provide adequate noise buffers or other noise abatement/ reduction improvements between existing noise sources and sensitive receptors because of the existing urban nature of the Plan area. In addition, noise barriers in the Plan area may not be consistent with strategies or envisioned as part of the Downtown Roseville Specific Plan. An amendment to the Noise Element of the General Plan is proposed concurrent with the Downtown Specific Plan project. The amendment recognizes that in increasingly urban areas it is difficult to maintain suburban noise standards, and in order to facilitate the City's goals to encourage reinvestment and economic development in the Downtown, Riverside, and Historic District Specific Plan areas, the proposed amendment would allow the City to elect to allow new noise-sensitive land uses on a case-by-case basis in proximity to sources of transportation noise. Noise mitigation, including an acoustical analysis, would be required to reduce interior space noise levels to the standards specified in Table IX-1 of the City's General Plan. Exterior noise levels would require mitigation to the extent feasible using building orientation, construction, and design features; however ultimately, exterior noise levels may exceed the outdoor activity area noise standards identified in Table IX-1 of the City's General Plan.

With approval of the amendment to the Noise Element of the General Plan and implementation of noise-reduction measures, impacts related to land use compatibility of on-site sensitive receptors with future traffic noise levels would be reduced to a less-than-significant level.

Mitigation Measure 4.11-5: Land Use Compatibility of On-site Sensitive Receptors with Future Railroad Noise Levels:

Implement mitigation measure 4.11-4 to reduce the exposure of sensitive receptors (i.e., residential, mixed-use development) to significant noise associated with future railroad and rail yard operations.

Implementation of mitigation measure 4.11-4 may not always be considered feasible due to the urban nature of the Plan area. As an example, it may not be feasible to provide adequate noise buffers or other noise abatement/reduction improvements between existing noise sources and sensitive receptors because of the existing urban nature of the Plan area. In addition, noise barriers in the Plan area may not be consistent with strategies or envisioned as part of the Downtown Roseville Specific Plan.

With implementation of measures listed above (see Mitigation Measure 4.11-4) by project applicant(s) and enforcement of noise standards for interior spaces, projected noise levels would not have the potential to exceed applicable interior noise standards adopted by the City with respect to land use compatibility. However, due to the potential for noise associated with the railyard to exceed the General Plan standards for exterior noise, this impact would be significant and unavoidable.

Mitigation Measure 4.11-6: Future Interior Noise Levels at On-site Sensitive Receptors:

Project applicant(s) shall implement the following measures for all noise-sensitive land uses with direct exposure to roadways, parking areas, and railways and exterior noise levels greater than 70 dB L_{dn}:

- All residential uses shall be constructed with air conditioning and mechanical ventilation systems that allow for windows and doors to remain closed and achieve acoustical isolation from traffic and railroad noise. The systems shall allow for the introduction of fresh outside air, without the requirement of open windows. Access to outside air shall be automatically controlled to prevent unintentionally flowing seasonally hot or cold into conditioned space.

- Attic vents direct exposure to elevated noise levels shall be acoustically baffled, containing at least one 90 degree obstruction to the flow of air. The baffle shall be fitted with an acoustically absorbent liner.

- Exterior walls shall be constructed of a three-coat stucco or wood siding with an exterior underlayment or sound board.

- All residential windows and doors with direct exposure to elevated noise levels shall be required to meet a minimum STC rating of 34.

- Windows and sliding glass doors shall be mounted in low infiltration rate frames (0.5 cubic feet per minute or less, per ANSI specifications).

- Exterior doors shall be solid core with perimeter weather-stripping and threshold seals.

- The City shall require project applicants to submit an acoustical analysis which verifies compliance with the City of Roseville interior noise level standard of 45 dB L_{dn}. The analysis shall be based on detailed construction plans and site configuration details, and be conducted by a qualified acoustical consultant.

Implementation of the above mitigation measure would reduce exposure of noise-sensitive uses to interior noise levels exceeding the City of Roseville 45 dB L_{dn} standard. As a result this impact would be reduced to a less-than-significant level.

Mitigation Measure 4.11-7: Ground-Borne Noise and Vibration Levels at Sensitive Receptors:

Project applicant(s) shall implement the following measures to reduce the potential for human annoyance and achitectural/structural damage resulting from elevated ground-borne noise and vibration levels.

- Construction-Induced Vibration:

  - Pile driving required within a 50-foot radius of historic structures should utilize alternative installation methods were possible (e.g., pile cushioning, jetting, pre-drilling, cast-in-place systems, resonance-free vibratory pile drivers). Specifically, geo pier style cast in place systems shall be used where feasible as an alternative to pile driving to reduce the number and amplitude of impacts required for seating the pile.

  - The pre-existing condition of all buildings within a 50-foot radius, and historical buildings within the immediate vicinity of proposed construction activities shall be recorded in the form of a preconstruction survey. The preconstruction survey shall determine conditions that exist before construction begins for use in evaluating damage caused by construction activities. Fixtures and finishes within a 50-foot radius of construction activities susceptible to damage shall be documented (photographically and in writing) prior to construction. All damage will be repaired back to its pre-existing condition.

- Vibration monitoring shall be conducted prior to and during pile driving operations occurring within 100 feet of the historic structures. Every attempt shall be made to limit construction generated vibration levels in accordance with Caltrans recommendations during pile driving and impact activities in the vicinity of the historic structures.

- Provide protective coverings or temporary shoring of on-site or adjacent historic features as necessary, in consultation with the Preservation Director.

► Railroad Induced Vibration:

- Vibration sensitive uses shall be located a minimum of 100 feet from the UPRR centerline. To ensure compliance with FTA and Caltrans recommended guidelines, and site specific ground-borne noise and vibration assesment should be conducted.

- A ground-borne vibration assessment shall be conducted at proposed building pad locations within 200 feet of UPRR right of ways, prior to project approval. Vibration monitoring and assessment shall be conducted by a qualified noise and vibration control engineer.

Implementation of the above mitigation measure would substantially limit the effects of ground-borne vibration on sensitive receptors and as a result, project-generated ground-borne noise and vibration levels would be reduced to a less-than-significant level.

4.11.5 Residual Significant Impacts

With implementation of measures to substantially reduce the exposure of sensitive receptors to excessive roadway traffic noise levels (see Mitigation Measure 4.11-4) by project applicant(s) and enforcement of noise standards for interior spaces, projected noise levels would not have the potential to exceed applicable interior noise standards adopted by the City with respect to land use compatibility. However, due to the potential for noise associated with the railyard to exceed the General Plan standards for exterior noise, this impact would be significant and unavoidable.

4.12 HYDROLOGY AND WATER QUALITY

This section analyzes water quality conditions of ground and surface waters in the project vicinity and the project's potential impacts to these water resources. It describes the existing hydrologic conditions in the Plan area, presents a summary of the national, state, and local regulatory context, analyzes the hydrology and water quality impacts of the proposed project facilities, and provides mitigation measures needed to reduce significant and potentially significant project impacts. This analysis uses existing information from previously completed documents that address hydrology and water resources in the project vicinity including the following:

- Downtown Specific Plan Hydraulic Study (RFB Consulting 2008),
- Dry Creek Coordinated Resource Management Plan. (ECORP Consulting, Inc. 2003),
- Dry Creek Bank Erosion Management Plan (Swanson Hydrology & Geomorphology 2003),
- Dry Creek Greenway Regional Vision (Foothill 2004), and
- Royer / Saugstad Park Master Plan Update (Carducci & Associates, Inc. 2007).

4.12.1 EXISTING CONDITIONS

REGIONAL HYDROLOGY

The Plan area is located in the south-central portion of the Sacramento River Hydrologic Region as defined by the California Department of Water Resources (DWR). The core of this region is formed by the Sacramento Valley which encompasses major drainage basins including the McCloud River, Pit River, and Goose Lake in the north; the Delta in the south; the Sierra Nevada and Cascade Ranges in the east; and the Coastal Range and Klamath Mountains in the west. Major drainage ways in the Sacramento region include the Sacramento River, Feather River, and American River along with major and minor streams that drain the east and west sides of the region (e.g., Antelope Creek, Dry Creek).

The Plan area is located in the Dry Creek watershed. The Dry Creek watershed drains a 101-square-mile basin originating in the foothills just south of the City of Auburn and generally flows in a north-northeast to south-southwest direction. Upper portions of the Dry Creek watershed are dominated by basalt and granitic bedrock and large cobble stones. At lower elevations, soils are generally underlain by a claypan or hardpan with low permeability, fine texture (e.g., silts, clays), low soil strength, and high shrink-swell potential. These soils often require artificial drainage for urban development or agricultural operations.

In the upper portion of the Dry Creek watershed, numerous creeks provide drainage including Secret Ravine Miners Ravine, Boardman Canal, and Clover Creek along with several intermittent tributaries. Dry Creek, which flows through the Plan area, begins approximately two miles upstream of the Plan area at a point located west of I-80 and south of Atlantic Avenue at the confluence of Miner's Ravine and Antelope Creek.

Dry Creek is located within U.S. Geological Survey Hydrologic Unit Code (USGS HUC) 18020111 (Lower American River) and flows through a relatively wide alluvial valley bounded by high banks and through numerous privately owned lands (e.g., residential, commercial, vacant parcels, parklands) including the City of Roseville's Royer and Saugstad Parks. Land adjacent to Dry Creek has changed in land use over time from primarily agricultural to a currently urban community.

Past and present land uses include grazing, agricultural use, urban development, and placer mining in the upper watershed. As with most creeks, Dry Creek has eroding banks in some areas, and sediment deposition in other areas. Dry Creek also has opportunities for increased pools, riffles, and riparian vegetation in some areas.

LOCAL HYDROLOGY

Within the approximate 3,700 linear-foot section of Dry Creek located in the Plan area, the active channel of Dry Creek generally extends between 40 and 80 feet in width and stream banks are generally very steep (some places are nearly vertical) and range from 10 to 30 feet in height. In addition, numerous bank sections are stabilized with riprap, concrete chunks, gabions, jute netting, and other bank stabilization features. Culverts located along Dry Creek discharge storm water from storm drains directly into Dry Creek. Dry Creek flows generally north to south through the Plan area, then diverts in a westerly direction after the confluence with Cirby Creek and continues west for several miles.

Roseville experiences a Mediterranean climate with warm-dry conditions occurring between April and October and wet-mild weather occurring between November and March. Average rainfall in Roseville is 25 inches per year with the wettest month being January. The driest and warmest period in Roseville occurs during late July-early August. During most of the year, the water level in Dry Creek is at an elevation between 125 and 129 feet above mean sea level (msl) which is approximately 10 to 15 feet below the floodplain. The average gradient for Dry Creek through the Plan area is approximately 0.2%. Stream banks along Dry Creek are composed primarily of unconsolidated, highly erodible sands up to 20 feet thick from hydraulic mining occurring historically upstream in Miners Ravine and Secret Ravine.

The USGS has maintained a gage station along Dry Creek since 1996 at the Vernon Street Bridge in Roseville (gage #11447293). The City of Roseville also maintains a stage gage located at Vernon Street as part of the City's ALERT system network. As recorded by the Roseville stage gage, the minimum annual peak flow for Dry Creek was 131 cubic feet per second (cfs) in 1977. Flood stage for Dry Creek at this location is 127 feet above msl and the highest recorded peak flow was at 132.2 feet above msl on January 10, 1995 (ECORP 2003). The maximum flow for Dry Creek, as measured at the USGS gage, was 7,950 cfs (24.39 feet gage height) in 1996 (Swanson 2003).

The 100-year flood boundary along Dry Creek is located at approximately 144 feet msl through Royer Park. The last significant flood along Dry Creek occurred on January 10, 1995 and caused approximately 4 feet of overbank flow. Several existing retaining walls and buildings that border the Dry Creek channel are located within the floodplain and, therefore, are subject to flooding.

WATER QUALITY

A water quality monitoring program was implemented by Dry Creek Conservancy to assess watershed health with regard to a variety of parameters over time. Preliminary data indicate potential for water quality impairment throughout the Dry Creek watershed. Water quality concerns include summer temperature impairment and pesticides along with heavy metal toxicity, nutrients, turbidity, and fecal coliforms at specific locations. However, dissolved oxygen, conductivity (salinity), pH, ammonia, most metals, and most pesticides are within the limits for sustaining aquatic life (ECORP 2003).

Storm drain outfalls are located along the banks of Dry Creek which discharge storm water runoff from Downtown Roseville, including the UPRR railyard. The existing outfalls appear to be unfiltered. (Carducci & Associates, Inc., 2007).

Saugstad Park, which is located completely within the Dry Creek floodplain, was previously the site of a sanitary landfill. Saugstad Park is predominantly flat except for berms located at the perimeter of the park's lighted playing fields and its eastern edge that borders a forested hill.

GROUNDWATER

The Plan area is located in the North American sub-basin of the Sacramento Valley groundwater basin (Department of Water Resources 2006). Depth to groundwater in the upper Dry Creek watershed varies from approximately 161 ft below ground surface (bgs) to 13 ft bgs (USGS 2001).

Aquifer recharge occurs primarily at the valley margins due to interaction with streams fed by rainfall and snowmelt in the Sierra Nevada. Groundwater levels in southwestern Placer County and northern Sacramento County have decreased during the past 40 years and many groundwater wells experience declines at a rate of between 1 and 1.5 feet per year. Depths to domestic and municipal/irrigation wells in the region range between approximately 50 to 1,750 feet bgs.

Overall, groundwater quality is good with localized marginal water quality due to natural variability in the aquifer and/or potential contamination from spills (USGS 2001). There are three major groundwater types in the region including magnesium calcium bicarbonate or calcium magnesium bicarbonate; magnesium sodium bicarbonate or sodium magnesium bicarbonate; and sodium calcium bicarbonate or calcium sodium bicarbonate (Department of Water Resources 2006). A comparison of groundwater quality data with applicable water quality standards and guidelines for drinking and irrigation uses indicate elevated levels of total dissolved solids/specific conductance, chloride, sodium, bicarbonate, boron, fluoride, nitrate, iron manganese, and arsenic may be of concern at specific locations in the North American sub-basin (DWR 1997).

4.1.2 REGULATORY BACKGROUND

FEDERAL PLANS, POLICIES, AND REGULATIONS

Federal Emergency Management Agency

The Federal Emergency Management Agency (FEMA) administers the National Flood Insurance Program to provide subsidized flood insurance to communities that comply with FEMA regulations limiting development in floodplains. FEMA also issues Flood Insurance Rate Maps that identify which land areas are subject to flooding. These maps provide flood information and identify flood hazard zones in the community. The design standard for flood protection is established by FEMA, with the minimum level of flood protection for new development determined to be the 1-in-100 annual exceedance probability (AEP) event (i.e., the 100-year flood event). Portions of the Plan area near Dry Creek are located within a FEMA 100-year flood zone.

Federal Clean Water Act of 1972

Section 404 of the federal Clean Water Act (CWA) establishes a requirement for a project applicant to obtain a permit before engaging in any activity that involves any discharge of dredged or fill material into waters of the United States, including wetlands. Fill is defined in the CWA as material placed in waters of the United States where the material has the effect of replacing any portion of a water of the United States with dry land; or changing the bottom elevation of any portion of a water of the United States. Examples of fill material include, but are not limited to: rock, sand, soil, clay, plastics, construction debris, wood chips, overburden from mining or other excavation activities, and material used to create any structure or infrastructure in waters of the United States.

Under Section 404 of the CWA, the USACE regulates and issues permits for activities that involve the discharge of dredged or fill materials into waters of the United States. Fill of less than one-half acre and/or less than 300 linear feet of nontidal waters of the United States for residential, commercial, or institutional development projects can generally be authorized under USACE's nationwide permit program provided that the project satisfies the terms and conditions of the particular nationwide permit. Fills that do not qualify for a nationwide permit or regional general permit require an individual permit.

National Pollutant Discharge Elimination System Permit Program

The National Pollutant Discharge Elimination System (NPDES) permit program was established to regulate municipal and industrial discharges to surface waters of the United States. The discharge of wastewater to surface waters is prohibited unless an NPDES permit issued by the applicable Regional Water Quality Control Board (RWQCB) allows that discharge. NPDES permit regulations have been established for broad categories of discharges, including point-source municipal waste discharges and nonpoint-source storm water runoff. NPDES permits generally identify allowable concentrations of effluent in receiving waters and/or limits on pollutant emissions contained in discharges; prohibit discharges not specifically allowed under the permit; and describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities.

In November 1990, EPA published regulations establishing NPDES permit requirements for municipal and industrial storm water discharges. Phase 1 of the permitting program applies to municipal discharges of storm water in urban areas where the population exceeds 100,000 persons. Phase 1 also applies to storm water discharges from a large variety of industrial activities, including general construction activities if the project would disturb more than 5 acres. Phase 2 of the NPDES storm water permit regulations, which became effective in March 2003, require that NPDES permits be issued for construction activities for projects that disturb between 1 and 5 acres. The RWQCBs in California are responsible for implementing the NPDES permit system (see "NPDES Permit System and Waste Discharge Requirements" below).

Section 401 Water Quality Certification or Waiver

Under Section 401 of the CWA, an applicant for a Section 404 permit (to discharge dredged or fill material into waters of the United States) must first obtain a certificate from the appropriate state agency stating that the fill is consistent with the state's water quality standards and criteria. In California, the authority to either grant water quality certification or waive the requirement is delegated by the State Water Resources Control Board (SWRCB) to the RWQCBs.

Section 303(d) Impaired Waters List

Under Section 303(d) of the CWA, states are required to develop lists of water bodies that would not attain water quality objectives for specific pollutants after implementation of required levels of treatment by point-source dischargers (municipalities and industries). Dry Creek is not listed as a 303(d) impaired water body.

Safe Drinking Water Act

Under the Safe Drinking Water Act (Public Law 93-523), passed in 1974, EPA regulates contaminants of concern to domestic water supplies. Contaminants of concern that are relevant to domestic water supplies are defined as those that pose a public health threat or that alter the aesthetic acceptability of the water. These types of contaminants are regulated by EPA National Primary Drinking Water Regulations and National Secondary Drinking Water Regulations. Maximum Contaminant Levels (MCLs) are set for all contaminants of concern. MCLs and the process for setting these standards are reviewed triennially. Amendments to the Safe Drinking Water Act enacted in 1986 established an accelerated schedule for setting drinking-water MCLs.

State Plans, Policies, and Regulations

State Water Resources Control Board

In California, the SWRCB has broad authority over water quality control issues for the state. The SWRCB is responsible for developing statewide water quality policy and exercises the powers delegated to the state by the federal government under the CWA. Other state agencies with jurisdiction over water quality regulation in California include the California Department of Health Services (DHS) (for drinking-water regulations), the

California Department of Pesticide Regulation, the California Department of Fish and Game (DFG), and the Office of Environmental Health and Hazard Assessment. Regional authority for planning, permitting, and enforcement is delegated to the nine RWQCBs. The regional boards are required to formulate and adopt water quality control plans (Basin Plans) for all areas in the region and establish water quality objectives in the plans. The Central Valley RWQCB is responsible for regulating water bodies located in the Plan area.

State Non-Degradation Policy

In 1968, as required under the federal anti-degradation policy, the SWRCB adopted a non-degradation policy aimed at maintaining high quality for waters in California. The non-degradation policy states that the disposal of wastes into state waters shall be regulated to achieve the highest water quality consistent with maximum benefit to the people of the state and to promote the peace, health, safety, and welfare of the people of the state. The policy provides as follows.

- Where the existing quality of water is better than required under existing water quality control plans, such quality would be maintained until it has been demonstrated that any change would be consistent with maximum benefit to the people of the state and would not unreasonably affect present and anticipated beneficial uses of such water.

- Any activity that produces waste or increases the volume or concentration of waste and that discharges to existing high-quality waters would be required to meet waste discharge requirements that would ensure that (1) pollution or nuisance would not occur and (2) the highest water quality consistent with the maximum benefit to the people of the state would be maintained.

California Toxics Rule

In May 2000, the SWRCB adopted and EPA approved the California Toxics Rule (CTR) which establishes numeric water quality criteria for approximately 130 priority pollutant trace metals and organic compounds. The SWRCB subsequently adopted its State Implementation Policy (SIP) of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries. The SIP outlines procedures for NPDES permitting for toxic pollutant objectives that have been adopted in Basin Plans and in the CTR.

NPDES Permit System and Waste Discharge Requirements

The SWRCB and Central Valley RWQCB have adopted specific NPDES permits and/or waste discharge requirements (WDRs) for a variety of activities that have the potential to discharge wastes to waters of the state or to land. Dischargers are required to eliminate or reduce non-storm water discharges to storm sewer systems and other waters. The SWRCB's statewide storm water permit for general construction activity (Order 99-08-DWQ, as amended) is applicable to all land-disturbing construction activities that would disturb more than 1 acre. Construction activities such as clearing, grading, stockpiling, and excavation are subject to the statewide general construction activity NPDES permit. Although specific actions associated with the Specific Plan would not expose greater than 1 acre of disturbed construction area to storm water runoff, individual redevelopment projects occurring in the Plan area could expose greater than 1 acre of disturbed construction area to storm water runoff. These individual redevelopment projects could thus require an NPDES storm water permit for general construction activity.

The NPDES permit requires filing of a notice of intent (NOI) with the RWQCB to discharge storm water and preparation and implementation of a storm water pollution prevention plan (SWPPP) to control contaminated runoff from temporary construction activities. The SWPPP provides the plans and specifications for erosion and sediment best management practices (BMPs), means of waste disposal, methods for implementation of approved local plans, postconstruction sediment and erosion control BMPs and maintenance responsibilities, non-storm water management BMPs, and BMP performance inspection requirements.

NPDES permits require that design and operational BMPs be implemented to reduce the level of contaminant runoff during construction. The permit also requires dischargers to consider the use of permanent post-construction BMPs that will remain in service to protect water quality throughout the life of the project. Types of BMPs include source controls, treatment controls, and site planning measures. The NPDES regulations also require implementation of appropriate hazardous materials management practices to reduce the possibility of chemical spills or release of contaminants, including any non-storm water discharge to drainage channels.

Construction dewatering activities that discharge to surface waters require NPDES authorization under the RWQCB's General Order for Dewatering and Other Low-Threat Discharges to Surface Waters (Order No. 5-00-175). This permit requires the applicant to submit a NOI before the activity verifying that the dewatering will occur in compliance with applicable water quality objectives. It contains terms and conditions for discharge prohibitions, specific effluent and receiving water quality limits, solids disposal activities, and water quality monitoring protocols. The permit authorizes direct discharges to surface waters up to 250,000 gallons per day for no more than a 4-month period each year.

The Central Valley RWQCB may also issue site-specific WDRs, or waivers to WDRs, for certain waste discharges to land or waters of the state. In particular, RWQCB Resolution R5-2003-0008 identifies activities subject to waivers of reports of waste discharge and/or WDRs for a variety of activities, including minor dredging activities and construction dewatering activities that discharge to land.

All NPDES permits have inspection, monitoring, and reporting requirements. In Resolution 2001-046, the Central Valley RWQCB responded to a court decision by implementing mandatory water quality sampling requirements for visible and nonvisible contaminants in discharges from construction activities. Water quality sampling is now required if the activity could result in the discharge of turbidity or sediment to a water body that is listed as impaired under Section 303(d) because of sediment or siltation, or if a release of a nonvisible contaminant occurs. Where such pollutants are known or should be known to be present and have the potential to contact runoff, sampling and analysis are required.

Porter-Cologne Water Quality Control Act of 1969

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) is California's statutory authority for the protection of water quality. Under the act, the state must adopt water quality policies, plans, and objectives that protect the state's waters for the use and enjoyment of the people. The act sets forth the obligations of the SWRCB and RWQCBs to adopt and periodically update Basin Plans. Basin Plans are the regional water quality control plans required by both the CWA and 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 also requires waste dischargers to notify the RWQCBs of their activities through the filing of Reports of Waste Discharge (RWDs) and authorizes the SWRCB and RWQCBs to issue and enforce WDRs, NPDES permits, Section 401 water quality certifications, or other approvals. The RWQCBs also have authority to issue waivers to RWDs/WDRs for broad categories of "low threat" discharge activities that have minimal potential for adverse water quality effects when implemented according to prescribed terms and conditions.

Safe Drinking Water Program

As part of the federal Safe Drinking Water Act, the EPA has delegated to DHS the responsibility for administering California's drinking-water program. DHS is accountable to EPA for program implementation and for adopting standards and regulations that are at least as stringent as those developed by EPA.

Title 22 of the California Code of Regulations (Article 16, Section 64449) defines secondary drinking-water standards that are established primarily for reasons of consumer acceptance (i.e., taste) rather than because of health issues. For mineralization (i.e., total dissolved solids and chloride), the secondary standards are expressed in the form of recommended, upper, and short-term MCLs. The recommended, upper, and short-term MCLs for total dissolved solids are 500, 1,000, and 1,500 milligrams per liter, respectively.

Local Plans, Policies, and Regulations

The *City of Roseville General Plan 2020* contains the following hydrology and water quality-related goals and policies applicable to the proposed project:

Community Form Goal 7: Roseville will promote and encourage the availability of a variety of goods and services, and will take measures to retain a positive business climate in the City.

- **Community Form Policy 1:** Ensure high quality development in new and existing development areas as defined through specific plans, the development review process and community design guidelines.
- **Community Form Policy 4:** Promote a diversity of residential living options (e.g., density ranges, housing types, affordability ranges) while ensuring community compatibility and well-designed residential development.

Flood Protection Goal 1: Minimize the potential for loss of life and property due to flooding.

Flood Protection Goal 2: Pursue flood control solutions that are cost effective and minimize environmental impacts.

- **Flood Protection Policy 1:** Continue to regulate, through land use, zoning, and other restrictions, all uses and development in areas subject to potential flooding.
- **Flood Protection Policy 2:** Monitor and regularly update City flood studies, modeling and associated land use, zoning and other development regulations.
- **Flood Protection Policy 5:** Minimize the potential for flood damage to public and emergency facilities, utilities, roadways, and other infrastructure.
- **Flood Protection Policy 9:** Where feasible, maintain natural stream courses and adjacent habitat and combine flood control, recreation, water quality and open space functions.

The *City of Roseville Municipal Code* contains the following hydrology and water quality-related ordinances applicable to the proposed project:

Urban Stormwater Quality Management and Discharge Control (Section 14.20): The purpose of the ordinance is to provide for the health, safety, and general welfare, and protect and enhance the water quality in the City pursuant to the Federal Clean Water Act by reducing pollutants in stormwater discharges to the stormwater conveyance system.

Zoning regulations for Floodway and Floodway Fringe Zones (Section 19.18.040): The purpose of the ordinance is to provide for the health, safety, and general welfare, and to minimize losses due to flooding.

Flood Damage Prevention (Section 9.80): The purpose of this chapter is to protect human life and health, minimize the expenditure of public funds for flood control projects, and to minimize impacts to residents, businesses and public facilities due to flooding.

The following additional City of Roseville documents contain hydrology and water quality-related information and guidance applicable to the proposed project:

City of Roseville Grading Ordinance and Construction Standards provide instruction for stormwater compliance on construction sites including requirements for SWPPP components and best management practices for erosion and sediment control, and good housekeeping practices.

City of Roseville Storm Water Quality BMP Guidance Manual for Construction (March 2007) contains information aimed at providing the development community with clear instruction for stormwater quality compliance on construction sites and at helping construction site managers meet and comply with SWPPP requirements.

Stormwater Quality Design Manual for Sacramento and the South Placer Regions (May 2007) (including the City of Roseville) provides guidance and for design and selection of stormwater quality control measures, including source-control runoff reduction and treatment control.

4.12.3 Environmental Impacts

Analysis Methodology

The environmental analysis for hydrology and water quality was based on background information provided in the Downtown Specific Plan Hydraulic Study, the Royer / Saugstad Park Master Plan Update, the Dry Creek Bank Erosion Management Plan, the Dry Creek Coordinated Resource Management Plan, and California's Groundwater Bulletin 118 (DWR 2006). The effects of the proposed project were compared to environmental baseline conditions (i.e., existing conditions) to determine impacts.

Thresholds of Significance

Based on the State CEQA Guidelines and CEQA checklist (Appendix G), the proposed project would result in a potentially significant impact on hydrology or water quality if it would:

- violate any water quality standards or waste discharge requirements;
- substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level;
- substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site;
- substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
- create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff;
- otherwise substantially degrade water quality;
- place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;
- expose people or structures to a significant risk of loss, injury or death involving flooding;
- place within a 100-year flood hazard area structures which would impede or redirect flood flows; or
- cause inundation by seiche, tsunami, or mudflow.

IMPACT ANALYSIS

IMPACT 4.12-1 **Hydrology and Water Quality – Short-Term Degradation of Water Quality from Project-Related Construction Activities.** *Construction disturbances associated with the proposed project would create the potential for soil erosion and sedimentation of storm water drainage systems and runoff to Dry Creek. Construction activities may also involve the potential for releases of other pollutants to surface waters and/or the future storm drain system including oil and gas, chemical substances used in the construction process, accidental discharges, waste concrete, and wash water. Implementation of standard erosion control measures and implementation of minimum control measures required by the SWMP would be required by individual development projects in the Plan area. This impact is considered* ***less than significant.***

Construction activities associated with future redevelopment projects in the Plan area would include demolition, grading, restoration, and new pedestrian crossings across Dry Creek which could expose disturbed surfaces and could potentially cause unstable soil conditions, resulting in soils that are easily disturbed by equipment and eroded by rain and wind. For individual project sites in the Plan area, excavations would be necessary to construct foundations for buildings and other facilities, parking facilities, and pipelines and other utilities associated with project site development. Development activities would also include the installation of pipeline improvements throughout the Plan area (see Section 4.2, "Public Utilities").

The City of Roseville currently operates under a NPDES Municipal Storm water Permit and is required to develop, implement, and enforce a NPDES Phase 2 Storm Water Management Program (SWMP). The City's SWMP (dated March 2003) outlines a comprehensive set of priorities, activities, and strategies that comprise the City's minimum control measures (MCMs) and best management practices (BMPs) to reduce pollutants in storm water to the maximum extent practicable. In addition, Section 16.20.040 of the Roseville Zoning Ordinance regulates stockpiling and grading and addresses conditions under which permits and grading plans are required. Section 16.20.070 identifies grading plan performance standards. Section 16.20.020 requires that all grading be performed in accordance with either City of Roseville Improvement Standards or Chapter 16 of the Zoning Ordinance, whichever is more restrictive. The City of Roseville Department of Public Works Improvements Standards require that a grading permit be obtained prior to grading activities. At the time an applicant applies for a grading permit, they must submit a site-specific erosion and sedimentation control plan to demonstrate how the plan would reduce the potential for contaminants to enter receiving waters. All of these City regulations impose specific standards for project construction and erosion control measures including revegetation of disturbed areas, avoidance of grading activities near drainages during wet weather, and avoidance of drainage disturbances. BMPs to be followed can include storm water inlet protection measures, such as the use of straw bales, sandbags, gravel traps, and filters; erosion control measures such as vegetation and physical stabilization; and sediment control measures such as fences, dams, barriers, berms, traps, and basins.

For individual projects in the Plan area, project applicants would need to obtain and comply with the NPDES storm water general permit for construction activity, including the City itself for activities associated with improving Dry Creek wildlife habitat and drainage flows. This would include filing an NOI and preparing and implementing a Storm Water Pollution Prevention Plan (SWPPP). Before the start of any construction work, site grading, or excavation associated with construction of a development project, a SWPPP would be prepared detailing measures to control soil erosion and waste discharges from a construction site and an NOI would be submitted to the Central Valley RWQCB for storm water discharges associated with general construction activity. All contractors conducting construction-related work would be required to implement the SWPPP to control soil erosion and waste discharges of other construction-related contaminants. The general contractor(s) and subcontractor(s) conducting the work would be responsible for constructing or implementing, regularly inspecting, and maintaining the measures in good working order.

The SWPPP would be required to identify the grading and erosion-control BMPs and specifications that are necessary to avoid and minimize water-quality impacts to the extent practicable. Standard erosion control measures (e.g., management, structural, vegetative controls) would be required to be implemented for all

construction activities that expose soil. Grading operations would be required to eliminate direct routes for conveying potentially contaminated runoff to drainage channels (i.e., Dry Creek). The SWPPP would identify specific measures for stabilizing soils at individual construction sites before the onset of the winter rainfall season. These standard erosion-control measures would be designed to reduce the potential for soil erosion and sedimentation of storm drains/channels.

In addition, construction and operation pursuant to the Specific Plan could potentially violate water quality standards associated with nonpoint source (i.e., urban runoff) pollutants to the storm drain and flood control systems (i.e., Dry Creek). Urban runoff pollutants (e.g., heavy metals, nutrients, hydrocarbons, suspended solids) are those resulting from the deposition of compounds on streets, highways, and parking areas that are subsequently washed off during storms. However, the City's NPDES Phase 2 SWMP (March 2003) identifies activities to implement the following six minimum control measures required by under the General Permit: public outreach, public involvement, illicit discharge detection and elimination, construction site runoff, new development and redevelopment, and municipal operations. The goal of the SWMP is to reduce pollutants in storm water to the maximum extent practicable.

Because the project applicants for individual development projects in Plan area must follow requirements of the City along with state and federal regulations and adherence to the City's SWMP requirements, including the City itself for improvements in Dry Creek, construction activities occurring under the Specific Plan would have a less-than-significant impact related to water quality.

IMPACT 4.12-2 **Hydrology and Water Quality – Temporary Effects on Groundwater Quality During Construction.** *Sediments and contaminants would be prevented from entering groundwater through requirements of the NPDES storm water general permit for construction activity, including preparation of a SWPPP. The NPDES permit would be required to include provisions for dewatering, and the SWPPP would be required to include a dewatering plan, measures to prevent/minimize releases of sediment and contaminants into groundwater during excavation, and methods to clean up releases if they do occur. Because compliance with these regulations would be a required of individual development projects in the Plan area and the contamination of groundwater would be avoided and/or minimized, this impact is considered* ***less than significant****.*

Construction activities, specifically excavation, associated with individual development projects in the Plan area could intersect with shallow groundwater and require dewatering. Sediments and construction-related contaminants (e.g., fuels, lubricants, oil, grease, paint) could enter the groundwater directly from construction activities if the groundwater table is breached. Excavation and potential dewatering could cover a large area and could occur over a relatively long period (several months). Multiple small incidents of contamination, or larger single releases (e.g., fuel spill) could also result in adverse effects on groundwater.

However, the project applicants, including the City itself, would be required to obtain and comply with a NPDES general permit for construction activities including preparation of a SWPPP. The NPDES permit would be required to include provisions for dewatering and the SWPPP would be required to include a dewatering plan, measures to prevent/minimize sediment and contaminant releases into groundwater during excavation, and methods to clean up releases if they do occur. If necessary, dewatering would be done in a manner that allows discharge to an infiltration basin approved by the Central Valley RWQCB. Measures to prevent/minimize releases of sediment and contaminants into groundwater during excavation and methods of cleaning up releases may include using temporary berms or dikes to isolate construction activities, using vacuum trucks to capture contaminant releases, and maintaining absorbent pads and other containment and cleanup materials on a project site to allow an immediate response to contaminant releases if they occur. In addition, groundwater discharges to the City's storm water system from construction and/or long-term dewatering of excavated sites are regulated and monitored by the City's Environmental Utilities Department.

Because the project would be required to comply with regulations of the City's NPDES permit and require preparation of a SWPP to prevent groundwater contamination, construction activities associated with individual development projects in the Plan area would be avoided or reduced to a less-than-significant level.

IMPACT 4.12-3 **Hydrology and Water Quality – Change in the Quantity of Groundwater through Withdrawals, Interception, or Loss of Recharge Capacity.** *The Plan area is located within an existing urbanized area and is developed with impervious surfaces of various types. Implementation of the proposed project would not result in a substantial increase in impervious-surface coverage such that interference with groundwater recharge would occur. In addition, the proposed project would not result in a demand for groundwater resources. This impact is considered* ***less than significant****.*

The proposed project does not include proposals for wells or the use of groundwater. Water supplies for the Plan area would come from the City's municipal supplies, which originate primarily from surface water supplies (i.e., Folsom Lake). The City has four groundwater wells that are maintained only for use as a backup water source when emergency situations require increased quantity or pressure levels. Therefore, implementation of the Plan would not deplete groundwater supplies.

Under natural conditions, groundwater recharge results from precipitation and infiltration of excess irrigation water. However, the rate and quantity of water reaching the saturation zone depends on factors that include the amount and duration of precipitation, soil time, moisture content of the soil, and vertical permeability of the unsaturated zone. The Plan area is currently developed with urban uses and considerable impervious surfaces (e.g., buildings, roads, parking lots, driveways, sidewalks). Implementation of the proposed project would not result in a substantial increase in impervious-surface coverage such that interference with groundwater recharge would occur. This impact is considered less than significant.

IMPACT 4.12-4 **Hydrology and Water Quality – Long-Term Changes in Runoff and Water Quality.** *Although individual project sites in the Plan area are in an urban environment that is largely paved, development under the Specific Plan may slightly increase the amount of impervious surfaces, and could proportionately increase runoff from individual project sites to storm drains. However, the Plan area is located an area of Roseville where an existing storm drainage system would be used to convey urban runoff conveyance in compliance with the City's SWMP requirements. Because compliance with NPDES-related regulations for storm water runoff would be a required element of individual projects in the Plan area, this impact is considered* ***less than significant****.*

The individual project sites in the Plan area are currently developed primarily with urban uses and impervious surfaces (e.g., buildings, parking lots, driveways, sidewalks). However, operation of land uses envisioned in the Specific Plan could potentially violate water quality standards associated with non-point source (i.e., urban runoff) pollutants to the storm drain system. Urban runoff pollutants, including heavy metals, nutrients, hydrocarbons, and suspended solids, result from the deposition of compounds on streets, highways, and parking areas that are subsequently washed off during storms. However, the City's NPDES Phase 2 SWMP (March 2003) identifies activities to implement the following six minimum control measures required by under the General Permit: public outreach, public involvement, illicit discharge detection and elimination, construction site runoff, new development and redevelopment, and municipal operations. The goal of the SWMP is to reduce pollutants in storm water to the maximum extent practicable.

The City's municipal NPDES storm water permit and associated SWMP would require individual development projects in the Plan area to implement post-construction storm water contaminant source control and treatment controls. Consequently, the SWPPP and approval plans for individual development projects under Specific Plan would include site-specific post-construction storm water-runoff-control plans and measures to demonstrate how a specific development project would reduce the potential for contaminants to enter receiving waters.

Although implementation of development projects in the Plan area could incrementally increase storm water flows to the storm drain system, the incremental change is anticipated to be small because the Plan area is an existing urban environment and the amount of impervious surfaces would not substantially increase with implementation of development projects under the Specific Plan. The land use changes (i.e., mixed-use) envisioned in the Specific Plan could also incrementally change the type and amount of urban storm water contaminants discharged into the storm drain system. However, the City's SWMP regulations for project compliance would be a required element of individual development projects in the Plan area and would result in the implementation of post-construction storm water-runoff source control and treatment measures that do not likely exist under the existing conditions. Because the Specific Plan would not considerably affect the amount of drainage flow contributed to the existing storm drainage system, and with adherence to the City's SWMP requirements, this impact would be less than significant.

IMPACT 4.12-5 **Hydrology and Water Quality – Expose People or Structures to a Significant Risk of Flooding.** *Implementation of the proposed project could expose people and structures to flooding due to construction of proposed commercial/residential buildings and an amphitheater adjacent to or Dry Creek. This impact is considered* ***potentially significant.***

The *Downtown Specific Plan Hydraulic Study* (RBF 2008) (see Appendix E) was prepared as part of the proposed Specific Plan to analyze components of the Specific Plan that could affect the hydraulics or flows of Dry Creek including flood events. Current, detailed topographic data was used to update an existing City-approved model and subsequently used to develop a new model incorporating proposed improvements and natural feature enhancements to Dry Creek as part of the Specific Plan. Proposed improvements to Dry Creek could include, but are not be limited to, bank stabilization treatments, scour protection, floodwall reconstruction, bank recontouring for flood conveyance or restoration, and construction of step pools or riffles for salmonid habitat enhancement (refer to Policy 8.4.2 of the proposed *Downtown Roseville Specific Plan*). The hydraulic study analyzed the area of Dry Creek from Folsom Road to south of Douglas Boulevard near Cherry Street including Royer Park and Saugstad Park. Based on the Hydrologic Engineering Center- River Analysis System (HEC-RAS) hydraulic model developed to analyze changes in hydraulics of Dry Creek, a "regulatory future floodplain" was identified which exceeds the special flood hazard area mapped by FEMA.

The City's General Plan identifies and establishes the policy for development within the 100-year future floodplain. In addressing fill in the future floodplain for infill properties, the General Plan establishes that:

> *No development is permitted within the future floodway. Development may be permitted within the future floodway fringe. In accordance with the Nolte definition, such development shall be limited to falling within the assumed cumulative one-foot rise in the water surface elevation. (Flood Protection chapter, Section C, Floodplain Development Regulations, Infill Areas)*

Essential public facilities (e.g., roads, bridges) are allowed to fill in the floodway. Fill is also allowed within the floodway fringe as long as it does not create a one-tenth of a foot rise in the water surface elevation upstream or downstream from the project. The proposed Specific Plan anticipates the installation of public facilities (i.e., Fire Station #1 relocation), public improvements (i.e., pedestrian bridges, creek walk, and bike trails), park facilities (i.e., amphitheatre, tennis court relocation, water features) and future development within what was previously identified as the future floodway and floodway fringe. The Specific Plan also envisions development of multi-family residential and high density residential uses adjacent to Dry Creek (see Exhibit 3-3, "Project Description"). Development of these types of land uses adjacent to Dry Creek creates the potential for exposing people (i.e., residents) and habitable structures (e.g., homes, office space) to flooding.

Existing improvements and proposed future improvements have been reflected in the City's updated flood impact model prepared by RBF Consulting. The results of this hydraulic study show that the area previously considered as the future 100-year floodplain can be filled for development and be removed from the floodplain without significantly increasing the existing water surface elevation. The boundary that has been established on the west

side of Dry Creek (see Exhibit 4.12-1) reflects future development within areas previously designated as part of the 100-year floodplain. The hydraulic study concluded that new habitable structures developed in areas identified in the Specific Plan could be located within areas that had previously been designated as future 100-year floodplain. To accomplish this, filling to a level two feet above the future 100-year floodplain, or ensuring that the habitable first floor of future structures is two feet above the 100-year floodplain, would be required. Additionally, areas adjacent to the adjusted 100-year floodplain could be considered for development in the future but would require specific improvements (e.g., piers, flood proofing) and would require site specific hydraulic modeling.

Based on the hydraulic analysis provided, and the requirement that all habitable structures will have a minimum of two feet of freeboard above the 100-year future floodplain level,, this is considered a less-than-significant impact.

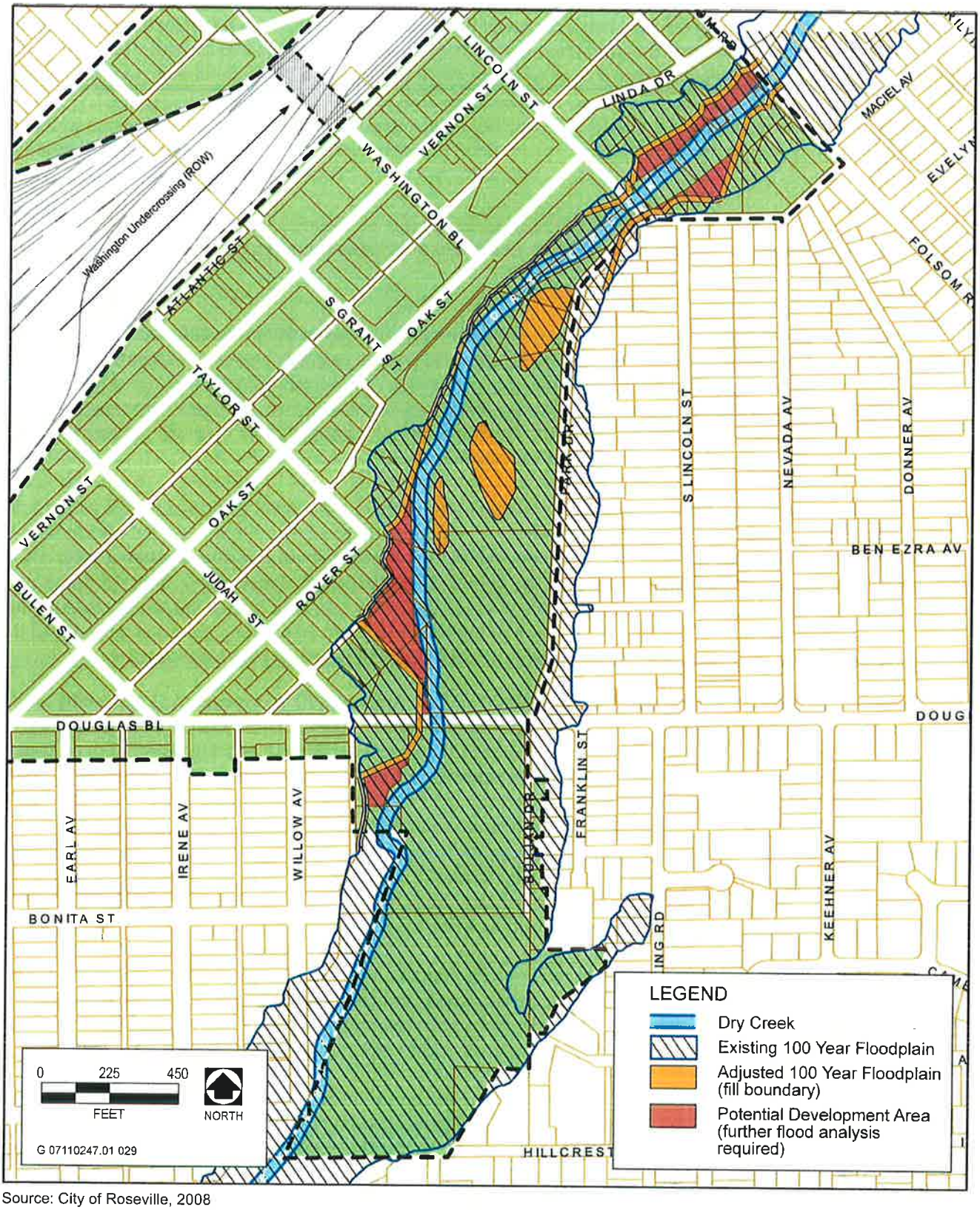
IMPACT 4.12-6 **Hydrology and Water Quality – Proposed Project Structures within the 100-year Flood Zone Could Impede or Redirect Flood Flows.** *Implementation of the proposed project could expose people and structures to flooding due to construction of proposed commercial/residential buildings, a golf course, bridges and park facilities, and an amphitheater adjacent to or across Dry Creek. This impact is considered* ***potentially significant.*** *Portions of the proposed project are within the 100-year floodplain. This impact is considered* ***potentially significant.***

Several project features may require temporary construction-related or permanent placement of fill within waters of the United States (i.e., Dry Creek). These elements of the proposed project could include, but are not limited to, bank stabilization treatments that require hardscape, placement of bridge abutments and associated scour protection, construction of the library amphitheater, floodwall reconstruction, bank recontouring for flood conveyance or restoration, and construction of step pools or riffles for salmonid habitat enhancement. Although some project elements may include the introduction of hardscape to small areas along the waterside edge of the Dry Creek corridor (e.g., bridge abutments), these structures would not entirely bisect the corridor.

The *Downtown Specific Plan Hydraulic Study* (RBF 2008) (see Appendix E) was prepared as part of the proposed Specific Plan to analyze components of the Specific Plan that could affect the hydraulics or flows of Dry Creek including flood events. Current, detailed topographic data was used to update an existing City-approved model and subsequently used to develop a new model incorporating proposed improvements identified in the Specific Plan (e.g., new fire station, bike trail, park improvements, golf course) and enhancements to Dry Creek as noted above (refer to Policy 8.4.2 of the proposed *Downtown Roseville Specific Plan*). The hydraulic study analyzed the area of Dry Creek from Folsom Road to south of Douglas Boulevard near Cherry Street including Royer Park and Saugstad Park. Based on the Hydrologic Engineering Center- River Analysis System (HEC-RAS) hydraulic model developed to analyze changes in hydraulics of Dry Creek, a "regulatory floodplain" was identified of which exceeds the special flood hazard area mapped by FEMA.

Specific improvements envisioned as part of the Specific Plan that were analyzed in the hydraulic study include a new fire station headquarters and bike trail, creek walk, Royer and Saugstad Park improvements including a new 9-hole golf course at Saugstad Park. The hydraulic study made the following conclusions regarding improvements identified in the Specific Plan and their effect on hydraulic flows of Dry Creek.

New Fire Station Headquarters and Bike Trail: Improvements anticipated as part of the Fire Station include widening the bridge opening under Lincoln Street, extending the Harding to Royer Park bike trail under the bridge to the icehouse plaza, and construction of a retaining wall at the edge of the parking lot for the Fire Station. The combined result of the proposed improvements located between Lincoln Street and Folsom Road would result in a reduction of water surface elevations for the 100-year flood event.



Source: City of Roseville, 2008

Future 100 Year Floodplain

Exhibit 4.12-1

Creek Walk: In certain areas, the Creek Walk as currently proposed in the Specific Plan would increase the 100-year water surface elevations by more than the permissible amount of 0.10 feet. Specifically, the area of concern is located south of the new library bridge. To remedy this effect, the pedestrian path should be set at the existing top of bank elevation and conditioned that the Creek Walk would not be accessible during a major storm event.

Royer and Saugstad Park Improvements: The proposed pedestrian bridge and grand staircase, in combination with relocation of the Ice House Bridge and construction of a bike path, would not increase 100-year flood water surface elevations in Royer Park or upstream. However, the favorable results are based on bridge alignments different than those presented in the Specific Plan. Specifically, the HEC-RAS model was revised based on new information gathered in the field and from aerial surveys. Consideration of other alignments and configurations other than those shown as part of the RBF analysis for the two bridges will require additional hydraulic review. Proposed relocation of the Library Bridge in combination with development of the amphitheater would not affect water surface elevations.

New 9-Hole Golf Course: Minimal design information for the proposed golf course is available. There was an assumed worst case of one foot of fill modeled for the entire site area. Based on this conservative estimate of fill, the model showed an increase in water surface elevations at the golf course of up to 0.26 feet and the impact continuing upstream of Douglas Boulevard. As a result, additional information regarding conditions at the golf course site and preliminary design is required to perform a more detailed hydraulic analysis.

Based on the findings and conclusions made in the hydraulic study, implementation of the Specific Plan is considered to result in a potentially significant impact related to impeding or redirecting flood flows.

IMPACT 4.12-7	**Hydrology and Water Quality – Inundation by Seiche, Tsunami, or Mudflow.** *The proposed project is not located in an area susceptible to seiche or tsunamis. Steep slopes along Dry Creek could pose hazards associated with mudflows. This impact is considered* ***potentially significant.***

The Plan area is not located near a surface water body in which a seiche or tsunami could directly or indirectly affect the area. However, the Plan area contains steep slopes along Dry Creek that could pose hazards associated with mudflows. The Specific Plan identifies development of a pedestrian path adjacent to Dry Creek which could expose pedestrians and/or bicyclists to mudflow hazards during a storm event. This is considered a potentially significant impact.

4.12.4 Mitigation Measure

No mitigation measures are necessary for the following less-than-significant impacts.

4.12-1: Hydrology and Water Quality – Short-Term Degradation of Water Quality from Project-Related Construction Activities.

4.12-2: Hydrology and Water Quality – Temporary Effects on Groundwater Quality During Construction.

4.12-3: Hydrology and Water Quality – Change in the Quantity of Groundwater through Withdrawals, Interception, or Loss of Recharge Capacity.

4.12-4: Hydrology and Water Quality – Long-Term Changes in Runoff and Water Quality.

The following mitigation measures are provided for significant and potentially significant impacts.

Mitigation Measure 4.12-5: Hydrology and Water Quality – Expose People or Structures to a Significant Risk of Flooding.

All habitable structures constructed in the Plan area shall be located outside the adjusted 100-year flood plain as identified in the *Downtown Specific Plan Hydraulic Study* (RBF 2008) prepared for the Downtown Roseville Specific Plan. Additional encroachment into areas within the adjusted 100-year flood plain shall require site specific hydraulic modeling. Specific structures identified in the Downtown Roseville Specific Plan shall be prohibited from being constructed inside the adjusted 100-year flood plain unless evaluated and approved through project specific hydraulic modeling including structures associated with mixed-use development and high-density residential.

This measure would prevent development of any habitable structures in the 100-year flood hazard area and would reduce potential to expose people or structures to a flood hazard to a less-than-significant level.

Mitigation Measure 4.12-6: Hydrology and Water Quality – Proposed Project Structures within the 100-year Flood Zone Could Impede or Redirect Flood Flows.

To prevent impeding or redirecting storm water flows in Dry Creek, the following actions shall be implemented for design and construction of improvements identified in the Downtown Roseville Specific Plan adjacent to Dry Creek.

1. The Creek Walk identified in the Downtown Roseville Specific Plan shall be constructed at the existing top of bank elevation for Dry Creek and the area south of the new library bridge shall be made inaccessible during major storm events.

2. All pedestrian bridges in the Specific Plan area and the grand staircase shall be aligned to prevent increased 100-year flood water surface elevations in Dry Creek. Additional hydraulic analyses shall be conducted for the new pedestrian bridge alignments that are inconsistent with the RBF hydraulic analysis.

3. Prior to any golf course related development activities in Saugstad Park, a site-specific hydraulic analysis or other acceptable analysis shall be conducted for a more specific golf course development plan to ensure that there is no risk of impeding or redirecting flood flows. This future analysis shall be reviewed and approved by the City's Public Works Department.

These measures would ensure proposed structures and improvements identified in the Specific Plan do not impede or redirect flood flows in Dry Creek, reducing this potential impact to a less-than-significant level.

Mitigation Measure 4.12-7: Hydrology and Water Quality – Inundation by Seiche, Tsunami, or Mudflow.

Implement Mitigation Measure 4.4-3.

This measure would identify any unstable, hazardous slopes along Dry Creek that could pose a mudflow hazard to pedestrians and/or bicyclists and require implementation of recommendations to prevent landslides. This impact would be reduced to a less-than-significant level.

4.12.5 Residual Significant Impacts

All impacts associated with hydrology and water quality would be reduced to a less-than-significant level with implementation of mitigation measures. Therefore, there are no residual significant impacts.

5 CUMULATIVE IMPACTS

5.1 INTRODUCTION

This section of the Draft Environmental Impact Report (DEIR) provides an analysis of cumulative impacts of the proposed project, in association with other past, present, and reasonably foreseeable future projects producing related impacts, as required by Section 15130 of the State CEQA Guidelines. The goal of this analysis is twofold: first, to determine whether the overall long-term impacts of all such projects would be cumulatively significant; and second, to determine whether the proposed project itself would cause a "cumulatively considerable" (and thus significant) incremental contribution to any such cumulatively significant impacts (see State CEQA Guidelines Sections 15130[a]-[b], 15355[b], 15064[h], and 15065[c]). In other words, this required cumulative analysis intends to first create a broad context in which to assess the project's incremental contribution to anticipated cumulative impacts, viewed on a geographic scale beyond the project site itself, and then to determine whether the project's incremental contribution to any significant cumulative impacts from all projects is itself significant (i.e., "cumulatively considerable" in CEQA terms).

Cumulative impacts are defined in the State 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/or reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor, but collectively significant, projects taking place over a period of time" (State CEQA Guidelines Section 15355[b]). Both spatial (geographic) and temporal (timeframe) parameters are considered when analyzing cumulative impacts, each of which may be specific to individual resource areas addressed in the EIR.

Consistent with State CEQA Guidelines Section 15130(a), the discussion of cumulative impacts in this Draft EIR focuses on significant cumulative impacts. State CEQA Guidelines Section 15130(b), in part, provides the following guidance:

> 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 the 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.

The State CEQA Guidelines identify two basic methods for establishing the cumulative environment in which the project is to be considered in the cumulative impacts analysis. The State CEQA Guidelines allow for the use of a list of past, present, and probable future projects, or the use of adopted projections from a general plan, other regional planning document, or a certified EIR for such a planning document. A list approach is used to define the local project environment and may include projects identified by the county or the city, or both, as appropriate. The plan approach allows for a more regional discussion of conditions that may contribute to the cumulative environment.

For the cumulative impact analysis included in this DEIR (Section 5.3 below), both the list and plan approach were utilized to generate the most comprehensive and realistic projection possible. Projects and plans included in this analysis are listed and described below.

5.2 PROJECTS CONTRIBUTING TO POTENTIAL CUMULATIVE IMPACTS

5.2.1 LIST OF RELATED PROJECTS

The list of past, present, and reasonably foreseeable future projects used for this cumulative analysis includes those projects that have occurred, or are planned to occur, within the City, adjoining portions of Placer County (County), or in other Cities or planning areas that may contribute to cumulative impacts within the scope of this analysis. For the purpose of this discussion, the projects that may have a cumulative effect on the resources in the project area are also referred to as "related projects."

CITY OF ROSEVILLE PROJECTS

Related projects and Specific Plan areas within the incorporated boundaries of the City of Roseville are identified in Table 5.2-1.

1. **Antelope Glen project** proposes to construct a 356-unit condominium complex.

2. **Creekview Specific Plan** (3000 Blue Oaks Boulevard) proposes development of approximately 731.6 acres with a mix of residential, commercial, parks, open spaces, and public land uses. A total of 2,499 residential units and 697,829 square feet (sf) of commercial/retail/office space would be developed under this project.

3. **Siino Parcel Map project** (1021 Cirby Way) proposes to subdivide a 1.4-acre parcel for development of 2 residential units.

4. **Conference Center project** (290 Conference Center Drive) proposes development of a 36,967 sf conference center, 10-story 281-room hotel, 219-room multi-story hotel, two 10,000 sf restaurant pads, and a multi-story parking structure.

5. **Sunrise Senior Living project** (3801 Country Club Drive) proposes to construct a 24,506 sf 80-unit senior living facility.

6. **Crocker Ranch project** (10090 Crocker Ranch Road) proposes construction of 198 single-family medium density units.

7. **NRSP permit modification project** (10000 Diamond Creek Boulevard) proposes construction of a podium center consisting of 352 dwelling units and 75,000 sf of retail uses.

8. **Mammoth Equities project** (1521 Eureka Road) proposes to construct a 100,000 sf 4-story office building.

9. **Roseville Sports Bar project** (9501 Fairway Drive) proposes to construct a 17,550 sf sports bar.

10. **Placer Ranch Specific Plan** (4151 Fiddyment Road) proposes to construct a 297-acre California State University campus with 1,740 student and faculty units associated with the university; 5,000 residential units; the Placer Parkway; 9,000,000 sf of commercial, office, and light industrial land uses; two elementary schools and one middle school; and parks and open spaces.

11. **Sierra Vista Specific Plan** (6810 Fiddyment Road) proposes to develop approximately 2,160 acres with a mix of residential, commercial, office, mixed-use, parks and opens spaces, and public land uses. The plan includes 9,995 residential units and 2,419,113 sf of commercial/office/retail space.

12. **University Park project** (8501 Foothills Boulevard) proposes to construct a 36.7 acre light industrial property with six 2-story office buildings totaling 507,400 sf and a 7,500 sf retail building.

Table 5.2-1
Related Projects in the City of Roseville

Project Proposals			
Project No.	**Project Name**	**Residential Units**	**Commercial / Retail / Office**
1	Antelope Glen	356	–
2	Creekview Specific Plan	2,499	697,829 sf[1]
3	Siino Parcel Map	2	–
4	Conference Center	–	36,967 sf for conference center, 281 room hotel, 219 room multi-story hotel, and 20,000 sf for restaurants
5	Sunrise Senior Living	80	–
6	Crocker Ranch	198	–
7	NRSP permit modification	352	75,000 sf
8	Mammoth Equities	–	100,000 sf
9	Roseville Sports Bar	–	17,550 sf
10	Placer Ranch Specific Plan	6,740	9,000,000 sf
11	Sierra Vista Specific Plan	9,995	2,419,113 sf
12	University Park	–	514,900 sf
13	Maranatha Volunteers International	–	30,242 sf
14	Diamond Plaza Offices	–	46,000 sf
15	Blue Oaks Commerce Center	–	539,706 sf
16	Lincoln Street Lofts	Unknown	7,027 sf (mixed use)
17	Westpark Village	72	–
18	SRSP map extension of time	330	–
19	Hidden Creek	18	–
20	Secret Ravine Skilled Nursing Facility	86 (assisted living units) and 120 (beds)	-
21	Stoneridge Village 10	95	-
22	Marriott Club Sport	–	174 room hotel, 40,000 sf pool area, 3,200 sf restaurant, 65,000 sf fitness club
23	Corporate Center		1,250,000 sf
24	Fiddyment Ranch Village	810	–
SUBTOTAL		**21,633 units***	**14,862,534 sf****

Note: Some projects listed are located within a Specific Plan area. Some Specific Plan areas have begun development and are at or near buildout. Some projects may have been calculated as part of the Capital Improvements Program (CIP) and have been previously calculated in utilities.

sf = square feet

1 Assumes a 0.25 floor are ratio (FAR) for community commercial land uses and 0.4 FAR for mixed land uses

* Excludes the 120 beds associated with the Secret Ravine Skilled Nursing Facility.

** Excludes square-footage required for hotel rooms.

Source: http://www.roseville.ca.us/planning/default.asp, *Current Applications List*, March 24, 2008.

13. **Maranatha Volunteers International project** (10051 Foothills Boulevard) proposes to construct a 30,242 sf building.

14. **Diamond Plaza Offices project** (7001 Galilee Road) proposes to construct 10 office buildings totaling 46,000 sf.

15. **Blue Oaks Commerce Center project** (8950 Industrial Avenue) proposes to develop approximately 539,706 sf of mixed-use, light industrial flex space, multi-story office buildings, and neighborhood commercial uses.

16. **Lincoln Street Lofts project** (331 Lincoln Street) proposes to construct a new 7,027 sf retail/commercial/residential building.

17. **Westpark Village project** (3151 Market Street) proposes to create 72 residential lots for attached town homes and 5 common areas.

18. **SRSP map extension of time** (3850 Miners Ravine Drive) requests an extension of time to subdivide 74.6 acres into 330 residential lots.

19. **Hidden Creek Condominium project** (1995 Rocky Ridge Drive) proposes to construct an 18-unit condominium complex.

20. **Secret Ravine Skilled Nursing Facility project** (1101 Secret Ravine Parkway) proposes to construct a 3-story, 86-unit assisted living facility and a 2-story, 120-bed skilled nursing facility.

21. **Stoneridge Village project** (7200 Sierra College Boulevard) proposes a tentative subdivision map for 95 residential lots.

22. **Marriott Club Sport project** (1460 Stone Point Drive) proposes to construct a 6-story, 174-room hotel with 40,000 sf pool area and 3,200 sf restaurant and a 2-story, 65,000 sf fitness club.

23. **Corporation Center project** (9000 Washington Boulevard) proposes to construct 1,250,000 sf of gross building area for office and retail uses.

24. **Fiddyment Ranch Village** (2000 Hayden Parkway) proposes a new land use plan to increase the number of dwelling units by 810 units, modify land use boundaries, modify zoning map, and adjust boundaries of large lot map.

The 24 projects described above either have recently resulted in or are proposed to result in development of nearly 15,000,000 sf of commercial/retail/office land uses and almost 22,000 new residential units in the City. The majority of known new development is associated with the Placer Ranch and Sierra Vista Specific Plans.

PLACER COUNTY PROJECTS

Related projects and Specific Plan areas within the unincorporated areas of Placer County are identified in Table 5.2-2.

1. **American Vineyard Village** (south side of Vineyard Road, approximately 1.5 miles west of downtown Roseville and 700 feet west of Foothills Boulevard) proposes construction of 150 parcels containing detached single family homes.

Table 5.2-2 Related Projects in Placer County			
Project Proposals			
Project No.	Project Name	Residential Units	Commercial / Retail / Office
1	American Vineyard Village	150	-
2	Placer Vineyards Specific Plan	14,132	274 acres
3	Regional University Specific Plan	4,387	22.2 acres
4	Riolo Vineyard Specific Plan	597	7.5 acres
5	Silver Creek	79	-
6	Curry Creek Community Plan	15,000[1]	-

[1] Final boundaries and number of residential units undetermined.

Source: City of Roseville, Summary of Regional Projects, http://www.roseville.ca.us/civica/filebank/blobdload.asp?BlobID=2665, accessed July 21, 2008; http://www.placer.ca.gov/Departments/CommunityDevelopment/Planning/Projects.aspx, accessed March 31, 2008.

2. **Placer Vineyards Specific Plan** (Southwest corner of Placer County bounded to north by Baseline Road) proposes a mixed-use master planned community with residential, employment, commercial, open space, recreational and public/quasi-public land uses. The Specific Plan will provide for 14,132 homes and is projected to develop over a 20- to 30-year time frame. Placer Vineyards will have a population of approximately 33,000 people, 274 acres of commercial uses, 641 acres of quasi-public (e.g., public facilities/services, religious facilities, schools, major roadways) land uses, and 919 acres of park and open space land.

3. **Regional University Specific Plan** (west of a future Watt Avenue extension, the western boundary of the project site is defined by Brewer Road) proposes to develop 1,155 residences for students and faculty at the University and 3,232 residences at an adjoining Community along with 22.2 acres of service and employment land uses.

4. **Riolo Vineyards** (North of PFE Road, bounded by Walerga Road and Watt Avenue) proposes to construct 597 residential units at a range of densities, along with neighborhood parks, public facilities, open space, and agricultural land uses and 7.5 acres for commercial uses.

5. **Silver Creek** (north of and adjacent to PFE Road, immediately east of and adjacent to Walerga Road) proposes to develop a 79-lot single-family residential subdivision on 28.6+ acres.

6. **Curry Creek Community Plan** (adjacent to Placer Vineyards and De La Salle University and Community) is an area with no defined project or application. However, the Placer County Board of Supervisors directed staff to consider the possibility of planning this area because of development proposals adjacent to this area (i.e., De La Salle University and Community, Placer Vineyards).

The three projects and three Specific Plans described above either have recently resulted in or are proposed to result in development of 19,345 new residential uses (does not include approximation of residential units in Curry Creek Community Plan) plus additional commercial, retail, and office uses. The majority of new development is associated with the proposed Placer Vineyards and proposed Regional University Specific Plans in Placer County.

Regional Area Projects

Cumulative impacts often extend beyond jurisdictional boundaries; therefore the cumulative impact analysis may consider growth assumptions for other areas in the region. Table 5.2-3 lists projects in the Roseville regional area planned for development through 2020, which is the horizon year for the City's traffic model. As this table

indicates, several projects are proposed in the region that collectively would result in the development of approximately 69,500 new housing units and approximately 32,500,000 sf of commercial, office, and industrial land uses.

Table 5.2-3
Projects in the Roseville Regional Area (2020 Horizon Year)

Region	Single Family Residential Units	Multi-Family Residential Units	Age Restricted Residential Units	Total Residential Units	Commercial Square Footage	Office Square Footage	Industrial Square Footage
Rocklin	15,872	5,742	1,178	22,786	4,810,000	2,792,000	3,323,000
Lincoln	11,225	3,073	6,919	21,217	2,262,000	1,539,000	7,163,000
Placer Vineyards	7,006	651	0	7,657	920,000	288,000	0
Sunset Industrial	187	80	0	267	498,000	823,000	5,046,000
Granite Bay	8,974	888	0	9,862	1,043,000	253,000	103,000
Lincoln/Sunset	436	56	0	492	1,000	94,000	335,000
Remainder Area	5,916	1,487	0	7,203	589,000	647,000	0
Total:	**49,616**	**11,977**	**8,097**	**69,487**	**10,123,000**	**6,436,000**	**15,970,000**

Source: Final Environmental Impact Report for the West Roseville Specific Plan and Sphere of Influence Amendment, January 9, 2004.

5.3 CUMULATIVE IMPACT ANALYSIS

The following sections contain a discussion of the cumulative effects anticipated from implementation of the proposed project, together with the related projects and regional development, for each of the 12 environmental issue areas evaluated in this DEIR (See Section 1.4, "Scope of this DEIR," and Chapter 4). The analysis conforms with Section 15130(b) of the State CEQA Guidelines, which specifies that 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 a detail as is provided for the effects attributable to the project alone."

5.3.1 LAND USE AND PLANNING

Several development projects are proposed in the region and locally that would have an impact on land use. These proposed projects include, but are not limited to, the projects listed in Tables 5.2-1 though 5.2-3. As described in Section 4.1 of this DEIR, implementing the proposed project would not result in significant land use planning impacts, and the project's ultimate consistency with local land use plans, policies, and zoning is ensured through entitlements to revise the City of Roseville General Plan 2020.

The Plan area is currently designated in the City of Roseville General Plan 2020 for low-density residential, medium-density residential, central business district, public/quasi-public, and parks and recreation/floodplain uses. The proposed density increase of land uses in the Plan area would vary from the existing development standards identified ion the City's General Plan; therefore, the adoption of new zoning districts and a General Plan amendment would be required along with adoption of the Downtown Roseville Specific Plan. However, no land-use impacts would occur on a project-specific basis, therefore the project would not result in cumulatively considerable, incremental contributions to significant cumulative environmental effects associated with land-use changes required to serve the project and cumulative development.

5.3.2 PUBLIC UTILITIES

This cumulative analysis considers the potential impacts on water, wastewater, stormwater conveyance, solid waste disposal, electricity, and natural gas from demands created by the project along with the related and regional projects listed in the previous sections.

WATER

Only related projects in the City (Table 5.2-1) need to be considered within this cumulative analysis for water because all related projects in Placer County (Table 5.2-2) will be serviced by other water utility providers and water supply assessments for these projects would be prepared separately, as necessary. Additionally, although Placer Ranch is show in Table 5.2-1, it is not considered in this cumulative water analysis as supply for this project is planned to come from the Placer County Water Agency (PCWA).

WATER SUPPLY

As described in Section 4.2, analysis for water supply must be evaluated for both wet year and dry year scenarios. The City's existing wet year surface water supply contracts total 66,000 acre-fee per year (AFY). However, the City is limited to diversions from the American River to no more then 58,900 AFY per the Water Forum Agreement. Water demands at build-out of the City are estimated at 56,465 AFY. Water demands are projected to increase by 706 AFY with this project and by an additional 10,274 AFY for future projects for a total water supply need of 67,445 AFY. As indicated in Section 4.2, "Public Utilities," of this EIR, the City of Roseville has adequate existing water supplies to serve this project.

For information purposes, this cumulative analysis discusses water supply issues for other potential cumulative projects. The City is currently evaluating three options for increasing its water supply for projects outside its current city limits proposed in new growth areas. These options include: 1) the construction of a new diversion and water treatment facility on the Sacramento River in cooperation with other local water agencies; 2) a water supply agreement with San Juan Water District for an additional 4,000 AFY of surface water; and 3) purchasing up to 4,000 AFY of wholesale water supply from PCWA.

Wet Years

Water demands under cumulative conditions are expected to total 67,445 AFY. According to the South Placer Regional Wastewater and Recycled Water Systems Evaluation (Systems Evaluation, June 2007, TM 5A), recycled water use will increase to nearly 5,881 AFY; offsetting total water supply needs. Water demands during wet years would be met through the use of 58,900 AFY surface water supplies from the American River, 5,881 AFY recycled water supplies and a to be determined additional surface water supply of at least 2,664 AFY totaling the needed 67,445 AFY of water supply. As described above this additional supply could potentially be provided from one of three options. Because the City has not finalized agreements to secure additional surface water supplies there is a water supply shortfall under cumulative conditions for the new growth areas.

As defined in Section 15355 of CEQA, a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR, together with other projects causing related impacts. Since the project is inside the City's service area and adequate existing supplies are available to serve the project, the project would not result in an incremental impact to water supply to the new growth areas. Therefore, the Project's contribution to the cumulative impact is not cumulatively considerable and a less-than-significant impact would result.

Dry Years

During dry years, and in accordance with the City's Water Forum Agreement, the City's American River water supply contract can be reduced. Per the Water Forum Agreement, City supply during dry years from the American River can range from full entitlement to no less then 39,800 AFY during critically dry years. During dry years, the City relies on a water supply portfolio that includes surface water, recycled water and groundwater. As described in Section 4.2, "Public Utilities," the City assumes a minimum 10% reduction in potable water supply needs as a result of conservation efforts during years when supplies are cut back. This would result in water supply needs during dry years of 60,701 AFY (67,445 AFY less 6,744 AFY resulting from mandatory conservation) with the Project. When surface water supplies are cut back to the maximum level per the Water Forum Agreement water demands would be met through the use of 39,800 AFY surface water supplies from the American River, 5,881 AFY recycled water supplies and 15,020 AFY groundwater supplies. The City's current groundwater supply facilities can produce approximately 10,200 AFY of supply; therefore an additional 4,820 AFY of groundwater supply facilities are required to meet dry year water supply needs. The City has previously reserved groundwater well sites within the West Roseville Specific Plan Area to increase the City's production capabilities. Therefore sufficient dry year water supplies can be made available resulting in water supply impacts that are less then significant.

WATER TREATMENT

At buildout of the City and the Plan under cumulative conditions, the wet year and maximum potable water demand would by 61,564 AFY (67,445 AFY demand – 5,881 AFY RW supply) or 110 mgd max day demand). The Barton Road WTP, which provides water treatment for the City, has an existing capacity of 100 mgd (City of Roseville 2006); therefore, additional water treatment capacity is required under cumulative conditions. As described under the Water Supply section above, the City is evaluating three options for increasing its water supply. With each of these options, water treatment may be included. For instance, the City's portion of a future new water treatment facility on the Sacramento River is 10 mgd for a total water treatment capacity of 110 mgd. Under the wholesale option with PCWA, treated water supply would be provided and additional water treatment capacity would not be required. Because an agreement for future water supply or treated water supply has not been finalized, the cumulative impact associated with water treatment is also considered significant and unavoidable.

However, because the Plan does not rely upon water from the Sacramento River project and the City's existing treatment plant has sufficient capacity designed to accommodate flows generated by the City for both current General Plan and build-out of the Project, the Project's contribution to the cumulative impact is not cumulatively considerable and a less-than-significant impact would result.

WASTEWATER

All projects in the City (Table 5.2-1) and related projects in Placer County (Table 5.2-2) should be considered in the cumulative analysis as wastewater flows from all projects would be serviced at either the Dry Creek or Pleasant Grove Creek Wastewater Treatment Plants (WWTP). However, because the Project flows to the Dry Creek WWTP only those projects that flow to this same regional facility are considered in this analysis.

Wastewater Treatment

All flow from the Plan area will be treated at the Dry Creek Wastewater Treatment Plant (DCWWTP), a regional wastewater treatment facility. The Systems Evaluation Report (June 2007) established estimated flows to the DCWWTP under several scenarios including build-out of the 2005 Boundary and build-out of a future service area boundary including several new Urban Grown Areas (UGAs). These estimated flows are documented in several technical memoranda (TMs) which are appendices to the Systems Evaluation document. The Systems

Evaluation is currently being updated. As a part of the update, several TMs have also been updated and the most recent information available is reflected in this analysis.

According to the Systems Evaluation Report , average dry weather wastewater flows (ADWF) to the DCWWTP under cumulative conditions (e.g., including future UGAs, rezones and intensifications) are expected to reach 19.99 million gallons per day (mgd) (See RMC TM-2b updated January 24, 2008). As documented in Section 4.2, only 0.71 mgd or 3.6% of this total is from build-out of the Plan. The DCWWTP is currently permitted for 18 mgd ADWF. The DCWWTP will need to be expanded to accommodate wastewater flows generated under build-out conditions including the Plan Area. Plans to expand DCWWTP have been addressed in the Systems Evaluation Report and the expansion can be accommodated on the current DCWWTP site. Further, the Regional Wastewater Treatment Service Area Master Plan (Master Plan) EIR (WWMP EIR) analyzed expansion of the DCWWTP to as much as 54 mgd ADWF. However, constructing any expansion to treat wastewater flows beyond 18 mgd ADWF will require the City to obtain approval from the Regional Water Quality Control Board through the issuance of a new National Pollutant Discharge Elimination System (NPDES) Permit. Because the conditions that could be placed upon the City with a new NPDES permit are unknown at this time, the impacts associated with treating additional wastewater flows under cumulative conditions is considered a potentially significant and unavoidable impact.

Because the Plan does not require the DCWWTP be expanded to accommodate wastewater flows generated by the Plan at build-out of the current 2005 Service Area Boundary and because the DCWWTP would require expansion even without the Project, the Project's contribution is not cumulatively considerable, and a less-than-significant impact would result.

Wastewater System

As documented within the Systems Evaluation Report and the project analysis provided within the Section 4.2, there are no regional or local sewer lines downstream of the project area that require upsizing or changes to accommodate flow from the Project area. As such cumulative impacts associated with wastewater collection are considered less-than-significant.

Stormwater Conveyance

The City is responsible for ensuring that stormwater drainage facilities are provided so that development within the City can be adequately served. The City's General Plan identifies goals and policies related to providing stormwater conveyance related to new development. The Plan would provide for all needed infrastructure improvements to ensure adequate stormwater conveyance facilities are available to serve future development projects in the Plan area. Cumulative development occurring outside the Plan area would be responsible for providing stormwater conveyance facilities to serve these individual projects. However, infrastructure improvements occurring in the Plan area would assist in ensuring adequate stormwater conveyance capabilities are available in the surrounding community. Through the implementation of infrastructure improvements to stormwater conveyance facilities, implementation of the Plan would improve the existing conveyance capabilities in the Plan area and sufficient conveyance capabilities would be available to serve cumulative development. With these considerations, the proposed project would not result in cumulatively considerable impacts to stormwater conveyance.

Solid Waste

Several development projects are proposed in Placer County that would increase the amount of solid waste generated and disposed at regional solid waste facilities. Proposed projects in the Plan area that would potentially impact solid waste facilities primarily include new development occurring in specific plans (e.g., Placer Ranch, Sierra Vista, and Placer Vineyards) located in the western portion or edge of the City. New development that would occur as part of the Downtown Roseville Specific Plan would increase the generation of solid wastes, but

as stated in Section 4.2, "Public Utilities," of this EIR, the increased solid waste generated from implementation of the Plan accounts for a relatively small portion of the total throughput of the Western Regional Sanitary Landfill (2%) and would not lead to an exceedance of the capacity of this facility. For these reasons, the proposed project would not contribute considerably to a cumulative impact and this would be a less-than-significant cumulative impact.

5.3.3 PUBLIC SERVICES

Several development projects are proposed in Placer County that would increase the demand for public services (e.g., schools, police, fire protection). Proposed projects in the Plan area that would potentially impact public services primarily include new development occurring in specific plans (e.g., Placer Ranch, Sierra Vista, Placer Vineyards) located in the western portion or edge of the City. New development that would occur as part of the Downtown Roseville Specific Plan would generate an increase in demand for public services and facilities, but state-mandated mitigation fees for schools and project-specific development impact fees would be paid to ensure adequate funding for new public facilities that would be needed.

Similar impacts to public services would occur as a result of other proposed projects in the City or Placer County, and as such, would be required to pay their fair-share of development impact fees. Therefore, the proposed project would have a less-than-significant cumulative impact on public services because implementation of the Plan would not result in cumulatively considerable, incremental contributions to significant cumulative effects associated with the development of new public service facilities required to serve the Plan area and other, cumulative development.

5.3.5 AESTHETICS

Implementation of the Plan would not substantially alter the visual character of the Downtown Roseville area because of the existing developed, urban character exhibited in the Plan area. Related cumulative projects would likely result in the transformation of the visual environment in areas outside the downtown area from open spaces and vacant lands to urban development (e.g., Placer Vineyards specific Plan, Placer Ranch Specific Plan). While these projects are anticipated to comply with adopted community design and aesthetic standards, it is likely that these projects would continue to result in significant and unavoidable aesthetic impacts because of the magnitude of the development proposed. The Plan's contribution to cumulative visual impacts within the Plan area would not be considerable because of its location within an already developed portion of Roseville.

5.3.6 TRANSPORTATION AND TRAFFIC

Section 4.6, "Transportation and Circulation," provides an analysis of two separate cumulative scenarios including the Cumulative (2020) No Project scenario, which reflects the result of build-out of the developments assumed in the City of Roseville General Plan 2020, and the Cumulative (2020) Plus Project scenario, which reflects such build-out plus traffic as a result of the proposed project.

As indicated in Section 4.6, under Cumulative (2020) Plus Project conditions, a significant impact on the levels of service (LOS) at four intersections would result under these conditions: Yosemite Street/Atlantic Street, Orlando Avenue/Marlin Drive/Cirby Way, Harding Drive/Estates Drive, and Sunrise Avenue/Eureka Road. The LOS for all of the City's signalized intersections under Cumulative (2020) Plus Project conditions are summarized in Table 4.6-9 and compared to the Cumulative (2020) No Project Conditions. As Table 5.3-1 shows below, under Cumulative (2020) conditions, the total number of signalized intersections operating at LOS C or better is above the City's threshold of 70% in both the No Project and Plus Project scenarios.

Section 4.6 discusses in detail all impacts due to the proposed project under the various scenarios analyzed and concludes that implementation of the Plan would not have, or contribute considerably to, a significant cumulative effect related to the transportation network in Roseville.

Table 5.3-1
Cumulative (2020) Plus Project – Signalized PM Citywide Intersection Levels of Service

Level of Service	Quantity	%
LOS A–C	**135**	**75%**
LOS D–F	**44**	**25%**
LOS D	24	13%
LOS E	10	6%
LOS F	10	6%

Source: Fehr & Peers and DKS Associates, 2007

5.3.7 CULTURAL RESOURCES

Cultural resources in the Roseville region generally consist of early Native American sites and buildings and structures associated with 20th century residential, commercial, and industrial activities. From the latter half of the 20th century to the present, prehistoric resources and historical buildings have been disturbed and destroyed by more recent developments both in the Plan area and regionally. During this period, the creation and enforcement of various regulations protecting cultural resources have substantially reduced the rate and intensity of these impacts; however, even with these regulations in place, cultural resources will continue to be degraded or even destroyed as cumulative development in the region proceeds.

Research conducted for the proposed project indicates that the project site contains a number of buildings and structures that could potentially be considered historical resources as defined by CEQA or could be by the time project build-out over a 20-year period is completed. Undiscovered, buried archaeological resources might also be present in the Plan area. Mitigation measures 4.7-2 and 4.7-3 would reduce impacts to subsurface cultural deposits and undiscovered / unrecorded human remains to less-than-significant levels. Implementing these mitigation measures would also ensure that project-related activities do not incrementally contribute to significant cumulative impacts on important cultural resources in the Plan area. These measures ensure compliance with State CEQA Guidelines Section 15064.5 and related provisions of the Public Resources Code. However, the proposed project could potentially result in the loss of a historically significant resource. Implementation of mitigation measure 4.7-1 would lessen project impacts although demolition of a historical resource would be considered a significant adverse change. Development of related projects could also result in the loss historical resources. Implementation of the Specific Plan along with related projects could result in the cumulative loss of historical resources in the Roseville area. Consequently, it is considered that the proposed project could incrementally contribute to a significant cumulative effect on cultural resources.

5.3.8 HAZARDS AND HAZARDOUS MATERIALS

Cumulative development projects listed in Section 5.2 would have an impact related to hazardous materials because there would be a net increase in usage of hazardous materials and an increase in the number of small quantity generators of hazardous waste. Some of these proposed projects may include gas stations and/or other facilities utilizing hazardous materials. Other proposed projects that include various commercial uses also have the potential to result in impacts related to public health depending on the nature of the land use.

The Plan seeks to revitalize the Downtown Roseville area by encouraging an increase of retail, commercial, and residential land uses, which would result in a net increase in usage of hazardous materials and an increase in the number of small quantity generators of hazardous waste in the Plan area. Specifically, it is likely that some facilities (e.g., dry cleaners, gas stations) could use hazardous materials during operation of facilities in the Plan area. However, use of hazardous materials at a specific site would be required to comply with all federal, state, and local regulations. Therefore, the Plan would not result in a cumulatively considerable incremental contribution to a significant cumulative environmental effect related to use of hazardous materials during operations of specific facilities in the Plan area.

Ground disturbance or excavation during construction and implementation of new development projects envisioned in the Plan could pose a risk to human health for construction personnel. There is also a possibility that several structures could include building materials containing asbestos and/or lead which could become friable or mobile during construction (i.e., demolition or renovation) and come into contact with construction workers. Measures would be implemented to reduce this impact to a less-than-significant level. Furthermore, this impact would be site-specific and, therefore, would not serve to compound the impacts of other development projects in the Plan area or region. For these reasons, the Plan would not result in cumulatively considerable effects associated with construction-related hazardous materials.

5.3.9 Biological Resources

Implementation of the Plan would not result in the loss of any existing biological resources because of the existing urban nature of the Plan area. In addition, the Plan includes actions aimed at improving aquatic and riparian habitats in Dry Creek. However, cumulative development projects in the Roseville area would typically occur in "greenfields" which are defined as undeveloped, undisturbed lands. The cumulative development projects in these "greenfield" lands would result to the incremental decline in the number and diversity of plant and animal species, including special-status species. The Plan would not contribute considerably to a cumulative decline of biological resources in the Roseville because development envisioned in the Plan would occur in existing urban area and would improve existing biological conditions in Dry Creek.

5.3.10 Air Quality

The Plan would result in significant and unavoidable temporary construction-related air quality impacts, even with implementation of mitigation measures identified in this DEIR (see Section 4.10, "Air Quality"). Assuming all related projects also implement available feasible construction emission control measures consistent with Placer County Air Pollution Control District (PCAPCD) guidelines, construction emissions on a project-by-project basis would be less than significant. However, the large scale and number of related projects, taken in total and combined with the nonattainment status of the western Placer County portion of the Sacramento Valley Air Basin (SVAB) for ozone and PM_{10}, would result in a significant and unavoidable cumulative construction-related air quality impact. The Downtown Roseville Specific Plan would contribute to this impact.

The Plan would result in significant and unavoidable long-term (operational-related) regional air quality impacts. Project-generated operation-related emissions of reactive organic gases (ROG) and oxides of nitrogen (NO_X) would also exceed PCAPCD's recommended cumulative threshold of 10 pounds per day (lb/day) (applicable during summer months only). Emissions attributable to the Plan area, along with emissions from other reasonably foreseeable future projects in the SVAB as a whole, would continue to contribute to long-term increases in emissions that would exacerbate existing and projected nonattainment conditions. Thus, the Plan would contribute to a significant and unavoidable cumulative air quality impact.

Because compliance with applicable rules and regulations would be required for the control of stationary source toxic air contaminant (TAC) emissions, both on-site and off-site, the project's contribution to long-term cumulative increases in stationary source TAC concentrations would be considered minor. Nevertheless, exposure to TACs from mobile sources, specifically diesel exhaust particulate matter (PM), is of growing concern within

the SVAB. Major transportation corridors, including highway and rail traffic, involving the operation of diesel-fueled vehicles are present in the Plan area (e.g., Interstate 80, Roseville Rail Yard). Implementation of the Plan would result in significant and unavoidable toxic-related air quality impacts. Sensitive receptors, such as residential dwelling units envisioned to be constructed in Downtown Roseville as part of the Plan would likely be exposed to substantial diesel PM emissions because of the site's proximity to the Rail Yard. In addition, development of land uses that involve extensive use of diesel-powered equipment or vehicles could contribute to an exceedance of the PCAPCD thresholds at nearby sensitive receptors. Therefore, when taken together with emissions from other past, present, and future projects near the Plan area, emissions from all mobile and area sources could result in higher concentrations of diesel PM at existing and proposed sensitive receptors. Consequently, this cumulative impact is considered significant, and the Plan would contribute to this impact.

5.3.11 NOISE

Construction activities occurring during the daytime hours are exempt from the provisions of the City's Noise Ordinance provided that all construction equipment shall be fitted with factory-installed muffling devices and maintained in good working order. As related to the Specific Plan, it was determined that adherence to these noise regulations would not be sufficient to avoid significant short-term construction noise impacts. While the construction noise sources associated with related projects in the Plan area could be considered exempt if limited to the daytime, there is no guarantee that all the development projects could avoid significant noise impacts at all nearby noise-sensitive receptors because of on site configuration, topography, distance to sensitive receptors, and atmospheric propagation. However, because the proposed project would not result in significant construction noise impacts after mitigation, it would not contribute to such significant cumulative noise impacts.

Stationary noise associated with proposed land uses in the Plan area and related, cumulative projects could potentially result in exceedence of the City's noise regulations at sensitive receptors. While the noise from any stationary noise sources associated with development projects in the Plan area could be controlled at the source, there is no guarantee that all related, cumulative projects would include such noise controls as part of development. Therefore, significant cumulative noise impacts associated with stationary noise sources could occur. However, the proposed project would not contribute to any such significant cumulative noise impacts because it would not result in significant stationary noise impacts after mitigation.

Although construction and stationary source noise can be controlled on-site at the point of origin, transportation source noise may extend beyond a project site along existing and proposed off-site roads and railways, and thus result in significant noise impacts to sensitive uses along these corridors. As described in Section 4.11, "Noise," implementation of the proposed project would result in significant and unavoidable long-term traffic-generated noise impacts under existing plus project and cumulative plus project conditions. Buildout of the Plan area would result in a perceptible increase in traffic noise on major roadways and implementation of the proposed project would contribute to a cumulative impact. Furthermore, the combined cumulative increase in traffic anticipated for 20-year buildout timeframe of planned growth extends the 60 dBA noise contour distances for these roadway segments resulting in a substantial number of additional existing and proposed sensitive receptors falling within this contour. This is considered a significant cumulative traffic noise impact. Construction of sound walls and other noise-attenuating features (e.g., berms, dual-pane windows) throughout the region would require a regional program and may not be feasible to implement. Because project mitigation requires proposed fixed noise sources adjacent to noise-sensitive receptors to be mitigated so as not to exceed the City's noise level performance standards and it is considered infeasible to sufficiently reduce noise at every existing and proposed sensitive receptor that would potentially be affected, this cumulative traffic noise impact is considered less than significant.

5.3.12 HYDROLOGY AND WATER QUALITY

HYDROLOGY AND WATER RESOURCES

The proposed project would not result in significant impacts related to hydrology, drainage, and water quality with implementation of recommended mitigation. However, cumulative impacts of the project and related projects in the Roseville area could degrade water quality of natural and man-made waterways. Degradation of water quality could result from increased sedimentation from erosion and runoff during construction activities and increased pollutants from stormwater runoff during operation of new development projects. Prior to approval of individual development projects in the Plan area, the City would require each applicant to prepare and implement a SWPPP as part of the NPDES permit program. Each SWPPP would be required to include a description of BMPs for individual development projects to implement for controlling erosion, discharges of sediment, and discharges of other pollutant sources during construction. Similarly, development of cumulative projects would be expected to meet the same requirements of the proposed project through preparation and implementation of a NPDES permitting requirements and project-specific SWPPPs. Thus, implementation of the Plan would not considerably contribute to a cumulative hydrology and water resources impact.

Regarding stormwater runoff, new development envisioned in the Plan area would not increase the amount of impervious surfaces because urban development currently exists in the Plan area. Consequently, the proposed project would not lead to an increase in stormwater runoff as compared to existing conditions and would not result in a greater potential for off-site and on-site flooding. Development of cumulative projects in the Roseville area would result in an increased amount of impervious surfaces and increased stormwater runoff and each individual project would be required to implement design features and measures to prevent flooding and provide facilities with sufficient capacity to accommodate stormwater flows. Therefore, implementation of the Plan would not considerably contribute to a cumulative stormwater runoff impact.

5.4 GLOBAL CLIMATE CHANGE

Please refer to Section 4.10, "Air Quality," of this DEIR, where the existing environmental setting and regulatory framework with respect to global climate change are described in detail. Implementation of the Plan would result in increased generation of greenhouse gases (GHGs) which can contribute to global climate change. This analysis is provided in response to recent heightened interest in the subject of global climate change, and specifically, the State legislature's passage and the Governor's signing of Assembly Bill (AB) 32, which is intended to control and reduce the emission of global warming gases in California; and Senate Bill (SB) 97, which directs the Office of Planning and Research and the Resources Agency to develop CEQA Guidelines on how local agencies should analyze and, if necessary, mitigate for greenhouse gas emissions. Although no regulations or guidelines are yet available, the State of California views global climate change as a serious environmental threat in California, which warrants its inclusion in this DEIR.

The Plan incorporates guidelines, strategies, and mitigation measures that minimize the human and spatial environmental footprint with respect to transportation fuels consumption and electricity production. Implementation of these strategies and measures would help reduce potential GHG emissions resulting from the development in the Plan area. As indicated, the transportation sector is the state's largest fossil energy consumer (CEC 2006). The purpose of the Plan by its very nature (e.g., promotion of the use of alternative modes of transportation and overall design that creates a compact development pattern that encourages walking, biking, and public transit use, which in turn reduce vehicle trip number and length) would reduce potential consumption of fossil fuel energy, and thereby reduce potential GHG emissions. For example, the Specific Plan policies and implementation measures include the following elements that would reduce GHG emissions from an unmitigated baseline:

- Construct physical improvements that better facilitate pedestrian and bicycle connectivity between Old Town area, Vernon Street area, and Royer/Saugstad Parks (Policy 5.3)
- Ensure that streets in Downtown are designed to provide a balance between the needs of pedestrians and traffic flow (Policy 5.4.1)
- Encourage a pedestrian orientation within the circulation system (Policy 6.2.1)
- Designate the Downtown Plan area as a pedestrian district per the City's General Plan (Policy 6.2.2)
- Implement bicycle facilities consistent with the City's Bicycle Master Plan (Policy 6.3)
- Promote the use of transit in new developments by requiring the installation of transit facilities where appropriate along transit routes (Policy 6.4.2)
- Provide sufficient infrastructure to promote existing and future transit use within Downtown (Policy 6.4.3)

In addition, the *City of Roseville General Plan 2020* includes the following policies that address global climate change either through greenhouse gas emissions reduction, energy and resource conservation, or address the potential impact of climate change (e.g., the flood protection policies):

Community Form Policy 5: Promote land use patterns that result in the efficient use of urban lands and preservation of open space as specified in the Open Space and Conservation Element.

Community Form – Relationship to Transit, Pedestrian, and Air Quality - Policy 1: Promote land use patterns that support a variety of transportation modes and accommodate pedestrian mobility.

Community Form – Relationship to Transit, Pedestrian, and Air Quality - Policy 2: Allow for land use patterns and mixed use development that integrate residential and non-residential land uses, such that residents may easily walk or bike to shopping, services, employment and leisure activities.

Community Form – Relationship to Transit, Pedestrian, and Air Quality - Policy 3: Concentrate higher intensity uses and appropriate support uses within close proximity of transit and bikeway corridors as identified in the Bicycle Master Plan. In addition, some component of public use such as parks, plazas, public buildings, community centers and/or libraries should be located within the corridors.

Community Form – Relationship to Transit, Pedestrian, and Air Quality - Policy 4: Promote and encourage the location of employee services such as childcare, restaurants, banking facilities, convenience markets, etc., within major employment centers for the purpose of reducing midday service-related vehicle trips.

Community Form – Relationship to Transit, Pedestrian, and Air Quality - Policy 5: Where feasible, improve existing development areas to create better pedestrian and transit accessibility.

Community Form – Relationship to Transit, Pedestrian, and Air Quality - Policy 6: Through City land use planning and development approvals, require that neighborhood serving uses (e.g., neighborhood commercial uses, day care, parks, schools, and other community facilities) be physically linked with adjacent residential neighborhoods.

Community Form – Downtown Neighborhoods - Policy 5: Encourage infill development and rehabilitation that:

- upgrades the quality and enhances the character of existing areas;
- enhances public transit use and pedestrian access;
- efficiently utilizes and does not overburden existing services and infrastructure; and
- results in land use patterns and densities that provide the opportunity for the construction of household types affordable to all income groups.

Community Form – Relationship of New Development - Policy 1: Require that new development areas and associated community-wide facilities (open space resources, parks, libraries, etc.) Be linked and oriented to existing developed areas of the community through road networks, public transit systems, open space systems, bike way and pedestrian systems, and other physical connections.

Community Form – Jobs/Housing and Economic Development - Policy 1: Strive for a land use mix and pattern of development that provides linkages between jobs and employment uses, will provide a reasonable jobs/housing balance, and will maintain the fiscal viability of the City.

Community Form – Community Design - Policy 2: Continue to develop and apply design standards that result in efficient site and building designs, pedestrian friendly projects that stimulate the use of alternative modes of transportation, and the establishment of a functional relationship between adjacent developments.

Community Form – Community Design - Policy 3: Encourage project designs that place a high priority and value on open space, and the preservation, enhancement and incorporation of natural resources and other features including consideration of topography, vegetation, wetlands, and water courses.

Community Form – Community Design - Policy 9: The location and preservation of native oak trees and oak woodlands shall be a primary factor in determining site design, building location, grading, construction and landscaping, and in establishing the character of projects through their use as a unifying element in both new an existing development.

Growth Management Policy 8: Manage growth in such a way to ensure that significant open space areas will be preserved.

Circulation – Level of Service - Policy 2: Strive to meet the level of service standards through a balanced transportation system that reduces the auto emissions that contribute to climate change by providing alternatives to the automobile and avoiding excessive vehicle congestion through roadway improvements, Intelligent Transportation Systems, and transit improvements.

Circulation – Level of Service - Policy 5: Enable the City to designate a Pedestrian District over a geographic area for the purpose of implementing measures that promote pedestrian walkability and reduce total vehicle miles traveled and resultant air pollution emissions that contribute to climate change. In these districts, the City recognizes that pedestrian travel takes a higher priority than automobile travel, which could reduce the vehicular level of service.

Circulation – Transit - Policy 1: Pursue and support transit services within the community and region and pursue land use, design and other mechanisms that promote the use of such services.

Circulation – Transportation System Management - Policy 1: Continue to enforce the City's TSM ordinance and monitor its effectiveness.

Circulation – Transportation System Management - Policy 2: Work with appropriate agencies to develop measures to reduce vehicular travel demand and total vehicle miles traveled and meet air quality goals.

Circulation – Bikeway/Trails - Policy 1: Develop a comprehensive and safe system of recreational and commuter bicycle routes and trails that provides connections between the City's major employment and housing areas and between its existing and planned bikeways.

Circulation – Bikeway/Trails - Policy 2: Coordinate Roseville's bikeway and trail system with those of neighboring jurisdictions to provide both local and regional connections.

Air Quality and Climate Change Policy 1: Cooperate with other agencies to develop a consistent and effective approach to air pollution planning.

Air Quality and Climate Change Policy 4: As part of the development review process, develop mitigation measures to minimize stationary and area source emissions.

Air Quality and Climate Change – Transportation and Circulation - Policy 5: Develop transportation systems that minimize vehicle delay and air pollution.

Air Quality and Climate Change – Transportation and Circulation - Policy 6: Develop consistent and accurate procedures for mitigating transportation emissions from new and existing projects.

Air Quality and Climate Change – Transportation and Circulation - Policy 7: Encourage alternative modes of transportation including pedestrian, bicycle, and transit usage.

Air Quality and Climate Change – Land Use - Policy 9: Encourage land use policies that maintain and improve air quality.

Air Quality and Climate Change – Energy Conservation - Policy 10: Conserve energy and reduce air emissions by encouraging energy efficient building designs and transportation systems.

Open Space and Conservation – Open Space System - Policy 1: Provide an interconnecting system of open space corridors that, where feasible, incorporate bikeways and pedestrian paths.

Open Space and Conservation – Open Space System - Policy 2: Provide interconnected open space corridors between open space and habitat resources, recreation areas, schools, employment, commercial service and residential areas.

Open Space and Conservation – Open Space System - Policy 3: Work with adjacent jurisdictions to connect the City with regional open space and trail systems, providing a network of open space and habitat resources, pathways and, where reasonable, equestrian trails through the City to link nearby communities

Open Space and Conservation – Open Space System - Policy 4: Require all new development to provide linkages to existing and planned open space systems. Where such access cannot be provided through the creation of open space connections, identify alternative linkages.

Open Space and Conservation – Open Space System - Policy 6: Take into account consideration of natural habitat areas in developing linkages and in preserving open space areas. Identify alternate sites for linkages where sensitive habitat areas have the potential to be adversely impacted.

Open Space and Conservation – Open Space System - Policy 7: Maximize opportunities for preservation and maintenance of open space resources, including establishment of private open space areas. Consider coordination with non-profit organizations and investigate the potential for conservancy ownership and/or management of open space areas.

Open Space and Conservation – Vegetation and Wildlife - Policy 1: Incorporate existing trees into development projects, and where preservation is not feasible, continue to require mitigation for the loss of removed trees. Particular emphasis shall be placed on avoiding the removal of groupings or groves of trees.

Open Space and Conservation – Vegetation and Wildlife - Policy 2: Preserve and rehabilitate continuous riparian corridors and adjacent habitat along the City's creeks and waterways.

Open Space and Conservation – Vegetation and Wildlife - Policy 3: Require dedication of the 100-year flood plain or comparable mechanism to protect habitat and wildlife values in perpetuity.

Open Space and Conservation – Vegetation and Wildlife - Policy 4: Require preservation of contiguous areas in excess of the 100-year flood plain as merited by special resources or circumstances. Special circumstances may include, but are not limited to, sensitive wildlife or vegetation, wetland habitat, oak woodland areas, grassland connections in association with other habitat areas, slope or topographical considerations, recreation opportunities, and maintenance access requirements.

Open Space and Conservation – Groundwater Recharge and Water Quality - Policy 3: Ensure a buffer area between waterways and urban development to protect water quality and riparian areas.

Open Space and Conservation – Groundwater Recharge and Water Quality - Policy 4: Consider the use of City property for habitat preservation and mitigation requirements resulting from development proposals when such efforts do not conflict with existing resources, recreational opportunities, or other City goals, policies, or programs.

Open Space and Conservation – Groundwater Recharge and Water Quality - Policy 5: Continue to monitor groundwater resources and investigate strategies for enhanced sustainable use. Areas where recharge potential is determined to be high shall be considered for designation as open space.

Open Space and Conservation – Groundwater Recharge and Water Quality – Policy 6: Where feasible, locate storm water retention ponds in areas where subsoil is suitable for groundwater recharge.

Parks and Recreation Policy 1: The City shall ensure the provision of 9 acres of park land per 1,000 residents

Parks and Recreation Policy 6: Take into consideration energy efficiency and water conservation, including the use of treated wastewater, in park development, and design

Public Facilities – Electric Utilities - Policy 5: Explore the feasibility of the development of and participation in renewable energy resources.

Public Facilities – Electric Utilities - Policy 6: Adopt a load/resource management plan, incorporating energy efficiency, conservation, load management, and reliability strategies, identifying program objectives and implementation and monitoring mechanisms.

Public Facilities – Electric Utilities - Policy 8: Pursue reasonable and cost-effective energy efficiency, conservation, and load management programs pertinent to the electric utility system.

Public Facilities – Electric Utilities - Policy 10: Require new development to pay a fair share of the cost of new sub-transmission and distribution needed to serve the development and to dedicate sites and easements needed for substations, transmission, sub-transmission, and distribution.

Public Facilities – Water System - Policy 10: Develop and implement water conservation standards and measures as necessary elements of the water system.

Public Facilities – Water System - Policy 11: Develop and implement an aquifer storage and recovery program.

Public Facilities – Wastewater and Recycled Water System - Policy 5: Explore potential alternatives to treatment and discharge.

Public Facilities – Wastewater and Recycled Water System - Policy 6: Develop, plan, and provide incentives for use of recycled water by the public and private sectors.

Public Facilities – Solid Waste, Source Reduction and Recycling - Policy 1: Ensure existing and future recycling sites and operations remain viable through application of land use compatibility standards.

Public Facilities – Solid Waste, Source Reduction and Recycling - Policy 2: Comply with the source reduction and recycling standards mandated by the State by reducing the projected quantity of solid waste disposed at the regional landfill by 50%, as well as any mandated future reductions.

Public Facilities – Solid Waste, Source Reduction and Recycling - Policy 5: Develop public education and recycling programs

Public Facilities – Water and Energy Conservation - Policy 1: Develop and implement water conservation standards.

Public Facilities – Water and Energy Conservation - Policy 2: Implement various water conservation plans developed by the Environmental Utilities Department.

Public Facilities – Water and Energy Conservation - Policy 3: Explore potential uses of treated wastewater.

Public Facilities – Water and Energy Conservation - Policy 4: Protect the quality and quantity of the City's groundwater and consider designating areas as open space where recharge potential is high.

Public Facilities – Water and Energy Conservation - Policy 5: Develop and adopt a landscape ordinance that provides standards for the use of drought tolerant, xeriscape, and water-conserving landscape practices for both public and private projects.

Public Facilities – Water and Energy Conservation - Policy 6: Develop and implement public education programs designed to increase public participation in energy, water conservation and recycled water use.

Public Facilities – Water and Energy Conservation - Policy 7: Require large electricity users to submit a use and conservation plan concurrent with development review specifying measures to be taken to minimize demand.

Public Facilities – Water and Energy Conservation - Policy 8: Enforce energy requirements and encourage development and construction standards that promote energy efficiency and conservation.

Public Facilities – Water and Energy Conservation - Policy 9: Preserve scarce resources by undertaking major projects in energy conservation and load management, including increasing efficiency in the City's electrical system.

Public Facilities – Water and Energy Conservation - Policy 10: Continue and expand energy efficiency and conservation programs to serve all utility users.

Safety – Flood Protection - Policy 1: Continue to regulate, through land use, zoning, and other restrictions, all uses and development in areas subject to potential flooding.

Safety – Flood Protection - Policy 2: Monitor and regularly update City flood studies, modeling and associated land use, zoning, and other development regulations.

Safety – Flood Protection - Policy 3: Continue to pursue a regional approach to flood issues.

Safety – Flood Protection - Policy 4: Provide flood warning and forecasting information to community residents to reduce impacts to personal property.

Safety – Flood Protection - Policy 5: Minimize the potential for flood damage to public and emergency facilities, utilities, roadways, and other infrastructure.

Safety – Flood Protection - Policy 6: Require new developments to provide mitigation to insure that the cumulative rate of peak run-off is maintained at pre-development levels.

Safety – Flood Protection - Policy 8: Establish flood control assessment districts or consider other funding mechanisms to mitigate flooding impacts.

Safety – Flood Protection - Policy 9: Where feasible, maintain natural stream courses and adjacent habitat and combine flood control, recreation, water quality, and open space functions.

It can not be made certain how current City regulations specifically affect CO_2 emissions attributable to the Plan area and cumulative CO_2 emissions from other sources in the state. However, given that the Downtown Roseville Specific Plan envisions locating residences close to employment centers and promotes the use of alternative modes of transportation, it is the type of land use planning project that could assist in reducing regional emissions of GHG through increasing density of an urban center (i.e., downtown Roseville).

Although neither the ARB nor any air district in California, including the PCAPCD, has identified a significance threshold for analyzing GHG emissions generated by a proposed project or a methodology for analyzing air quality impacts related to global warming, California has identified goals to reduce GHG emissions to 1990 levels by the year 2020 with adoption of AB 32. To meet AB 32 goals, California would need to generate lower levels of GHG emissions than current levels, while accommodating 30 years of population and economic growth in the state. In addition, by adoption of SB 97 California has committed to developing and adopting CEQA Guidelines to assist local jurisdictions in their assessment. Because no standards have yet been adopted, it is recognized that for most projects there is no simple metric available to determine if a single project would substantially increase or decrease overall GHG emission levels (e.g., help or hinder meeting the AB 32 emission goals). In addition, at this time AB 32 only applies to stationary source emissions. For the purposes of this analysis and absent guidance from State and local agencies, the City has chosen the following approach to analyzing GHG emissions in the context of CEQA: 1) quantify the mass of GHG emissions associated with the proposed project using recommended and widely accepted calculation tools available at this time of writing, 2) if the project would result in a substantial increase in GHG emissions, then the impact would be considered significant, and 3) implement the best available, feasible mitigation measures known to reduce GHG emissions, although the efficacy of such measures are currently unknown.

IMPACT 5.4-1 **Increases in Greenhouse Gas Emissions.** *Emissions of GHGs during construction and operation of the proposed project would be substantial. Therefore, direct impacts of the proposed project from GHG emissions are considered significant.*

Short-term construction and long-term operation of the project would generate emissions of GHGs. Construction emissions would be associated with vehicle engine exhaust from construction equipment, vendor trips, and employee compute trips. Operational emissions would be associated with area, mobile, and stationary sources. Area-source emissions would be associated with activities such as natural gas use for space and water heating, maintenance of landscaping and grounds, waste disposal, and other sources. Mobile-source emissions of GHGs would include project-generated vehicle trips for residents and employees of, and visitors to the plan area. In addition, increases in stationary-source emissions could occur at off-site utility providers associated with electricity generation that would supply the proposed uses within the Plan area.

GHG emissions generated by the proposed project would predominantly be in the form of CO_2. In comparison to criteria air pollutants, such as ozone and PM_{10}, CO_2 emissions persist in the atmosphere for a much longer period of time. While emissions of other GHGs, such as methane (CH_4) and nitrous oxide (N_2O), are important with respect to global climate change, the emission levels of these other GHGs for the sources considered for this project are relatively small compared with CO_2 emissions.

The net increase in CO_2 emissions were calculated for the proposed project and were used as an indicator of total GHG emissions. Emission factors and calculation methods for GHG from development projects have not been formally adopted for use by the state or PCAPCD. The most recent URBEMIS model, URBEMIS2007, includes an output parameter for CO_2 emissions. The California Climate Action Registry (CCAR) *General Reporting Protocol* is the most comprehensive guidance, but the protocol is designed to be used by existing large entities and facilities where there are records of energy use, vehicle fleet activities, and manufacturing processes (CCAR 2007). Both construction and operational emissions were calculated with URBEMIS. Operational emissions from electric utilities were estimated using the CCAR Protocol. For area sources, URBEMIS calculates CO_2 from natural gas use. The CCAR Protocol has calculation methodology for electricity use. The emissions from electricity use may occur a long distance from the point of electrical use, but on a global scale, the location of emissions is of less importance. An additional feature of the CCAR method is that there are factors for calculating CH_4 and N_2O, which are weighted by global warming potential of the respective GHG and summed with CO_2 to yield CO_2e.

The results of the calculations are shown in Table 5.4-1.

As shown in Table 5.4-1, estimated GHG emissions from construction would be approximately 1,882 metric tons of CO_2. Note that construction emissions are reported as a finite quantity, since construction would occur over a finite period of time. Estimated GHG emissions associated with operation of the proposed project would be approximately 85,660 metric tons/year over the lifetime of the project. Thus, project operation would contribute to GHG emissions to a far greater extent than would project construction.

Although implementation of the proposed project would result in a net increase in emissions of CO_2, the City has determined that implementation of the Downtown Roseville Specific Plan would further the City's long-term goals of reducing GHG emissions that contribute to global climate change from development activities through promoting increased transit use, increased streetscape and landscaping (e.g., trees), and redevelopment (i.e., infill development) through implementation of the proposed policies of the Specific Plan and development in compliance with existing policies of the City's General Plan 2020. Because the nature of the project would result in urban infill and redevelopment of underutilized properties at a higher density in downtown Roseville, siting higher density development and increasing mixed land uses (i.e., diversity) in proximity to one another would reduce regional vehicle miles traveled (VMT). However, the extent to which regional VMT reductions would

Table 5.4-1 Summary of Modeled Construction and Operational Emissions of Greenhouse Gases (Carbon Dioxide)	
Method/Source	Emissions
URBEMIS2007[1]	**Metric TPY CO_2**
Annual Construction-Generated Emissions[2]	188
	Metric Tons CO_2
Total Construction-Generated Emissions[2]	**1,882**
URBEMIS2007[1]	**Metric TPY CO_2**
Area-Source Emissions for 2009	4,920
Mobile-Source Emissions for 2009	70,486
Total Build Out Direct Operational Emissions Assuming 2009[3] Emission Rates	**75,405**
California Climate Action Registry[4]	**Metric TPY CO_2e**
Indirect Operational Emissions (Electricity Generation)	10,255
Total Build Out Operational Emissions (Direct and Indirect) Using 2009 Emission Rates	**85,660**

[1] Emissions modeled using the Urbemis2007 computer model. Model assumptions described in methodology sections and in Impacts 4.10-1 and 4.10-2.
[2] Construction emissions were modeled assuming that the entire specific plan would be built during 2008-2009. This was done because detailed construction phasing information was not available and this method presents the worst-case construction generated emissions scenario. A more realistic scenario would be less intense construction activity occurring incrementally over a period of 10 to 20 years.
[3] Net increase in operational emissions were modeled for the year 2009 because this was the most conservative year of possible project operation. The project would not reach full build out until several years in the future, when emission factors would be slightly lower due to more stringent emissions regulations and standards. The values reflected in Table 5.4-1 represent worst-case project-generated operational emissions.
[4] Emissions calculated using CCAR Protocol and assumptions described in preceding text.
Notes: The values presented in Table 5.4-1 do not include the full life-cycle of GHG emissions that may occur over the production/transport of materials used during construction of the project, solid waste or waste water disposal over the life of the project, end-of-life of the materials and processes that would contribute to GHG emissions that occur as an indirect result of the project, etc. Doing so would be speculative and would require analysis beyond the current state of the art in impact assessment, and would lead to a false and misleading level of precision in reporting of project-related GHG emissions. Further, indirect emissions associated with in-state energy production, solid waste disposal, and waste water treatment would be regulated under AB 32 at the source or facility that would handle these processes. The emissions associated with off-site facilities in California would be closely controlled, reported, capped and traded under AB 32 and ARB programs. Therefore, this category of emissions would be consistent with AB 32 requirements.
See Appendix H for detailed model output and assumptions.
Source: Data modeled by EDAW 2008.

occur as a result of the proposed project is not known at this time. In the case of the proposed project under traditional emissions calculation methodology, where new development is treated as new potential to emit, the proposed net change in land uses would result in a substantial increase in GHG emissions compared to existing conditions. This would result in a considerable contribution to the cumulative impact of global climate change and result in a significant impact.

To establish additional context in which to consider the order of magnitude of project-generated GHG emissions, it may be noted that facilities (i.e., stationary sources of GHG emissions) that generate greater than 25,000 metric tons CO_2/year are mandated to report GHG emissions to the ARB pursuant to AB 32. In this context, which is presented for informational purposes only, the project's annual operational emissions would appear substantial. However, these requirements apply to stationary combustion sources of GHG emissions and should not be treated as a numeric threshold applicable to development projects.

Mitigation Measure 5.4-1

Implementation of Air Quality Mitigation Measure 4.10-2, which would reduce operational emissions of criteria air pollutants and precursors, would also act to reduce GHG emissions associated with project operation.

Mitigation measure 4.10-2 is relevant to impact 5.4-1 because both criteria air pollutant and GHG emissions are frequently associated with combustion byproducts. In addition, the City shall implement the following measures to reduce direct and indirect GHG emissions associated with the proposed project. Certain measures would already be components of the project (i.e., Specific Plan policies, design guidelines and standards), and/or would be applied consistent with the City's General Plan Policies addressing GHG emissions and climate change, but are provided here for purposes of completeness.

A. Energy Efficiency

1. Design buildings to be energy efficient (e.g., exceed Title 24 requirements). Site buildings to take advantage of shade, prevailing winds, landscaping and sun screens to reduce energy use (1% emissions reduction).

2. Install efficient lighting and lighting control systems. Use daylight as an integral part of lighting systems in buildings (0.5% emissions reduction).

3. Install light colored "cool" roofs, cool pavements, and strategically placed shade trees (0.5% emissions reduction).

4. Install energy efficient heating and cooling systems, appliances and equipment, and control systems.

5. Install light emitting diodes (LEDs) for traffic, street and other outdoor lighting.

6. Use solar heating, automatic covers, and efficient pumps and motors for pools and spas.

B. Renewable Energy

1. Install solar and wind power systems, solar and tankless hot water heaters, and energy-efficient heating ventilation and air conditioning.

2. Improve the thermal integrity of buildings, and reduce the thermal load with automated time clocks or occupant sensors.

3. Where practical, install solar panels on carports and over parking areas.

C. Water Conservation and Efficiency

1. Create water-efficient landscapes with native, drought-resistant species.

2. Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls.

3. Where feasible, use reclaimed water for landscape irrigation in new developments and on public property. Install the infrastructure to deliver and use reclaimed water.

4. Design buildings to be water-efficient. Install water-efficient fixtures and appliances.

5. Devise a comprehensive water conservation strategy appropriate for the project and location. The strategy may include many of the specific items listed above, plus other innovative measures that are appropriate to the specific project.

D. Solid Waste Measures

1. Reuse and recycle construction and demolition waste including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard.

2. Provide interior and exterior storage areas for recyclables and green waste and adequate recycling containers located in public areas.

E. Land Use Measures

1. Incorporate public transit into project design (0.4–1% emissions reduction).

2. Preserve and create open space and parks. Preserve existing trees, and plant replacement trees at a set ratio.

3. Include pedestrian and bicycle-only streets and plazas within developments. Create travel routes that ensure that destinations may be reached conveniently by public transportation, bicycling or walking. Design roadway network to maximize pedestrian access to transit stops, including access from residential cul-de-sacs to collector and arterial streets (1% emissions reduction).

F. Transportation and Motor Vehicles

1. Limit idling time for commercial vehicles, including delivery and construction vehicles.

2. Provide the necessary facilities and infrastructure to encourage the use of low or zero-emission vehicles (e.g., electric vehicle charging facilities and conveniently located alternative fueling stations) (0.5-1.5% emissions reduction).

3. Provide park and ride lots.

4. Increase headways of current City bus service to downtown Sacramento.

5. Provide shuttle service to public transit.

6. Provide public transit incentives such as free or low-cost monthly transit passes (1-5% emissions reduction).

7. Incorporate bicycle lanes, routes, and intersection improvements into street systems within the Specific Plan (1% emissions reduction).

8. For commercial land uses, provide adequate bicycle parking near building entrances to promote cyclist safety, security, and convenience (1% emissions reduction).

9. Create Class II bicycle lanes and walking paths directed to the location of schools, parks and other destination points (1% emissions reduction).

10. Ensure that the public school district shall serve the project site with a student busing system, and/or enable students residing in the project to safely walk to or bicycle to school without encountering barriers such as large arterial roadways or sound walls.

11. Construction of transit facility/amenity (bus shelters, bicycle lockers/racks, etc.) for existing public and private transit (0.5% emissions reduction).

12. Provide secure bicycle storage at public parking facilities.

Mitigation Measure 5.4-1 would reduce operational and construction-generated GHG emissions. The City has determined that the proposed project would be consistent with the goals of AB 32 in that it is the type of project generally considered to be compatible with long-term GHG emission reduction efforts as it is a downtown revitalization project; and that it is reasonable to expect that the extensive vehicle trip reduction and energy conservation measures identified in Mitigation Measure 5.4-1 would be effective in substantially reducing GHG emissions compared with the unmitigated emissions calculations presented in Table 5.4-1. Conservative emissions reductions estimates were assigned to individual measures where documentation was available (California Air Pollution Control Officers Association 2008). The exact quantity of GHG emissions reduction associated with several measures identified in Mitigation Measure 5.4-1 cannot be calculated at this time. However, due to the current disparity between the volume of existing global GHG emissions and the goals of AB 32, even with mitigation measures incorporated, the proposed project would contribute a cumulatively considerable, incremental contribution to global GHG emissions and, therefore, would result in a significant and unavoidable cumulative impact.

Mitigation measures that were considered by the City but were determined to be infeasible include:

- Use of low or zero-emission vehicles, including construction vehicles is economically infeasible.
- Promote ride sharing programs by designating a certain percentage of parking spaces for ride sharing vehicles. The City already has a Transportation Systems Management (TSM) program.
- Create car sharing programs. This measure is not enforceable.

6 GROWTH-INDUCING IMPACTS

6.1 INTRODUCTION

According to Section 15126.2(d) of the State CEQA Guidelines, an EIR must discuss the growth-inducing impacts of the proposed project. Specifically, Section 15126.2(d) states that the EIR shall:

> *Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a waste water treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also, discuss the characteristics of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.*

A project can have direct and/or indirect growth inducement potential. Direct growth inducement would result if a project involved construction of new housing. Indirect growth inducement would result, for instance, if implementing a project resulted in any of the following:

- substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises);
- a construction effort with substantial short-term employment opportunities that indirectly stimulates the need for additional housing and services to support the new temporary employment demand; and/or
- removal of an obstacle to additional growth and development, such as removing a constraint on a required public utility or service (e.g., construction of a major sewer line with excess capacity through an undeveloped area).

Growth inducement itself is not an environmental effect but may foreseeably lead to environmental effects. These environmental effects may include increased demand on other community and public services and infrastructure, increased traffic and noise, or degradation of air or water quality.

6.2 GROWTH-INDUCING IMPACTS OF THE PROPOSED PROJECT

The Plan area is located in downtown Roseville, California, in a geographically central "infill" district of the City. The Plan area represents a historically urban, industrial corridor in an older part of the City. The Plan area is currently developed and incorporates land uses related to office/retail/commercial services, residential, and recreation. Implementation of the proposed project would establish new land use districts intended to promote the development of preferred land uses (e.g., mixed use), to increase the amount of office/retail/commercial services, and increase the availability of housing in the central portion of the City. Neither the General Plan amendment, nor the adoption of new land use districts, which would occur with implementation of the proposed project, would result in significant growth-inducing impacts.

The proposed project would promote an increase in the density and amount of housing in Downtown Roseville. The Plan would establish 11 new land use districts that would allow and encourage development of residential units in the Plan area, which would result in an increased number of people living in Downtown Roseville. Housing needs related to additional jobs created as a result of the proposed project would be accommodated in the area or as part of the proposed project (i.e., mixed uses, promotion of commercial/office/retail uses). With respect

to population and housing, the proposed project would provide additional housing but would not induce the need for additional housing outside of Downtown Roseville because the Plan encourages development of mixed uses, residential, and commercial/office/retail uses in the same area.

The Plan area is served by existing utility infrastructure that provides potable water and fire flow, wastewater conveyance and treatment, storm water drainage, electricity, and natural gas. The proposed project would not require any extension of conveyance facilities to the Plan area or expansion of any supply or treatment facilities to serve future land uses. Proposed improvements to conveyance infrastructure (i.e., wastewater, fire flow, storm water drainage) (see Chapter 3, "Project Description"), would occur in areas currently developed with urban uses. Therefore, with respect to utility improvements, the proposed project would not induce growth beyond the Plan area.

As a result of the increased population discussed above, an increased demand for school services would result. As described in Section 4.3, "Public Services," high schools serving the Plan area are currently operating above capacity, while elementary schools are operating below capacity. Landowners and developers are required to pay state-mandated school impact fees to mitigate impacts to school services resulting from their development project. Therefore, with respect to schools, the project would increase the need for school services to serve high school students living in the Plan area. However, the proposed project would not result in further growth or the demand for increased school services beyond those addressed in Section 4.4, "Public Services."

With implementation of the proposed project, the transportation and circulation network currently providing access to and through the Plan area would consist of existing roadways that currently serve the Plan area and the City as a whole. The proposed project would improve pedestrian movement, alternative transportation facilities, transit routes, vehicle traffic movement, and parking availability in the Plan area. Minor improvements to some roadways within the Plan area are recommended as mitigation for traffic-related impacts (see Section 4.6.4, "Transportation and Circulation"). However, no new roadways would be developed in conjunction with the proposed project. Therefore, with respect to transportation improvements, the proposed project would not induce further growth resulting from increased access to previously inaccessible areas.

Overall, the project would allow and promote development of future mixed-use development including office/retail/commercial services and residential properties in an area previously developed with urban uses. The new land uses would not induce growth in other areas of the City through the need for expansion of facilities (e.g., roadways, utilities). The "infill" concept in general, a primary characteristic of the proposed project, strives to concentrate growth in previously developed areas in an effort to limit new development in suburban or "greenfield" areas, which often includes growth-inducing elements such as the construction of new roads, new infrastructure, and other public utilities and service facilities that can result in physical impacts that adversely affect the environment.

7 SIGNIFICANT AND UNAVOIDABLE IMPACTS

7.1 INTRODUCTION

Section 15126.2(b) of the California Environmental Quality Act Guidelines (State CEQA Guidelines) requires environmental impact reports (EIRs) to include a discussion of any significant environmental impacts that cannot be avoided if the project is implemented. Chapter 4 of this Draft EIR (DEIR) provides a detailed analysis of all significant and potentially significant environmental impacts of the Downtown Roseville Specific Plan (proposed project), feasible mitigation measures that could avoid or substantially reduce the project's significant impacts, and whether these mitigation measures would reduce these impacts to less-than-significant levels. Chapter 5 identifies the significant cumulative impacts of the project. If a specific impact cannot be reduced to a less-than-significant level, it is considered a significant and unavoidable adverse impact.

7.2 SIGNIFICANT AND UNAVOIDABLE ADVERSE IMPACTS

The proposed project would result in significant and unavoidable adverse impacts related to transportation, air quality, and noise, as described below.

7.2.1 TRANSPORTATION AND CIRCULATION

The traffic analysis in Section 4.6, "Transportation and Circulation," evaluates traffic impacts anticipated to occur as a result of the proposed project under existing conditions (existing conditions including the existing roadway system with existing traffic volumes) and under Cumulative (2020) conditions (an improved roadway system and increased traffic volumes based on projected regional growth, regional traffic plans, and known transportation system improvement commitments).

With the introduction of traffic from the proposed project, PM peak hour traffic volumes would increase at several signalized study intersections, resulting in a level of service (LOS) of D or worse. Although certain mechanisms either are or would be in place as part of the proposed project (currently approved exemptions to the City's LOS policy and implementation of the Pedestrian District Overlay) which would allow these impacts to be considered less than significant, four intersections located outside of the City's Pedestrian Overlay Districts would degrade to an unacceptable level or the addition of project traffic would degrade operations by a whole letter grade (e.g., from LOS D to LOS E). These intersections include:

- Yosemite Street/Atlantic Street;
- Orlando Avenue/Marlin Drive/Cirby Way;
- Harding Drive/Estates Drive; and
- Sunrise Avenue/Eureka Road.

This DEIR recommends mitigation measures that would require the applicant to pay fair-share payments for improvements at these four intersections to improve the LOS to acceptable levels. However, because the remaining funding for the identified improvements has not been identified and implementation of measures to effectively mitigate the impact are uncertain, the impacts are considered to remain significant and unavoidable.

7.2.2 AIR QUALITY

As indicated in Section 4.10, "Air Quality," the proposed project would potentially result in sufficient emissions during construction that applicable air quality standards could be violated, or emissions would contribute substantially to an existing or projected air quality violation. Therefore, construction activities associated with development projects in the Plan area would result in maximum unmitigated daily emissions of approximately 420 pounds per day (lb/day) of reactive organic gasses (ROG), 137 lb/day of oxides of nitrogen (NO_X), and 322

lb/day of particulate matter less than or equal to 10 microns in diameter, or suspended particulate matter (PM_{10}). Daily unmitigated emissions of ROG, NO_X, and PM_{10} would exceed the Placer County Air Pollution Control District's (PCAPCD's) significance threshold of 82 lb/day. Implementation of recommended mitigation would reduce short-term ROG, NO_X and PM_{10} emissions from off-road mobile equipment. The fugitive dust measures would prevent dust beyond the project property lines and daily emissions would be reduced to below the PCAPCD's threshold of 82 lb/day. However, the mitigated emissions of ROG and NO_X are anticipated to still exceed the PCAPCD's threshold of 82 lb/day for these pollutants and would potentially contribute to concentrations that exceed the NAAQS or CAAQS. As a result, this impact is considered significant and unavoidable.

Because implementation of the proposed project could result in the exposure of sensitive receptors (i.e., residential), especially those within close proximity to the Union Pacific Rail Yard and proposed commercial uses, to toxic air emissions that exceed the significance threshold of 10 in one million for the cancer risk level (see Exhibit 4.10-1), this impact is considered significant. Implementation of the mitigation measures proposed in Section 4.10 (Mitigation Measure 4.10-3) would substantially minimize the exposure of sensitive receptors in the Plan area to toxic air emissions. However, due to the existing conditions in the Plan area, in addition to proposed residential land uses, sensitive receptors would continue to be exposed to levels of toxic air emissions that exceed the significance thresholds stated in Section 4.10, "Air Quality." Therefore this impact would remain significant and unavoidable.

7.2.3 Noise

As indicated in section 4.11, "Noise," it is anticipated that the proposed project would result in significant noise and ground-borne noise and vibration impacts related to construction, traffic, railway operations, and land-use compatibility with on-site noise levels. Because noise generated in the Plan area could expose proposed land uses and existing land uses to levels that exceed the City's standards and result in annoyance and/or sleep disruption to nearby noise-sensitive receptors, this impact is considered significant.

Mitigation measures presented in Section 4.11.4 would be implemented to substantially reduce the exposure of sensitive receptors to significant noise and ground-borne noise and vibration associated with short-term construction, traffic, and railway operations and land-use compatibility. Implementation of these measures would likely be effective in reducing interior noise levels of future and existing development in the Plan area to less-than-significant levels. However, the potential for noise associated with the railyard to exceed the General Plan standards for exterior noise would remain even after implementation of measures aimed at substantially reducing the exposure of sensitive receptors to excessive roadway traffic noise levels (see Mitigation Measure 4.11-4). As a result, this impact would remain significant and unavoidable.

7.2.4 Cultural Resources

As indicated in section 4.7, "Cultural Resources", the proposed project would potentially result in the demolition of the historic-era building located at 316 Vernon Street. This building was determined potentially eligible for CRHR listing and, as such, is considered a historical resource for the purposes of CEQA. A substantial adverse change to cultural resources (as defined in State CEQA Guidelines Section 15064.5) is a substantial adverse change that includes physical demolition, destruction, relocation, or alteration of the resource such that the significance of the resource would be materially impaired.

Implementation of Mitigation Measure 4.7-1 would eliminate one adverse impact of demolition (i.e., loss of historic information); however, the mitigation measure would not prevent the physical loss of a historically significant resource. Demolition of a historical resource would be a significant adverse change and, therefore, is considered a significant and unavoidable impact.

8 ALTERNATIVES ANALYSIS

8.1 INTRODUCTION

The guiding principles for the analysis of alternatives presented in this Draft Environmental Impact Report (DEIR) are provided by California Environmental Quality Act Guidelines (State CEQA Guidelines) Section 15126.6, which specifies that the alternatives analysis shall:

- describe 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;
- consider alternatives that would avoid or substantially lessen any of the identified significant environmental impacts of the proposed project; and
- evaluate the comparative merits of the alternatives.

The focus and definition of the alternatives evaluated in this EIR are governed by the "rule of reason" in accordance with Section 15126.6(f) of the State CEQA Guidelines. That is, the range of alternatives presented in this EIR must permit a reasoned choice by the City of Roseville's (City's) decision makers. The State CEQA Guidelines (Section 15126.6) require that an EIR evaluate a "No-Project Alternative," evaluate a reasonable range of alternatives to the project, identify alternatives that were initially considered but then rejected from further evaluation, and identify the "environmentally superior alternative."

While the State CEQA Guidelines (Section 15126.6[d]) require an evaluation of alternatives, they permit the evaluation to be conducted in less detail than is done for the proposed project. Consistent with Section 15126.6(d), sufficient information is provided about each alternative to allow for a meaningful evaluation, analysis, and comparison of the alternatives with the proposed project.

The following discussion is intended to inform the public and decision makers of potentially feasible alternatives to the proposed project that could be implemented to attain the basic project objectives while substantially reducing the significant effects of the project, as well as the effects of the No-Project Alternative.

8.1.1 BASIC PROJECT GOALS AND OBJECTIVES

As described above, one of the key factors in considering alternatives is whether they can feasibly attain most of the basic objectives of the proposed project. Section 3, "Description of the Proposed Project," of this DEIR describes the basic project goals and objectives. The following list identifies the overall goals and selected specific objectives of the proposed Downtown Roseville Specific Plan (Plan):

- Improve connectivity within Downtown as well as between Downtown and its surroundings;
- Respect and honor the history and influence of the railroad;
- Identify land uses and development standards that are responsive to market opportunities and that facilitate quality architecture and urban design;
- Reinforce identity through the establishment of character districts and gateway elements;
- Create and enhance public places that support community activity, spirit, and involvement; and
- Promote arts, culture, heritage, education, and entertainment.

8.1.2 SIGNIFICANT EFFECTS OF THE PROPOSED PROJECT

Impacts associated with the proposed project are evaluated in Section 4 of this DEIR and are summarized in Section 2. Cumulative impacts associated with the proposed project are presented in Section 5. Listed below in Table 8-1 are the 12 environmental issue areas evaluated in this DEIR. For each issue area, the table indicates whether the project would result in a less-than-significant impact or significant impact before mitigation and whether the impact can be mitigated to a less-than-significant level using feasible measures or if it would remain significant (and unavoidable). Because more than one impact statement is provided within the resource areas addressed in this DEIR, the impacts presented in the table below represent the "most significant" impact identified for that resource area. For example, Table 2-1 presents three impact statements related to Land Use and Planning, two of which are "No Impact" and one of which is "Less-than-significant". Therefore, "Less-than-significant" is the impact before mitigation that is provided below.

Table 8-1
Summary of Proposed Project Impact Levels before and after Mitigation

Environmental Topic	Before Mitigation	After Mitigation
Land Use and Planning	Less-than-significant	Less-than-significant
Public Utilities	Less-than-significant	Less-than-significant
Public Services	Less-than-significant	Less-than-significant
Geology and Soils	Potentially Significant	Less-than-significant
Aesthetics	Less-than-significant	Less-than-significant
Transportation and Circulation	Significant	Significant (Unavoidable)
Cultural Resources	Potentially Significant	Less-than-significant
Hazards and Hazardous Materials	Potentially Significant	Less-than-significant
Biological Resources	Potentially Significant	Less-than-significant
Air Quality	Potentially Significant	Significant (Unavoidable)
Noise	Potentially Significant	Significant (Unavoidable)
Hydrology and Water Quality	Potentially Significant	Less-than-significant

As shown in Table 8-1, the project would result in potentially significant impacts (before mitigation) related to hazards and hazardous materials, cultural resources, transportation and circulation, biological resources, hydrology and water quality, geology and soils, air quality, and noise. After mitigation, significant impacts would still remain for transportation and circulation, air quality, and noise (i.e., significant and unavoidable impacts).

8.2 ALTERNATIVES CONSIDERED AND REMOVED FROM FURTHER CONSIDERATION

Several alternatives were considered for their potential to reduce the environmental impacts of the proposed project. They were rejected from further consideration because they were infeasible, would not attain even the most basic of project objectives, or were unable to reduce any of the significant impacts of the project. These rejected alternatives are described below.

Because the Plan is site-specific, and has been developed through an iterative, collaborative planning process in the Downtown Roseville community and with City staff, its goals and objectives are specific to the Plan area described in Section 3 of this DEIR and are intended to revitalize the Plan area. It is intended to benefit those in the community, while avoiding or minimizing direct environmental impacts.

8.2.1 OFF-SITE ALTERNATIVES

Off-site alternatives are generally considered in EIRs when one of the means to avoid or eliminate the significant impacts of a proposed project is to develop it in a different available location. Under case law, such alternatives are appropriate where a proposed project would put a site to uses different than those contemplated in the governing general plan, which presumably reflects land use policies reached after much deliberation. The *City of Roseville General Plan 2020* identifies the Plan area as being located in an infill area encompassing the oldest portions of the City, including Central Roseville (i.e., Oldtown/Downtown, Riverside business districts). The *City of Roseville General Plan 2020* envisions this area as the focus of redevelopment and revitalization planning efforts.

To attain the basic objectives of the Specific Plan, the proposed project would have to be located in the Downtown Roseville Specific Plan area because the main objective of the project is to redevelop this area. Goals and objectives of the proposed project would not be applicable to any other sites in Roseville. Given this consideration, there are no alternative sites that can feasibly meet the project objectives. For this reason, an off-site alternative is not evaluated further in this EIR.

8.3 DESCRIPTION AND ANALYSIS OF ALTERNATIVES

The following alternatives are evaluated in this section:

- No-Project Alternative, and
- Low-Density Alternative.

Each alternative is described, and an analysis is provided of the alternative for each environmental issue area evaluated in this EIR. The analysis is comparative, identifying whether the alternative would result in impacts that are "greater," "less," or "similar" in comparison to those of the proposed project. This determination is made in brackets at the end of the discussion for each environmental issue analyzed.

8.3.1 NO-PROJECT ALTERNATIVE

Under the No-Project Alternative, the Plan area would be developed in accordance with the existing *City of Roseville General Plan 2020* land use map, which is the City's approved land use plan applicable to the area. The *City of Roseville General Plan 2020* defines the Downtown Roseville area for redevelopment and revitalization. However, the General Plan does not specify a change in land uses to accomplish redevelopment or revitalization. The Downtown Roseville Specific Plan would achieve this goal by defining the land uses envisioned for the Downtown Roseville area and by implementing specific actions at several catalyst sites. As a result, the No-Project Alternative development scenario would result in similar urban uses currently developed in the Plan area. This alternative would not change the existing land uses allowed or envisioned in the Plan area. A summary comparison between development under the proposed project and under the No-Project Alternative in each of the 11 districts addressed in the Plan is provided in Table 8-2.

As shown in Table 8-2, the development potential of the *City of Roseville General Plan 2020* is slightly different from land uses proposed in the Plan. At build-out, the proposed Specific Plan envisions higher density residential than the *City of Roseville General Plan 2020* (see Douglas Corridor, Creek View Residential, Washington Corridor) and envisions residential uses in areas identified in the *City of Roseville General Plan 2020* solely for commercial- and retail-related uses (see Dry Creek Mixed-Use, Vernon Street, Old Town Commercial). Areas identified for commercial-, retail-, and office-related uses in the *City of Roseville General Plan 2020* continue to be identified for similar uses under the proposed Specific Plan.

Table 8-2
Summary Comparison of Development Under the Proposed Project and the No-Project Alternative

District	Specific Plan (Proposed Project) Land Uses	General Plan (No Project) Land Uses
Washington Corridor	mixed use, retail, restaurants, services, offices, and multi-family residential	Retail stores and businesses selling a full range of goods and services (CC), Attached and detached single family residences (LDR)
Washington Corridor Intensification District	mixed commercial and residential uses	Retail stores and businesses selling a full range of goods and services (CC), Attached and detached single family residences (LDR)
Old Town Bungalow	single-family residential and cottage office	Attached and detached single family residences (LDR)
Old Town Commercial	mixed use, retail, restaurants, entertainment, nightclubs/bars, grocery store/pharmacy, offices, multi-family residential, and live/work space	Mix of retail and office uses including municipal offices, public assembly, theaters, and restaurants (CBD)
Old Town Commercial Extension District	public surface parking	Vacant Union Pacific Railroad land
Vernon Street	mixed use, retail restaurants, entertainment, nightclubs, offices, public/quasi-public, and multi-family residential	Municipal, governmental, or public facilities (P/QP), Mix of retail and office uses including municipal offices, public assembly, theaters, and restaurants (CBD)
Dry Creek Mixed-Use	mixed use, retail, restaurants, public/quasi-public, offices, multi-family residential, live/work space, public market, and vendor/kiosk	Retail stores and businesses selling a full range of goods and services (CC), Municipal, governmental, or public facilities (P/QP), Mix of retail and office uses including municipal offices, public assembly, theaters, and restaurants (CBD), Limits uses to those that minimize impacts on upstream and downstream areas (FP)
Royer Park	improvements to existing recreational opportunities at Royer/Saugstad Parks	Public park and recreation facilities and private recreation (PR), Passive recreation and minor recreation facilities, walking and bike trails, and resource interpretive facilities (OS), Limits uses to those that minimize impacts on upstream and downstream areas (FP)
Creek View Residential	multi-family residential and neighborhood grocery store	Passive recreation and minor recreation facilities, walking and bike trails, and resource interpretive facilities (OS), Limits uses to those that minimize impacts on upstream and downstream areas (FP), Attached and detached single family residences (LDR-4)
Vernon Bungalow	single-family residential and cottage office	Attached and detached single family residences (LDR), Limited range of goods and services intended for the convenience of the immediate neighborhood and compatible with adjacent land uses (NC)
Douglas Corridor	mixed use, retail, restaurants, service, offices, and multi-family residential	Attached and detached single family residences (LDR), Limited range of goods and services intended for the convenience of the immediate neighborhood and compatible with adjacent land uses (NC), Retail stores and businesses selling a full range of goods and services (CC), Limits uses to those that minimize impacts on upstream and downstream areas (FP)

Although disparities in the density and type of development exist between the proposed project and the No-Project Alternative, the impacts of development consistent with the General Plan build-out are expected to be similar to impacts associated with the proposed Plan. Impacts associated with aesthetics and hydrology and water quality would be nearly identical. However, implementation of this alternative would not include improvements in Dry Creek to improve aquatic and riparian habitats. The Plan area is currently developed with urban uses as defined by the City of Roseville General Plan; therefore, the No-Project Alternative essentially defines the existing conditions in the Plan area.

IMPACT ANALYSIS

Land Use and Planning

The proposed project includes amendments to the *City of Roseville General Plan 2020* and zoning code to change General Plan land use designations and zoning designations for parcels in Downtown Roseville. These amendments would not be required under the No-Project Alternative. Because the land uses in the Plan area would remain unchanged under the No-Project Alternative, there would be no impact related to land uses. Similarly, no significant land use impacts were identified for the proposed project. However, impacts for this alternative would be less than the project with respect to land use, as no change in land use would occur under the No-Project Alternative. *[Less]*

Public Utilities

Under the No-Project Alternative, no new development, or very limited amounts, would be constructed or operated in the Plan area. Therefore, there would be no increased demand for water, wastewater treatment, storm water conveyance, electricity, or natural gas beyond existing conditions; and no need for new facilities and infrastructure to support additional demand would exist. By comparison, the proposed project would create an increased demand for water, sewer, storm drain, and dry utilities. Utility upgrades to existing facilities have been identified for the remainder of the Plan area based upon various studies prepared by the City. Construction of utility improvements and upgrades in the Historic Old Town began in Fall of 2006. Further utility improvements already identified by the City include water, wastewater, and storm water conveyance improvements that would bring undersized and otherwise inadequate conveyance systems up to City standards. Increased demand for electricity and natural gas would also be less-than-significant. Because the proposed project would not result in direct significant utilities impacts, the No-Project Alternative would not avoid any such impacts. However, the No-Project Alternative would avoid increased demand for water supplies and sewer services; therefore, overall utilities impacts associated with the No-Project Alternative are considered less than what would occur under the proposed project. *[Less]*

Public Services

The No-Project Alternative would not include any new development or very limited amounts of development. Therefore, this alternative would not generate a noticeable increase in demand for public services. By contrast, the proposed project would develop approximately 122 residential units on catalyst sites and allow for the development of additional or higher intensity of dwelling units in residential and mixed-use districts.
The increased number of dwelling units in Downtown Roseville would create additional demands for public services. The high schools nearest the Plan area are already operating at capacity or exceeding capacity; therefore, the proposed project would contribute to the need for new high school facilities to serve new development in the Plan area. To ensure adequate funding for these new school facilities, landowners and developers would pay the state-mandated mitigation fees before building permits are issued for construction in the Plan area. In addition, the proposed project would increase demand for fire protection, law enforcement, and library services. However, these public services are adequately provided in the Plan area and these services would continue to adequately serve Downtown Roseville with implementation of the Plan. The proposed project would create an incremental increase in demand for public services, particularly school services, which would not occur under the No-Project

Alternative. The No-Project Alternative would result in a less degree of significant impacts related to school services as compared to the proposed project. *[Less]*

Geology and Soils

The No-Project Alternative would not include any new development or very limited amounts of development. Therefore, residential units would not expose persons to potentially significant geologic and soil hazards (e.g., ground shaking, liquefaction) similar in nature to the proposed project. By comparison, the proposed project would result in development of approximately 1,275 housing units which would place a greater number of residents at risk to geologic and soil hazards in the Plan area. Although geologic and soil hazards would be mitigated to a less-than-significant level with implementation of recommended mitigation under the proposed project, this alternative would significantly reduce the numbers of people exposed to potential hazards in the Plan area. Therefore, this alternative would place fewer persons at risk to geologic and soil hazards as related to the proposed project. *[Less]*

Aesthetics

Under the No-Project Alternative, no new development, or very limited amounts, would be constructed or operated in the Plan area. Therefore, there would be no alteration of the existing visual character of Downtown Roseville and views of Dry Creek would remain largely unchanged. By comparison, under the proposed project, views of the Plan area would be slightly altered by increased intensity of urban development (i.e., mixed use). Although opinions may differ on whether a higher density urban setting would enhance or degrade the existing visual character of Downtown Roseville, the impact is considered less than significant under the proposed project because of the existing urban character in the Plan area. With this alternative, this minimal impact would not occur because views would not change from existing conditions. However, implementation of the proposed project would revitalize stagnant portions of Downtown Roseville and include design guidelines intended to maintain or enhance the visual character of this portion of the City. Overall, aesthetic resource impacts would be perceived as similar to the proposed project because while the intensity of urban development in the Plan area would not increase, revitalization would also be less likely to occur. *[Similar]*

Transportation and Traffic

The No-Project Alternative would not include any new development, or very limited amounts, and thus would not generate new traffic-related impacts. By comparison, with introduction of traffic generated as a result of the proposed project, peak hour traffic volumes would increase at signalized and unsignalized intersections in the project study area. This anticipated increase in traffic would significantly affect the local roadway system, and after mitigation, some intersections would still fail to operate at an acceptable level of service, resulting in significant and unavoidable impacts related to traffic and circulation. Implementation of the No-Project Alternative would avoid the project's contribution to these impacts. However, due to cumulative development in the Plan area and surrounding region, many of these impacts would still occur. *[Less]*

Cultural Resources

The No-Project Alternative would not implement any specific construction activities, thereby avoiding impacts related to the disturbance, destruction, and physical or visual alteration of known or undiscovered/unrecorded cultural resource sites. Under the proposed project, ground disturbance and development of new structures is expected to occur (i.e., catalyst sites), resulting in greater potential for the disturbance of undiscovered/unrecorded subsurface archaeological sites and human remains. These impacts would be reduced to less-than-significant levels after mitigation. However, the proposed project could result in the loss of a historical resource. Because the No-Project Alternative does not include any new development, or very limited amounts, or ground disturbance, it has less potential to result in the disturbance of as yet undiscovered subsurface archaeological resources and/or human remains and would most likely not result in the loss of a historical resource. Therefore, cultural resources impacts would be less under this alternative. *[Less]*

Hazards and Hazardous Materials

Under the No-Project Alternative no new development, or limited development, would occur; therefore, new facilities that use hazardous materials (e.g., dry cleaners, gas stations) are less likely be located in the Plan area and fewer residents, workers, or visitors would be potentially exposed to existing or new sources of hazardous materials in the Plan area.

By comparison, the proposed project would result in increased storage, use, and transport of hazardous materials during construction and operation from increased land use densities. There would be increased potential for construction workers, residents, and visitors to be exposed to hazardous materials at existing and newly identified contaminated areas in the Plan area. Because no significant impacts related to hazardous materials and public health were identified for the proposed project, the No-Project Alternative would not reduce or avoid any significant impacts related to this issue area. However, impacts are considered slightly less than those associated with the proposed project because there would be fewer overall opportunities for workers and residents to be exposed to hazardous materials under the No-Project Alternative (e.g., less site disturbances). *[Less]*

Biological Resources

Under the No-Project Alternative no new development, or very limited development, would occur. As a result, existing biological conditions in the Plan area would remain unchanged and impacts to existing biological resources would not occur. However, the existing conditions in the Plan area are urban in nature and the No-Project Alternative would not change these conditions. The proposed project would include improvements in Dry Creek to improve aquatic and riparian habitats. Because the No-Project Alternative would not involve implementing improvements to the aquatic and riparian habitats in Dry Creek, these beneficial impacts would not occur. Therefore, the No-Project Alternative is considered to result in more impacts related to biological resources. *[More]*

Air Quality

The No-Project Alternative would not include any new development, or very limited amounts, and would not generate significant amounts of new construction or operations-related air emissions. The proposed project would include new construction and operational activities resulting in significant short-term impacts related to construction emissions and the exposure of sensitive receptors to toxic air emissions. After mitigation, residual significant air quality impacts would remain. Implementation of the No-Project Alternative would not result in increasing these significant unavoidable air quality impacts above existing conditions, and would avoid exposing additional sensitive receptors (i.e., residential uses) to toxic air emissions. Therefore, this alternative would result in less air quality impacts than the proposed project. *[Less]*

Noise

Under the No-Project Alternative, no new construction activities, or only limited construction, would occur. Few new noise-generating land uses or sensitive noise receptors would be developed, and limited amounts of additional traffic would be generated. Therefore, there would be no increase in potential noise conflicts under this alternative. By comparison, the proposed project would include temporary noise generated by construction activities, development of various noise-generating land uses, increases in traffic noise, and development of sensitive receptors (i.e., residential uses) that would be exposed to existing or project-generated noise levels exceeding City standards. Several of these actions would result in significant noise impacts before mitigation. After mitigation, residual significant noise impacts would remain related to increased traffic noise at existing noise-sensitive areas. Implementation of the No-Project Alternative would not result in new significant noise impacts related to sensitive receptors; therefore, this alternative would result in less noise impacts than the proposed project. *[Less]*

Hydrology and Water Quality

Under the No-Project Alternative new development would not occur in the Plan area but similar amounts of storm water runoff and discharges (including water quality) would continue to occur from existing urban conditions. Different from the proposed project, the No-Project Alternative would not involve improvements in the Dry Creek floodplain to improve flood conveyance and aquatic and riparian habitats. Therefore, potential hydraulic impacts would not occur under this alternative. The proposed project would not increase the overall amount storm water runoff and discharges and all hydrology and water quality impacts for the proposed project including impacts related to construction, are considered less-than-significant with mitigation. The No-Project Alternative would not implement improvements to Dry Creek (i.e., hydraulic, habitat). Therefore, this alternative would result in similar hydrology and water quality impacts relative to the proposed project. *[Similar]*

8.3.2 LOW-DENSITY ALTERNATIVE

Under the Low-Density Alternative, the Plan area would be developed at a reduced intensity level of land uses. This alternative would develop the same mix of land uses and improvements as the proposed Specific Plan but would reduce the density of residential uses developed in the Downtown Roseville area. The proposed Specific Plan envisions an increased amount of residential land uses in Downtown Roseville as part of mixed-use development. For comparison, the proposed Specific Plan would develop approximately 1,275 new dwelling units in the Plan area and the Low-Density Alternative would develop approximately 850 (one-third reduction) new dwelling units in the same areas.

Given the similarities in the type of development between the Low-Density Alternative and the proposed project, impacts of development would be anticipated to be similar. Impacts associated with traffic, air quality, and noise would be nearly identical. All other impacts would also be similar given the similarities in the level of development. This alternative would not reduce or avoid any of the significant impacts of the project. Because of this, it would not achieve the basic purpose of an alternatives evaluation under CEQA, which is to describe alternatives that would "… avoid or substantially lessen the significant effects of the project …" (California Code of Regulations [CCR] Section 15126.6[a]).

IMPACT ANALYSIS

Land Use and Planning

The proposed project includes amendments to the *City of Roseville General Plan 2020*. These amendments would continue be required under the Low-Density Project Alternative. Because the land uses in the Plan area under the Low-Density Alternative would remain similar to those under the proposed project and would potentially also require a rezone action and General Plan amendment, the land use impacts would also remain similar. However, no significant land-use impacts were identified for the proposed project in this DEIR. Thus, impacts for this alternative would be similar to the project with respect to land use. *[Similar]*

Public Utilities

Under the Low-Density Alternative, new development would be constructed or operated in the Plan area similar to proposed project. An increased demand for water, sewer, storm drainage, electricity, or natural gas would occur and the need for new facilities and infrastructure to support additional demand would continue to be required. By comparison, the proposed project would also create an increased demand for the same utilities.
This alternative would also construct water, sewer, and storm drainage improvements to bring undersized and otherwise inadequate conveyance systems up to City standards. Increased demand for electricity and natural gas would also be similar to the proposed project and considered a less-than-significant impact.

Because the proposed project would not result in direct significant utilities impacts after mitigation, the Low-Density Alternative would not avoid any such impacts. However, the Low-Density Alternative would reduce the demand for water and sewer services; therefore, overall utilities impacts associated with the Low-Density Alternative are considered less than what would occur under the proposed project. *[Less]*

Public Services

The Low-Density Alternative would include new development similar in nature to the proposed project. Similarly, this alternative would generate an increased demand for public services. For comparison, the proposed project would develop approximately 1,275 new dwelling units in the Plan area and the Low-Density Alternative would develop approximately 850 (one-third reduction) new dwelling units in the same areas. Under the Low-Density Alternative, space previously to be developed as dwelling units would be developed as office and retail uses. Both the proposed project and the Low-Density Alternative would create additional demands for public services. The high schools nearest the Plan area are already operating at capacity or exceeding capacity; therefore, new high school facilities would be needed to accommodate the new development. To ensure adequate funding for these new school facilities, landowners and developers would pay the state-mandated mitigation fees before building permits are issued for construction in the Plan area. In addition, the proposed project would increase demand for fire protection, law enforcement, and library services. However, these public services are adequately provided in the Plan area and these services would continue to adequately serve Downtown Roseville with implementation of the Plan. The proposed project would create an incremental increase in demand for public services, particularly school services, which would continue to occur under the Low-Density Alternative. The proposed project would create an incremental increase in demand for public services that would also occur under the Low-Density Alternative. *[Similar]*

Geology and Soils

The Low-Density Alternative would include new development similar in nature to the proposed project. Therefore, approximately 850 new residential units constructed in the Plan area could expose persons to potentially significant geologic and soil hazards (e.g., ground shaking, liquefaction) similar in nature to the proposed project. By comparison, the proposed project would result in development of approximately 1,275 housing units which would place a greater number of residents at risk to geologic and soil hazards in the Plan area. Although geologic and soil hazards would be mitigated to a less-than-significant level with implementation of recommended mitigation under the proposed project, this alternative would reduce the numbers of people exposed to potential hazards in the Plan area. Therefore, this alternative would place fewer persons at risk to geologic and soil hazards as related to the proposed project. *[Similar]*

Aesthetics

The Low-Density Alternative would include new development similar in nature to the proposed project including the development of new residential units and commercial land uses. Therefore, the Low-Density Alternative would slightly alter the existing urban visual character of Downtown Roseville and change views of Dry Creek. By comparison, under the proposed project, views of the Plan area would be slightly altered by increased intensity of urban development (i.e., mixed use). Although opinions may differ on whether a higher density urban setting would enhance or degrade the existing visual character of Downtown Roseville, the impact is considered less than significant under the proposed project because of the existing urban character in the Plan area. With this alternative, similar impacts would also occur because the type of urban development would be similar in nature to the proposed project. Overall, aesthetic resource impacts would be perceived the same as the proposed project because an increased intensity of urban development would occur in the Plan area. *[Similar]*

Transportation and Traffic

The Low-Density Alternative would include new development similar in nature to the proposed project including the development of new residential units and commercial land uses. By comparison, with introduction of traffic

generated as a result of the proposed project, peak hour traffic volumes would increase at signalized and unsignalized intersections in the project study area. This anticipated increase in traffic would significantly affect the local roadway system, and after mitigation, some intersections would still fail to operate at an acceptable level of service, resulting in significant and unavoidable impacts related to traffic and circulation. Implementation of the Low-Density Alternative would reduce the project's contribution to these impacts, but may not eliminate significant impacts. In addition, due to cumulative development in the Plan area, significant impacts to traffic and circulation in the project study area would still occur. *[Similar]*

Cultural Resources

The Low-Density Alternative would include new development similar in nature to the proposed project, thereby resulting in similar impacts related to the disturbance, destruction, and physical or visual alteration of any known or undiscovered/unrecorded cultural resource sites. Under the proposed project, ground disturbance and development of new structures would occur, resulting in potential disturbance of undiscovered/unrecorded subsurface archaeological sites and human remains. These impacts would be reduced to less-than-significant levels after mitigation. However, the proposed project could result in the loss of a historical resource. Because the Low-Density Alternative includes new development and ground disturbance activities, it has similar potential to result in the disturbance of as yet undiscovered subsurface archaeological resources and/or human remains and could similarly result in the loss of a historical resource. Therefore, cultural resources impacts would be similar under this alternative. *[Similar]*

Hazards and Hazardous Materials

Under the Low-Density Alternative development of the Plan area would continue to occur; therefore, new facilities that use hazardous materials (e.g., dry cleaners, gas stations) could be located in the Plan area, and new residents, workers, or visitors would have the potential to be exposed to existing or new sources of hazardous materials in the Plan area.

Similarly, the proposed project would result in increased storage, use, and transport of hazardous materials during construction and operation of project facilities. There would be increased potential for construction workers, residents, and visitors to be exposed to hazardous materials at existing and newly identified contaminated areas in the Plan area. Because no significant impacts related to hazardous materials and public health were identified in the Plan area following implementation of required mitigation measures, the Low-Density Alternative would not reduce or avoid any significant impacts related to this issue area. There would be similar opportunities for workers and residents to be exposed to hazardous materials under the Low-Density Alternative and, therefore, impacts would be similar to those associated with the proposed project. *[Similar]*

Biological Resources

The Low-Density Alternative would include new development similar in nature to the proposed project. As a result, existing biological conditions in the Plan area would potentially change and impacts to existing biological resources in the Plan area would occur. However, the existing conditions in the Plan area are urban in nature and the Low-Density Alternative would not change these conditions. In addition, the proposed project would include improvements in Dry Creek to improve aquatic and riparian habitats. Because the Low-Density Alternative would also involve implementing improvements to the aquatic and riparian habitats in Dry Creek, this alternative is considered to result in similar impacts related to biological resources. *[Similar]*

Air Quality

The Low-Density Alternative would involve new development that would generate new construction and operations-related air emissions. The proposed project would include new construction and operational activities resulting in significant short-term impacts related to construction emissions and exposure of sensitive receptors to toxic air emissions. After mitigation, residual significant air quality impacts would remain. Implementation of the

Low-Density Alternative would result in similar increases in these significant unavoidable air quality impacts above existing conditions, and would not avoid exposing additional sensitive receptors (i.e., residential land uses) to toxic air emissions. Development activities would occur on all properties through implementation of the Low-Density Alternative. Therefore, this alternative would result in similar air quality impacts as compared to the proposed project. *[Similar]*

Noise

Under the Low-Density Alternative, construction activities would occur similar to the proposed project, new noise generating land uses or sensitive noise receptors would be developed, and additional traffic would be generated. Therefore, there would be an increase in potential noise conflicts under this alternative. For comparison, the proposed project would generate temporary noise from construction activities, development of various noise-generating land uses, increases in traffic noise, and development of sensitive receptors (i.e., residential uses) that would be exposed to existing or project-generated noise levels exceeding City standards. Several of these actions would result in significant noise impacts before mitigation. After mitigation, residual significant noise impacts would remain related to increased traffic noise at existing noise-sensitive areas. Implementation of the Low-Density Alternative would not avoid or reduce these significant noise impacts related to sensitive receptors; therefore, this alternative would result in similar noise impacts as compared to the proposed project. *[Similar]*

Hydrology and Water Quality

Under the Low-Density Alternative, new development would occur in a similar manner as the proposed project and similar amounts of storm water runoff and discharges (including water quality) would continue to occur from existing urban conditions. Similar to the proposed project, the Low-Density Alternative would also involve improvements in the Dry Creek floodplain to improve flood conveyance and aquatic and riparian habitats. However, construction of a golf course and improvements to aquatic and riparian habitats in the Dry Creek floodplain has not been analyzed to determine the potential hydraulic impacts that may occur. Although the proposed project would not increase the overall amount storm water runoff and discharges and all hydrology and water quality impacts for the proposed project are considered less-than-significant with mitigation, this alternative would result in the same hydrology and water quality impacts as the proposed project related to improvements that would occur in Dry Creek. *[Similar]*

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CHAPTER 4. ENVIRONMENTAL ANALYSIS

4.1 LAND USE PLANNING

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10 REPORT PREPARATION

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11 ACRONYMS AND ABBREVIATIONS

The following acronyms and abbreviations are used in this DEIR:

°C	degrees Celsius
°F	degrees Fahrenheit
µg/l	micrograms per liter
µg/m^3	micrograms per cubic meter
µPa	micropascals
AASHTO	American Association of State Highway and Transportation Officials
AB	Assembly Bill
ADA	Americans with Disabilities Act
ADT	average daily traffic
ADWF	average daily water flow
AEP	Annual Exceedance Probability
af	acre-feet
afy	acre-feet per year
ANSI	American National Standards Institute
APCD	Placer County Air Pollution Control District
APCO	Air Pollution Control Officer
APN	assessor's parcel number
ARB	Air Resources Board
ASR	aquifer storage and recovery
AST	aboveground storage tank
ASTM	American Society for Testing and Materials
ATCM	Airborne Toxics Control Measure
Authority	Western Placer Waste Management Authority
AWSC	All Way Stop Control;
bgs	below ground surface
BMP	best management practices
BP	before present
CAA	federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
Cal/EPA	California Environmental Protection Agency
Cal/OSHA	California Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Standards Code
CBD	Central Business District
CC	Community Commercial
CCAA	California Clean Air Act
CCIC	Central California Information Center
CCR	California Code of Regulations
CDE	California Department of Education
CEQA	California Environmental Quality Act
cf	cubic feet
cfm	cubic feet per minute
CFR	Code of Federal Regulations
cfs	cubic feet per second
CH_4	methane
CHRIS	California Historical Resources Information System
CIH	Certified Industrial Hygienist
CIP	Capital Improvement Program
City	City of Roseville
City Council	City of Roseville City Council
CIWMB	California Integrated Waste Management Board
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society

CO	carbon monoxide
CO_2	carbon dioxide
County	Placer County
County General Plan	Placer County General Plan
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CRRC	Central Roseville Revitalization Committee
CTR	Cálifornia Toxics Rule
CUPA	Certified Uniform Program Agency
CVP	Central Valley Project
CVRWQCB	Central Valley Regional Water Quality Control Board
CWA	Clean Water Act
dB	decibels
dB/DD	decibels per doubling of distance
dBA	A-weighted decibel
DCWWTP	Dry Creek wastewater treatment plant
DEIR	Draft Environmental Impact Report
DFG	California Department of Fish and Gamc
DHS	California Department of Health Services
DN	downtown neighborhoods
DPR	California Department of Parks and Recreation
DTSC	California Department of Toxic Substances Control
du	dwelling unit
du/ac	dwelling units per acre
DWR	California Department of Water Resources
EIR	environmental impact report
EMS	Emergency medical service
EPA	U.S. Environmental Protection Agency
ESA	Federal Endangered Species Act
ESA	Environmental Site Assessment
ESD	equivalent single-family dwelling
EU	Environmental Utilities
FAR	floor area ratio
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIP	Federal Implementation Plan
FIRM	Flood Insurance Rate Map
FR	Federal Register
ft	feet
FTA	Federal Transit Administration
FW	Floodway
g	gravity
GC	General Commercial
GHG	greenhouse gases
gpd	gallons per day
gpm	gallons per minute
HABS	Historic American Building Survey
HAER	Historic Architectural Engineering Record
HAP	hazardous air pollutant
HASP	Health and Safety Plan
HCD	California Department of Housing and Community Development
HCM	Highway Capacity Manual
HCP	Habitat Conservation Plan
HCS	highway capacity software
HMPB	hydroxymethyl methoxyphenoxy butyryl
HOV	high-occupancy vehicle

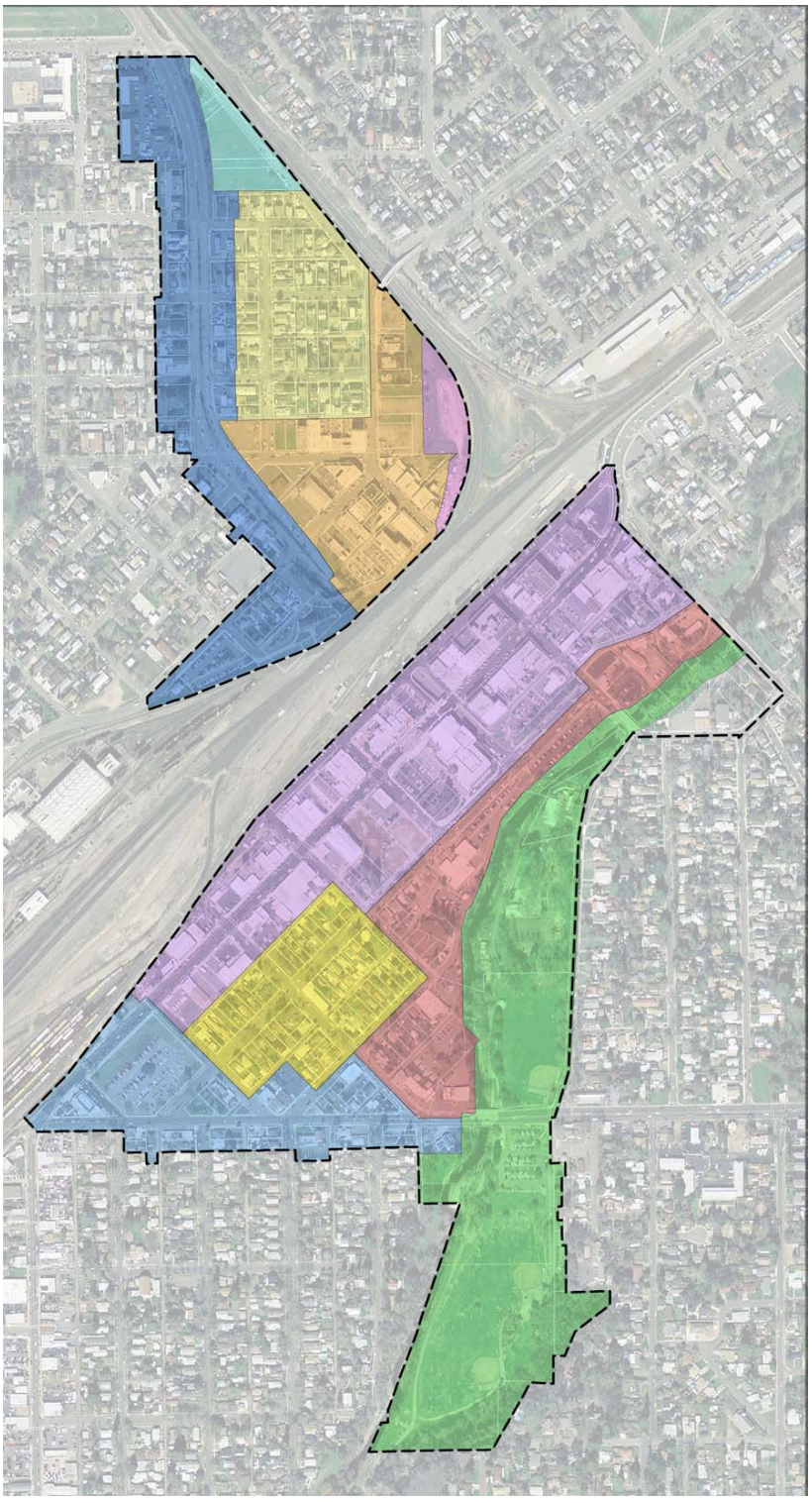
HVAC	heating, ventilating, and air conditioning
Hz	hertz
I	interstate
I-80	Interstate 80
in/sec	inches per second
IPCC	Intergovernmental Panel on Climate Change
IS	initial study
ISO	Insurance Service Office
ITE	The Institute of Transportation Engineers
JH & ED	Jobs/Housing and Economic Development
lb/day	pounds per day
lbs/sq ft/day	pounds per square foot per day
LDL	Larson Davis Laboratories
L_{dn}	day-night average noise level
LDR	Low Density Residential
L_{eq}	energy-equivalent noise level
LESA	Land Evaluation and Site Assessment
LLD	Landscape and Lighting District
L_{max}	maximum noise level: the maximum instantaneous noise level during a specific period
L_{min}	minimum noise level: the minimum instantaneous noise level during a specific period
L_n	Statistical Descriptor
LOS	level of service
L_X	statistical descriptor
M	magnitude
MBA	Mutual Benefit Agreement
MBTA	Migratory Bird Treaty Act
mcf	million cubic feet
MCL	Maximum Contaminant Level
MCM	Minimum Control Measure
MDR	Medium Density Residential
MEI	maximally exposed individual
mg/l	milligrams per liter
mgd	million gallons per day
ml	milliliter
MLD	Most Likely Descendant
mm/yr	millimeter/year
MMP	Mitigation and Monitoring Plan
mph	miles per hour
msl	mean sea level
MUTCD	Manual of Uniform Traffic Control Devices
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NBL	Northbound Left-turn movement;
NBT	Northbound Through movement.
NCCP	Natural Community Conservation Plan
NCIC	North Central Information Center
NEHRP	National Earthquake Hazards Reduction Program
NEHRPA	National Earthquake Hazards Reduction Program Act
NEPA	National Environmental Policy Act
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NFIP	National Flood Insurance Program
NMFS	National Marine Fisheries Service
NO	nitric oxide
NO_2	nitrogen dioxide
NOI	notice of intent

NOP	Notice of Preparation
NO_X	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NWP	nationwide permit
O&M	operation and maintenance
O_3	ozone
OAP	ozone attainment plan
OHP	State Office of Historic Preservation
OPR	Governor's Office of Planning and Research
OSHA	Occupational Safety and Health Administration
ozone	photochemical smog
P/QP	Public/Quasi-public
PAH	polycyclic aromatic hydrocarbons
PCAPCD	Placer County Air Pollution Control District
PCE	perchlorethylene
PCEHD	Placer County Environmental Health Division
PCWA	Placer County Water Agency
PD	Planned Development zoning
Peak	The highest weighted or un-weighted instantaneous peak to peak value occurring during a measurement period.
pga	peak horizontal ground acceleration
PGWWTP	Pleasant Grove wastewater treatment plant
Phase I	Phase I Environmental Site Assessment
Phase II	Phase II Environmental Site Assessment
Plan	Downtown Roseville Specific Plan
Plan area	proposed project area
PM	particulate matter
PM_{10}	particulate matter less than or equal to 10 microns in diameter, or suspended particulate matter
$PM_{2.5}$	particulate matter less than or equal to 2.5 microns in diameter
PMP	Parking Management Plan
Porter-Cologne Act	Porter-Cologne Water Quality Control Act
PPE	personal protective equipment
ppm	parts per million
ppt	parts per thousand
PPV	peak-particle-velocity
PR	Park and recreation
PRC	Public Resources Code
PSI	per square inch
psi	square inch
PSI	pounds per square inch
PWWF	peak wet-weather flow
R-1	Single-Family Residential zoning
R-3	Attached Housing zoning
railyard	J. R. Davis Rail Yard
RCSD	Roseville City School District
REC	recognized environmental condition
RJUHSD	Roseville Joint Unified High School District
RMS	root-mean-square
ROG	reactive organic gases
RPD	Roseville Police Department
RTPAQ	relationship to transit, pedestrian, air quality
RWD	Report of Waste Discharge
RWQCB	Central Valley Regional Water Quality Control Board

SAP	Sampling and Analysis Plan
SB	Senate Bill
SB 610 Report	SB 610 Water Supply Assessment
SBL	Southbound Left-turn movement;
sec/veh	Delay
SEL	Sound Exposure Level
SENEL	Single Event Noise Exposure Level
sf	square feet
SFPD	School Facilities Planning Division
SI	Site Investigation
SIP	State Implementation Policy
SJWD	San Juan Water District
SLM	sound level meter
SMAQMD	Sacramento Metropolitan Air Quality Management District
SMARA	Surface Mining and Reclamation Act
SO_2	sulfur dioxide
SR	State Route
SR 65	State Route 65
SSSC	Side Street Stop Control;
STC	Sound Transmission Class
Study	Roseville Railyard Study
SVAB	Sacramento Valley Air Basin
SWMP	stormwater management program
SWPPP	storm water pollution prevention plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminant
T-BACT	best available control for toxics
TCE	trichloroethylene
T-MACT	maximum available control for toxics
TPY	tons per year
TSM	Transportation Systems Management
TSMP	Transportation Systems Management Program
UBC	universal building code
UBC	Uniform Building Code
UPRR	Union Pacific Railroad
USACE	U.S. Army Corps of Engineers
USBR	U.S. Bureau of Reclamation
USC	United States Code
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
USGS HUC	U.S. Geological Survey Hydrologic Unit Code
UST	underground storage tank
V/C	volume-to-capacity ratio
VdB	vibration decibels
VEE	visible emissions evaluation
VMT	vehicle miles traveled
VOC	volatile organic compound
WDR	waste discharge requirement
WMU	Water Model Update
WQCP	Water Quality Control Plan
WRP	wastewater treatment/recycling plant or water treatment plant
WRSL	Western Regional Sanitary Landfill
WTP	water treatment plant
WWTP	wastewater treatment plant
Yard	Union Pacific Rail Road (J. R. Davis Roseville Railyard)

Final Environmental Impact Report

Downtown Roseville Specific Plan









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March 2009

EDAW | AECOM

Final Environmental Impact Report

Downtown Roseville Specific Plan









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ACRONYMS AND ABBREVIATIONS

EIR	Environmental Impact Report
Plan	Downtown Roseville Specific Plan
CEQA	California Environmental Quality Act
DEIR	Draft Environmental Impact Report
MMP	Mitigation Monitoring Program
Plan area	proposed project area
NOP	Notice of Preparation
MBA	Mutual Benefit Agreement
HABS	Historic American Building Survey
NAHC	Native American Heritage Commission
MLD	Most Likely Descendant
RECs	recognized environmental conditions
OHP	State Office of Historic Preservation
HASP	Health and Safety Plan
OSHA	Occupational Safety and Health Administration
CIH	Certified Industrial Hygienist
PPE	personal protective equipment
SAP	Sampling and Analysis Plan
HP	horsepower
VEE	Visible Emissions Evaluations
MERV	Minimum Efficiency Reporting Value
STC	Sound Transmission Class
ASTM	American Society for Testing and Materials
LEDs	light emitting diodes
TSM	Transportation Systems Management
CPUC	California Public Utility Commission's
LOS	levels of service
$PM_{2.5}$	ambient air quality of ozone and particulate matter
PCAPCD	Placer County Air Pollution Control District's
GHG	greenhouse gas
UPRR	Union Pacific Rail Road
lb/day	pounds per day
EDR	Environmental Data Resources, Inc.
REC	Recognized Environmental Conditions
Cal-EPA	California Environmental Protection Agency
DTSC	Department of Toxic Substances Control
EHD	Environmental Health Division
UST	underground storage tank
TCE	trichloroethylene
CVRWQCB	Central Valley Regional Water Quality Control Board
PCE	perchlorethylene
DTSC	Department of Toxic Substances Control
RHMP	Roseville Hazard Mitigation Plan
COOP	Continuity of Operations Plan
PCAPCD	Placer County Air Pollution Control District

EXECUTIVE SUMMARY

ES.1 INTRODUCTION

This document, in conjunction with the Draft Environmental Impact Report (EIR), constitutes the Final EIR for the Downtown Roseville Specific Plan (Plan) and Downtowncode.

ES.2 CEQA REQUIREMENTS

Under the California Environmental Quality Act (CEQA), the Lead Agency must prepare and certify a Final EIR prior to approving a proposed project. The contents of a Final EIR are specified in Section 15132 of the CEQA State Guidelines, which states that:

The Final EIR shall consist of:

a) The Draft EIR or a revision of the Draft.

b) Comments and Recommendations received on the Draft EIR either verbatim or in summary.

c) A list of persons, organizations, and public agencies commenting on the Draft EIR.

d) The responses of the Lead Agency to significant environmental points raised in the review and consultation process.

e) Any other information added by the lead agency.

The Lead Agency must provide each agency that commented on the Draft EIR with a copy of the Lead Agency's proposed response at least 10 days before certifying the Final EIR. In addition, the Lead Agency may also provide an opportunity for members of the public to review the Final EIR prior to certification, although this is not a requirement of CEQA.

ES.3 USE OF THE FINAL EIR

The Final EIR allows the public and City an opportunity to review revisions to the Draft EIR and the Responses to Comments. The Final EIR serves as the environmental document to support approval of the proposed project, either in whole or in part.

After completing the Final EIR, and before approving the project, the Lead Agency must make the following three certifications, as required by Section 15090 of the State CEQA Guidelines:

- The Final EIR has been completed in compliance with CEQA.
- The Final EIR was presented to the decision-making body of the Lead Agency, and that the decision-making body reviewed and considered the information in the Final EIR prior to approving the project.
- The Final EIR reflects the Lead Agency's independent judgment and analysis.

As required by Section 15091 of the State CEQA Guidelines, no public agency shall approve or carry out a project for which an EIR has been certified that identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings (Findings of Fact) for each of those

significant effects, accompanied by a brief explanation of the rationale for each finding supported by substantial evidence in the record. The possible findings are:

1) Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effects as identified in the Final EIR.

2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

3) Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the Final EIR.

Additionally, pursuant to Section 15093(b) of the State CEQA Guidelines, when a Lead Agency approves a project that would result in significant and unavoidable impacts that are disclosed in the Final EIR, the agency must state in writing the reasons supporting its action. This Statement of Overriding Considerations is supported by substantial evidence in the record, which includes the Final EIR. Since the proposed project would result in significant unavoidable impacts, the City would be required to adopt a statement of Overriding Considerations if it approves the proposed project.

The Findings of Fact and the Statement of Overriding Considerations are included in a separate Findings document that is adopted by the decision maker at the time of project approval.

All comments on the content and adequacy of the Draft EIR, and comments on the merits of the project, that were submitted to the City by the termination of the comment period on February 13, 2009, are included in Chapter 1 of this Final EIR. Responses to those comments are also included in this Final EIR. Chapter 2 contains additions, corrections, and revisions to the text and supporting materials of the Draft EIR. This Final EIR incorporates the Draft EIR by reference.

ES.4 REVISIONS TO THE DRAFT EIR

In the Final EIR, where there are changes that have been made to the Draft EIR, they are indicated with ~~strikethrough~~ text for deletions and single <u>underline</u> text for additions. These revisions are included in Chapter 2 of this Final EIR.

MITIGATION MONITORING PROGRAM

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

ES.5 OVERVIEW AND PURPOSE OF THE FINAL EIR

This document has been prepared by the City of Roseville as the Lead Agency in conformance with CEQA. The City of Roseville has determined that an EIR is required for the proposed project, which consists of implementation of the Downtown Roseville Specific Plan and Downtowncode in a 165-acre area comprised of the existing Historic Old Town, Vernon Street Civic Core, and Royer and Saugstad Parks. The proposed project area (Plan area) encompasses an infill area completely surrounded by built-out neighborhoods and commercial/ industrial land uses in central Roseville, California. The Plan area is further subdivided into 11 distinct character districts and the two parks. Each district incorporates an anticipated look and feel designed to promote the core

goals established in the Specific Plan and Downtowncode. The Plan would establish the appropriate distribution, mix, intensity, physical form, and functional relationships of land uses intended to encourage and facilitate infill development, mixed-use, pedestrian scale, urban amenities, transit use, creative design, and general revitalization of the Downtown area. Specifically, the Plan describes the appropriate location for, size of, and design of buildings on a parcel by establishing requirements for each district.

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

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

This EIR has been prepared at two levels of specificity, as described below. The CEQA Guidelines describe a number of variations on EIRs. It also states that, "…These variations are not exclusive. Lead Agencies may use other variations consistent with the Guidelines to meet the needs of other circumstances" (Section 151160):

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

Consistent with these Guidelines, the EIR examines the project-specific impacts of implementing the proposed Downtown Roseville Specific Plan and Downtowncode.

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

ES.6 AREAS OF CONTROVERSY

The project in general has not generated significant public controversy, in part due to the outreach and education efforts by the City during the last several years as the project and specific components were developed through the Specific Plan process.

AREAS OF KNOWN CONTROVERSY

Section 15123(b)(2) of the State CEQA Guidelines requires that an EIR identify areas of controversy known to the lead agency. The project in general has not generated significant public controversy, in part due to the outreach and education efforts by the City during the last several years during development of the Specific Plan and Downtowncode. It is clear that smart-growth concepts and revitalization projects within previously developed urban area are gaining favor within the planning community and the public as a whole. While there remain issues and challenges in terms of land-use compatibility and circulation concepts within historically commercial areas, issues of potential controversy with respect to environmental resource areas requiring extensive consideration were not identified during scoping, nor were such controversial issues raised in comments received in response to the Draft EIR.

Several comment letters were received in response to the Notice of Preparation (NOP), however no comments contained in the letters received are considered controversial in nature. All issues raised in these comment letters were addressed within the Draft EIR, and letters received are available for review at the City Department of Planning and Redevelopment.

Four letters were received that included comments on the Draft EIR during the public comment period. Each of the received comments is addressed in this Final EIR. No comments received on the Draft EIR are considered controversial in nature in terms of effects to environmental resource areas.

ES.7 SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

In accordance with CEQA (Section 21002.1[e]) and the State CEQA Guidelines (Section 15143), this EIR addresses environmental impacts (see Section 1.4 of the Draft EIR) for which project-related effects are considered potentially significant. These issue areas include land use and planning, aesthetics, utilities, hazards and hazardous materials, geology and soils, public services, cultural resources, transportation and traffic, hydrology and water quality, biological resources, air quality, and noise.

Chapter 4 of the Draft EIR provides a detailed evaluation of the potential project-related impacts to these environmental resource topics. Impacts of the proposed project are classified in this EIR as less than significant, significant, or potentially significant. Mitigation measures for significant and potential significant impacts are described, and the level of significance for each impact after mitigation is defined as less than significant or significant and unavoidable. Significant and unavoidable impacts are described in Chapter 7 of the Draft EIR. Cumulative and growth-inducing impacts relative to the proposed project are evaluated in Chapter 6 of the Draft EIR.

Table ES-1 provides a summary of each of the environmental impacts associated with the proposed project, the level of impact significance before mitigation, mitigation measures for significant and potentially significant impacts, and the level of significance of each impact after mitigation. Table ES-1 summarizes the project-specific Environmental Impacts, Significance before Mitigation, the Mitigations Measure proposed, and the Significance after Mitigation.

Table ES-1
Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
4.1 Land Use Planning and Consistency			
4.1-1: Land Use – Potential for Division of an Existing Community. The proposed Specific Plan would not physically divide residential communities in the Plan area. Instead, it would serve to unify the communities in the Plan area. There would be no impact.	NI	No mitigation is required.	NI
4.1-2: Land Use – Conflicts with Land Use Plans, Policies, or Regulations. Implementation of the proposed Specific Plan would require the adoption of new zoning districts and a General Plan amendment. Although the proposed Specific Plan could potentially generate land use conflicts with existing land uses, the land use changes proposed in the Plan are consistent with the generally urban nature of the downtown area and the transitional mixed-use areas would serve as a physical buffer between the higher intensity commercial/retail areas and adjacent residential neighborhoods. For these reasons, and because land use conflicts do not represent environmental effects in and of themselves, this impact is considered less than significant.	LTS	No mitigation is required.	LTS
4.1-3: Land Use – Consistency with Habitat Conservation and Natural Community Conservation Plans. The Plan area is not subject to an adopted habitat conservation plan or natural community conservation plan. Therefore, implementation of the proposed Specific Plan would not cause any inconsistencies with any habitat conservation plans or natural community conservation plans. There would be no impact.	NI	No mitigation is required.	NI
4.2 Public Utilities			
4.2-1: Public Utilities – Potable Water Supply, Treatment, and Distribution. The proposed Specific Plan would increase demand for potable water from existing City water supplies and production facilities. The City's water supply portfolio and treatment plant capacity are sufficient to serve the Specific Plan. With planned water system upgrades, the City's water system would have sufficient capacity to serve existing and new development envisioned in the Specific Plan. This impact is considered less	LTS	No mitigation is required.	LTS

NI = No Impact LTS = Less-than-significant PS = Potentially Significant S = Significant SU = Significant and Unavoidable

Table ES-1
Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
than significant.			
4.2-2: Public Utilities – Fire Flows. Water conveyance infrastructure in the Plan area is currently undersized and does not provide sufficient fire flows in accordance with City standards. However, the Plan would implement specific recommendations made by the City Environmental Utilities Department and Fire Department to install larger pipelines, new domestic water and fire services, and additional fire hydrants. These recommendations would provide fire flows that meet City standards. This impact is considered less than significant.	LTS	No mitigation is required.	LTS
4.2-3: Public Utilities – Wastewater Treatment and Collection. The proposed Specific Plan would increase demand for wastewater treatment from the City's Dry Creek Wastewater Treatment Plant. The City's wastewater treatment and collection systems currently have sufficient capacity to serve new development in the Plan area. Wastewater conveyance infrastructure in the project area is currently in poor condition. However, as part of the Plan, pipelines within the wastewater conveyance system would be replaced or rehabilitated to increase system performance in the Plan area. Therefore, this impact is considered less than significant.	LTS	No mitigation is required.	LTS
4.2-4: Public Utilities – Stormwater Drainage System. Development of land uses envisioned in the Plan would not substantially increase the amount of impervious surface in the Plan area, and thus would not significantly increase storm-water runoff. The storm-water drainage system in the plan area is currently undersized and exhibits structural failure. However, recommended improvements to the storm drainage system would be implemented as part of the Plan and would enable the storm drain system to meet City standards for a 10-year storm event. Therefore, this impact is considered less than significant.	LTS	No mitigation is required.	LTS

NI = No Impact LTS = Less-than-significant PS = Potentially Significant S = Significant SU = Significant and Unavoidable

Table ES-1
Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
4.2-5: Utilities – Increased Demand for Solid Waste Disposal. Implementation of the proposed Specific Plan would increase solid waste generation. The Western Regional Sanitary Landfill has sufficient solid waste disposal capacity available to serve increased residential and non-residential land uses in the Plan area. Therefore, this impact would be less than significant.	LTS	No mitigation is required.	LTS
4.2-6: Utilities – Increased Demand for Electrical Service. Implementation of the proposed Specific Plan would increase the demand for electrical service. Roseville Electric has sufficient electricity generation capacity available to serve the Plan area. In addition, Roseville Electric has identified improvement projects to accommodate the estimated increase in electrical capacity. Therefore, this impact would be less than significant.	LTS	No mitigation is required.	LTS
4.2-7: Utilities – Increased Demand for Natural Gas Service. Implementation of the proposed Specific Plan would increase the demand for natural gas service. PG&E has indicated sufficient natural gas capacity is available to serve the Plan area. In addition, PG&E identified no facility upgrades would be needed to accommodate the estimated increase in natural gas demand. Therefore, this impact would be less than significant.	LTS	No mitigation is required.	LTS
4.3 Public Services			
4.3-1: Public Services – Increased Demand for Fire Protection and Emergency Medical Facilities, Systems, Equipment, and Services. Development in the Plan area would result in increased demand for fire protection and emergency medical services, potentially resulting in the need for additional staff and equipment to maintain an adequate level of service. Fire Station #1, serving the Plan area, currently functions at its operational limits. However, construction of a new Fire Station #1 has been identified by the City which would have sufficient capability to serve increased demand. This impact would be less than significant.	LTS	No mitigation is required.	LTS

NI = No Impact LTS = Less-than-significant PS = Potentially Significant S = Significant SU = Significant and Unavoidable

Table ES-1
Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
4.3-2: Public Services – Increased Demand for Fire Flow. The proposed Specific Plan would include the development of residential and commercial uses that would require adequate water flow for fire suppression. Future redevelopment projects in the Plan area would incorporate City fire flow requirements into project designs. This impact would be less than significant.	LTS	No mitigation is required.	LTS
4.3-3: Public Services – Increased Demand for Law Enforcement Facilities, Services, and Equipment. Redevelopment projects in the Plan area would increase the demand for law enforcement facilities and services, resulting in the need for additional staff and equipment to maintain adequate levels of service. The City General Plan recognizes the need for additional police officers as population increases in the City and the Roseville Police Department currently provides adequate service to the community. Therefore, project impacts to law enforcement services would be less than significant.	LTS	No mitigation is required.	LTS
4.3-4: Public Services – Increased Demand for Public School Facilities and Services. Implementation of the proposed project would increase demand for elementary school (K–5), middle school (6–8), and high school (8–12) services in RCSD and RJUHSD. Elementary and middle schools nearest the project site are operating below capacity; therefore, the proposed project would not have a significant impact on these schools in the area. However, the high schools nearest the project site are close to or exceeding capacity. Therefore, the impact on high schools in the Plan area is considered potentially significant.	PS	**Mitigation Measure 4.3-4: Increased Demand for Public School Facilities and Services.** The proposed project would generate approximately 23 high school students. To ensure adequate funding is available for high school facilities necessary to accommodate the increase in student population caused by the proposed project, landowners and developers shall pay school mitigation fees in accordance with the City of Roseville Ordinance 2434 before issuance of building permits for construction in the Plan area. Development projects in the Plan area that include only residential land uses shall enter into a Mutual Benefit Agreement (MBA) with school districts serving that area. Implementation of Mitigation Measure 4.3-4 would ensure adequate funding is made available to school districts to pay for construction and operation of new school facilities as needed to serve development. School impact fees are typically an insufficient amount to fund 100% of new school facility construction. However, the California Legislature has declared that the school impact fee is deemed to be full and adequate mitigation under CEQA (Government Code Section 65996). With payment of the	LTS

NI = No Impact LTS = Less-than-significant PS = Potentially Significant S = Significant SU = Significant and Unavoidable

Table ES-1
Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		state-mandate fees, impacts on school services and facilities would be reduced to a less-than-significant level.	
4.3-5: Public Services – Increased Demand for Library Services. The proposed Specific Plan would include the development of residential uses that would demand library services. The City of Roseville Main Library is located inside the Plan area and would provide adequate library services to future residents. This impact would be less than significant.	LTS	No mitigation is required.	LTS
4.3-6: Public Services – Increased Demand for Parks and Recreation Facilities. The proposed Specific Plan would include the development of residential uses that would demand park and recreation facilities. The City of Roseville has sufficient park land to serve the needs of the community. Therefore, increased demand for parks and recreation uses would be met by existing facilities. This impact would be less than significant.	LTS	No mitigation is required.	LTS
4.4 Hazards and Hazardous Materials			
4.4-1: Geology and Soils – Risks to People and Structures Caused by Seismic Hazards, Including Surface Fault Rupture and Strong Ground Shaking. The Plan area is not located within an earthquake fault zone as designated by the Alquist-Priolo Earthquake Fault Zone Act. In addition, the Plan area is not located in an area considered by the California Geological Survey to be a relatively high ground shaking zone. Therefore, project development in the Plan area does not have the potential to expose people and structures to substantial adverse effects from seismic hazards including fault ground rupture and strong seismic ground shaking. This impact is considered less than significant.	LTS	No mitigation is required.	LTS
4.4-2: Geology and Soils – Seismically Induced Risks to People and Structures Caused by Liquefaction. The Plan area is not located in an area considered to be exposed to relatively high ground shaking and ground shaking, as a result of seismic activity from nearby or distant earthquake faults, would not cause seismic-related ground failure, including liquefaction. The potential for seismically induced liquefaction in the Plan area is low because	LTS	No mitigation is required.	LTS

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Table ES-1
Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
soil types are not identified to be subject to the effects of liquefaction and liquefaction has posed a historical problem in Roseville. This impact would be less than significant.			
4.4-3: Geology and Soils – Seismically-Induced Risks to People and Structures Caused by Landsides. The project is not located in an area considered to be exposed to relatively high ground shaking. Ground shaking, as a result of seismic activity from nearby or distant earthquake faults, could cause seismic-related ground failure, including landslides in areas where slopes are present. Specifically, Dry Creek has steep slopes on both sides of the creek corridor that could be subject to landslides during a seismic event. Because the Specific Plan identifies improvements within the Dry Creek corridor, this impact is considered potentially significant.	PS	**Mitigation Measure 4.4-3: Geology and Soils - Seismically-Induced Risks to People and Structures Caused by Landsides.** To minimize potential damage from unstable soil (landslides) along Dry Creek, the project applicant shall hire a qualified, licensed geotechnical engineer to map the Dry Creek corridor for clay-rich, weak soils, and high groundwater conditions prior to any construction or grading activities occurring in Dry Creek. Any unstable or hazardous slopes identified during the geotechnical investigation shall be identified by the geotechnical engineer and the geotechnical engineer shall provide recommendations for preventing landslides during project design and/or construction. These measures shall be included in grading permits prior to approval by the City.	LTS
4.4-5: Geology and Soils – Construction-Related Erosion Hazards. Based on soil types that have a moderate to high erosion potential and steep slopes in the Dry Creek corridor, excavation and grading of soil could result in erosion during construction activities. Erosion and sediment control plans would be required to be prepared as part of individual development projects in the Plan area under the City's Grading Ordinance which would require reducing erosion and retaining sediment on-site. This impact is considered to be less than significant.	LTS	No mitigation is required.	LTS
4.4-6: Geology and Soils – Potential for Subsidence or Compression of Unstable Soils. The Plan area is not located in a known subsidence area as identified by the City of Roseville General Plan and is not located on soils that exhibit the potential to subside. This impact is considered less than significant.	LTS	No mitigation is required.	LTS

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4.4-7: Geology and Soils – Potential for Damage Associated with Expansive Soils. Soil types found in the Plan area are moderately to highly susceptible to expansive soil behavior. Expansive soils may cause differential and cyclical foundation movements that can cause damage and/or distress to overlying structures. However, preparation of geotechnical evaluations would be required to be prepared as part of the building permit process which would identify any needed special construction and/or design methods for alleviating soil constraints. This impact would be considered less than significant.	LTS	No mitigation is required.	LTS
4.5 Aesthetics			
4.5-1: Aesthetics – Impacts on Scenic Vistas. Views on or near the project site include the UPRR yard and surrounding residential neighborhoods. There is not any prominent scenery (e.g., mountain range) viewable form the Plan area and there are no scenic highways within the Plan area. Urban redevelopment projects envisioned as part of the Plan would not block views of any scenic vista from on-site of off-site locations. Therefore, this impact would be less than significant.	LTS	No mitigation is required.	LTS
4.5-2: Aesthetics – Degradation of Visual Character. Implementation of the project would not substantially alter the existing visual character of the Plan area through redevelopment projects. The Plan area is currently developed primarily with urban land uses and would continue to be developed with urban land uses with implementation of the Plan. The existing open space and natural character of Dry Creek and Royer/Saugstad Park would not change also. Therefore, the project would not degrade the existing visual character in Downtown Roseville. This would be a less-than-significant impact.	LTS	No mitigation is required.	LTS
4.5-3: Aesthetics – Impacts from Lighting and Reflective Surfaces. The Plan area is currently developed with urban land uses that use nighttime lighting and incorporate architectural elements that include reflective surfaces. Redevelopment projects that would occur under the Specific Plan could construct	PS	**Mitigation Measure 4.5-3: Aesthetics – Impacts from Lighting.** Operation of the golf course at nighttime would require the use of high-powered floodlights mounted on poles approximately 25 to 30 feet high that would be placed near or adjacent to existing residences. Prior to installation of nighttime lighting at the golf	LTS

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additional facilities with reflective surfaces and nighttime lighting. The potential increase of reflective surfaces and nighttime lighting constructed would not substantially affect day and night views in the Plan area. In addition, the Specific Plan identifies development of a night-lighted golf course that would place high intensity lighting near or adjacent to residents. Although nighttime lighting is currently used at a baseball park at this location that emits nighttime lighting, the proposed golf course would add substantially new high intensity lighting to this portion of Roseville that could affect nearby residential users. This impact is considered potentially significant.		course, the City shall coordinate with a company specializing in or expertise with exterior lighting systems for golf courses (e.g., Abacus). Floodlighting used shall consist of a double asymmetric beam distribution that ensures minimum upward light and tight control of light overspill into adjacent areas. The golf course shall be designed to incorporate a line of trees located along the outermost boundary between the golf course and all adjacent residences. This measure would retain existing nighttime lighting and glare impacts after construction of the golf course at a less-than-significant level.	
4.6 Traffic and Circulation			
4.6-1: Transportation and Circulation—Unacceptable Peak Hour LOS at Signalized Intersections under Existing Plus Project Conditions. With the introduction of traffic from the proposed project, peak hour traffic volumes would increase at several signalized study intersections in the Plan area, resulting in an LOS of D or worse at various intersections. However, with implementation of the Pedestrian District Overlay in the Plan area as part of the proposed project, the LOS impact at all Plan area intersections would be considered less than significant. Therefore, all impacts to signalized study intersections under existing plus project conditions are considered less than significant.	LTS	**Mitigation Measure 4.6-1: Transportation and Circulation – Unacceptable Peak Hour LOS at Signalized Study Intersections under Existing Plus Project Conditions.** The Specific Plan would establish a Pedestrian Overlay District within the Plan area. The Pedestrian Overlay District is would construct physical improvements at intersections in the Plan area to encourage pedestrian activity and increase pedestrian safety. Although three signalized intersections in the study area would operate below LOS C, they would be located in the Pedestrian Overlay District which would make the intersections exempt from the City's LOS C policy. Therefore, the project would result in a less-than-significant impact.	LTS
4.6-2: Transportation and Circulation—Unacceptable p.m. Peak Hour LOS at Signalized Intersections under Cumulative (2020) Plus Project Conditions. With the introduction of traffic from the proposed project, p.m. peak hour traffic volumes would increase at several signalized study intersections, resulting in an LOS of D or worse. Although certain mechanisms either are or would be in place as part of the proposed project (currently approved exemptions to the City's LOS policy and implementation of the Pedestrian Overlay District) which would allow these impacts to be considered less than significant, some signalized intersections located outside of the City's Pedestrian	S	**Mitigation Measure 4.6-2: Transportation and Circulation—Unacceptable Peak Hour LOS at Signalized Study Intersections under Cumulative (2020) Plus Project Conditions.** The Specific Plan would establish a Pedestrian Overlay District within the Plan area. The Pedestrian Overlay District is would construct physical improvements at intersections in the Plan area to encourage pedestrian activity and increase pedestrian safety. Establishment of a Pedestrian Overlay District would reduce impacts to the Judah Street/Vernon Street and Washington Boulevard/Main Street intersections because it would these intersections exempt from the City's LOS C policy such that the	

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Overlay Districts would degrade to an unacceptable level or the addition of project traffic would degrade operations by a whole letter grade. This impact is considered significant.		intersections would operate at an acceptable LOS. The following mitigation measures are identified for the significant impacts under the Cumulative (2020) Plus Project scenario at signalized study intersections:	
		► **4.6-2a: LOS D at Yosemite Street/Atlantic Street.** The addition of project traffic at this intersection under cumulative 2020 conditions would deteriorate operations from LOS C to LOS D. To mitigate project impacts, the southbound right-turn lane could be restriped as a shared left/right-turn lane. With this restriping, the intersection would operate at an acceptable LOS C. The project would be responsible to pay their fair share toward this improvement. This intersection improvement shall be incorporated into the City of Roseville Capital Improvement Program. Incorporating this intersection improvement into the City's Capital Improvement Program would establish a funding mechanism to collect the remaining funds for this improvement (beyond the project's fair share). Therefore, implementation of the ultimate improvement would be guaranteed and the impact is considered less than significant.	LTS
		► **4.6-2b: LOS D at Orlando Avenue/Marlin Drive/Cirby Way.** The addition of project traffic at this intersection under cumulative 2020 conditions would deteriorate operations from LOS C to LOS D. To mitigate project impacts, the northbound and southbound approaches should be widened to provide one dedicated left-turn lane, one through lane, and one right-turn lane. With these improvements, the intersection phasing could be modified to provide protected left-turn movements, and would operate at an acceptable LOS C. Please note that, given the curvature of Marlin Drive and Orlando Avenue, the creek just north of the intersection, and right-of-way constraints, the identified mitigation may not be feasible. Therefore, this impact is considered significant and unavoidable.	SU

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		► **4.6-2c: LOS D at Harding Drive/Estates Drive.** The addition of project traffic at this intersection under cumulative 2020 conditions would deteriorate operations from LOS C to LOS D. To mitigate project impacts, a dedicated southbound right-turn lane would be needed. With this improvement, the intersection would operate at an acceptable LOS C. The project would be responsible to pay a fair share toward this improvement. Please note that existing development is present on all four quadrants of the intersection, limiting the available right-of-way to implement the improvement which may make the identified mitigation infeasible. Therefore, this impact is considered significant and unavoidable.	SU
		► **4.6-2d: LOS E at Sunrise Avenue/Eureka Road.** The addition of project traffic at this intersection under cumulative 2020 conditions would deteriorate operations from LOS D to LOS E. To mitigate project impacts, a third eastbound left-turn lane could be added to the intersection. With the improvement, the intersection would operate at LOS D, consistent with the No Project Condition. However, there are potential right-of-way constraints and inherent design complexities of implementing triple left-turn lanes. Therefore, this impact is considered significant and unavoidable.	SU
4.6-3: Transportation and Circulation—Transit. Implementation of the proposed land uses in the Plan area would increase the demand for public transit services in the plan area. Policies of the Specific Plan would not interfere or conflict with existing or planned transit services. This impact is considered less than significant.	LTS	No mitigation is required.	LTS

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4.6-4: Transportation and Circulation—Bicycle and Pedestrian. Implementation of the proposed land uses in the Plan area would increase demand for bicycle and pedestrian facilities. Policies of the Specific Plan would not interfere or conflict with existing and planned bicycle and pedestrian systems. This impact is considered less than significant.	LTS	No mitigation is required.	LTS
4.6-5: Transportation and Circulation—Parking. Implementation of the proposed land uses in the Specific Plan area would result in an inadequate parking supply. The Specific Plan would generate demand for parking in excess of existing and proposed parking supply in the Plan area by a maximum of 580 spaces. However, the Specific Plan identifies development of additional parking to meet future demands. This impact is considered less than significant.	PS	**Mitigation Measure 4.6-5: Transportation and Circulation - Parking.** To mitigate parking impacts for the Plan area, the project shall provide an additional 580 parking spaces. This shall be accommodated by providing extra spaces within the three planned parking structures, providing additional public parking spaces (as part of developing and implementing the Parking Management Plan), or require development to provide additional parking (e.g., in-lieu fees). With implementation of these measures, the impact would be reduced to a less-than-significant level.	LTS
4.6-6: Transportation and Circulation—Design. Implementation of the proposed land uses and transportation facilities in the Plan area may result in hazards due to a design feature. However, policies of the Specific Plan would require circulation improvements in the Plan area to meet design requirements to prevent safety hazards. This impact is considered less than significant.	LTS	No mitigation is required.	LTS
4.6-7: Transportation and Circulation—Emergency Access. Implementation of proposed land uses in the Plan area could result in inadequate emergency access because of transportation facility designs and/or increased traffic. However, the Specific Plan has been developed in coordination with the City's fire department to ensure adequate emergency response is available in the Plan area. This impact is considered less than significant**.**	LTS	No mitigation is required.	LTS

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4.7 Cultural Resources			
4.7-1: Cultural Resources – Disturbance of Architectural Resources. The architectural inventory and evaluation conducted for the proposed project resulted in the conclusion that 2 of the 213 architectural properties within the Plan area that are at least 45 years old appear individually eligible for listing on the CRHR. In addition, the Old Town Roseville area is designated as a historic district by the City of Roseville at the local level. The remaining buildings in the Plan area are not considered CRHR-eligible. However, 25 additional buildings in the Plan area were built between 1960 and 1980 and will become at least 45 years in age during the 20-year build-out period for the Plan and may be considered eligible for listing in the CRHR when they become of sufficient age. Therefore, the project would have a potentially significant impact on architectural resources.	PS	**Mitigation Measure 4.7-1: Cultural Resources – Disturbance of Architectural Resources.** Two of the historic-era resources located within the Plan area to appear to be eligible for CRHR listing. These resources include: 316 Vernon Street and 419-425 Vernon Street. The Old Town Roseville area is designated as a historic district at the local level by the City of Roseville. Consequently, it is recommended that any alterations made to these eligible resources be conducted in a manner consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties, and the Design Guidelines for Central Roseville. Generally, under CEQA, a project that complies with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or the Secretary of Interior's Standards for Rehabilitation is considered to have mitigated impacts to a historical resource to a less-than-significant level (State CEQA Guidelines Section 15064.5). Development within the Plan area could result in new land uses, infill development, and streetscape improvements. Over the 20-year build-out period for the Specific Plan, future developments within the Plan area could result in impacts to 25 buildings built between 1963 and 1983. These buildings and their locations are listed in Table 4.7-2. Prior to the approval of demolition or building permits that would result in substantial alteration of any of the 15 buildings that will reach 45 years in age by the build-out date, the City shall ensure that an evaluation of significance according to CRHR criteria shall be performed. If the evaluation indicates the property is not eligible for listing in the CRHR, no further action is necessary. If any of these buildings are found to be eligible for listing in the CRHR in conjunction with future evaluations, the City shall ensure that the proposed development is consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties or develop other methods to avoid significant impacts to these properties in consultation with the State Office of Historic Preservation (OHP). This measure would reduce potentially significant impacts to Architectural Resources to a less-	SU

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		than-significant level. If it is not feasible to retain an eligible historic resource, prior to demolition, documentation similar to the standards of the Historic American Building Survey (HABS) shall be conducted. A HABS - like recordation would document the site history, construction history, and current appearance of the eligible resource in the context of Roseville's history. The HABS-like recordation shall be completed by an architectural historian who meets the Secretary of the Interior's professional qualifications standards, and an experienced HABS photographer. The final document shall be filed in a local library / repository. Although this type of documentation eliminates one adverse impact of demolition (i.e., loss of historical information) it does not prevent the physical loss of a historically significant resource. Implementation of the above mitigation measure would reduce impacts related to disturbance of architectural resources. However, the potential loss of a historically significant resource could occur. While implementation of mitigation measure 4.7-1 would lessen project impacts, demolition of the historical resource would be a significant adverse change and, therefore, considered a significant and unavoidable impact.	
4.7-2: Cultural Resources – Disturbance of Potential Subsurface Cultural Deposits. No archaeological resources are known to occur in the Plan area. However, because of the extensive amount of development in the Plan area, unknown subsurface cultural deposits could be present beneath roads and buildings. Grading and excavation activities associated with the proposed project could disturb buried archaeological deposits. This impact is considered potentially significant.	PS	**Mitigation Measure 4.7-2: Cultural Resources – Potential Subsurface Cultural Deposits.** In the event that unrecorded cultural materials are identified during construction-related ground disturbing activities, potentially destructive work in the vicinity of the find shall cease until a qualified archaeologist can determine the significance of the find and, if appropriate, provide recommendations for treatment to the City. Treatment approved by the City shall be implemented prior to resuming ground disturbing activities. This would reduce the impact to unrecorded cultural deposits to less than significant.	LTS

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4.7-3: Cultural Resources – Undiscovered / Unrecorded Human Remains. Project-related construction activities could uncover or otherwise disturb previously undiscovered or unrecorded human remains. Any disturbance of human remains would be a potentially significant impact.	PS	**Mitigation Measure 4.7-3: Cultural Resources – Undiscovered / Unrecorded Human Remains.** If human remains are discovered at any project construction site during any phase of construction, work within 50 feet of the remains shall be suspended immediately, and the City of Roseville, the project applicant, and the county coroner shall be notified immediately. If the remains are determined by the county coroner to be Native American, the Native American Heritage Commission (NAHC) shall be notified within 24 hours, and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. The City or the project applicant shall also retain a professional archaeologist with Native American burial experience who shall conduct a field investigation of the specific site and consult with the Most Likely Descendant (MLD) identified by the NAHC. As necessary, the archaeologist may provide professional assistance to the MLD including the excavation and removal of the human remains. The City or the project applicant shall implement any mitigation before the resumption of activities at the site where the remains were discovered.	LTS
4.8 Hazards and Hazardous Materials			
4.8-1: Hazardous Materials – Use, Storage, or Handling of Hazardous Materials. The proposed project would involve the storage, use, and transport of hazardous materials at individual project sites during construction activities. In addition, because the Plan envisions commercial land uses, it is likely that some facilities (e.g., dry cleaners, gas stations) could use hazardous materials during operation. However, use of hazardous materials in the Plan area would require compliance with local, state, and federal regulations. Furthermore, the City of Roseville performs annual inspections of all businesses utilizing hazardous materials and requires each business to file a Hazardous Materials Management Plan. Therefore, impacts related to creation of significant hazards to the public through routine transport, storage, use, disposal, and risk of upset would not occur. This impact is considered less than significant.	LTS	No mitigation is required.	LTS

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4.8-2: Hazardous Materials – Exposure of Construction Workers, Residents, and Others to Hazardous Materials. Potential recognized environmental conditions (RECs) have been identified in the Plan area. Existing or past uses were identified to have resulted in contamination of soil and/or groundwater in some locations. In addition, demolition, excavation, and construction activities in the Plan area could result in the exposure of construction workers to hazardous materials such as asbestos, petroleum hydrocarbons, and/or other harmful contaminants. If contaminated sites in the Plan area are not remediated before occupation or use of the site, future residents and others could be exposed to hazardous materials. This impact is considered significant.	S	**Mitigation Measure 4.8-2: Hazardous Materials – Exposure of Construction Workers, Residents, and Others to Hazardous Materials.** A Health and Safety Plan (HASP) prepared for the construction process, consistent with general industry standards and Occupational Safety and Health Administration (OSHA) requirements, would address the risks to construction personnel and public safety, such that these health and safety risks would be mitigated to an acceptable level. A qualified professional, such as a Certified Industrial Hygienist (CIH), would prepare the HASP to provide guidance for personnel involved in trenching and other excavation work where there is evidence of hydrocarbons or other hazardous materials. The HASP utilized for each construction phase would describe in detail the health and safety guidelines, procedures, and work practices that must be adhered to and the work to be performed, and would also include special details governing certain work, such as working in confined spaces. Should contaminants be found, appropriate measures would be taken to mitigate potential effects related to construction/implementation of the proposed project. This may include excavation of contaminated soils and disposal at an appropriate facility. The potential contaminants of concern are petroleum hydrocarbons and associated chemicals, such as oxygenates and fuel scavengers, and volatile organic carbons (e.g., PCE, TCE). The HASP would address appropriate personal protective equipment (PPE), monitoring to protect on-site workers; and the appropriate level of worker training (e.g., Hazardous Waste Operations and Emergency Response training). Monitoring may include visual and olfactory observation (e.g., soil staining or unusual odors), or air monitoring with hand-held devices (e.g., photo-ionization detector) to detect volatile hydrocarbons. Health-risk based action levels should be identified for various contaminants that would trigger modifications to work practices. Work practice modifications may include the cessation of construction activities until soil or groundwater sampling is performed, or an increase in the level of PPE or worker training.	LTS

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		A Sampling and Analysis Plan (SAP) would accompany the HASP to determine if contaminants of concern are present and at what concentrations. The HASP would also address procedures to follow if unknown objects (e.g., USTs, underground piping) are encountered during construction activities. Specialized contractors would be hired to decommission and remove such USTs and perform confirmation sampling as necessary. The implementation of an adequate site-specific HASP would reduce the health risk to construction personnel by these recognized environmental conditions to a less-than-significant level. In addition, the following measures shall apply to construction activities, as appropriate. 1) The construction contractor shall notify the Roseville Fire Department if evidence of soil or groundwater contamination (e.g., stained soil, unusual odor in groundwater) is encountered during construction activities. Any contaminated areas shall be remediated in accordance with recommendations made by the Fire Department, RWQCB, DTSC, or other appropriate federal, state, or local regulatory agencies. 2) Prior to demolition of any buildings constructed before 1977, the project applicant shall hire a qualified consultant to investigate whether any of these buildings contain lead and/or asbestos-containing materials and lead that could become friable or mobile during demolition activities. If found, the lead and/or asbestos-containing materials shall be removed by an accredited contractor in accordance with EPA and California OSHA standards. In addition, all activities (construction or demolition) in the vicinity of these materials shall comply with California OSHA lead and asbestos worker construction standards. The lead and asbestos-containing materials shall be disposed of properly at an appropriate off-site disposal facility. The City would require contractors to prepare a site-specific HASP for individual projects within the Plan area to address current or historic RECs identified in the Phase I to verify that contractors are aware of site-specific RECs. As an alternative, the City could prepare a Plan-wide programmatic HASP to address all RECs	

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		identified in the Plan area, although preparation of the HASP is the ultimate responsibility of the contractor. Implementation of Mitigation Measure 4.8-2 would reduce impacts related to exposure to hazardous materials to a less-than-significant level.	
4.9 Biological Resources			
4.9-1: Biological Resources – Effects on Special-status Fish Species. The proposed project includes several restoration and enhancement components that would improve the aquatic and riparian habitat quality along Dry Creek and would benefit special-status fish species in the long term. Implementation of the proposed project could also result in temporary disturbance and/or degradation of habitat for special-status fish within Dry Creek during the period of project construction. This impact would be potentially significant.	PS	**Mitigation Measure 4.9-1: Special-status Fish.** ► The following measures shall be implemented to mitigate adverse effects to special-status fish species potentially resulting from the proposed project. To the extent feasible, the project shall be designed and constructed to avoid and minimize adverse effects to special-status fish species and aquatic habitats within the Specific Plan area. ► Project construction activities within the aquatic habitat of the active creek channel shall be conducted between June 15 and October 15, during the season that migrating chinook salmon and steelhead are not likely to be present. Construction within the riparian habitat along the upper banks of the creek need not be restricted to this timeframe, provided that the following measures (and those described in Section 4.12, "Hydrology and Water Quality") are implemented to avoid or minimize sediment runoff into the creek. ► Silt fencing shall be placed around the construction areas within the aquatic habitat of the active creek channel. Silt fencing shall protect upstream and downstream areas from any construction related impacts. All construction activities within the aquatic habitat of the active creek channel shall be conducted within the silt fence area. Cofferdams shall be used if construction in a live channel is necessary. To the extent feasible, they shall be designed to maintain an open channel to allow continued movement of aquatic species. If dewatering of a construction area is needed, it shall occur according to a Fish Translocation and Salvage Plan prepared by a qualified biologist. ► All outflow from any project-related dewatering that may be necessary when excavating the outfall installation areas shall	LTS

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		be filtered and pumped downstream of the construction area. ► After completion of construction within the aquatic habitat of the active creek channel, all remaining side cast shall be removed from the work area and silt fencing shall be removed. ► Revegetation of disturbed areas within the riparian habitat of the active creek channel with native riparian plants shall be accomplished prior to the onset of the winter rains in the year of construction.	
4.9-2: Biological Resources – Effects on Valley Elderberry Longhorn Beetles. Implementation of the proposed project could result in removal or disturbance of elderberry shrubs, which may provide habitat for valley elderberry longhorn beetles. If elderberry shrubs with stem diameters 1.0 inch or greater are removed or disturbed, this impact would be potentially significant.	PS	**Mitigation Measure 4.9-2: Valley Elderberry Longhorn Beetles.** The following measures shall be implemented to mitigate adverse effects to valley elderberry longhorn beetles potentially resulting from the proposed project. If valley elderberry longhorn beetles are delisted in the future, as has recently been proposed by USFWS (USFWS 2006a), these measures may be amended to conform to any revised USFWS guidelines regarding this species. ► To the extent feasible, implementation of the project shall be designed and constructed to avoid and minimize adverse effects to elderberry shrubs. ► Before project construction would begin within the riparian habitat of the active creek channel, focused surveys for elderberry shrubs shall be conducted within the Dry Creek riparian corridor and adjacent municipal parks in and within 100 feet of proposed construction-sites. Such surveys will not be required within areas lacking suitable habitat for elderberry shrubs (i.e., areas already in residential development). ► Where elderberry shrubs with 1.0 inch or greater stem diameter are found, USFWS conservation guidelines for valley elderberry longhorn beetles shall be followed by establishing a 100-foot buffer around the dripline of such shrubs wherever feasible to completely avoid potential impacts to valley elderberry longhorn beetles (USFWS 1999). All buffers shall be marked with brightly colored flags or fencing and shall be maintained until project construction is complete. Earthmoving activities, herbicide use, and other construction and maintenance activities with potential to impact valley elderberry longhorn beetles and/or their host shrubs would be avoided within these buffer	LTS

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		zones. A qualified biologist will provide project contractors and construction crews working in the vicinity of an elderberry shrub buffer zone with a worker-awareness program before such work begins. This program will be used to describe the species, its habits and habitats, its legal status and required protection, and all applicable mitigation measures. ► If complete avoidance of shrub buffer zones is not feasible, USFWS shall be consulted. It is anticipated that either a new buffer width would be agreed upon along with additional protections for the safety of the beetles and shrubs, or that shrubs that could not be adequately protected would be transplanted to a protected location before construction would begin, in accordance with established USFWS guidelines (USFWS 1999) and a USFWS-approved mitigation and monitoring plan. Shrubs shall be transplanted to an area protected in perpetuity as habitat for valley elderberry longhorn beetles through a conservation easement or similar mechanism. Replacement mitigation plantings shall also be provided based on USFWS guidelines, which require replacement ratios ranging from 1:1 to 8:1 for lost stems at least 1 inch in diameter, depending on the size of the affected stems. Associated native species will be planted at ratios ranging from 1:1 to 2:1 for each elderberry planting. Transplants and mitigation plantings shall be monitored to ensure that USFWS success criteria are met (i.e., 60 percent survival of elderberry plants and associated riparian plantings). The proponent may elect either 10 years of monitoring, with surveys and reports to USFWS every year; or 15 years of monitoring, with surveys and reports on years 1, 2, 3, 5, 7, 10, and 15. The mitigation and monitoring plan shall describe both short- and long-term maintenance and management of the mitigation site; and specify remedial measures to be undertaken if mitigation success criteria are not met. Long-term management of mitigation lands shall be ensured by establishing a management endowment or other suitable funding source. The mitigation shall be implemented in a preserved portion of the project site in Dry Creek's riparian corridor, elsewhere within the Dry Creek watershed, or in	

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		suitable habitat elsewhere in Placer County or an adjacent county. If mitigation occurs off-site, it shall be at a location that would provide at least equal-quality habitat for valley elderberry beetles as the project site after implementation of the mitigation.	
4.9-3: Biological Resources – Effects on Raptors and Special-status Birds. The riparian habitat restoration components of the proposed project would increase the quality of habitat available to special-status birds, an impact considered beneficial in the long term. However, implementation of the proposed project could also result in short-term construction-related impacts to special-status birds nesting in the Plan area. This temporary impact would be considered potentially significant.	PS	**Mitigation Measure 4.9-3: Raptors and Special-status Birds.** The following measures shall be implemented to mitigate adverse effects to raptors and special-status birds potentially resulting from the proposed project. ► Potential disturbance of nesting special-status birds and raptors shall be reduced by limiting vegetation removal and grading to the non-breeding season (generally September 1 to February 28) to the extent feasible. ► To avoid nest disturbance and a potential reduction in fledging success resulting from construction activities within the riparian habitat of the active creek channel and during the breeding season (March 1 to August 31), focused surveys for raptors and special-status birds would be conducted by a qualified biologist no more than 15 days prior to the beginning of construction. Surveys for raptors and special-status birds would include suitable nesting habitat within 500 feet of construction areas. If no active nests are found, no further measures would be needed. ► If active raptor or special-status bird nests are found, impacts would be avoided by the establishment of appropriate buffers and/or nest monitoring by a qualified biologist. The size of the buffer would be determined by a qualified biologist and may vary, depending on the species biology, location, nest stage, and specific construction activities to be performed while the nest is active. A qualified biologist shall monitor active nests to determine when the young have fledged and are feeding on their own, or the nest has failed. No construction activities would occur within a buffer zone until a qualified biologist confirms that the nest is no longer active.	LTS
4.9-4: Biological Resources – Effects on Special-status Bats. The riparian habitat restoration components of the proposed project would increase the quality of potential habitat available to	LTS	No mitigation is required.	LTS

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special-status bats, an effect considered beneficial in the long term. Temporary adverse impacts to special-status bats could also occur as a result of project construction activity if special-status bat maternity roosts occur in the Plan area and are incidentally removed or disturbed during construction. This potential impact would be considered less than significant because no bat colonies are known to occur within the project area and few individuals are expected to occur there.			
4.9-5: Biological Resources – Effects on Northwestern Pond Turtles. Although implementation of the proposed project could result in temporary construction-related loss and/or disturbance northwestern pond turtles, this species has a low potential for occurrence on-site and effected individuals are expected to be few, if any. This impact would thus be considered less than significant.	LTS	No mitigation is required.	LTS
4.9-6: Biological Resources – Impacts to Jurisdictional Waters and Sensitive Natural Communities. Implementation of the proposed project would include enhancement of the aquatic and riparian woodland habitats within and along Dry Creek, providing a beneficial long-term impact. Project implementation could also result in temporary disturbance and/or degradation of riparian and aquatic habitat during the period of project construction, as well as both temporary and permanent impacts to waters of the United States due to bank stabilization treatments and bridge construction. These impacts would be potentially significant.	PS	**Mitigation Measure 4.9-6: Jurisdictional Waters and Sensitive Habitats.** The following measures shall be implemented to mitigate adverse effects to jurisdictional waters and sensitive habitats potentially resulting from the proposed project. ► To the extent feasible, the project shall be designed and constructed to avoid and minimize adverse effects to jurisdictional waters of the United States and riparian habitat within the Specific Plan area. Bioengineering bank stabilization techniques shall be used to the extent feasible and the installation of hardscape within jurisdictional waters of the United States shall be minimized to the greatest extent feasible to achieve the overall project objectives. ► Wherever possible, riparian woodland habitat shall be avoided and preserved; the connectivity of the Dry Creek riparian corridor shall be maintained and enhanced. Areas of riparian woodland to remain undisturbed shall be clearly marked for avoidance during construction by methods such as fencing of flagging and construction personnel shall be educated about the need to avoid adverse effects on this resource. ► The project shall incorporate restoration and enhancement of the riparian corridor into the final design plans and	LTS

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		construction specifications. Loose rock and concrete debris along the creek banks shall be removed as appropriate. The riparian corridor along the creek channel shall be enhanced by the planting of native shrub, tree, and understory species to create a more diverse vegetation structure and thus a higher quality habitat for wildlife. Enhancement should include planting, establishment, and maintenance of suitable riparian species native to the region as well as removal and control of exotic plant species. ► Before any ground disturbing activities begin within the aquatic or riparian habitat of the active creek channel, a qualified biologist shall map potential waters of the United States as part of a formal delineation of waters of the United States and shall identify all riparian habitat that could be affected by the project. The findings shall be documented in a detailed report and submitted to the USACE for verification as part of the formal Section 404 wetland delineation process. If there would be unavoidable effects under USACE jurisdiction, the Section 404 process shall be completed and the acreage of affected jurisdictional habitat shall be replaced and/or rehabilitated. The acreage of jurisdictional wetland affected shall be replaced on a "no-net-loss" basis is accordance with USACE regulations. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by feasible methods agreeable to USACE. All minimization and compensation measures adopted through the permitting process shall be implemented. ► Approval by the RWQCB, as determined during the Section 401 and Section 404 permitting processes, shall be required. All mitigation requirements determined through this process shall be implemented before any ground disturbing activities begin. ► If there would be unavoidable effects to habitats under DFG jurisdiction, a streambed alteration agreement shall be obtained and affected habitat shall be replaced and/or rehabilitated. Because project implementation could result change to the natural flow and/or bed and bank of Dry Creek, the project	

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		could require a Section 1602 streambed alteration agreement from DFG. If complete avoidance of indentified riparian habitat is not feasible, the acreage of riparian habitat that would be removed shall be replaced or rehabilitated on a "no-net-loss" basis in accordance with DFG regulations and as specified in the streambed alteration agreement, if needed. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by feasible methods agreeable to DFG. All minimization and compensation measures adopted through the permitting process shall be implemented.	
4.9-7: Biological Resources – Wildlife Movement Corridors. Habitat enhancement components of the proposed project would have a long-term beneficial effect on the wildlife movement corridor along Dry Creek. Project construction is not expected to block wildlife movement; temporary impacts to the corridor would thus be considered less than significant.	LTS	No mitigation is required.	LTS
4.9-8: Biological Resources – Impacts to Protected Trees. Proposed project features, grading, and construction activities may overlap or may occur within the drip line of protected trees. Depending upon the configuration of the approved site plans and the final extent of grading, the project may result in potentially significant impacts to protected trees.	PS	**Mitigation Measure 4.9-8: Protected Trees.** The following measures shall be implemented to mitigate adverse effects to protected trees potentially resulting from the proposed project. Tree removal shall be avoided unless 1) necessary for project construction, 2) identified as safety hazards in a Certified Arborist Tree Survey and located in existing or planned public access areas (e.g., streets, trails), or 3) if exotic invasive species (e.g., tree of heaven). In the Dry Creek riparian corridor, snags, dead wood and branches on live trees, and fallen branches shall be retained to the maximum extent possible due to the important habitat functions that they provide for wildlife. ► Based on final approved project plans, the project applicant shall determine where protected trees are present within areas proposed for construction and shall identify trees for avoidance or removal. ► A Tree Preservation Plan shall be prepared for the protected trees within the Plan area that shall be avoided by the project to ensure that they are adequately protected during construction activities. A Certified Arborist shall prepare a Tree Preservation Plan in accordance with the Title 19 Article	LTS

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		IV of the Roseville Municipal Code, which shall contain detailed recommendations for tree preservation and removal based on construction and grading plans. The Tree Preservation Plan shall address each tree potentially affected by construction and recommend preservation or removal based on its suitability for preservation, proximity to construction activities, and ability to tolerate impacts. The Tree Preservation Plan shall also include general preservation and construction guidelines to assist in the protection of trees within or near the grading limits or near construction zones. The Tree Preservation Plan shall include recommendations for specific protective measures for trees before, during, and after construction to reduce impacts to trees from development and maintain their health throughout the construction process. The Tree Preservation Plan shall be prepared using information in a Tree Survey and Assessment or similar report including information on each tree's species, size, location, condition, and suitability for preservation. ► Where the removal of protected oaks is deemed necessary, the loss shall be mitigated according to Section 19.66.070 of the Roseville Municipal Code which requires that the replacement be calculated based upon an inch-for-inch replacement of the diameter at breast height of the tree removed. Mitigation trees shall be planted at appropriate sites and with appropriate maintenance to ensure their long-term self-sustaining survival. Where possible, mitigation oaks will be planted in canopy gaps along Dry Creek's riparian corridor within the Plan area, or elsewhere within the City of Roseville. A performance standard of 80 percent of the established mitigation trees shall be met after 5 years. The mitigation trees shall not be dependent upon significant maintenance measures within the last 2 years of monitoring, including supplemental irrigation and staking. Alternatively, an in-lieu fee payment can be made to the City of Roseville Native Oak Tree Propagation Fund, which is calculated per inch based on the diameter at breast height of the tree removed.	

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4.10 Air Quality			
4.10-1: Generation of Short-term Construction-Related Emissions of Criteria Air Pollutants and Precursors. Modeled short-term project-generated ozone precursor and fugitive dust emissions from construction activities in Plan area would exceed PCAPCD's significance threshold of 82 lbs/day. Thus, project-generated, construction- related emissions of ROG, NO_X and PM_{10} could violate or contribute substantially to an existing or projected air quality violation and/or expose sensitive receptors to substantial pollutant concentrations, especially considering the nonattainment status of Western Placer County. As a result, this impact is considered significant.	S	**Mitigation Measure 4.10-1.** In accordance with the PCAPCD, the applicant shall comply with all applicable rules and regulations as listed above (e.g., Rule 202, 218 and 228). In addition, the following mitigation measures shall be implemented to reduce short-term construction-related air quality impacts. In addition, dust control measures are required to be implemented by all projects in accordance with the City of Roseville Grading Ordinance, and the PCAPCD Fugitive Dust Rule 228. 1. The applicant shall submit to PCAPCD a Construction Emission/Dust Control Plan within 30 days prior to groundbreaking. If the PCAPCD does not respond within 20 days, the plan shall be considered approved. The plan must address the minimum requirements found in section 300 and 400 of District Rule 228, Fugitive Dust (www.placer.ca.gov/airpollution/airpolut.htm). The applicant shall keep a hard or electronic copy of Rule 228, Fugitive Dust on-site for reference. 2. The Construction Emission/Dust Control Plan shall include a comprehensive inventory (i.e., make, model, year, emission rating) of all heavy-duty off-road equipment (50 horsepower (HP) of greater) that will be used an aggregate of 40 or more hours for the construction project. The project representative shall provide PCAPCD with the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreman. The plan shall demonstrate that the heavy-duty (> 50 HP) off-road vehicles to be used in the construction project, including owned, leased and subcontractor vehicles, will achieve a project wide fleet-average 20% NO_X reduction and 45% particulate reduction compared to the most recent ARB fleet average. PCAPCD shall be contacted for average fleet emission data. Acceptable options for reducing emissions may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available. Contractors can access the Sacramento Metropolitan	SU

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		Air Quality Management District's web site to determine if their off-road fleet meets the requirements listed in this measure (http://www.airquality.org/ceqa/Construction_Mitigation_Calculator.xls). 3. Clean earth moving construction equipment with water or sweep clean, once per day, or as necessary (e.g., when moving onsite), consistent with National Pollutant Discharge Elimination System Best Management Practices, local ordinances, and municipal codes. Water shall be applied to control dust as needed to prevent dust impacts offsite. Operational water truck(s), shall be on-site, as required, to control fugitive dust. Construction vehicles leaving the site shall be cleaned, as needed, to prevent dust, silt, mud, and dirt from being released or tracked off-site. 4. Spread soil binders on unpaved roads and employee/equipment parking areas. Soil binders shall be non-toxic in accordance with state and local regulations. Apply approved chemical soil stabilizers, or vegetated mats, etc. according to manufacturers' specifications, to all-inactive construction areas (previously graded areas which remain inactive for 96 hours). 5. Minimize diesel idling time to a maximum of 10 minutes. 6. Utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary diesel power generators, if feasible. 7. Measures specific to 20+ acre project sites: ► A pre-construction meeting shall be held to review the construction emission/dust control plan for projects requiring grading of 20+ acres. PCAPCD shall be notified and may attend. ► The applicant shall comply with PCAPCD Fugitive Dust Rule 228; including suspending grading operations when conditions exceed designated wind speeds, and executing proper control of lime or other drying agents. ► An applicant representative, ARB-certified to perform Visible Emissions Evaluations (VEE), shall routinely (i.e., once per week) evaluate project related off-road and heavy-duty on-road equipment emissions for compliance with this requirement for projects grading more than 20 acres in size,	

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		regardless of how many acres are to be disturbed daily. ► Construction equipment exhaust emissions shall not exceed the PCAPCD Visible Emissions Rule 202. Fugitive dust is not to exceed 40% opacity and not go beyond property boundary at any time. Operators of vehicles and equipment found to exceed opacity limits are to be immediately notified and the equipment must be repaired within 72 hours.	
4.10-2: Generation of Long-Term Operation-Related (Regional) Emissions of Criteria Air Pollutants and Ozone Precursors. Operation-related activities would result in project-generated emissions of ROG, NO_X or PM_{10} that exceed PCAPCD's significance threshold of 82 lb/day. Project-generated operation-related emissions of ROG and NO_X would also exceed PCAPCD's recommended cumulative threshold of 10 lb/day In addition, the proposed project would require a General Plan amendment to allow for development of desired land uses in downtown Roseville. Thus, project-generated, operation-related emissions of criteria air pollutants and precursors could violate or contribute substantially to an existing or projected air quality violation, expose sensitive receptors to substantial pollutant concentrations and/or conflict with air quality planning efforts. As a result, this impact is considered significant.	S	**Mitigation Measure 4.10-2** The following is a list of mitigation measures developed by PCAPCD to reduce long-term operational impacts to local and regional air quality. Due to the severe nonattainment designation in western Placer County for federal standards, all projects should implement those measures that are logical and feasible. 1. Exceed California Title 24 2008 energy efficiency standards by a minimum of 10%. Areas of Title 24 to be exceeded (e.g., insulation, appliances, and fixtures) shall be determined by the applicant and the City. 2. All truck loading and unloading docks shall be equipped with one 110/208-volt power outlet for every two-dock door. Diesel trucks shall be prohibited from idling more than five minutes and must be required to connect to the 110/208-volt power to run any auxiliary equipment. Signage shall be provided. 3. Install a gas outlet in all outdoor recreational fire pits, and permanently installed cooking appliances. 4. Only natural gas fireplace appliances are permitted. Where propane or natural gas service is not available, only EPA Phase II certified wood-burning devices shall be allowed in single-family residences. The emission potential from each residence shall not exceed 7.5 grams per hour. Wood-burning or Pellet appliances shall not be permitted in multi-family developments. 5. Where feasible, install solar electric generation systems. Recommend participation in Roseville Electric incentive programs for energy-efficient development.	SU
4.10-3: Exposure of Sensitive Receptors to Toxic Air Contaminant Emissions. The proposed project would not expose sensitive receptors to substantial emissions of TACs during	S	**Mitigation Measure 4.10-3.** The following mitigation measures shall be implemented to reduce the exposure of sensitive receptors to TACs:	SU

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construction because construction emissions would be temporary and would rapidly dissipate with distance from the source. However, implementation of the Specific Plan could result in the exposure of sensitive receptors, especially those within close proximity to the Rail Yard and proposed commercial uses, to TAC emissions that exceed the significance threshold of 10 in one million for the cancer risk level. As a result, this impact would be considered significant.		► All proposed homes in the Plan area shall be equipped with filter systems with high Minimum Efficiency Reporting Value (MERV) for removal of small particles (such as 0.3 micron) at all air intake points to the home. All proposed dwelling units shall be constructed with mechanical ventilation systems which would allow occupants to keep windows and doors closed and allow for the introduction of fresh outside air, without the requirement of open windows. ► Proposed commercial uses that have the potential to emit TACs (e.g., diesel-fueled engines) shall be located as far away as possible from existing and proposed receptors. Proponents of projects with a residential component shall provide disclosure to future residents advising them of the proximity to the JR Davis Rail Yard and associated health risk impacts. ► When determining the exact type of facility that would occupy the proposed commercial space, the project shall take into consideration its toxic-producing potential. ► Proposed facilities that would require the long-term use of diesel equipment and heavy-duty trucks shall develop a plan to reduce emissions, which may include such measures as scheduling such activities when the residential uses are the least occupied, and requiring such equipment to be shut off when not in use and prohibiting heavy-trucks from idling. ► To the extent feasible, sensitive receptors shall be located as far away from the UPRR maintenance facility as possible. ► Implement Mitigation Measure 4.10-2-2, described above, with respect to electrification of commercial loading dock areas to reduce emissions associated with truck idling.	
4.10-4: Generation of Long-Term Operation-Related (Local) Mobile-Source Emissions of Carbon Monoxide. Project-generated, long-term operation-related (local) mobile-source emissions of CO would not violate or contribute substantially to a violation of the CAAQS or NAAQS, or expose sensitive receptors to substantial pollutant concentrations. This impact would be less than significant.	LTS	No mitigation is required.	LTS

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4.10-5: Exposure of Sensitive Receptors to Odors. The project would not involve the siting of any major sources of odors. However, the nature of the businesses that would occupy the commercial development is not known, and one or more of the businesses could be a minor source of objectionable odors, which could adversely affect nearby existing sensitive receptors. The proposed project would be located near the UPRR Yard, a major source of odors due to diesel PM. Therefore, this is considered a significant impact.	S	**Mitigation Measure 4.10-5.** Implementation of Mitigation Measure 4.10-3 to reduce indoor exposure to TACs would also result in a reduction in the intensity of offensive odors from the surrounding odor sources. In addition, the applicant shall require all businesses that occupy the property to install odor-controls as necessary to prevent a substantial dispersion of odors to adjacent residential areas.	LTS
4.11 Noise			
4.11-1: Short-Term Construction-Generated Noise Levels. Implementation of the proposed project would result in short-term construction activities associated with individual development projects in the Plan area. These construction activities could potentially expose sensitive receptors to noise levels in excess of the applicable noise standards and/or result in a noticeable increase in ambient noise levels. Therefore, this impact is considered potentially significant.	LTS	**Mitigation Measure 4.11-1: Short-Term Construction-Generated Noise Levels:** Although impacts related to short-term construction-generated noise were considered to be less than significant with implementation of the project, the following mitigation is provided to ensure impacts remain at a less-than-significant level. Construction contractors shall implement the following measures during construction activities. ► Construction equipment shall be properly maintained per manufacturers' specifications and fitted with the best available noise suppression devices (i.e., mufflers, silencers, wraps, etc). Shroud or shield all impact tools, and muffle or shield all intake and exhaust ports on power equipment. ► Construction operations and related activities associated with the proposed project shall comply with the operational hours outlined in the City of Roseville Municipal Code Noise Ordinance; construction operations shall be limited to between the hours of 7 a.m. and 7 p.m. Monday through Friday and between 8 a.m. and 8 p.m. Saturday and Sunday. ► Construction equipment should not be idled for extended periods of time in the vicinity of noise-sensitive receptors. ► Locate fixed and/or stationary equipment as far as possible from noise sensitive receptors (e.g., generators, compressors, rock crushers, cement mixers). Shroud or shield all impact tools, and muffle or shield all intake and exhaust ports on powered construction equipment.	LTS

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		► Where feasible, temporary barriers shall be placed as close to the noise source or as close to the receptor as possible and break the line of sight between the source and receptor where modeled levels exceed applicable standards. Acoustical barriers shall be constructed material having a minimum surface weight of 2 pounds per square foot or greater, and a demonstrated Sound Transmission Class (STC) rating of 25 or greater as defined by American Society for Testing and Materials (ASTM) Test Method E90. Placement, orientation, size, and density of acoustical barriers shall be specified by a qualified acoustical consultant.	
4.11-2: Long-Term Traffic Noise Levels at Existing Noise-Sensitive Receivers. Implementation of the proposed project would result in an increase of average daily vehicle trips in the Plan area. In some locations, the increased traffic volumes would result in a noticeable (3 dB or greater) increase in traffic noise along roadways, however, impacts from the project would not exceed the city's General Plan noise standards (see Table 4.11-4); or, in areas where existing noise levels exceed those standards, the estimated increase in noise levels would be considered less than perceptible (less than 3dB). Therefore, this impact is considered less than significant.	LTS	No mitigation is required.	LTS
4.11-3: Long-Term Operational Stationary Source Noise Levels. Implementation of the proposed project would result in increases in stationary source noise associated with the proposed residential and commercial land uses. These stationary noise sources could potentially exceed the City's noise standards (hourly and maximum) and result in a noticeable increase in ambient noise levels.	PS	**Mitigation Measure 4.11-3: Long-Term Operational Stationary Source Noise Levels:** Project applicant(s) for industrial and commercial/office land uses shall implement the following measures to reduce exposure of sensitive receptors to excessive noise levels from future stationary sources. **1. Industrial and Commercial/Office Land Uses.** Where these land uses adjoin common property lines with noise-sensitive uses, the following mitigation measures shall be incorporated into the project design to reduce noise exposure from future stationary sources. a. During project review the City's Planning Department shall determine if the proposed use would likely generate noise levels adversely affecting the adjacent noise-sensitive uses. If	LTS

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		a proposed project has the potential to generate or expose noise-sensitive uses to noise levels exceeding the City of Roseville noise standards (Tables 4.11-4 through 4.11-6) or result in a substantial (3 dB or greater) permanent increase in ambient noise levels, the project applicant shall prepare a site-specific acoustical analysis. The acoustical analysis shall be conducted in accordance with the City of Roseville General Plan requirements shown in Table 4.11-5. b. Loading and unloading areas shall be located so that commercial buildings shield nearby residential land uses from noise generated by loading dock and delivery activities. If necessary, additional sound barriers shall be constructed on the commercial sites to protect nearby noise-sensitive uses. c. Loading dock activity and delivery truck activity at the commercial uses developed on the project site shall only occur during the daytime hours of 7 a.m. to 10 p.m., in order to prevent evening and nighttime sleep disturbance at nearby residential land uses d. All commercial HVAC machinery shall be located within mechanical equipment rooms wherever possible. Equipment manufacturer's specifications for venting and access to outside air shall be maintained. e. Localized noise barriers or rooftop parapets shall be constructed around the HVAC, cooling towers, and mechanical equipment so that line-of-site to the noise source from the property line of the noise-sensitive receptors is blocked. Equipment manufacturer's specifications for venting and access to outside air shall be maintained. f. Property maintenance activities at commercial and office uses shall be restricted to daytime hours between 8 a.m. and 9 p.m. g. The owner or developer of any mixed-use building containing residential units shall provide written notice to all future residents, occupants, and users that the surrounding area may be subject to levels of noise associated with commercial uses at higher levels than would be expected in	

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		residential areas. Project applicant(s) for parking structures shall implement the following measures to reduce exposure of sensitive receptors to excessive noise levels from future stationary sources. **2. Parking Structures.** Parking structures located in the immediate vicinity of noise-sensitive land uses shall include the following mitigation measures. a. Orientate parking structures so that nearby noise-sensitive receptors would be shielded from all on-site circulation routes (entrances, exits, and internal routes). If maintaining visibility is required transparent acoustical screens shall be installed on openings with direct line-of-sight to noise-sensitive receptors. b. Parking structures driveways and entrances shall be located so that the structure serves as a barrier to nearby noise-sensitive receptors. c. Interior reflective surfaces (i.e., ceilings), exposing nearby noise-sensitive receptors to elevated noise levels shall have an acoustically absorptive treatment, such as spray-in cellulose applied. d. Parking structure capacity shall be limited during more sensitive evening and nighttime hours (7 p.m. to 7 a.m.). (i.e., 50% capacity from 7 p.m. to 10 p.m., 30% capacity from 10 p.m. to 7 a.m.). e. To ensure compliance, further analysis of on-site noise generation from the proposed parking structures shall be conducted when tentative maps become available. Implementation of the above mitigation measures and compliance with *City of Roseville Municipal Code* requirements would substantially reduce long-term stationary-source noise associated with the development of industrial land uses, commercial/office land uses, and parking structures to comply of the *City of Roseville General Plan* noise standards. Therefore, long-term operational stationary source noise levels would be reduced to a less-than-significant level.	

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Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
4.11-4: Land Use Compatibility of On-site Sensitive Receptors with Future Traffic Noise Levels. Implementation of the proposed project would result in future traffic noise that could expose proposed new land uses to levels that exceed the City's standards. This traffic noise could result in annoyance and/or sleep disruption to nearby noise-sensitive receptors. Therefore, this impact is considered potentially significant.	PS	**Mitigation Measure 4.11-4: Land Use Compatibility of On-site Sensitive Receptors with Future Traffic Noise Levels.** Project applicant(s) shall implement the following measures to substantially reduce the exposure of sensitive receptors to excessive roadway traffic noise levels. During project review, the City's planning staff shall determine if the proposed land use would potentially be exposed to noise levels exceeding the City's noise level standards. If a proposed project has the potential to generate or be exposed to noise levels exceeding the City of Roseville noise standards (refer to Tables 4.11-4 through 4.11-6) or result in a substantial permanent increase in ambient noise levels (3 dB or greater), the project applicant shall prepare a site-specific acoustical analysis. The acoustical analysis shall be conducted in accordance with the City of Roseville General Plan requirements shown in Table 4.11-5. ► Disclose all transportation noise (i.e., roadway, railway, race track), vibration levels, and their meanings to purchasers and/or renters prior to contract or title transfer for residential property within the Plan area. ► Incorporate site specific design considerations to reduce exterior noise exposure levels. Site design shall include the following measures as applicable to the project-specific site and when feasible: • Common outdoor activity areas, such as play structures, swimming pools, or other outdoor congregation areas included in multi-family residential and/or mixed-use developments shall be located such that the building(s) serve as a sound barrier to the nearest predominant noise source. • Distances between noise sources and noise-sensitive uses shall be maximized through the use of noise buffers/setbacks. Setback areas can take the form of open space, frontage roads, recreational areas, storage yards, or other City approved setback. • Noise barriers shall be constructed to provide shielding of noise-sensitive uses and outdoor activity areas. Barriers may include manmade walls, earthen berms, a	LTS

NI = No Impact LTS = Less-than-significant PS = Potentially Significant S = Significant SU = Significant and Unavoidable

Table ES-1
Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		combination of walls and berms, and other structures breaking line of sight from noise source to receptor. Barriers shall be located in close proximity to either the noise source or the sensitive receptor. • A site specific acoustical analysis shall be performed consistent with Table 4.11-5, and determine effectiveness of various site design measures based on specific construction plans. Implementation of the above mitigation measure may not always be considered feasible due to the urban nature of the Plan area. As an example, it may not be feasible to provide adequate noise buffers or other noise abatement/ reduction improvements between existing noise sources and sensitive receptors because of the existing urban nature of the Plan area. In addition, noise barriers in the Plan area may not be consistent with strategies or envisioned as part of the Downtown Roseville Specific Plan. An amendment to the Noise Element of the General Plan is proposed concurrent with the Downtown Specific Plan project. The amendment recognizes that in increasingly urban areas it is difficult to maintain suburban noise standards, and in order to facilitate the City's goals to encourage reinvestment and economic development in the Downtown, Riverside, and Historic District Specific Plan areas, the proposed amendment would allow the City to elect to allow new noise-sensitive land uses on a case-by-case basis in proximity to sources of transportation noise. Noise mitigation, including an acoustical analysis, would be required to reduce interior space noise levels to the standards specified in Table IX-1 of the City's General Plan. Exterior noise levels would require mitigation to the extent feasible using building orientation, construction, and design features; however ultimately, exterior noise levels may exceed the outdoor activity area noise standards identified in Table IX-1 of the City's General Plan. With approval of the amendment to the Noise Element of the General Plan and implementation of noise-reduction measures, impacts related to land use compatibility of on-site sensitive receptors with future traffic noise levels would be reduced to a less-than-significant level.	

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Table ES-1
Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
4.11-5: Land Use Compatibility of On-site Sensitive Receptors with Future Railroad Noise Levels. Implementation of the proposed project would result in locating new noise-sensitive land uses within 60 dB L_{dn} railroad noise contours. Therefore, this impact is considered potentially significant.	PS	**Mitigation Measure 4.11-5: Land Use Compatibility of On-site Sensitive Receptors with Future Railroad Noise Levels.** Implement mitigation measure 4.11-4 to reduce the exposure of sensitive receptors (i.e., residential, mixed-use development) to significant noise associated with future railroad and rail yard operations. Implementation of mitigation measure 4.11-4 may not always be considered feasible due to the urban nature of the Plan area. As an example, it may not be feasible to provide adequate noise buffers or other noise abatement/reduction improvements between existing noise sources and sensitive receptors because of the existing urban nature of the Plan area. In addition, noise barriers in the Plan area may not be consistent with strategies or envisioned as part of the Downtown Roseville Specific Plan. With implementation of measures listed above (see Mitigation Measure 4.11-4) by project applicant(s) and enforcement of noise standards for interior spaces, projected noise levels would not have the potential to exceed applicable interior noise standards adopted by the City with respect to land use compatibility. However, due to the potential for noise associated with the railyard to exceed the General Plan standards for exterior noise, this impact would be significant and unavoidable.	SU
4.11-6: Future Interior Noise Levels at On-site Sensitive Receptors. Implementation of the proposed project would result in exposing new noise-sensitive receptors to interior noise levels that exceed the City's noise standards. This would result in annoyance and/or sleep disruption to noise-sensitive receptors. Therefore, this impact is considered potentially significant.	PS	**Mitigation Measure 4.11-6: Future Interior Noise Levels at On-site Sensitive Receptors:** Project applicant(s) shall implement the following measures for all noise-sensitive land uses with direct exposure to roadways, parking areas, and railways and exterior noise levels greater than 70 dB L_{dn}: ► All residential uses shall be constructed with air conditioning and mechanical ventilation systems that allow for windows and doors to remain closed and achieve acoustical isolation from traffic and railroad noise. The systems shall allow for the introduction of fresh outside air, without the requirement of open windows. Access to outside air shall be automatically controlled to prevent unintentionally flowing seasonally hot or cold into conditioned space.	LTS

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Table ES-1
Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		► Attic vents direct exposure to elevated noise levels shall be acoustically baffled, containing at least one 90 degree obstruction to the flow of air. The baffle shall be fitted with an acoustically absorbent liner. ► Exterior walls shall be constructed of a three-coat stucco or wood siding with an exterior underlayment or sound board. ► All residential windows and doors with direct exposure to elevated noise levels shall be required to meet a minimum STC rating of 34. ► Windows and sliding glass doors shall be mounted in low infiltration rate frames (0.5 cubic feet per minute or less, per ANSI specifications). ► Exterior doors shall be solid core with perimeter weather-stripping and threshold seals. ► The City shall require project applicants to submit an acoustical analysis which verifies compliance with the City of Roseville interior noise level standard of 45 dB L_{dn}. The analysis shall be based on detailed construction plans and site configuration details, and be conducted by a qualified acoustical consultant. Implementation of the above mitigation measure would reduce exposure of noise-sensitive uses to interior noise levels exceeding the City of Roseville 45 dB L_{dn} standard. As a result this impact would be reduced to a less-than-significant level.	
4.11-7: Ground-Borne Noise and Vibration Levels at Sensitive Receptors. Implementation of the proposed project would result in exposing new sensitive noise-receptors to ground-borne noise and vibration levels that exceed the FTA and Caltrans guidelines. These ground-borne noise and vibration levels could result in annoyance or architectural/structural damage. Therefore, this impact is considered potentially significant.	PS	**Mitigation Measure 4.11-7: Ground-Borne Noise and Vibration Levels at Sensitive Receptors:** Project applicant(s) shall implement the following measures to reduce the potential for human annoyance and achitectural/structural damage resulting from elevated ground-borne noise and vibration levels. ► Construction-Induced Vibration: • Pile driving required within a 50-foot radius of historic structures should utilize alternative installation methods were possible (e.g., pile cushioning, jetting, pre-drilling, cast-in-place systems, resonance-free vibratory pile drivers). Specifically, geo pier style cast in place systems	LTS

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Table ES-1
Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		shall be used where feasible as an alternative to pile driving to reduce the number and amplitude of impacts required for seating the pile. • The pre-existing condition of all buildings within a 50-foot radius, and historical buildings within the immediate vicinity of proposed construction activities shall be recorded in the form of a preconstruction survey. The preconstruction survey shall determine conditions that exist before construction begins for use in evaluating damage caused by construction activities. Fixtures and finishes within a 50-foot radius of construction activities susceptible to damage shall be documented (photographically and in writing) prior to construction. All damage will be repaired back to its pre-existing condition. • Vibration monitoring shall be conducted prior to and during pile driving operations occurring within 100 feet of the historic structures. Every attempt shall be made to limit construction generated vibration levels in accordance with Caltrans recommendations during pile driving and impact activities in the vicinity of the historic structures. • Provide protective coverings or temporary shoring of on-site or adjacent historic features as necessary, in consultation with the Preservation Director. ► Railroad Induced Vibration: • Vibration sensitive uses shall be located a minimum of 100 feet from the UPRR centerline. To ensure compliance with FTA and Caltrans recommended guidelines, and site specific ground-borne noise and vibration assesment should be conducted. • A ground-borne vibration assessment shall be conducted at proposed building pad locations within 200 feet of UPRR right of ways, prior to project approval. Vibration monitoring and assessment shall be conducted by a qualified noise and vibration control engineer. Implementation of the above mitigation measure would substantially limit the effects of ground-borne vibration on sensitive receptors and as a result, project-generated ground-borne	

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Table ES-1
Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		noise and vibration levels would be reduced to a less-than-significant level.	
4.12 Hydrology and Water Quality			
4.12-1: Short-Term Degradation of Water Quality from Project-Related Construction Activities. Construction disturbances associated with the proposed project would create the potential for soil erosion and sedimentation of storm water drainage systems and runoff to Dry Creek. Construction activities may also involve the potential for releases of other pollutants to surface waters and/or the future storm drain system including oil and gas, chemical substances used in the construction process, accidental discharges, waste concrete, and wash water. Implementation of standard erosion control measures and implementation of minimum control measures required by the SWMP would be required by individual development projects in the Plan area. This impact is considered less than significant.	LTS	No mitigation is required.	LTS
4.12-2: Temporary Effects on Groundwater Quality During Construction. Sediments and contaminants would be prevented from entering groundwater through requirements of the NPDES storm water general permit for construction activity, including preparation of a SWPPP. The NPDES permit would be required to include provisions for dewatering, and the SWPPP would be required to include a dewatering plan, measures to prevent/minimize releases of sediment and contaminants into groundwater during excavation, and methods to clean up releases if they do occur. Because compliance with these regulations would be a required of individual development projects in the Plan area and the contamination of groundwater would be avoided and/or minimized, this impact is considered less than significant.	LTS	No mitigation is required.	LTS
4.12-3: Change in the Quantity of Groundwater through Withdrawals, Interception, or Loss of Recharge Capacity. The Plan area is located within an existing urbanized area and is developed with impervious surfaces of various types. Implementation of the proposed project would not result in a	LTS	No mitigation is required.	LTS

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Table ES-1
Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
substantial increase in impervious-surface coverage such that interference with groundwater recharge would occur. In addition, the proposed project would not result in a demand for groundwater resources. This impact is considered less than significant.			
4.12-4: Long-Term Changes in Runoff and Water Quality. Although individual project sites in the Plan area are in an urban environment that is largely paved, development under the Specific Plan may slightly increase the amount of impervious surfaces, and could proportionately increase runoff from individual project sites to storm drains. However, the Plan area is located an area of Roseville where an existing storm drainage system would be used to convey urban runoff conveyance in compliance with the City's SWMP requirements. Because compliance with NPDES-related regulations for storm water runoff would be a required element of individual projects in the Plan area, this impact is considered less than significant.	LTS	No mitigation is required.	LTS
4.12-5: Expose People or Structures to a Significant Risk of Flooding. Implementation of the proposed project could expose people and structures to flooding due to construction of proposed commercial/residential buildings and an amphitheater adjacent to or Dry Creek. This impact is considered potentially significant.	PS	**Mitigation Measure 4.12-5: Hydrology and Water Quality – Expose People or Structures to a Significant Risk of Flooding.** All habitable structures constructed in the Plan area shall be located outside the adjusted 100-year flood plain as identified in the Downtown Specific Plan Hydraulic Study (RBF 2008) prepared for the Downtown Roseville Specific Plan. Additional encroachment into areas within the adjusted 100-year flood plain shall require site specific hydraulic modeling. Specific structures identified in the Downtown Roseville Specific Plan shall be prohibited from being constructed inside the adjusted 100-year flood plain unless evaluated and approved through project specific hydraulic modeling including structures associated with mixed-use development and high-density residential.	LTS
4.12-6: Proposed Project Structures within the 100-year Flood Zone Could Impede or Redirect Flood Flows. Implementation of the proposed project could expose people and structures to flooding due to construction of proposed commercial/residential buildings, a golf course, bridges and park facilities, and an amphitheater adjacent to or across Dry Creek. This impact is considered potentially	PS	**Mitigation Measure 4.12-6: Hydrology and Water Quality – Proposed Project Structures within the 100-year Flood Zone Could Impede or Redirect Flood Flows.** To prevent impeding or redirecting storm water flows in Dry Creek, the following actions shall be implemented for design and construction of improvements identified in the Downtown Roseville	LTS

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Table ES-1
Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
significant. Portions of the proposed project are within the 100-year floodplain. This impact is considered potentially significant.		Specific Plan adjacent to Dry Creek. 1. The Creek Walk identified in the Downtown Roseville Specific Plan shall be constructed at the existing top of bank elevation for Dry Creek and the area south of the new library bridge shall be made inaccessible during major storm events. 2. All pedestrian bridges in the Specific Plan area and the grand staircase shall be aligned to prevent increased 100-year flood water surface elevations in Dry Creek. Additional hydraulic analyses shall be conducted for the new pedestrian bridge alignments that are inconsistent with the RBF hydraulic analysis. 3. Prior to any golf course related development activities in Saugstad Park, a site-specific hydraulic analysis or other acceptable analysis shall be conducted for a more specific golf course development plan to ensure that there is no risk of impeding or redirecting flood flows. This future analysis shall be reviewed and approved by the City's Public Works Department. These measures would ensure proposed structures and improvements identified in the Specific Plan do not impede or redirect flood flows in Dry Creek, reducing this potential impact to a less-than-significant level.	
4.12-7 Inundation by Seiche, Tsunami, or Mudflow. The proposed project is not located in an area susceptible to seiche or tsunamis. Steep slopes along Dry Creek could pose hazards associated with mudflows. This impact is considered potentially significant.	PS	**Mitigation Measure 4.12-7: Hydrology and Water Quality – Inundation by Seiche, Tsunami, or Mudflow.** Implement Mitigation Measure 4.4-3. This measure would identify any unstable, hazardous slopes along Dry Creek that could pose a mudflow hazard to pedestrians and/or bicyclists and require implementation of recommendations to prevent landslides. This impact would be reduced to a less-than-significant level.	LTS
5 Cumulative Impacts			
5.4-1: Increases in Greenhouse Gas Emissions. Emissions of GHGs during construction and operation of the proposed project would be substantial. Therefore, direct impacts of the proposed project from GHG emissions are considered significant.	S	**Mitigation Measure 5.4-1** Implementation of Air Quality Mitigation Measure 4.10-2, which would reduce operational emissions of criteria air pollutants and precursors, would also act to reduce GHG emissions associated with project operation. Mitigation measure 4.10-2 is relevant to impact 5.4-1 because both criteria air pollutant and GHG emissions are	SU

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Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		frequently associated with combustion byproducts. In addition, the City shall implement the following measures to reduce direct and indirect GHG emissions associated with the proposed project. Certain measures would already be components of the project (i.e., Specific Plan policies, design guidelines and standards), and/or would be applied consistent with the City's General Plan Policies addressing GHG emissions and climate change, but are provided here for purposes of completeness. **A. Energy Efficiency** 1. Design buildings to be energy efficient (e.g., exceed Title 24 requirements). Site buildings to take advantage of shade, prevailing winds, landscaping and sun screens to reduce energy use (1% emissions reduction). 2. Install efficient lighting and lighting control systems. Use daylight as an integral part of lighting systems in buildings (0.5% emissions reduction). 3. Install light colored "cool" roofs, cool pavements, and strategically placed shade trees (0.5% emissions reduction). 4. Install energy efficient heating and cooling systems, appliances and equipment, and control systems. 5. Install light emitting diodes (LEDs) for traffic, street and other outdoor lighting. 6. Use solar heating, automatic covers, and efficient pumps and motors for pools and spas. **B. Renewable Energy** 1. Install solar and wind power systems, solar and tankless hot water heaters, and energy-efficient heating ventilation and air conditioning. 2. Improve the thermal integrity of buildings, and reduce the thermal load with automated time clocks or occupant sensors. 3. Where practical, install solar panels on carports and over parking areas. **C. Water Conservation and Efficiency** 1. Create water-efficient landscapes with native, drought-resistant species. 2. Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls.	

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Table ES-1
Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		3. Where feasible, use reclaimed water for landscape irrigation in new developments and on public property. Install the infrastructure to deliver and use reclaimed water. 4. Design buildings to be water-efficient. Install water-efficient fixtures and appliances. 5. Devise a comprehensive water conservation strategy appropriate for the project and location. The strategy may include many of the specific items listed above, plus other innovative measures that are appropriate to the specific project. **D. Solid Waste Measures** 1. Reuse and recycle construction and demolition waste including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard. 2. Provide interior and exterior storage areas for recyclables and green waste and adequate recycling containers located in public areas. **E. Land Use Measures** 1. Incorporate public transit into project design (0.4–1% emissions reduction). 2. Preserve and create open space and parks. Preserve existing trees, and plant replacement trees at a set ratio. 3. Include pedestrian and bicycle-only streets and plazas within developments. Create travel routes that ensure that destinations may be reached conveniently by public transportation, bicycling or walking. Design roadway network to maximize pedestrian access to transit stops, including access from residential cul-de-sacs to collector and arterial streets (1% emissions reduction). **F. Transportation and Motor Vehicles** 1. Limit idling time for commercial vehicles, including delivery and construction vehicles. 2. Provide the necessary facilities and infrastructure to encourage the use of low or zero-emission vehicles (e.g., electric vehicle charging facilities and conveniently located alternative fueling stations) (0.5–1.5% emissions reduction). 3. Provide park and ride lots. 4. Increase headways of current City bus service to downtown Sacramento.	

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Table ES-1
Summary Table of Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		5. Provide shuttle service to public transit. 6. Provide public transit incentives such as free or low-cost monthly transit passes (1–5% emissions reduction). 7. Incorporate bicycle lanes, routes, and intersection improvements into street systems within the Specific Plan (1% emissions reduction). 8. For commercial land uses, provide adequate bicycle parking near building entrances to promote cyclist safety, security, and convenience (1% emissions reduction). 9. Create Class II bicycle lanes and walking paths directed to the location of schools, parks and other destination points (1% emissions reduction). 10. Ensure that the public school district shall serve the project site with a student busing system, and/or enable students residing in the project to safely walk to or bicycle to school without encountering barriers such as large arterial roadways or sound walls. 11. Construction of transit facility/amenity (bus shelters, bicycle lockers/racks, etc.) for existing public and private transit (0.5% emissions reduction). 12. Provide secure bicycle storage at public parking facilities. Mitigation Measure 5.4-1 would reduce operational and construction-generated GHG emissions. The City has determined that the proposed project would be consistent with the goals of AB 32 in that it is the type of project generally considered to be compatible with long-term GHG emission reduction efforts as it is a downtown revitalization project; and that it is reasonable to expect that the extensive vehicle trip reduction and energy conservation measures identified in Mitigation Measure 5.4-1 would be effective in substantially reducing GHG emissions compared with the unmitigated emissions calculations presented in Table 5.4-1. Conservative emissions reductions estimates were assigned to individual measures where documentation was available (California Air Pollution Control Officers Association 2008). The exact quantity of GHG emissions reduction associated with several measures identified in Mitigation Measure 5.4-1 cannot be	

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		calculated at this time. However, due to the current disparity between the volume of existing global GHG emissions and the goals of AB 32, even with mitigation measures incorporated, the proposed project would contribute a cumulatively considerable, incremental contribution to global GHG emissions and, therefore, would result in a significant and unavoidable cumulative impact. Mitigation measures that were considered by the City but were determined to be infeasible include: ► Use of low or zero-emission vehicles, including construction vehicles is economically infeasible. ► Promote ride sharing programs by designating a certain percentage of parking spaces for ride sharing vehicles. The City already has a Transportation Systems Management (TSM) program. ► Create car sharing programs. This measure is not enforceable.	

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1 RESPONSES TO COMMENTS ON THE DRAFT EIR

1.1 OVERVIEW

The City circulated a Notice of Preparation (NOP) for a DEIR for the Downtown Roseville Specific Plan on October 17, 2007 for a 30-day review period. On December 23, 2008, the City distributed the DEIR to public agencies and the general public and submitted the document to the State Clearinghouse for state agency review.

On December 23, 2008, the City of Roseville distributed to public agencies and the general public a Draft Environmental Impact Report (Draft EIR) for the Downtown Roseville Specific Plan and Downtowncode project. The proposed project involves implementation of the Specific Plan and associated Downtowncode in a 165-acre area comprised of the existing Historic Old Town, Vernon Street Civic Core, and Royer and Saugstad Parks in Roseville, California.

In accordance with Section 15105 of the State CEQA Guidelines, a 53-day public review period was provided for the Draft EIR from December 23, 2008 through February 13, 2009. During the review period, four written comment letters were received and were considered in the preparation of this Final Environmental Impact Report (EIR). In addition, a meeting before the City of Roseville Planning Commission was held on February 26, 2009 to provide the public with an additional opportunity to comment on the Draft EIR. No comments on the environmental analysis provided in the Draft EIR were submitted at the Planning Commission meeting.

1.2 LIST OF COMMENTERS

All comments received on the Draft EIR and the responses to those comments are presented in this chapter in accordance with State CEQA Guidelines Section 15132. All comment letters are labeled to correspond with an index table (Table 1-1). Each individual comment is assigned a number (e.g., 1-1) that corresponds to the response following the comment. The comment letters and the responses to the substantive environmental issues raised in those letters are presented in the following section.

Table 1-1
List of Commenting Entities

1	Native American Heritage Commission Katy Sanchez, Program Analyst	January 2, 2009
2	State of California Public Utilities Commission Moses Stites, Rail Corridor Safety Specialist	February 11, 2009
3	Placer County Air Pollution Control District Tom Thompson, Associate Planner	February 11, 2009
4	Judith Donato	January 30, 2009

1.3 COMMENT LETTERS AND RESPONSES TO COMMENTS

The comments received on the Draft EIR and responses to those comments are provided in this section. Copies of all comment letters are provided in their entirety. Individual comments in each comment letter are referenced in the margin. Responses to each comment provided in the comment letters immediately follow each of the comment letters.

STATE OF CALIFORNIA — Arnold Schwarzenegger, Gov

1

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-4082
(916) 657-5390 - Fax

RECEIVED
JAN 05 2009
DEPT OF PLANNING & BUILDING
CITY OF ROSEVILLE

JAN 05 2008

January 2, 2009

Terri Shirhall
City of Roseville Redevelopment Agency
311 Vernon Street
Roseville, CA 95678

RE: SCH# 2007102090 Downtown Roseville Specific Plan; Placer County

Dear Ms. Shirhall:

The Native American Heritage Commission has reviewed the Notice of Completion (NOC) regarding the above referenced project. The California Environmental Quality Act (CEQA) states that any project that causes a substantial adverse change in the significance of an historical resource, which includes archeological resources, is a significant effect requiring the preparation of an EIR (CEQA guidelines 15064(b)). To adequately comply with this provision and mitigate project-related impacts on archaeological resources, the Commission recommends the following actions be required:

- ✓ Contact the appropriate Information Center for a record search to determine:
  - If a part or all of the area of project effect (APE) has been previously surveyed for cultural resources.
  - If any known cultural resources have already been recorded on or adjacent to the APE.
  - If the probability is low, moderate, or high that cultural resources are located in the APE.
  - If a survey is required to determine whether previously unrecorded cultural resources are present.
- ✓ If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
  - The final report containing site forms, site significance, and mitigation measurers should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for pubic disclosure.
  - The final written report should be submitted within 3 months after work has been completed to the appropriate regional archaeological Information Center.
- ✓ Contact the Native American Heritage Commission for:
  - A Sacred Lands File Check. **Sacred Lands File check completed, no sites indicated**
  - A list of appropriate Native American Contacts for consultation concerning the project site and to assist in the mitigation measures. **Native American Contacts List attached**
- ✓ Lack of surface evidence of archeological resources does not preclude their subsurface existence.
  - Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, per California Environmental Quality Act (CEQA) §15064.5(f). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities.
  - Lead agencies should include in their mitigation plan provisions for the disposition of recovered artifacts, in consultation with culturally affiliated Native Americans.
  - Lead agencies should include provisions for discovery of Native American human remains in their mitigation plan. Health and Safety Code §7050.5, CEQA §15064.5(e), and Public Resources Code §5097.98 mandates the process to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery.

1-1

Sincerely,

Katy Sanchez

Katy Sanchez
Program Analyst
(916) 653-4040

CC: State Clearinghouse

Letter 1 Response	Native American Heritage Commission Katy Sanchez, Program Analyst January 2, 2009

1-1 The commenter provides recommended actions that are required for the proposed project to adequately comply with provisions of CEQA related to a substantial adverse change in the significance of a historical resource. The recommended actions include contacting the appropriate information center for a record search, preparing a professional report if an archaeological inventory survey is required of the project, and contacting the Native American Heritage Commission. The commenter also states the lack of surface evidence of archaeological resources does not preclude their subsurface existence and recommends actions to protect undiscovered archaeological resources.

The DEIR fully analyzes potential impacts relating to cultural resources, including archaeological and historical resources, from the implementation of the Downtown Roseville Specific Plan (see Section 4.7, "Cultural Resources"). In addition, the DEIR recommends a mitigation measure that would protect two historic-era resources from disturbance during project implementation (see Mitigation Measure 4.7-1). The DEIR also recommends a mitigation measure that would protect unrecorded cultural materials during project implementation (see Mitigation Measure 4.7-2). Lastly, the DEIR recommends a mitigation measure that would protect undiscovered / unrecorded human remains (see Mitigation Measure 4.7-3). Actions required under Mitigation Measure 4.7-3 specifically include actions as recommended by the commenter.

STATE OF CALIFORNIA — Arnold Schwarzenegger, Gover

2

PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

February 11, 2009

Terri Shirhall
City of Roseville Redevelopment Agency
311 Vernon Street
Roseville, CA 95678

Re: Notice of Completion, Draft Environmental Impact Study (DEIR)
Downtown Roseville Specific plan
SCH# 2007102090

Dear Ms. Shirhall:

As the state agency responsible for rail safety within California, the California Public Utilities Commission (CPUC) recommends that development projects proposed near rail corridors be planned with the safety of these corridors in mind. New developments and improvements to existing facilities may increase vehicular traffic volumes, not only on streets and at intersections, but also at at-grade highway-rail crossings. In addition, projects may increase pedestrian traffic at crossings, and elsewhere along rail corridor rights-of-way. Working with CPUC staff early in project planning will help project proponents, agency staff, and other reviewers to identify potential project impacts and appropriate mitigation measures, and thereby improve the safety of motorists, pedestrians, railroad personnel, and railroad passengers. 2-1 2-2 2-3 2-4

It appears that the project is located adjacent to the Union Pacific Railroad tracks. The DEIR should evaluate potential project related rail safety impacts, and measures to reduce adverse impacts. For example, if not already present, warning signs and vandal-resistant fencing should be installed to prevent trespassers from accessing the railroad right of way. 2-5 2-6

Thank you for your consideration of these comments. If you have any questions in this matter, please call me at (415) 713-0092 or email ms2@cpuc.ca.gov. 2-7

Sincerely,

Moses Stites
Rail Corridor Safety Specialist
Consumer Protection and Safety Division
Rail Transit and Crossings Branch
515 L Street, Suite 1119
Sacramento, CA 95814

2-1 The commenter provides an overview of the California Public Utility Commission's (CPUC) responsibility for rail safety in California and recommends development projects proposed near rail corridors be planned with safety in mind. Please refer to response to comments 2-2 through 2-6 below.

2-2 The commenter states new developments and improvements to existing facilities may increase vehicular traffic volumes on streets, at intersections, and at at-grade highway-rail crossings. A traffic study was prepared for the DEIR which analyzed the traffic operations at study intersections in and near the Specific Plan area. The traffic study also recommends mitigation measures to address significant and potentially significant impacts associated with implementing the Downtown Roseville Specific Plan (refer to Section 4.6, "Transportation and Circulation," and Appendix B of the DEIR). Specifically, the DEIR identifies traffic volumes in the Specific Plan area would result in a total of 62,842 daily trips based on land use types envisioned in the Specific Plan (see Table 4.6-6 of the DEIR) which would result in traffic operations at three intersections to operate below acceptable levels of service (LOS) under cumulative (2020) plus project conditions (see Table 4.6-7 of the DEIR). Of the intersections evaluated as part of the traffic study, two intersections involving at-grade rail crossings and located within 1 mile of the Specific Plan area (i.e., Yosemite / Atlantic Street, Tiger/Center / Atlantic Street) were included (see Appendix B of the DEIR). Both of these at-grade rail crossings are controlled crossings with lights and guards. The DEIR identified a significant impact would occur at the Yosemite Street / Atlantic Street intersection (see Impact 4.6-2) and recommends mitigation to restripe the southbound right-turn lane as a shared left/right-turn lane which improve operation of this intersection to an acceptable LOS (see Mitigation Measure 4.6-2a). The traffic study identified the Tiger/Center / Atlantic Street intersection would continue to operate acceptable LOS with implementation of the Specific Plan. The DEIR fully and adequately analyzed potential impacts to at-grade rail crossings resulting from increased traffic volumes in the Specific Plan area.

2-3 The commenter states projects in the Specific Plan area may increase pedestrian traffic at at-grade rail crossings. As described in the DEIR, the Specific Plan would establish policies for pedestrian movement by creating a walkable and pedestrian-friendly environment in Downtown Roseville. There are two at-grade rail crossings located within 1 mile of the Specific Plan area located near the Yosemite / Atlantic Street and Tiger/Center / Atlantic Street intersections. Although there is the potential for a slight increase in foot-traffic to/from residential areas located northwest of these intersections, the increased pedestrian numbers are not anticipated to be substantial because the Specific Plan encourages and facilitates infill development with mixed-uses and urban amenities intended to create an internally functioning relationship between land uses in the plan area. In addition, the Washington Boulevard railroad undercrossing serves as the primary pedestrian corridor between the Old Town and Vernon Street areas. Lastly, the Specific Plan does not include any new pedestrian crossing or pedestrian improvements to at-grade rail crossings which could precipitate an increased use by pedestrians.

2-4 The commenter states working with CPUC staff in project planning would assist in project proponents, agency staff, and other reviewers to identify potential impacts and recommend mitigation measures and to improve the safety of motorists, pedestrians, railroad personnel, and railroad passengers. In addition to the Specific Plan being required to comply with the State California Environmental Quality Act (CEQA), future development projects proposed in the Specific Plan area would also be required to comply with CEQA. The City of Roseville is committed and looks forward to working with CPUC staff as future development projects occur

in the Specific Plan area. The comment does not raise any issues related to the adequacy of environmental analysis conducted in the DEIR. No further response is necessary.

2-5 The commenter identifies the Specific Plan area as being located adjacent to Union Pacific Railroad tracks. The commenter states the DEIR should evaluate potential rail safety impacts and recommend mitigation measures to reduce adverse impacts. It is unclear what rail safety impacts could occur with implementation of the proposed Specific Plan. As stated previously, the Specific Plan includes policies to create a walkable and pedestrian-friendly environment in Downtown Roseville. There are two at-grade rail crossings located within 1 mile of the Specific Plan area located near the Yosemite / Atlantic Street and Tiger/Center / Atlantic Street intersections. Although there is the potential for a slight increase in foot-traffic to/from residential areas located northwest of these intersections, the increased pedestrian numbers are not anticipated to substantial because the Specific Plan facilitates infill development with mixed-uses and urban amenities intended to create an internally functioning relationship between land uses in the plan area. A substantial increase in pedestrian movement outside the Specific Plan area, particularly at the two closest at-grade rail crossings, is not anticipated to occur with implementation of the plan. In addition, the Specific Plan does not include any pedestrian improvements to at-grade rail crossings which could precipitate an increased use by pedestrians. No further response can be provided.

2-6 The commenter recommends mitigation measures to reduce adverse impacts related to rail safety. As stated previously, future development projects proposed in the Specific Plan area would be required to comply with CEQA at which time project- and site-specific mitigation measures would be recommended. Recommendation of mitigation measures at a project- and site-specific level would be more adept at reducing any potential rail safety impacts. The City of Roseville is committed to working with CPUC staff as future development projects occur in the Specific Plan area.

2-7 The commenter provides contact information. No response is necessary.

Placer County
AIR POLLUTION CONTROL DISTRICT

3091 County Center Drive, Suite 240 Auburn, CA 95603 • (530) 745-2330 • Fax (530) 745-2
www.placer.ca.gov/apcd Thomas J. Christofk, Air Pollution Control Officer

3

February 11, 2009

Paul Richardson
Planning Director
City of Roseville
311 Vernon Street
Roseville, CA 95678

Subject: City of Roseville Downtown Specific Plan DEIR

Dear Mr. Richardson,

Thank you for the opportunity to review the "City of Roseville Downtown Specific Plan DEIR". As you are aware, this project is located within the Sacramento Valley Air Basin (SVAB) portion of Placer County, which is classified as a severe non-attainment area for federal health based ambient air quality standards of ozone and particulate matter (PM2.5) standards. 3-1

Based on the project description, the projects related short-term construction emissions will result primarily from diesel-powered construction equipment, trucks hauling building supplies, grading, construction, building demolition, and construction employee trips. The air quality analysis in the Project's DEIR indicates that the short-term construction emissions will exceed the District's significant thresholds; therefore mitigation measures must be implemented. 3-2

In addition, there are "long term", cumulative impacts that were identified in the DEIR that will also need to be addressed. The District has identified the following mitigation measures that should be implemented by the project to ensure that the project's "short-term" construction emissions and contribution to cumulative air quality impacts will be reduced to a less than significant level. Also, we have included mitigation measures for "long term / operational" air quality impacts. It is our expectation that the City will incorporate these measures in the Final EIR. 3-3

NOTE: As we have discussed, the Placer County Air Pollution Control District has recently updated our mitigation measures in order to reflect current state and local rules and/or policies. The EIR will need to reflect these updates. 3-4

The following are our comments on the DEIR, followed by recommended changes to the mitigation measures related to air quality:

1. (Page 3-17) In order to encourage the development of the types of uses envisioned within the Plan, and to further encourage reductions of GHG's, APCD would like the City to consider establishing "Green Building" standards for the "Catalyst Sites". (i.e. as stated in the Cities Air Quality Policy #10). These standards should be applied to all new and modified buildings within the Plan area. | 3-5

2. (Page 4.10-7, Table 4.10-2) The current status of PM 2.5 is "non-attainment". Please change this status throughout the document where appropriate. | 3-6

3. (Page 4.10-11) This exhibit needs to be corrected. Please include the "100" risk isopleth for this exhibit. | 3-7

4. (Page 4.10-16, end of 4th paragraph) Change "(serious)" to "(severe)". Also, the deadline is "2018", not "2013". | 3-8

5. (Page 4.10-20) AQ Policy 8 is potentially in conflict with locating more residential units within the proximity of the UPRR. | 3-9

6. (Page 4.10-26, 4th paragraph) Please eliminate "(applicable during the summer months only)". | 3-10

7. (Page 4.10-13, paragraph 3). Idle time "limited to 5 minutes" conflicts with Table 2-1 and page 4.10-35. The maximum idle time for construction vehicle and equipment should be 5 minutes instead of 10 minutes. This should be reflected throughout the document. | 3-11

8. (Page 4.10-33, paragraph 7) The document should include a provision for future CO analysis of any intersection that results in a reclassification to a LOS of E or F, or if existing intersections operating at a LOS of E or F has an increase in traffic. | 3-12

9. (Page 4.10-35, 36) All the mitigation measures listed on these pages need to be updated and substituted with current, APCD mitigation measures (attached, below). | 3-13

10. (Page 4.10-35) Remove the "Measures specific to 20+ acre project sites:" heading and update / substituted these outdated measures with current, APCD mitigation measures (attached, below). | 3-14

11. (Page 4.10-36, etc.) Please review the document for wording that is too permissive, or wording that is not specific, especially wording related to mitigation. Avoid phrases such as "To the extent feasible …", and "as far away as possible", "may", "should", etc. | 3-15

12. (Page 5-20, last paragraph) The following conflicts with the language in the State Scoping Plan: "At this time, AB 32 only applies to stationary source emissions". This language should be deleted or modified to include the fact that the California ARB also recognizes "transportation" as a contributor to GHG's under AB32. 3-16

13. (Page 5-23 thru 5-25) For GHG mitigation measures, how were the emission reduction percentages quantified? What methods were used? Why are some listed with reductions and others are not? APCD suggest that the City establish a "target" reduction of GHG's for this project. 3-17

14. Table 2-1: All the mitigation measures listed in this table need to be updated and substituted with current, APCD mitigation measures (see below).

Note: There does not appear to be any "offsite" mitigation measures within the document. Please include the wording below (#OP-7) when discussing or listing mitigation measures relating to "offsite mitigation" within the document.

APCD Updated Mitigation Measures (Construction)

Please update the Air Quality mitigation measures in Table 2-1, Section 4.10-1, (and as listed elsewhere throughout the DEIR), by eliminating the proposed City of Roseville mitigation measures and by substituting these with the more current, updated "APCD Mitigation Measures" listed below. Note: Our proposed wording follows the DEIR mitigation measure number below (in bold). 3-18

1. If the project's size is over 10 acres or building demolition proposed, the applicant shall submit a Construction Emission / Dust Control Plan to the Placer County APCD. This plan must address the minimum Administrative Requirements found in section 300 and 400 of APCD Rule 228, Fugitive Dust. The applicant shall not break ground prior to receiving APCD approval of the Construction Emission / Dust Control Plan.

2. If the project applicant is required to prepare a Construction Emission/Dust Control Plan, the prime contractor shall also submit to the District a comprehensive inventory (i.e. make, model, year, emission rating) of all the heavy-duty off-road equipment (50 horsepower of greater) that will be used an aggregate of 40 or more hours for the construction project. The inventory shall be updated, beginning 30 days after any initial work on site has begun, and shall be submitted on a monthly basis throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction activity occurs. At least three business days prior to the use of subject heavy-duty off-road equipment, the project representative shall provide the District with the anticipated construction timeline including start date, and name and phone number of the property owner, project manager, and on-site foreman.

In addition to the equipment inventory, the applicant shall also provide an emission calculation spreadsheet to the Placer County APCD for approval by the District demonstrating that the heavy-duty (> 50 horsepower) off-road vehicles to be used in the construction project, including owned, leased and subcontractor vehicles, will achieve a project wide fleet-average 20 percent NOx reduction and 45 percent particulate reduction compared to the most recent CARB fleet average. Acceptable options for reducing emissions may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available. The calculation spreadsheet can be downloaded from the SMAQMD's website: http://www.airquality.org/ceqa/ConstructionEmissionsMitigationCalculatorv6o03-2007March09.xls.

3. The prime contractor shall be responsible for keeping adjacent public thoroughfares clean of silt, dirt, mud, and debris, and shall "wet broom" or wash streets if silt, dirt, mud or debris is carried over to adjacent public thoroughfares. Dry mechanical sweeping is prohibited. The contractor shall apply water to control dust, as required by Rule 228, Fugitive Dust, to prevent dust impacts offsite. Operational water truck(s), shall be onsite, at all times, to control fugitive dust. Construction vehicles leaving the site shall be cleaned to prevent dust, silt, mud, and dirt from being released or tracked off-site. Earth moving construction equipment shall be cleaned with water once per day.

3-18 Cont'd

4. No changes proposed

5. During construction, the contractor shall minimize idling time to a maximum of 5 minutes for all diesel powered equipment and diesel vehicles.

6. The contractor shall utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary power generators.

7. Eliminate the "Sites over 20 acres" category. In addition, the following wording should be substituted and included as mitigation measures for all construction activities (the following were not numbered in the document):

7a The contractor shall have a pre-construction meeting for grading activities to discuss the construction emission/dust control plan with employees and/or contractors. The contractor shall invite the Placer County APCD to the pre-construction meeting.

7b & c The contractor shall suspend all grading operations when fugitive dust exceeds Placer County APCD Rule 228 (Fugitive Dust) limitations. The prime contractor shall be responsible for having an individual who is CARB-certified to perform Visible Emissions Evaluations (VEE). This individual shall evaluate compliance with Rule 228 on a weekly basis. It is to be noted that fugitive dust is not to exceed 40% opacity and not go beyond property boundary at any time. If lime or other drying agents are utilized to dry out wet grading areas they shall be controlled as to not to exceed Placer County APCD Rule 228 Fugitive Dust limitations.

7d. Construction equipment exhaust emissions shall not exceed District Rule 202 Visible Emission limitations. Operators of vehicles and equipment found to exceed opacity limits are to be immediately notified to cease operations and the equipment must be repaired within 72 hours. Additional information regarding Rule 202 can be found at: http://www.placer.ca.gov/Departments/Air/Rules.aspx

APCD Updated Mitigation Measures (Long Term, Operational)

Please update the Air Quality mitigation measures in Table 2-1, Section 4.10-2, (and as listed elsewhere throughout the DEIR), by eliminating the proposed City of Roseville mitigation measures and by substituting these with the more current, updated "APCD Mitigation Measures" listed below. Note: Our proposed wording follows the DEIR mitigation measure number below (in bold).

1. (No Changes - keep this wording)

2. The applicant shall show that all truck loading and unloading docks shall be equipped with one 110/208 volt power outlet for every two dock doors. Diesel trucks shall be prohibited from idling more than five minutes and must be required to connect to the 110/208 volt power to run any auxiliary equipment. Signage adjacent to the docks shall be provided and approved by the Placer County APCD.

3-18 Cont'd

3. The applicant shall show provisions for construction of new residences, and where natural gas is available, the installation of a gas outlet for use with outdoor cooking appliances, such as a gas barbecue or outdoor recreational fire pits.

4. (No changes – keep this wording)

5. (No Changes - keep this wording)

APCD Updated Mitigation Measures Not Included

The following are updated APCD mitigation measures which the District would like to see included but were not listed in the DEIR (**"C"** = Construction / **" OP"** = Operational):

C-1. An enforcement plan shall be established, and submitted to the APCD for review, in order to weekly evaluate project-related on-and-off- road heavy-duty vehicle engine emission opacities, using standards as defined in California Code of Regulations, Title 13, Sections 2180 - 2194. An Environmental Coordinator, CARB-certified to perform Visible Emissions Evaluations (VEE), shall routinely evaluate project related off-road and heavy duty on-road equipment emissions for compliance with this requirement. Operators of vehicles and equipment found to exceed opacity limits will be notified and the equipment must be repaired within 72 hours.

C-2. During construction, traffic speeds on all unpaved surfaces shall be limited to 15 miles per hour or less.

C-3. The prime contractor shall suspend all grading operations when wind speeds (including instantaneous gusts) exceed 25 miles per hour and dust is impacting adjacent properties.

C-4. All on-site stationary equipment shall be classified as "low emission" equipment.

C-5. Scheduled operations which impact or impede traffic flow in and around the construction site shall be limited to "off-peak" hours.

C-6. The applicant shall show that electrical outlets shall be installed on the exterior walls of both the front and back of all residences or all commercial buildings to promote the use of electric landscape maintenance equipment.

OP-1. The floor plans shall show that the applicant has provided a locker room/showers for the benefit of employees. At a minimum, one shower and 3 lockers shall be provided for every 30 employees

3-18 Cont'd

OP-2. The floor plans and exterior elevations shall show that the applicant has installed either solar panels or Photovoltaic roofing tiles on the structures throughout the project.

OP-3 The applicant shall show that on-site bicycle storage shall be required as reviewed and approved by APCD.

OP-4. The Site Plan shall show that the applicant has provided preferential parking spaces for employees that carpool / vanpool / rideshare adjacent to the office or commercial building. Such stalls shall be clearly demarcated with signage as approved by the Placer County APCD.

OP-5. The applicant shall show that all flat roofs with parapets shall include a white or silver cap sheet to reduce energy demands.

OP-6 The demolition or remodeling of any structure may be subject to the National Emission Standard for Hazardous Air Pollutants (NESHAPS) for Asbestos. This may require that a structure to be demolished be inspected for the presence of asbestos by a certified asbestos inspector, and that all asbestos materials are removed prior to demolition. For more information, call the California Air Resources Board at (916) 916) 322-6036 or the U. S. EPA at (415) 947-8704.

OP-7 In order to mitigate the projects contribution to long-term emission of pollutants, the applicant shall either **1**. participate in the Placer County Air Pollution District Offsite Mitigation Program by paying the equivalent amount of money, which is equal to each individual projects contribution of pollutants (ROG and NOx), which exceeds the cumulative threshold of 10 pounds per day. The estimated payment for the proposed project will be determined by the total amount of excessive ROG and NOx resulting from each individual project alone and the cost effectiveness per current California Air Resource Board Carl Moyer Program guidelines.
or,
2. participate in an offsite mitigation program, coordinated through the Placer County Air Pollution Control District, to offset the project's long-term emission of pollutants. Examples include participation in a "Biomass" program, retrofitting mobile sources (i.e. busses, heavy duty diesel equipment), or any other program that is deemed acceptable by the Director of the Placer County APCD. Any proposed offsite mitigation shall be located within the same region as the proposed project. This condition shall be satisfied prior to either recordation of a Final Map or issuance of a building permit for the proposed project.

OP-8 Pursuant to the Placer County Air Pollution Control District Rule 501, General Permit Requirements, the proposed project may need a permit from the District prior to construction. In general, any engine greater than 50 brake horsepower or any boiler with heat greater than 1,000,000 Btu per hour will need a permit issued by the District. In addition, processes that discharge 2 pounds per day or more of air contaminants, as defined by Health and Safety Code Section 39013, to the atmosphere may require a permit. Permits are required for both construction and operation. Developers/contractors should contact the District prior to construction and obtain any necessary permits.

Thank you for the opportunity to review this proposal. If you have any questions or comments please phone 530-745-2382

3-18
Cont'd

Sincerely,

Tom R. Thompson

Tom R. Thompson
Placer County Air Pollution Control District
Associate Planner
tthompso@placer.ca.gov
(530) 745-2382

TRT:tt

Ref: T:\APCD\P&M\2008\Roseville\Downtown Specific Plan DEIR

3-1 The commenter identifies the Plan area as being located in the Sacramento Valley Air Basin and identifies the air basin being classified as a severe non-attainment area for federal health based ambient air quality of ozone and particulate matter ($PM_{2.5}$) standards. The comment does not raise any issues related to the adequacy of environmental analysis conducted in the DEIR. No further response is necessary.

3-2 The commenter states the project's short-term construction emissions from diesel-powered construction equipment (e.g., haul trucks, grading, demolition, employee trips). The commenter refers to the DEIR's conclusion that short-term construction emissions would exceed the Placer County Air Pollution Control District's (PCAPCD) significance thresholds (Impact 4.10-1, "Air Quality," of the DEIR) and states mitigation measures must be implemented. The DEIR recommends numerous actions of the project applicant in accordance with PCAPCD rules and regulations (see Mitigation Measure 4.10-1, "Air Quality," of the DEIR). Please also refer to Response to Comments 3-13, 14, 18 below.

3-3 The commenter refers to the DEIR's conclusion that long-term, cumulative emissions would exceed the PCAPCD's significance thresholds (Impact 4.10-2, "Air Quality," of the DEIR) and states mitigation measures must be implemented. The DEIR recommends numerous actions of the project applicant in accordance with mitigation measures developed by the PCAPCD (see Mitigation Measure 4.10-2, "Air Quality," of the DEIR). Please also refer to Response to Comments 3-13, 14, 18 below.

3-4 The commenter identifies the PCAPCD recently updated their mitigation measures to reflect current state and local rules and/or policies and states the DEIR needs to reflect these updates. Please refer to Response to Comments 3-13, 14, 18 below.

3-5 The commenter encourages the City to consider establishing "Green Building" standards for the catalyst sites to reduce greenhouse gas (GHG) emissions within the plan area. Mitigation measure 4.10-2 currently includes the measure: "Exceed California Title 24 energy requirements. Areas of Title 24 to be exceeded shall be determined by the applicant and the City." The text of this measure should be revised to read as follows:

"Exceed California Title 24 2008 energy efficiency standards ~~requirements~~ by a minimum of 10%. Areas of Title 24 to be exceeded (e.g., insulation, appliances, and fixtures) shall be determined by the applicant and the City."

3-6 Referring to Table 4.10-2, the commenter states that the status of the project area is nonattainment for $PM_{2.5}$, and requests that the status be changed throughout the document where appropriate. Table 4.10-2 summarizes State and federal attainment designations for all criteria air pollutants applicable to the project area, including nonattainment for the State $PM_{2.5}$ standard. Western Placer County is currently proposed nonattainment for the federal $PM_{2.5}$ standard; however, these designations are not in effect at the time of writing (and will not be published in the Federal Register until June 2009, at the earliest). Any federal regulations that were finalized prior to January 20, 2009 (i.e., the time the new administration took federal office) shall not be sent to the Office of the Federal Register until the time it has been reviewed and approved by a department or agency head appointed or designated by the President after noon on January 20, 2009. Thus, attainment designations in Table 4.10-2 and throughout the document are correct as written.

3-7 It is assumed that the commenter requests that the 100 excess cases in one million isopleth be added to Exhibit 4.10-1, and there are no corrections needed in this exhibit. The addition of the requisite isopleths has been made for informational purposes.

3-8 The commenter requests changing the text "serious" to "severe" and changing the attainment deadline text from "2013" to "2018" (see Page 4.10-16, paragraph 4). Text on Page 4.10-16, paragraph 4, of the DEIR is revised as follows:

In July of 1997, the EPA promulgated a new 8-hour ozone standard. This change lowered the standard for ambient ozone from 0.12 ppm averaged over one hour to 0.08 ppm averaged over eight hours. In general, the 8-hour standard is more protective of public health and more stringent than the 1-hour standard. The promulgation of this standard prompted new designations and nonattainment classifications in June 2004, and resulted in the revocation of the 1-hour standard in June 2005. The region has been designated as a nonattainment ~~(serious)~~ (severe) area for the national (8-hour) ozone standard with an attainment deadline of ~~June 2013~~ 2018.

3-9 The commenter states AQ Policy 8 conflicts with the siting of more residential units in proximity to the Union Pacific Rail Road (UPRR) Yard. The DEIR concludes impacts related to exposing sensitive receptors to toxic air contaminants (see Impact 4.10-3, "Air Quality," of the DEIR) would be significant. In addition, the DEIR recommends mitigation measures which would require, to the extent feasible, sensitive receptors to be located as far away from the UPRR maintenance facility as possible and proposed commercial uses that have the potential to emit TACs (e.g., diesel-fueled engines) to be located as far away as possible from existing and proposed receptors (see Mitigation Measure 4.10-3, "Air Quality"). This mitigation measure is consistent with the intent of City's AQ Policy 8, (i.e., to promote maximum feasible separation distances between sources of air pollutants and sensitive receptors). Nonetheless, the impact would remain significant and unavoidable because the potential exposure to sensitive uses from TAC sources (e.g., the UPRR Yard) cannot be eliminated.

3-10 The commenter requests removing text in the DEIR "applicable during the summer months only" from reference to its recommended cumulative threshold of 10 pounds per day (lb/day) of operational emissions of ozone precursors. The following text revisions are made in response to the comment.

Page 4.10-26, paragraph 4 is revised as follows:

- Long-term operation-related emissions of ROG and NO_X exceed the PCAPCD-recommended cumulative mass emissions threshold of 10 lb/day ~~(applicable during summer months only)~~.

Page 4.10-28, Impact 4.10-2 statement, is revised as follows:

Generation of Long-Term Operation-Related (Regional) Emissions of Criteria Air Pollutants and Ozone Precursors. Operation-related activities would result in project-generated emissions of ROG, NO_X or PM_{10} that exceed PCAPCD's significance threshold of 82 lb/day. Project-generated operation-related emissions of ROG and NO_X would also exceed PCAPCD's recommended cumulative ~~summertime~~ threshold of 10 lb/day. In addition, the proposed project would require a General Plan amendment to allow for development of desired land uses in downtown Roseville. Thus, project-generated, operation-related emissions of criteria air pollutants and precursors could violate or contribute substantially to an existing or projected air quality violation, expose sensitive receptors to substantial pollutant concentrations and/or conflict with air quality planning efforts. As a result, this impact is considered **significant**.

Page 4.10-29, paragraph 4, is revised as follows:

Based on the modeling conducted, operation-related activities would result in project-generated emissions of ROG, NO_X and PM_{10} that exceed PCAPCD's applicable thresholds of 82 lb/day. Consequently, project-generated operation-related emissions of ROG and NO_X would also exceed PCAPCD's recommended ~~summertime~~ cumulative significance threshold of 10 lb/day. In addition, PCAPCD relies, to a certain degree; on land use designations contained in general plan documents applicable to its jurisdiction. PCAPCD refers to the contents of approved general plans in order to forecast, inventory, and allocate regional emissions from land use and development-related sources. These emissions budgets are used in statewide air quality attainment planning efforts. Because the proposed project would require a general plan amendment to allow for development of the desired land uses in downtown Roseville, emissions that would be associated with the new land use types would not already be accounted for in regional air quality planning efforts. Thus, project-generated, operation-related emissions could violate or contribute substantially to an existing or projected air quality violation and result in a cumulatively considerable net increase of criteria pollutants, especially considering the nonattainment status of the Placer County portion of the SVAB, expose sensitive receptors to substantial pollutant concentrations, and/or conflict with air quality planning efforts. As a result, this would be a significant impact.

3-11 It is assumed that the commenter is referring to page 4.10-31, as there is no reference to idling vehicles or equipment on page 4.10-13. The commenter suggests there is a conflict between the statement that commercial vehicles are restricted to five minutes idling time by state legislation (see page 4.10-31, paragraph 3) and recommended mitigation measure 4.10-1 which restricts idling time of diesel construction equipment and vehicles to a maximum of ten minutes. The commenter recommends that the City change this mitigation measure to restrict construction equipment idling to a maximum of five minutes. However, there is no such conflict because the commenter references two different emitters (i.e., commercial trucks [see page 4.10-31] and construction equipment [see page 4.10-35]).

3-12 The commenter suggests that "the document should include a provision for future CO analysis of any intersection that results in a reclassification to a LOS E or F, or if existing intersections operating at a LOS E or F has an increase in traffic." The recommended provision would not be appropriate or necessary because the conservative screening-level CO hot spot analysis conducted for the Plan area (refer to Table 4.10-5 on page 4.10-34 of the DEIR) demonstrated that a worst-case increase in traffic to any intersection in the Plan area would not result in a violation of ambient air quality standards for CO. Further, it would not be appropriate to defer such analysis into the future, as the commenter is recommending. For this reason, a worst-case analysis was conducted associated with the implementation of the proposed project in order to avoid the need for such a deferred analysis. As shown in Table 4.10-5 of the DEIR, this impact would be less than significant.

3-13, 14, 18 The commenter requests that mitigation measures be replaced or re-worded with the measures submitted in the comment letter. For the following reasons, the City cannot replace the suggested list of updated measures. First, many of the measures in the updated list are either redundant with City regulations that are already in place (e.g., erosion/sedimentation controls) or redundant with City incentive programs (e.g., rebates for energy-efficiency technologies, Transportation Systems Management [TSM] Program). Second, some measures indicated in the revised list are not consistent with state law. Specifically, Section 40717.9 of the California Health and Safety Code prohibits employer trip reduction mandates.

The City has previously invested significant time and resources in developing a list of air quality mitigation measures with the commenting agency, PCAPCD. The PCAPCD's standard list of mitigation measures was prepared as part of a collaborative effort between the City and the Air District. Specifically, the list was refined to eliminate measures redundant with City regulations or inapplicable to development in the City. The collaborative effort resulted in a list of air quality mitigation measures that are recommended in the DEIR, that are enforceable and feasible, and have been used consistently in all City of Roseville projects since 2004. Additionally, as demonstrated by the City's previous efforts, the City prefers to issue a concise list of mitigation measures applicable to the project under review.

The updated list provided by the commenter was prepared after the release of the NOP and the City was not aware of an updated list until the DEIR was circulated for public review. It is up to the Lead Agency to determine appropriate mitigation. Consistent with 15126 of the CEQA Guidelines, if the Lead Agency determines that a mitigation measure cannot be legally imposed, the measure need not be proposed or analyzed. Instead the EIR may simply reference that fact and briefly explain the reasons underlying the Lead Agency's determination. For the purpose of EIR preparation, the City considers the existing circumstances at the time the NOP was issued as the baseline environmental setting consistent with CEQA Guidelines Section 15125(a).

Of most concern is that the updated list requests PCAPCD approval authority over multiple areas for which the City is the permit issuing agency including grading and demolition permits, design and location of bicycle storage lockers, and signage for preferential parking. While the City cannot relinquish its authority to issue these permits, the City will continue to coordinate with the PCAPCD to identify feasible and applicable measures that can be applied to the project by the City, and continue to reflect the mitigation goals of the PCAPCD. Because of ongoing technological advancements in the area of air quality mitigation, the City will continue coordinating with PCAPCD as the list of air quality mitigation measures evolves over the twenty-year buildout of the Plan area.

3-15 The commenter recommends reviewing the DEIR for wording that is too permissive or wording that is not specific, especially wording related to mitigation. The commenter continues to recommend avoiding phrases such as "to the extent feasible", "may", and "should". The mitigation measures recommended in the DEIR are worded appropriately in order to provide for actions that are feasible and enforceable.

3-16 The commenter recommends deleting or modifying text of the DEIR referencing AB 32. Page 5-20, last paragraph, of the DEIR is revised as follows:

Although neither the ARB nor any air district in California, including the PCAPCD, has identified a significance threshold for analyzing GHG emissions generated by a proposed project or a methodology for analyzing air quality impacts related to global warming, California has identified goals to reduce GHG emissions to 1990 levels by the year 2020 with adoption of AB 32. To meet AB 32 goals, California would need to generate lower levels of GHG emissions than current levels, while accommodating 30 years of population and economic growth in the state. In addition, by adoption of SB 97 California has committed to developing and adopting CEQA Guidelines to assist local jurisdictions in their assessment. Because no standards have yet been adopted, it is recognized that for most projects there is no simple metric available to determine if a single project would substantially increase or decrease overall GHG emission levels (e.g., help or hinder meeting the AB 32 emission goals). ~~In addition, at this time AB 32 only applies to stationary source emissions.~~ For the purposes of this analysis and absent guidance from State and local agencies, the City has chosen the following approach to analyzing GHG emissions in the context of CEQA: 1) quantify the mass of GHG emissions associated with the proposed project

using recommended and widely accepted calculation tools available at this time of writing, 2) if the project would result in a substantial increase in GHG emissions, then the impact would be considered significant, and 3) implement the best available, feasible mitigation measures known to reduce GHG emissions, although the efficacy of such measures are currently unknown.

3-17 The commenter questions the source of information consulted, methodology, and approach to obtaining the emission reduction values attributed to the greenhouse gas reduction mitigation measures recommended in the DEIR (see Mitigation Measure 5.4-1, "Cumulative Impacts," of the DIER). As referred to at the end of Mitigation Measure 5.4-1, the approach and source of information comes from the California Air Pollution Control Officers Association (2008). The efficacy of certain measures could be more readily quantified, while others could not be, based on the current state of the science and literature available at the time of writing. Where it was not possible to quantify the performance of a mitigation measure based on the information available, the City has not attempted to engage in such speculation. The commenter also suggests that the City establish a reduction "target" for this project. However, the State is only now providing local governments with guidance regarding meeting the goals of AB32. Rather than prematurely target individual projects, the City is pursuing establishing emission reduction targets via preparation of a broader, community-oriented Climate Action and Sustainability Plans which would be based on emissions inventory, and feasible and quantifiable mitigating programs. Comment noted.

4

Ms. Donato,

Thank you for your interest and comments regarding the Downtown Specific Plan and residential uses in proximity to the railyard. These comments will be forwarded to the Planning Commission, and considered as part of their overall review of the project.

Once again, thank you for your comments.

Kevin Payne
Assistant Director
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City of Roseville

-----Original Message-----
From: Frank Weinstein and Judith Donato [mailto:frankli@quiknet.com]
Sent: Friday, January 30, 2009 9:52 AM
To: Payne, Kevin
Subject: Comment on Downtown Specific Plan

Mr. Payne, thanks for your presentation on the downtown revitalization plan at the City/UP Committee meeting yesterday. I want to "second" the comment made by one of the U.P. representatives at the meeting recommending reconsidering the placement of housing and/or commercial property in close proximity to the rail yard, tracks, and operations conducted at the yard. As we saw at the meeting yesterday, the noise, vibrations, and emission problems in the surrounding area of the rail yard are considerable and continue to be a source of concern to existing residents, and in the case of emissions, to the PCAPCD. I would like to point out that the lack of viability of Victoria Station (formerly Church St. Station) can be directly attributed to its proximity to the rail yard. I would not want to see the City make a similar mistake in approving unwise uses again, which can be both costly and unhealthy.

4-1

Thank you,
Judith Donato
1009 Haman Way
Roseville, CA 95678

4-1 The commenter expresses concern with the placement of housing and commercial property within close proximity of the rail yard. The commenter states noise, vibrations, and air emissions in the area surrounding the rail yard are considerable and a source of concern. The DEIR fully analyzes impacts related to exposing sensitive receptors (e.g., residents) to substantial emissions of toxic air contaminants (TAC) originating from the rail yard (see Impact 4.10-3, "Air Quality," of the DEIR). As part of analyzing impacts, the DEIR refers to the health risk assessment provided as part of the Roseville Rail Yard Study. The DEIR concludes that implementation of the Specific Plan could expose sensitive receptors to substantial emissions of TACs that could cause both cancer and non-cancerous health effects. In response, the DEIR also recommends mitigation measures that would reduce concentrations of TACs that sensitive receptors would be exposed to and that would require disclosing the health risk impacts to future residents (see Mitigation Measure 4.10-3, "Air Quality," of the DEIR). However, mitigation could not be shown to reduce impacts to a less-than-significant level and the DEIR considers the exposure of sensitive receptors to TACs a significant and unavoidable impact.

The DEIR fully analyzes impacts related to land use compatibility of sensitive receptors (e.g., residents) with future railroad noise levels and ground-borne noise and vibration levels (see Impacts 4.11-5 and 4.11-7, "Noise," of the DEIR). The DEIR concludes that implementation of the Specific Plan could expose sensitive receptors to daily railroad-generated noise levels that exceed the City's exterior noise level standard for residential land uses. The DEIR also concludes that implementation of the Specific Plan could expose sensitive receptors to excessive ground-borne vibration levels. In response, the DEIR recommends mitigation measures that would reduce ground-borne vibration impacts to a less-than-significant level (see Mitigation Measure 4.11-7, "Noise," of the DEIR). The DEIR also recommends mitigation measures that would reduce railroad noise impacts, but not to a less-than-significant level (see Mitigation Measure 4.11-5, Noise," of the DEIR). Therefore, the DEIR considers the exposure of sensitive receptors to railroad noise levels a significant and unavoidable impact.

2 CORRECTIONS AND REVISIONS TO THE DRAFT EIR

The following corrections and revisions are incorporated in the Final EIR to correct typographical errors, make changes in response to public comments on the Draft EIR, or to provide updated or corrected text as a result of new information that became available. Revised text is indented, specific deletions are indicated by ~~strikeout text~~, and additions to the Draft EIR are shown in underline. These corrections and revisions are provided in the same order as presented in the Draft EIR.

SECTION 4.6, TRANSPORTATION AND CIRCULATION

Page 4.6-33 is hereby revised as follows:

Mitigation Measure 4.6-2a: LOS D at Yosemite Street/Atlantic Street:

The addition of project traffic at this intersection under cumulative 2020 conditions would deteriorate operations from LOS C to LOS D. To mitigate project impacts, the southbound right-turn lane could be restriped as a shared left/right-turn lane. With this restriping, the intersection would operate at an acceptable LOS C. The projects would be responsible to pay ~~its~~ their fair share toward this improvement. This intersection improvement shall be incorporated into the City of Roseville Capital Improvement Program. Incorporating this intersection improvement into the City's Capital Improvement Program would establish a funding mechanism to collect the remaining funds for this improvement (beyond the project's fair share). Therefore, implementation of the ultimate improvement would be guaranteed and the impact is considered less than significant.

SECTION 4.7, CULTURAL RESOURCES

Section 4.7.1, page 4.7-4, paragraphs 2 and 3 under "Architectural Resources" are hereby revised as follows:

The types of buildings within the Plan area vary in age, style, and function. The majority of resources that were recorded as part of the inventory consist of commercial properties dating from the 1910s to the 1950s. Residential buildings within the Plan area mostly consist of vernacular buildings with the same range of construction dates. Historic-era buildings can sometimes be tangible reminders of distinctive architectural styles or of the foresight of early local businessmen and women who built diversified economic bases that allowed cities to thrive. An example of a historic residential property in downtown Roseville is preserved in the Haman House, located at 424 Oak Street, which is listed in the National Register of Historic Places (added in 1976 - Building #76000507). Historic-era buildings ~~Such buildings~~, however, generally require the retention of enough historic integrity to their period(s) of significance in order to reflect that association and meet CRHR eligibility criteria. The majority of buildings within the Plan area have been significantly modified and do not evoke a sense of place and time to their original construction dates. Loss of historic fabric and subsequent infill development over the years has been extensive within the area resulting in a non-cohesive area with a low degree of historic integrity. Of the 213 historic-era buildings located within the Plan area, two appear eligible for listing on the CRHR including the City Hall Annex (located at 316 Vernon Street) and Tower Theater (located at 241 Vernon Street). The Vernon Street Schoolhouse was previously determined eligible for the CRHR but was demolished in 2002. Also, the Old Town Roseville area has been designated as a historic district at the local level by the City of Roseville. The remaining buildings do not appear eligible for CRHR listing due to a lack of significant association and lack of historic integrity.

Certain property types are generally excluded from consideration for listing in the CRHR. One such property type are properties that are less than 50 years old (California Code of Regulations, Title 14, Section 4852 (d)(2)). Table 4.7-1 provides a list of historic-era properties that are currently in excess of 45 years in age. The buildings listed in Table 4.7-2 are currently less than 45 years old and, therefore, are not considered eligible for listing on the

CRHR. However, because the Specific Plan is intended to address potential development over the next 20 years, some of these buildings will reach an age of 45 years or older over time and an evaluation under CRHR criteria may be needed within the timeframe of the Plan (see Section 4.7.3).

Section 4.7.1, page 4.7-7, the following text, tables, and exhibit are added to the end of sub-section "Architectural Resources" as follows:

The City of Roseville has deemed specific buildings in the Plan area as historically significant as defined by Chapter 19.61 of the Roseville Zoning Ordinance. These historically significant buildings are listed in Table 4.7-3 below and their location is shown in Exhibit 4.7-1.

Table 4.7-3
Buildings Deemed Historically Significant by the City of Roseville

Map #	Address	APN	Name
4	315 Washington Blvd	011-144-001-000	Hemphill House
5	100 Main Street	011-146-024-000	McRae Building
7	341 Lincoln Street	012-200-008-000	Bank of Italy Building
8	314 Lincoln Street	012-122-003-000	Barker Hotel
9	109 Washington Blvd	012-123-009-000	First Methodist Church
10	112 Pacific Street	012-200-012-000	Odd Fellows Hall
12	345 Atlantic Street	013-092-010-000	West House
13	201 Vernon Street	013-093-007-000	Citizens Bank
18	222-226 Vernon Street	013-093-005-520	Vernon Street Hotel
25	424 Oak Street	013-123-018-000	Haman House
29	700 Vernon Street	013-250-017-000	Placer Co Exhibit Bldg

APN = Assessor's Parcel Number
Source: City of Roseville, pers. comm., 2009

The City of Roseville has also deemed specific City-owned buildings in the Plan area as historically significant as defined by City Resolution Number 06-610. These historically significant buildings are listed in Table 4.7-4 below and their location is shown in Exhibit 4.7-1.

Table 4.7-4
City-Owned Buildings Deemed Historically Significant

Map #	Address	APN	Name
1	557 Lincoln Street	Top of Form 011-143-006-000	Carnegie Library
6	400 Lincoln Street	011-147-011-000	Fire Station (Old Town)
11	315 Church Street	Top of Form 013-250-022-000	UP Hospital
16	316 Vernon Street	013-091-009-000	City Hall Annex
17	235 Vernon Street	013-093-003-000	Roseville Theater
24	421 Vernon Street	013-123-022-000	Tower Theater

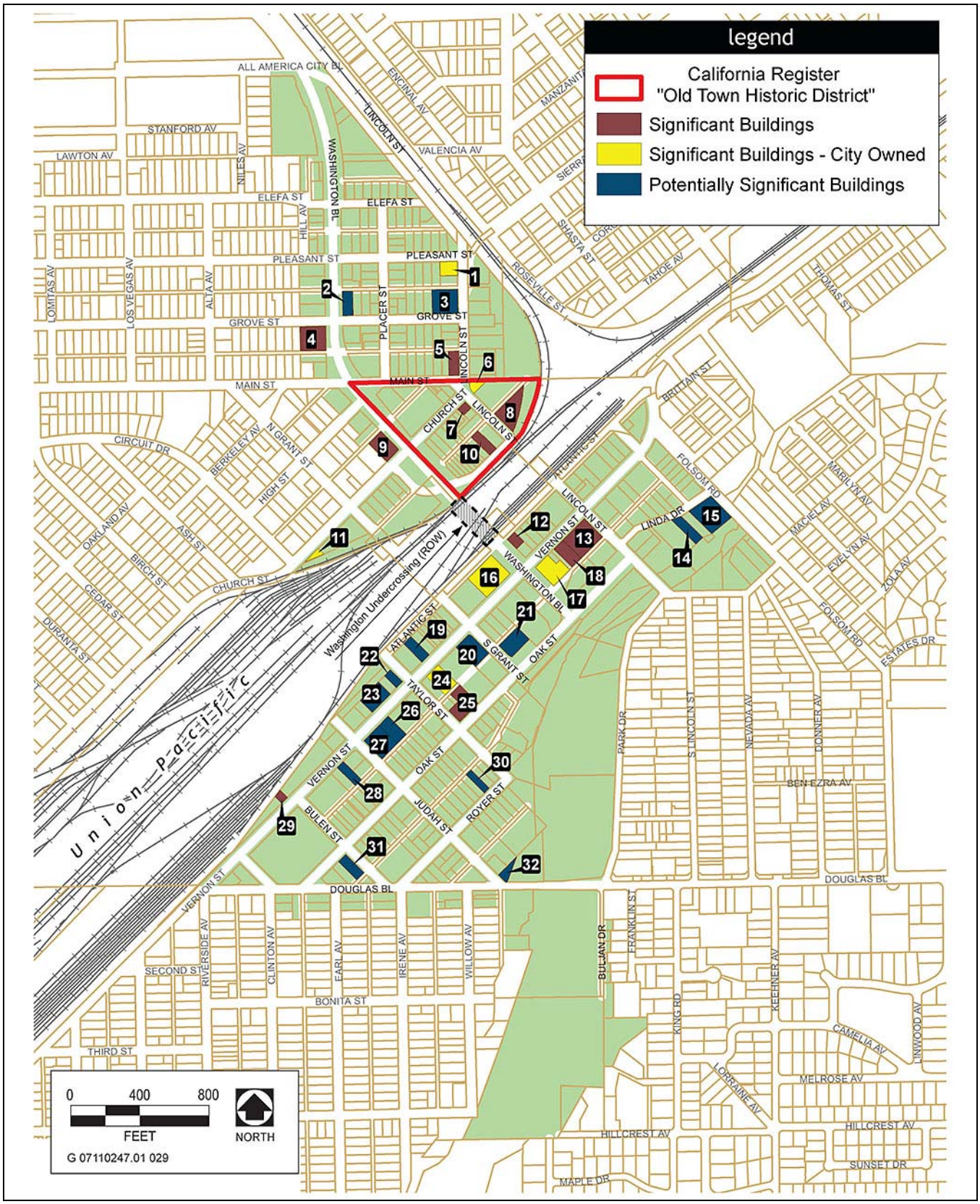
APN = Assessor's Parcel Number
Source: City of Roseville, pers. comm., 2009

Lastly, the City of Roseville identifies specific buildings that would be 45 years or older at buildout of the proposed Specific Plan and that may have historical significance. These historically significant buildings are listed in Table 4.7-5 below and their location is shown in Exhibit 4.7-1.

Table 4.7-5
Buildings 45 Years or Older at Buildout of the Specific Plan Identified as Potentially Having Historical Significance

Map #	Address	APN	Name
2	400 Washington Blvd	011-142-014-000	Post 1963 Building
3	104 Grove Street	011-143-008-000	Post 1963 Building
14	127 Linda Drive	013-101-013-000	Post 1963 Building
15	140 Folsom Road	013-101-021-000	Post 1963 Building
19	424 Vernon Street	013-122-010-000	Post 1963 Building
20	401 Vernon Street	013-123-017-000	Post 1963 Building
21	115 S. Grant Street	013-124-011-000	Post 1963 Building
22	500 Vernon Street	013-121-006-000	Post 1963 Building
23	520 Vernon Street	013-121-002-000	Post 1963 Building
26	521 Vernon Street	013-153-019-000	Post 1963 Building
27	531 Vernon Street	013-153-023-000	Post 1963 Building
28	605 Vernon Street	013-152-012-000	Post 1963 Building
30	508 Royer Street	013-154-003-000	Post 1963 Building
31	701 Oak Street	013-163-005-000	Post 1963 Building
32	323 Judah Street	013-172-014-000	Post 1963 Building

APN = Assessor's Parcel Number
Source: City of Roseville, pers. comm., 2009



Source: City of Roseville, 2008

City Designated Buildings as Historically Significant **Exhibit 4.7-1**

SECTION 4.8, HAZARDS AND HAZARDOUS MATERIALS

Section 4.8.1, "Existing Conditions," is hereby replaced with the following:

The Plan area is a civic planning area located in downtown Roseville. As shown in Exhibit 4.1-1 (see Section 4.1, "Land Use and Planning"), the Plan area contains various industrial, retail/commercial buildings, office buildings, public facilities, residential, vacant lots, and parking lots. The Plan area also contains paved roads, sidewalks, and underground utilities. In addition, the UPRR railyard and rail corridor extends through the middle of the Plan area. As part of the Phase I, Environmental Data Resources, Inc. (EDR) was contacted to produce an environmental risk management database report for the Plan area and within a 1-mile radius around the Plan area. The report compiled information from federal, state, and local environmental databases on properties with known hazardous environmental conditions or properties that handle, transport, use, or store hazardous materials. This database report is included in the Phase I (see Appendix C). While most Phase I investigations are generally performed for property transfer actions, this Phase I was performed in support of the requirements of the CEQA as it applies to the proposed project. Specifically, the Phase I evaluates the hazards and hazardous materials in the Plan Area, determines potential impacts of hazards and hazardous materials related to the proposed project, and identifies potential mitigation measures to reduce negative impacts of hazardous materials during Plan implementation.

Evidence from the Phase I records research, site reconnaissance, and interviews has determined that known Recognized Environmental Conditions (RECs) currently exist, or have historically existed, within the Plan area. The following text summarizes historical and current areas of concern within, or in the immediate vicinity of, the Plan area that were identified in the Phase I.

ENVIRONMENTAL RISKS

This section provides a preliminary summary of the potential constraints associated with properties within and in the nearby vicinity (i.e., ¼ mile) of the Plan area that could cause or contribute to potentially significant hazards and hazardous material impacts. This summary is based on review of environmental risk management database report prepared by Environmental Data Resources (EDR) for the Plan area. The EDR report compiled information from federal, state, and local environmental databases on properties with known hazardous environmental conditions or properties that handle, transport, use, or store hazardous materials.

A material is considered hazardous if it appears on a list of hazardous materials prepared by a federal, state, of local agency, or if it has characteristics defined as hazardous by such agency. A hazardous material is defined in Title 22 Section 66260.10 of the California Code of Regulations as:

> "a substance or combination of substances which, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported, or disposed of or otherwise managed."

Federal and State laws require detailed planning to ensure that hazardous materials are properly handled, used, stored, and disposed of, and in the event such materials are accidentally released, to prevent or to mitigate injury to health or the environment.

Statewide, the California Environmental Protection Agency (Cal-EPA) Department of Toxic Substances Control (DTSC) has primary regulatory responsibility for management of hazardous materials, with delegation of authority to local jurisdictions that enter into agreements with the State. Local agencies, including the Placer County Environmental Health Division (EHD) and the City of Roseville Fire Department, administer laws and regulations.

Asbestos/Lead-Based Paint

Asbestos and lead-based paint are hazardous materials of potential concern because of their carcinogen (i.e., cancer-causing) and adverse developmental properties. Asbestos is classified as a known human carcinogen by federal, state, and local agencies, and was identified as a Toxic Air Contaminant in 1986 by the State of California Air Resources Board. The use of asbestos in housing materials (e.g., ceiling joints, insulation) was banned in 1977. Lead was used in paint to improve its durability and was commonly used in homes and commercial buildings prior to 1950. The concentrations of lead allowed in household paint were reduced in 1950 and in 1978 the U.S. Consumer Product Safety Commission lowered the legal maximum lead content in most kinds of paint to trace concentrations (i.e., less than 0.06%).

The Plan area consists of approximately 238 structures. Of these structures, all but 14 were constructed prior to 1977 (refer to Tables 4.7-1 and 4.7-2, "Cultural Resources"). Given the age of the structures within the Plan area, there is the possibility that asbestos and/or lead-based paint are present. Prior to any demolition or alteration of these structures, each structure would need to be assessed for the presence of asbestos and lead-based paint by a qualified hazardous materials consultant. Any asbestos and/or lead-based paint that is found would require removal by a licensed abatement contractor in accordance with applicable regulations.

Properties Listed on Agency Databases

Several properties with the boundaries of the Plan area were identified in databases searched as a part of the EDR database report. The databases that identified properties in the Plan area and in the surrounding vicinity are briefly described in Table 4.8-1 below.

Table 4.8-1
Regulatory Agency Databases

Type of Database	Description of Database/Agency
CAL-SITES	Lists known and potential hazardous substance sites. *California Department of Toxic Substances Control*
CHMIRS – California Hazardous Material Incident Report System	Contains information on reported hazardous material incidents (e.g., accidental releases or spills). *California Office of Emergency Services*
CORTESE	Identifies public drinking water wells with detectable levels of contamination, hazardous material substance sites selected for remedial action, sites with underground storage tanks (USTs) having a reportable release, and all solid waste disposal facilities. *California Environmental Protection Agency/Office of Emergency Information*
SWF/LF – Solid Waste Facilities/Landfill Sites	Inventory of solid waste disposal facilities or landfills. *Integrated Waste Management Board's Solid Waste Information System*
WMUDS/SWAT – Waste Management Unit Database System	Tracks and inventories waste management units. *State Water Resources Control Board*
LUST – Leaking Underground Storage Tank Incident Reports	Inventory of reported LUST incidents. *State Water Resources Control Board Leaking Underground Storage Tank Information System*
CA FID – California Facility Inventory Database	Lists active and inactive UST locations. *State Water Resources Control Board.*
HIST UST – Historical UST Registered Database	Lists registered USTs.
FINDS – Federal Index System	Identifies listed facilities and sources for additional information on listed facilities. *U.S. Environmental Protection Agency*
AST – Aboveground Storage Tank	Lists registered ASTs. *State Water Resources Control Board*

Table 4.8-1
Regulatory Agency Databases

Type of Database	Description of Database/Agency
CA SLIC – California Site Cleanup List	Lists sites that require(d) cleanup activities. *California Regional Water Quality Control Board*
Haznet	Lists sites that submit hazardous waste manifests. *California Department of Toxic Substance Control*
SWEEPS UST	Statewide Environmental Evaluation and Planning System – underground storage tank listing which is no longer maintained or updated. *State Water Resources Control Board*
RCRA-SQG – Resource Conservation and Recovery Act – Small Quantity Generators	Contains information on sites that generate, transport, store, treat, and/or dispose of hazardous as defined by the RCRA. Small quantity generators generate between 100 kilograms (KG) and 1,000 kg of hazardous waste per month. Maintained by Environment, Health, and Safety Online.
CA WDS – Waste Discharge System	Sites which have been issued waste discharge requirements. *State Water Resources Control Board*
CERC-NFRAP – Comprehensive Environmental Response Compensation and Liability Information System – No Further Remedial Action Planned Report	Sites identified by the EPA as abandoned, inactive, or uncontrolled hazardous waste sites that may require cleanup. The NFRAP database contains information pertaining to sites that have been removed from the CERCLIS database. *U.S. Environmental Protection Agency*
Envirostor	Provides detailed information on approximately 5,100 hazardous waste cleanup sites. *California Department of Toxic Substances Control*
SWRCY – Solid Waste and Recycling Facilities	Database of information for solid waste and recycling facilities. *California Integrated Waste Management Board*

Source: City of Roseville, Downtown Roseville Specific Plan Draft EIR, 2008.

Several properties are listed on multiple agency databases. In many cases, these properties are listed for the same action or incident. For example, a property that stores gasoline onsite may be listed on the HIST UST, LUST, and Haznet databases.

Properties in the Plan Area

Table 4.8-2 below identifies properties within the Plan area listed on agency databases, the listed agency database, the status of the listed action, and EDAW's recommended course of action for additional investigation. As indicated, the majority of the listed properties either have no incidents (releases or contamination) or their cases have been closed. These properties do not represent a potential environmental constraint. However, numerous properties have documented cases of releases and/or contamination which may still be active. The location of each of these properties is shown in Exhibit 4.8-1.

Table 4.8-2
Listed Hazardous Materials Sites in the Plan Area

Property	Business	Agency Database(s)	Status	Recommended Action
800 All America City Blvd	Placer County Fair	Haznet, Placer County master list, CA FID UST, SWEEPS	Permitted disposal of unspecified oil containing waste, and liquids with halogenated organic compounds. Permitted ASTs, one diesel and one gasoline.	No further action
699 Washington Blvd # B-8	Jesus Amaya DDS	Haznet	Permitted disposal of photochemical processing wastes.	No further action
North Roseville CA	Lift Station Sewer Assessment	Hist-UST	Historic registered diesel UST	Research with SWRCB
500 Washington Blvd	Magna Kote	Haznet	Permitted disposal of solvent waste	No further action
510 Washington Street	Ameri Mart / Fast Gas/ Hira's BP	CA FID UST, SWEEPS UST, Haznet, Hist UST, LUST, Cortese	Registered gasoline USTs; gasoline & MTBE release to groundwater; remedial action taken, case is open	Research with SWRCB
1445 Hwy 65 CA	Lincoln Mill Site	WDS	Permitted Waste Discharge Permit for surface water	No further action
121 Church Street	Dan Joseph	Haznet, LUST, CHMIRS	Permitted hazardous waste oil disposal; kerosene release to groundwater, remedial action taken, case is open	Research with SWRCB, DTSC
100 Church Street	No site name	CHMIRS	Incident involving gasoline release on railroad tracks	Research with OES
412 Lincoln Street	Cairney Property	LUST, Cortese, CHMIRS	Gasoline release to groundwater, pollution characterization underway	Research with SWRCB, DTSC, OES
One Market Plaza Rm 1007	Roseville (Caboose Track)	Hist UST	Historic USTs located at the Railroad property	Research with SWRCB
123 Washington Blvd	All American City Vet Hospital	Haznet	Permitted photochemical processing wastes disposal	No further action
911 Washington Blvd Ste 209	Lambert Precision Grinding & Machining	Haznet	Permitted waste oil disposal	No further action
300 Lincoln Street	Raymond Phitts	Haznet	Permitted waste oil disposal	No further action
300 Lincoln Street	Barker Hotel	LUST	Heating oil release to soil, remedial action taken, case closed	No further action
302 Lincoln Street on R.R. tracks	No site name	CHMIRS	Unidentified train reportedly dripping toxic wastes on tracks	Research with OES

Table 4.8-2
Listed Hazardous Materials Sites in the Plan Area

Property	Business	Agency Database(s)	Status	Recommended Action
114 Vernon Street	Roseville Telephone	CA FID UST, SWEEPS UST, Haznet	Permitted USTs	No further action
105 Vernon Street	Placer T.V. Video	SWEEPS UST	Permitted USTs	No further action
99 Vernon Street	Former Tillet Cleaners	SLIC, CERC-NFRAP	PCE release to groundwater; remedial action taken; case is in monitoring stage	Research with SWRCB
97 Vernon Street	RPM Sales Inc.	Haznet, SLIC	Permitted disposal of waste oil; SLIC database states site assessment underway – no more info	Research with SWRCB, DTSC
235 Vernon Street	Masonic Temple Board	Haznet	Permitted hazardous waste oil disposal	No further action
219 Lincoln Street	Roseville Telephone Company	CA FID UST, SWEEPS	One permitted diesel UST	No further action
350 Atlantic Street	Roseville Joint Union High School District	Haznet, SCH, Envirostor	Permitted organic waste disposal	No further action
260 Lincoln Street	Roseville Telephone	CA FID UST, SWEEPS UST	Permitted UST	No further action
341 Church Street	City of Roseville Church Street Redevelopment	Hist UST	Kerosene release to groundwater; case open	Research with SWRCB
113 Circuit Drive	Kerec X-ray recovery systems	Hist UST	Historic permitted UST	Research with SWRCB
50 Lincoln Street	Roseville Plumbing	Hist UST, CA FID UST, SWEEPS UST	Historic permitted UST	Research with SWRCB
316 Vernon Street	City of Roseville	LUST, SWEEPS UST, Cortese	Petroleum product contamination of soil; case closed; Permitted UST, waste oil disposal	No further action
311 Vernon Street	City of Roseville	Haznet, FINDS	Permitted PCB disposal; public water supply monitoring	No further action
107 Sutter Avenue	Robert Mc Grey	Haznet	Permitted disposal of asbestos containing material	No further action
401 Oak Street	City of Roseville	CHMIRS, Haznet, UST	Roofing compound fumes caused evacuation, case closed; chemical spill reported; Permitted disposal of asbestos containing material; registered diesel UST	No further action
112 S. Grant Street	City of Roseville	Haznet	Permitted inorganic solid waste disposal	No further action
417/421 Vernon Street	Tower Theater/ City of Roseville	Haznet	Permitted disposal of asbestos containing material	No further action
415 Vernon Street	City of Roseville	Haznet	Permitted disposal of various hazmat	No further action

Table 4.8-2
Listed Hazardous Materials Sites in the Plan Area

Property	Business	Agency Database(s)	Status	Recommended Action
401 Vernon Street	Delux Cleaners	Haznet, SLIC, RCRA SQG, Finds, CERC-NFRAP, Cleaners	Permitted disposal of various hazmat; PCE release to groundwater; post-remedial phase; case is still open	Research with SWRCB, DTSC
531 Vernon Street	Pacific Fruit Express	RCRA-SQG, Finds	Permitted hazardous waste producer	No further action
200 Atlantic Street	Stan Lukowicz	Haznet	Permitted waste oil disposal	No further action
200 Atlantic Street	Triangle Market	LUST, Cortese, CA FID UST, SWEEPS UST	Gasoline & MTBE release to groundwater; post-remediation phase, case status unknown. Permitted USTs & waste oil disposal	Research with SWRCB, DTSC
7 Taylor Road	D & P Creamery	LUST, Cortese	Gasoline release to soil; remedial action taken, case closed	No further action
634 Vernon Street	Finish Master	Haznet	Permitted solvents disposal	No further action
600 Vernon Street	Bertini's	Haznet	Permitted waste oil disposal	No further action
600 Oak Street	Gregory R Smith DDS	Haznet	Permitted hazardous waste disposal	No further action
730 Vernon Street	H & A Small Engine	Haznet	Permitted waste oil disposal	No further action
725 Vernon Street	Don Barringer	Haznet	Permitted hazardous waste disposal	No further action
801 Vernon Street	Project GO	Haznet	Permitted organic wastes disposal	No further action
Saugstad Park South of Douglas Blvd	Roseville City	WMUDS/SWAT	No info provided	Research with SWRCB
501 Douglas Blvd	Dollar Rent a Car	CA FID UST, SWEEPS UST	Permitted UST	No further action
501 Douglas Blvd	Bobby Williams	Haznet	Permitted hazardous waste disposal	No further action
Saugstad Park	Old Roseville City Landfill	SWF/LF	Historical landfill; no more info	Research with IWMB

Source: City of Roseville, Downtown Roseville Specific Plan Draft EIR, 2008.

Properties In the Vicinity of the Plan Area

Table 4.8-3 identifies properties within the vicinity (i.e., 1 mile) of the Plan area that could result in a recognized environmental condition in the vicinity of the Plan area. The location of each of these properties is also shown in Exhibit 4.8-1.

Table 4.8-3
Listed Hazardous Materials Sites in the Vicinity of the Plan Area

Property	Business	Agency Database(s)	Status	Recommended Action
999 Washington Blvd	ARCO Facility #5534	LUST	Gasoline & MTBE release to soils; case closed	No further action
200 Corporation Yard	Placer County Corporation Yard	Haznet, LUST, Cortese	Oil containing waste disposal under permit; gasoline & MTBE release to groundwater, remedial action taken, case now closed	No further action
Alta Vista Drive	Sierra View C.C.	Haznet, Hist UST, Cortese, LUST	Permitted disposal of organic solids; gasoline release to soil, remedial action taken, case now closed	No further action
Berry Street one mile east of Atlantic Street	Roseville sanitary landfill	WMUDS/SWAT, SWF/LF	Sanitary landfill with no hazmat documented but contains construction, demolition debris; closed status	No further action
750 Atlantic Avenue	Jackpot Food Mart	LUST, Cortese	Remedial action taken for gasoline release to groundwater; case is open	No further action
400 Tahoe Avenue	Sierra ceramics Inc.	RCRA-SQG	Small quantity generator; no violations listed	No further action
100 Tahoe Street	Roseville Telephone	AST, CA FID UST, SWEEPS UST, Hist UST	Two permitted USTs	No further action
128 Britain Street	Zap Termite and Pest Control Company	CERC-NFRAP	Case file archive in 1987	No further action
Circuit Drive	Pacific Bell E/O	RCRA SQG, Finds	Permitted small quantity generator - unspecified	No further action
215 Harding Blvd	Circle K Store #1332	RCRA SQG, Haznet, FINDS, CA FID UST, SWEEPS UST, Hist UST	Gasoline & MTBE release to groundwater; Post remedial monitoring phase; case is open; Permitted USTs, organic waste disposal.	Research with SWRCB, DTSC
711 Church Street	Roseville Rail Yard	AST	Permitted AST	No further action
100 Elm Street	Sal's Garage	Envirostor	Waste oils and solvents released to soil; case status unknown	Research with DTSC

Table 4.8-3
Listed Hazardous Materials Sites in the Vicinity of the Plan Area

Property	Business	Agency Database(s)	Status	Recommended Action
S P –Roseville- Overall Site	S P –Roseville-Overall Site	Cortese, Response, Envirostar, Hist Cal sites	Numerous soil contamination cases open; site-wide risk assessment complete. Remedial Investigation/ Feasibility Study for the Diesel Shop approved by DTSC.	No further action
1139 Douglas Blvd	AM/PM Mini market	LUST, Cortese, Haznet, SWEEPS	Gasoline & MTBE release to groundwater; post-remediation phase, case status unknown. Permitted hazardous waste disposal	Research with SWRCB, DTSC
445-455 Roseville Square	Unocal #4775	LUST	Gasoline & MTBE release to groundwater; post-remediation phase, case status unknown.	Research with SWRCB
109 Ivy Street	Gold Rush Recycling	SWRCY	Permitted recycling facility	No further action
323 Judah Street	Bud's Fabric Care	RCRA-SQG, FINDS, HAZNET, Cleaners	Dry cleaning facility, permitted hazardous waste disposal	No further action
1017 Douglas Blvd	Fill Em Fast	CA FID UST, SWEEPS UST, Hist UST, LUST, Cortese	Permitted USTs. Gasoline & MTBE release to groundwater; remediation phase, case is open	Research with SWRCB, DTSC
1000 Douglas Blvd	Regal Station #510 / Nella Oil #63	Hist UST, CA FID UST	Permitted USTs	No further action
1000 Douglas Blvd	Exxon	Haznet LUST, Cortese, Sweeps UST	Permitted USTs and waste disposal. Gasoline & MTBE release to groundwater; site characterization phase, case is open	Research with SWRCB, DTSC
1080 Douglas Blvd	Texaco	LUST, Cortese	Gasoline & MTBE release to groundwater; remediation complete, case is closed	No further action
108 Riverside Avenue	Rose Liquor and Food	Haznet , LUST	Permitted hazardous waste disposal. Gasoline & MTBE release to groundwater; remediation phase, case is open	Research with SWRCB, DTSC

Table 4.8-3
Listed Hazardous Materials Sites in the Vicinity of the Plan Area

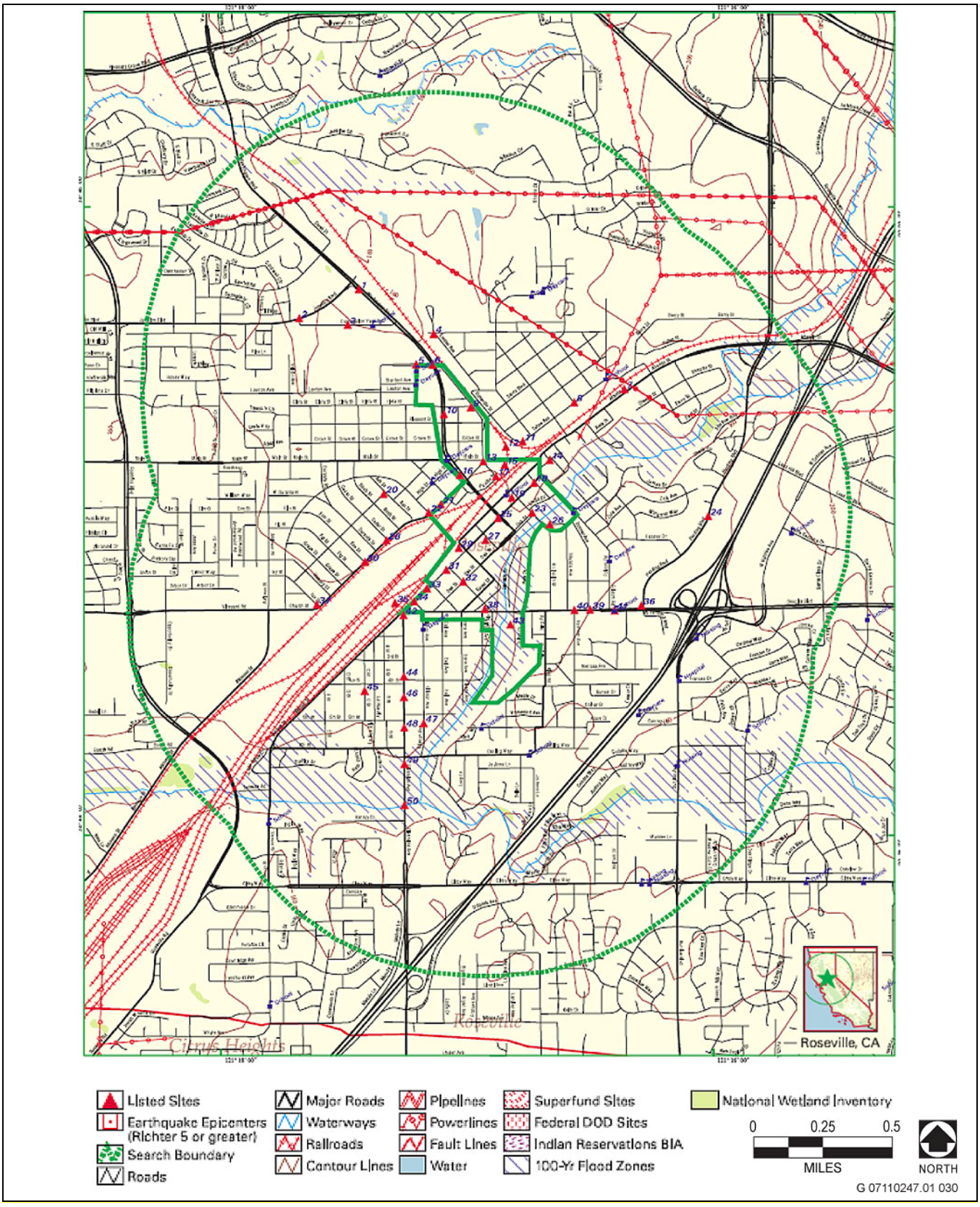
Property	Business	Agency Database(s)	Status	Recommended Action
108 Riverside Avenue	Cheaper #174 Georges Food and Liquor	CA FID UST, SWEEPS UST	Permitted USTs	No further action
324 Riverside Avenue	Neighborly Pest Management Inc	RCRA-SQG, Finds, Hist UST	Permitted hazardous waste producer; historic permitted UST	No further action
320 C Street	Roseville Motor Oil Spill	SCIC	No info; open case	Research with SWRCB
415 Riverside Avenue	J&M Tire And Automotive	Haznet, LUST, SLIC, Cortese	Permitted hazardous waste producer. Diesel release to soil, case status closed; SLIC database says case is open	Research with SWRCB
325 Clinton Avenue	Sierra Graphics Auto Body Inc	RCRA SQG, Finds	Permitted hazardous waste producer	No further action
515 Riverside Avenue	Sunrise Classic Motors	LUST, Cortese, Haznet, SWEEPS	Permitted USTs & hazmat disposal; Diesel release to soil, case status closed	No further action
609B Riverside Avenue	Riverside Beacon	LUST, Cortese	Gasoline & MTBE release to groundwater; remediation phase, case is open	Research with SWRCB, DTSC
609 Riverside Avenue	Sierra Station #13	LUST, CA FID UST	Gasoline release; investigation phase	Research with SWRCB
604 Riverside Avenue	2937 Chevron U.S.A.	LUST, Cortese, SWEEPS	Groundwater contamination with petroleum products and MTBE; preliminary assessment underway. Permitted USTs	Research with SWRCB, DTSC
	Former Roseville Toyota	Haznet, LUST, Cortese	Gasoline release to soil, remedial action taken, case closed; permitted waste oil disposal	Research with SWRCB, DTSC

Source: City of Roseville, Downtown Roseville Specific Plan Draft EIR, 2008.

As shown in Tables 4.8-2 and 4.8-3, based on the records search there are properties in and adjacent to the Plan area that may contain hazardous materials releases and/or contamination which could represent a potential hazardous materials constraint in the Plan area.

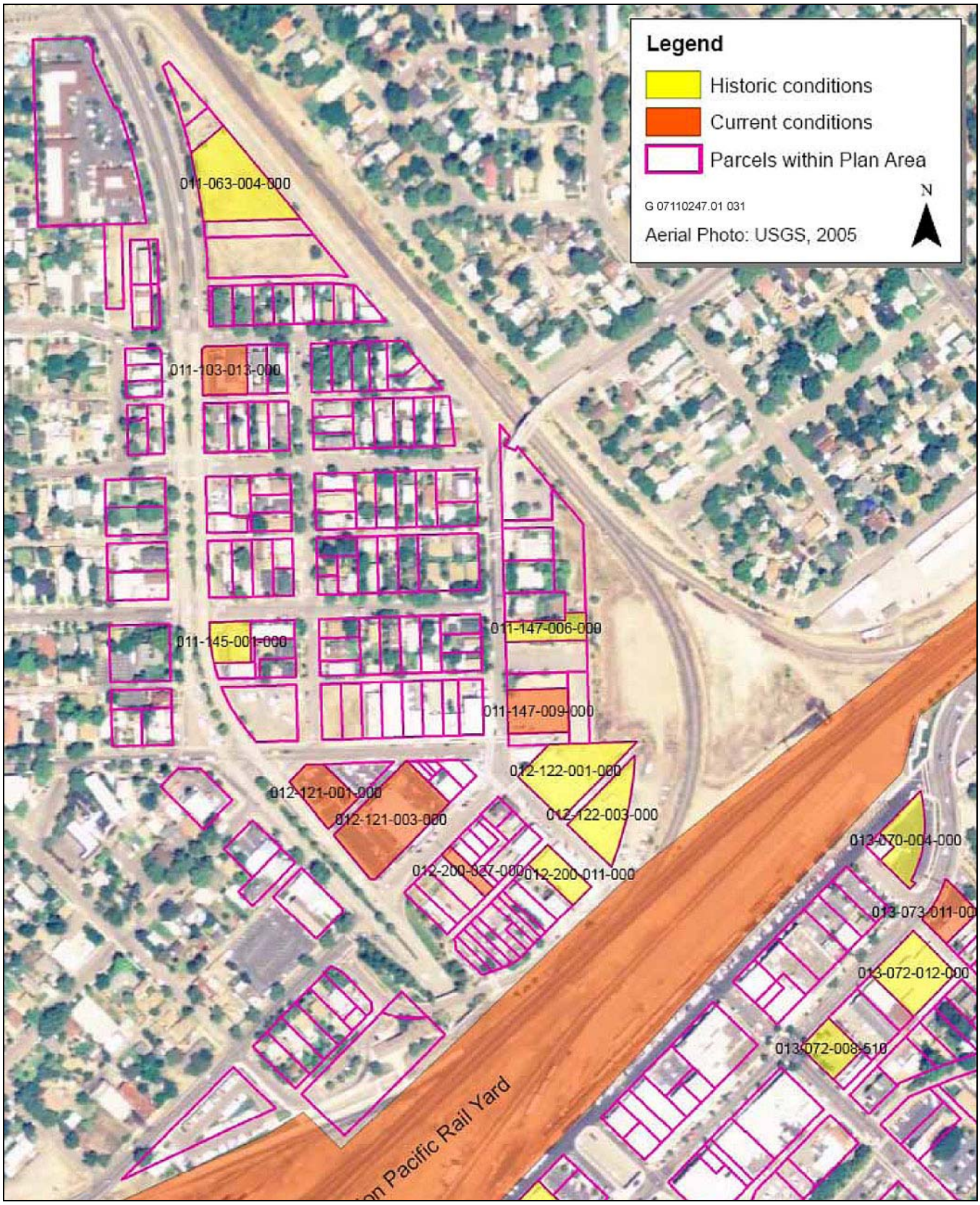
HISTORIC RECOGNIZED ENVIRONMENTAL CONDITIONS

The Plan area contains a mix of industrial, commercial, and residential land uses with at least 100 years of historical usage of hazardous materials, especially in the automotive and railroad industries. Evidence from records research, site reconnaissance, and interviews determined that the Plan area is subject to known recognized environmental conditions including historical and current environmental conditions. Exhibits 4.8-2 and 4.8-3 show the location of specific parcels of concern.



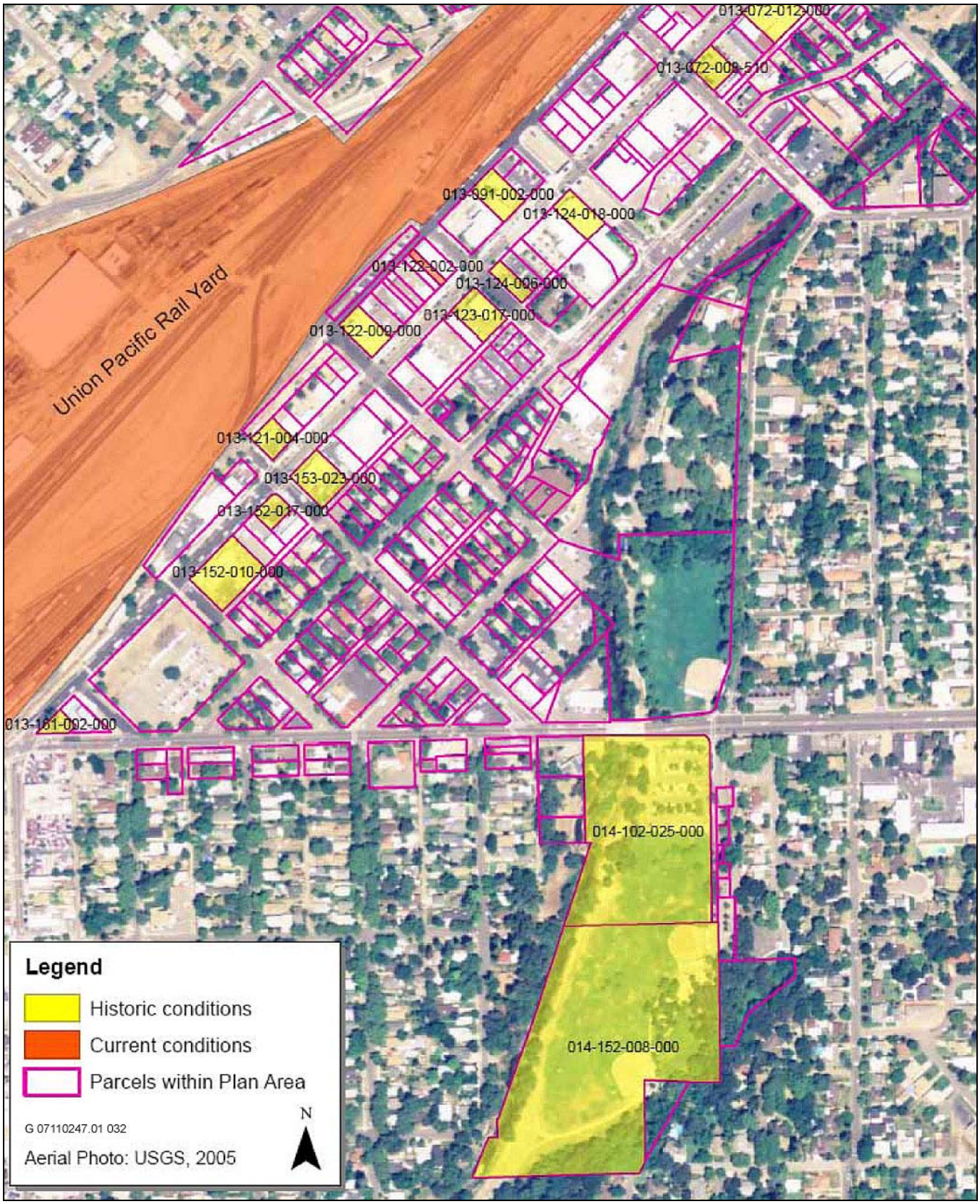
Source is City of Roseville, Downtown Roseville Specific Plan Draft EIR, 2008

Reported Sites from the EDR Area Study **Exhibit 4.8-1**



Source is City of Roseville, Downtown Roseville Specific Plan Draft EIR, 2008

Parcels with Recognized Environmental Conditions within the Plan Area, Part 1 **Exhibit 4.8-2**



Source is City of Roseville, Downtown Roseville Specific Plan Draft EIR, 2008

Parcels with Recognized Environmental Conditions within the Plan Area, Part 2 **Exhibit 4.8-3**

The following list shows the historic recognized environmental conditions found in connection with the Plan area and are shown in Exhibits 4.8-2 and 4.8-3. This following is not intended to be an exhaustive list of historic recognized conditions, but this list does indicate the industrial nature of the Plan area and emphasizes the possibility of encountering additional, unknown fuel USTs and associated petroleum-product contamination.

- 125–129 Vernon Street – Sanborn Co. maps indicate historic gasoline and oil usage/storage associated with automobile servicing
- 316 Vernon Street, City of Roseville – 1 fuel UST, hydraulic lift, buried drums were removed in 2000; stockpiled soils were reported to contain petroleum hydrocarbon and lead contamination, case closed in 2002
- 513–515 Vernon Street – maps indicate historic gasoline and oil usage/storage associated with automobile servicing
- 534 Vernon Street – maps indicate historic gasoline and oil usage/storage associated with automobile servicing
- 625–627 Vernon Street – maps indicate historic gasoline and oil usage/storage associated with automobile servicing
- 803 Vernon Street – maps indicate historic gasoline and oil usage/storage associated with automobile servicing
- 300 Lincoln Street – Barker Hotel, fuel UST removed and petroleum hydrocarbon contamination of soil detected; soils removed in 2004, case closed
- 301 Lincoln Street – fuel UST abandoned in place under permit
- 422 Lincoln Road – maps indicate historic gasoline and oil usage/storage associated with automobile servicing
- 114 Washington Boulevard – maps indicate historic gasoline and oil usage/storage associated with automobile servicing
- 310 Washington Boulevard – 3 fuel USTs and 1 waste oil UST removed in 1990; petroleum hydrocarbons were detected and the pit was over excavated, case closed in 2005
- 340–346 Washington Boulevard – Sanborn Co. maps indicate an historic dry cleaners operation
- 7 Taylor Road, D & P Creamery – gasoline was released to soil, remedial action was taken, and the case was closed

The following list shows current recognized environmental conditions found in connection with the Plan area and are shown in Exhibits 4.8-2 and 4.8-3. This following is not intended to be an exhaustive list of current recognized conditions, but this list does indicate the industrial nature of the Plan area and emphasizes the possibility of encountering additional, unknown fuel USTs and associated petroleum-product contamination.

- 97 Vernon Street, Former Tillet Cleaners – VOC contamination of groundwater, in post-remedial, monitoring stage
- 200 Washington Boulevard – 2 abandoned USTs, status unknown

- 404 Vernon Street, Former Deluxe Dry Cleaners – contamination of groundwater and soil by TCE; remedial action taken, case is still active

- 120 Church Street – removal of 2 heating oil USTs, soil contaminated with kerosene was removed, monitoring status

- 121 Church Street – USTs abandoned-in-place in alley; soil testing proposed,

- 101–108 Church Street / 341 Church Street, City of Roseville – Church St. Redevelopment Project; kerosene release to soil; tank and contaminated soil removed; monitoring status, case is still active

- 510 Washington Boulevard, Beacon Service Station – former A Mart, petroleum hydrocarbons and MTBE contamination; active remediation, RWQCB has required ongoing groundwater monitoring, and the case is still active

- 412 Lincoln Street –- former gasoline fuel station until mid-1960s; 2001 removal permit and removal report for 1 3,000-gal. fuel UST and 2 6,000-gal. buried railcars used as USTs; gasoline & diesel contamination of soil & groundwater, CVRWQCB requested work plan in 2007

HAZARDOUS MATERIAL RELEASE CASES

The following are historical areas of concern within the Plan area identified during research accomplished as part of the Phase I and review of case files and hazardous material inspection reports at the Roseville Fire Department.

- **316 Vernon Street**, parking lot – one fuel underground storage tank (UST), hydraulic lift, and buried drums were removed in 2000; stockpiled soils were reported to contain petroleum hydrocarbon and lead contamination, but subsequently reused offsite; case was closed in 2002.

- **725 Vernon Street**, Rock of Roseville – search for a suspected abandoned UST revealed nothing.

- **310 Washington Street** – three fuel USTs and one waste oil UST were removed in 1990; petroleum hydrocarbons were detected and the pit over-excavated; case was closed in 2005.

- **300 Lincoln Street**, Barker Hotel – a fuel UST was removed and petroleum hydrocarbon contamination of soil was detected; soils were removed in 2004, and the case was closed.

- **301 Lincoln Street** – a fuel UST was abandoned in place under permit.

The following are current areas of concern within the Plan area identified during Phase I records research:

- **404 Vernon Street** – former Deluxe Dry Cleaners operated a leaking sewer that discharged cleaning fluids. Groundwater and soils were contaminated by tetracloroethylene, trichloroethylene (TCE), and chloroform. Two of the City of Roseville's groundwater wells were impacted. Remedial action included ozone injection in 2003. The Central Valley Regional Water Quality Control Board (CVRWQCB) has required additional remediation and ongoing groundwater monitoring, and the case is still active.

- **120 Church Street** – removal of two heating oil USTs identified soil contaminated with kerosene. The contaminated soil was subsequently removed. The status of contamination is being monitored.

- **121 Church Street** – USTs were abandoned in-place in an alley. Soil testing is proposed.

- **510 Washington Boulevard,** Beacon Service Station – gasoline and MTBE released to groundwater from UST in 1991. A dual-phase extraction system was implemented in 2003 and a final remediation plan was filed in 2005. The RWQCB has required ongoing groundwater monitoring, and the case is still active.

- **412 Lincoln Street –** former gasoline fuel station operated until the mid-1960's. In 2001, a permit and report for removal of one 3,000-gallon fuel UST and two 6,000-gallon buried railcars used as USTs was submitted. Soil and groundwater were contaminated by gasoline and diesel. The CVRWQCB requested a workplan in 2007.

- **97 Vernon Street –** former Tillet Cleaners contaminated groundwater with TCE / perchlorethylene (PCE). Currently in post-remedial, monitoring stage.

- **200 Washington Street –** two abandoned USTs, status unknown.

The following are historical areas of concern located outside of the Plan area but could impact developments within the Plan area.

- **108 Riverside Avenue,** Rose Liquor and Food – a use permit was filed for Bill's Phillips Service to operate a 9,000-gallon gasoline UST in 1971; a permit was filed for Triangle, Inc., to install one 10,000-gallon UST in 1974; permits were filed by P & P Building Wrecking, Inc., to abandon two USTs (4,000-gallon and 5,000-gallon) and install a new tank in 1977; permits were filed for Rose Food and Liquor to install three 12,000-gallon USTs and remove two USTs in 1986; an abandoned 550-gallon UST was discovered and a gasoline release detected in 2002 during dispensing system upgrading; WEGE removed the tank and excavated contaminated soils in 2002; the CVRWQCB required additional groundwater sampling; the case is still active.

- **604 Riverside Avenue,** Eskridge's Chevron #9-29-37 – two 10,000-gallon USTs and one 5,000-gallon UST were installed in 1970; one waste-oil UST (unknown size) was removed and replaced with a new UST and contaminated soils were disposed in 1994; 10 gallons of gasoline were released by a car that tore off the dispenser nozzle, and impacted soil was removed; in 1995, three gasoline USTs (unknown size) were removed and replaced with three 12,000-gallon USTs, petroleum-product contaminated soils were found; site investigation was performed in 1995 and a soil vapor extraction system was installed; sparging wells and monitoring wells were installed through 2002; additional subsurface investigations were performed in 2003 and 2004; CVRWQCB has required ongoing groundwater monitoring, and the case is still active.

- **609B Riverside Avenue,** Sierra Station #13 / Riverside Beacon – release of petroleum hydrocarbons to groundwater detected during upgrade inspections in 1998; a site investigation was performed in 2000; groundwater extraction work plan prepared in 2001; additional site characterization and installation of monitoring wells conducted in 2003; CVRWQCB has required ongoing groundwater monitoring and the coordination of monitoring efforts with the remediation occurring at 604 Riverside Avenue.

- **200 to 1600 Vernon Street and 6125 Atkinson Street,** Union Pacific Rail Road Roseville Yard – a permit was filed to remove one waste oil tank at the yard near Vernon Street and 3rd Street in 1986; in 1984, soil and groundwater contamination at North Yard Operable Unit was addressed; from 1984 to 1994, approximately 57,000 cubic yards of petroleum hydrocarbon-impacted soils were excavated for off-site disposal and 1,166,000 gallons of impacted ground water were pumped and treated or disposed of off-site according to the 1993 and 1996 Remedial Action Plans; an additional Remedial Action Plan was approved in 2003 for disposal of an additional 250 cubic yards of impacted soil; in 2002, at Building 7244, approximately 1,000 gallons of diesel fuel were spilled, 200 gallons of free product was removed, contaminated soil was removed; in 2003, a leaking locomotive fuel tank released 250 gallons of diesel fuel, impacted soil was excavated and disposed; the 2003 report by Environmental Resources Management entitled "Phase III Remedial Investigation Interim Data Report and Additional Investigation Recommendations" is intended to coordinate, with Department of Toxic Substances Control (DTSC), remedial investigations and actions at the entire Roseville Yard and determine the extent of petroleum hydrocarbon plume(s); the case is still active.

- **100 Elm Street,** Sal's Garage – waste oil was released to soil in 1991; a Phase II ESA was performed in 1994; remedial action was taken, and the case was closed.

- **200 Atlantic Street,** Brick Paolini Texaco – 1970 use permits for two 5,000-gal. gasoline UST, one 2,000-gallon diesel USTs; 1971 use permits for one 2,000-gallon diesel UST and one 14,000-gallon gasoline UST; 1971 install permit (to Triangle Inc.) for one 4,000-gallon UST; 1984 install permit for three 5,000-gallon USTs (Paul Becker Service Station); 1984 abandon/remove permit for three 5,000-gallon USTs and one 2,000-gallon UST; 1995 use permits for one 5,000-gallon diesel UST, two 5,000-gallon gasoline USTs (all installed 1983).

- **1017 Douglas Boulevard,** Former E-Z Serve #100875 – CVRWQCB requested additional remedial action for gasoline contamination of soil and groundwater.

- **1000 Douglas Boulevard,** Douglas Exxon – petroleum hydrocarbon remediation complete; monitoring status.

Section 4.8.2, "Regulatory Setting," is revised by adding the following discussion after the subsection "City of Roseville General Plan 2020":

CITY OF ROSEVILLE HAZARD MITIGATION PLAN

The City of Roseville developed the *Roseville Hazard Mitigation Plan* (RHMP) in an effort to reduce future loss of life and property resulting from disasters. As part of the RHMP, the Plan includes hazard mitigation intended to reduce or alleviate the loss of life, personal injury, and property damage that could result from a disaster or hazard through long- and short-term strategies. The RHMP identifies human-caused hazard risks associated with the transportation of hazardous materials and potential incidents that could occur from such activities at the Roseville rail yard. Specifically, the HMP includes mitigation initiatives as part of the mitigation strategy which provides the City's blueprint for reducing potential losses associated with a risk. The following mitigation initiatives are intended to reduce or avoid long-term vulnerabilities identified with human-caused hazards which could include activities related to transporting hazardous materials at the Roseville rail yard.

- **HC-3:** Enhance emergency response capability of City by contingency planning for specific events based on identified vulnerabilities.

- **HC-4:** Seek to establish appropriate staffing levels of public safety personnel to address vulnerabilities identified.

- **HC-5:** Prepare a site-specific vulnerability assessment of City- owned critical facilities that use the best available science and technology with regards human-caused hazards.

- **HC-6:** Develop and enhance a Continuity of Operations Plan (COOP) specific to human-caused hazards.

Section 4.8.3, "Environmental Impacts," is revised as follows:

THRESHOLDS OF SIGNIFICANCE

The proposed project would cause a significant impact related to hazardous materials and public health if it would:

- create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;

- create a significant hazard to the public or the environment through the reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;

- emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;

- be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment;
- result in a safety hazard for people residing or working in the Plan area, for projects within an airport land use plan or within two miles of a public airport;
- impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan;
- expose construction workers to hazardous materials that would create health risks during construction; or
- create a health or potential health hazard.

Activities associated with the Specific Plan, along with future land uses in the Plan area, would not have the potential to impair or physically interfere with implementation of the *Roseville Hazard Mitigation Plan.* Mitigation initiatives identified in the RHMP are intended to reduce or avoid long-term vulnerabilities and hazards throughout the City of Roseville and are not specific to the Downtown Roseville area (see Section 4.8.2, "Regulatory Setting"). Mitigation initiatives of the RHMP would continue to be applied throughout the City of Roseville, including the Plan area, with implementation of the proposed project. This issue will not be discussed further in this DEIR.

SECTION 4.10, AIR QUALITY

Exhibit 4.10-1, on page 4.10-11, is hereby revised as follows:

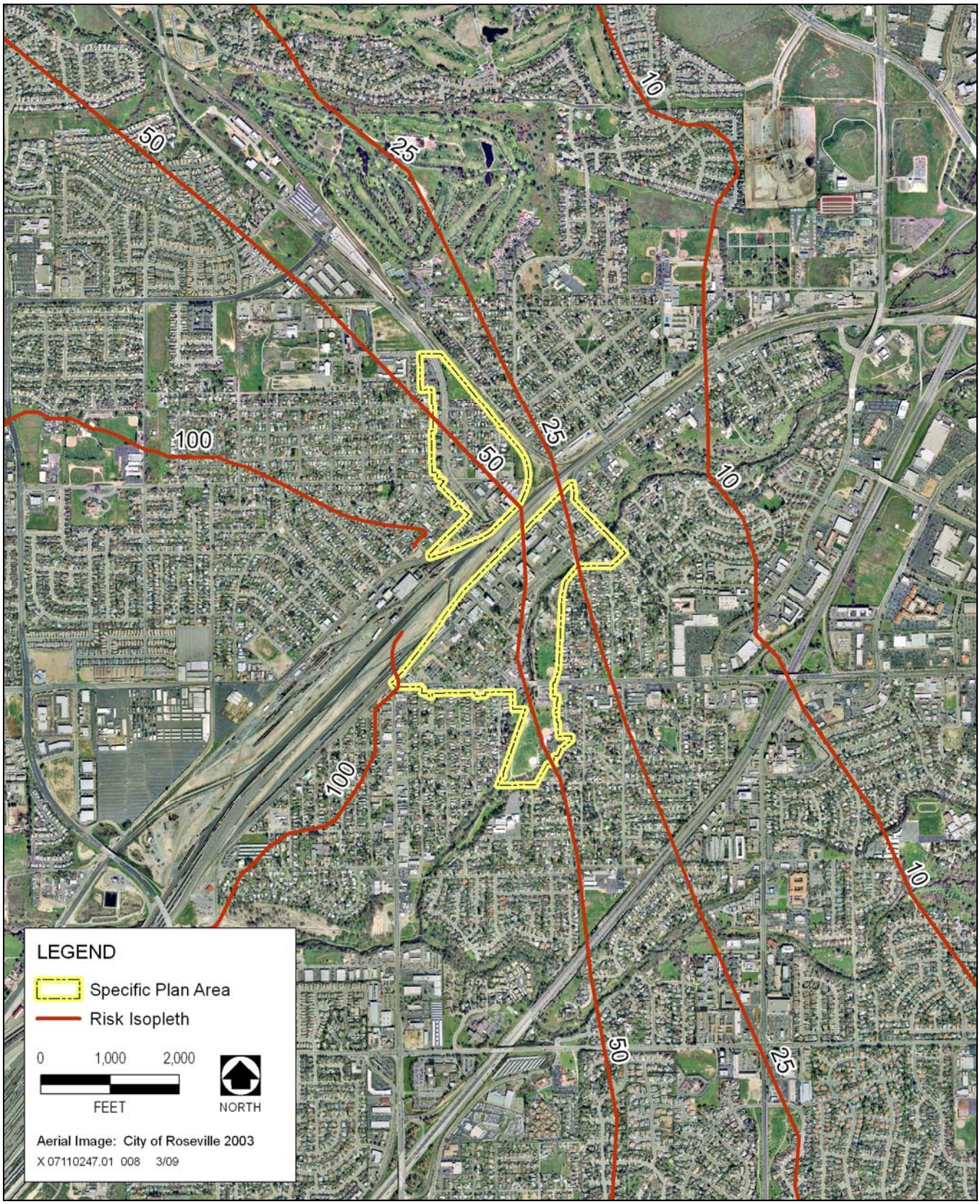
In response to comments received from the Placer County Air Pollution Control District (PCAPCD), Exhibit 4.10-1: 2003 Estimated Cancer Risk Contours (excess cases per one million people), has been revised to include the 100 in million risk isopleths as shown on the following page.

Table 4.10-4 is revised as follows:

Table 4.10-4
Summary of Modeled Long- Term Project-Generated, Operation-Related Emissions

Source	Emissions- pounds per day (lb/day)			
	ROG	NO_X	PM_{10}	$PM_{2.5}$[1]
Project Operational[2] Emissions				
Area Sources	270.69	42.18	173.47	166.97
Mobile Sources	436.78	637.39	752.27	146.98
Total Unmitigated at 20-Year Buildout (Assuming 20091990 Emission Levels)	707.5	679.6	925.7	314.0
PCAPCD Significance Threshold:	82	82	82	-

[1] PCAPCD has not adopted a significance threshold for $PM_{2.5}$, however the emissions are included for disclosure purposes.
Refer to Appendix F for detailed assumptions and modeling output files.
[2] For modeling purposes, emissions were estimated using 2009 as the first year of full project operation, even though the project would not become fully operational for over a period of twenty years. The earliest phases of the project were conservatively estimated to become operational in the year 2009. However, mobile-source emission factors at full project buildout would be lower due to more stringent vehicle emissions standards and assumed vehicle fleet turnover. Areas source emissions would also be lower, as the table does not reflect energy-efficient construction and appliances.
Source: Data modeled by EDAW 2008.



Source: Placer County Air Pollution Control District, *Roseville Rail Yard Study*, 2004

2003 Estimated Cancer Risk Contours (excess cases per one million people) **Exhibit 4.10-1**

Fourth paragraph on page 4.10-16 under section "Placer County Air Pollution Control District" is revised as follows:

In July of 1997, the EPA promulgated a new 8-hour ozone standard. This change lowered the standard for ambient ozone from 0.12 ppm averaged over one hour to 0.08 ppm averaged over eight hours. In general, the 8-hour standard is more protective of public health and more stringent than the 1-hour standard. The promulgation of this standard prompted new designations and nonattainment classifications in June 2004, and resulted in the revocation of the 1-hour standard in June 2005. The region has been designated as a nonattainment (~~serious~~severe) area for the national (8-hour) ozone standard with an attainment deadline of ~~June 2013~~2018.

Third bullet at top of page 4.10-26 is revised as follows:

- Long-term operation-related emissions of ROG and NO_X exceed the PCAPCD-recommended cumulative mass emissions threshold of 10 lb/day ~~(applicable during summer months only)~~.

Impact 4.10-2 statement on page 4.10-28, is revised as follows:

IMPACT 4.10-2 Generation of Long-Term Operation-Related (Regional) Emissions of Criteria Air Pollutants and Ozone Precursors. *Operation-related activities would result in project-generated emissions of ROG, NO_X or PM_{10} that exceed PCAPCD's significance threshold of 82 lb/day. Project-generated operation-related emissions of ROG and NO_X would also exceed PCAPCD's recommended cumulative ~~summertime~~ threshold of 10 lb/day In addition, the proposed project would require a General Plan amendment to allow for development of desired land uses in downtown Roseville. Thus, project-generated, operation-related emissions of criteria air pollutants and precursors could violate or contribute substantially to an existing or projected air quality violation, expose sensitive receptors to substantial pollutant concentrations and/or conflict with air quality planning efforts. As a result, this impact is considered* ***significant****.*

Fourth paragraph on page 4.10-29 under Impact 4.10-2 is revised as follows:

Based on the modeling conducted, operation-related activities would result in project-generated emissions of ROG, NO_X and PM_{10} that exceed PCAPCD's applicable thresholds of 82 lb/day. Consequently, project-generated operation-related emissions of ROG and NO_X would also exceed PCAPCD's recommended ~~summertime~~ cumulative significance threshold of 10 lb/day. In addition, PCAPCD relies, to a certain degree; on land use designations contained in general plan documents applicable to its jurisdiction. PCAPCD refers to the contents of approved general plans in order to forecast, inventory, and allocate regional emissions from land use and development-related sources. These emissions budgets are used in statewide air quality attainment planning efforts. Because the proposed project would require a general plan amendment to allow for development of the desired land uses in downtown Roseville, emissions that would be associated with the new land use types would not already be accounted for in regional air quality planning efforts. Thus, project-generated, operation-related emissions could violate or contribute substantially to an existing or projected air quality violation and result in a cumulatively considerable net increase of criteria pollutants, especially considering the nonattainment status of the Placer County portion of the SVAB, expose sensitive receptors to substantial pollutant concentrations, and/or conflict with air quality planning efforts. As a result, this would be a significant impact.

Mitigation Measure 4.10-2 on page 4.10-36 is revised as follows:

The following is a list of mitigation measures developed by PCAPCD to reduce long-term operational impacts to local and regional air quality. Due to the severe nonattainment designation in western Placer County for federal standards, all projects should implement those measures that are logical and feasible.

1. Exceed California Title 24 2008 energy efficiency standards by a minimum of 10%~~requirements~~. Areas of Title 24 to be exceeded (e.g., insulation, appliances, and fixtures) shall be determined by the applicant and the City.

2. All truck loading and unloading docks shall be equipped with one 110/208-volt power outlet for every two-dock door. Diesel trucks shall be prohibited from idling more than five minutes and must be required to connect to the 110/208-volt power to run any auxiliary equipment. Signage shall be provided.

3. Install a gas outlet in all outdoor recreational fire pits, and permanently installed cooking appliances.

4. Only natural gas fireplace appliances are permitted. Where propane or natural gas service is not available, only EPA Phase II certified wood-burning devices shall be allowed in single-family residences. The emission potential from each residence shall not exceed 7.5 grams per hour. Wood-burning or Pellet appliances shall not be permitted in multi-family developments.

5. Where feasible, install solar electric generation systems. Recommend participation in Roseville Electric incentive programs for energy-efficient development.

SECTION 4.11, NOISE

Pages 4.11-26 and 4.11-29 are hereby revised as follows:

Mitigation Measure 4.11-3: Long-Term Operational Stationary Source Noise Levels:

Project applicant(s) for industrial and commercial/office land uses shall implement the following measures to reduce exposure of sensitive receptors to excessive noise levels from future stationary sources.

1. Industrial and Commercial/Office Land Uses. Where these land uses adjoin common property lines with noise-sensitive uses, the following mitigation measures shall be incorporated into the project design to reduce noise exposure from future stationary sources.

    a. During project review the City's Planning Department shall determine if the proposed use would likely generate noise levels adversely affecting the adjacent noise-sensitive uses. If a proposed project has the potential to generate or expose noise-sensitive uses to noise levels exceeding the City of Roseville noise standards (Tables 4.11-4 through 4.11-6) or result in a substantial (3 dB or greater) permanent increase in ambient noise levels, the project applicant shall prepare a site-specific acoustical analysis. The acoustical analysis shall be conducted in accordance with the City of Roseville General Plan requirements shown in Table 4.11-5.

    b. Loading and unloading areas shall be located so that commercial buildings shield nearby residential land uses from noise generated by loading dock and delivery activities. If necessary, additional sound barriers shall be constructed on the commercial sites to protect nearby noise-sensitive uses.

    c. Loading dock activity and delivery truck activity at the commercial uses developed on the project site shall only occur during the daytime hours of 7 a.m. to 10 p.m., in order to prevent evening and nighttime sleep disturbance at nearby residential land uses.

    d. All commercial HVAC machinery shall be located within mechanical equipment rooms wherever possible. Equipment manufacturer's specifications for venting and access to outside air shall be maintained.

    e. Localized noise barriers or rooftop parapets shall be constructed around the HVAC, cooling towers, and mechanical equipment so that line-of-site to the noise source from the property line of the noise-sensitive

receptors is blocked. Equipment manufacturer's specifications for venting and access to outside air shall be maintained.

f. Property maintenance activities at commercial and office uses shall be restricted to daytime hours between 8 a.m. and 9 p.m.

g. The owner or developer of any mixed-use building containing residential units shall provide written notice to all future residents, occupants, and users that the surrounding area may be subject to levels of noise associated with commercial uses at higher levels than would be expected in residential areas.

SECTION 4.12, HYDROLOGY AND WATER QUALITY

Bulleted list on page 4.12-1 is hereby revised as follows:

- Downtown Specific Plan Hydraulic Study (RFB Consulting 2008),
- Dry Creek Coordinated Resource Management Plan. (ECORP Consulting, Inc. 2003),
- Dry Creek Bank Erosion Management Plan (Swanson Hydrology & Geomorphology 2003),
- Dry Creek Greenway Regional Vision (Foothill 2004), ~~and~~
- Royer / Saugstad Park Master Plan Update (Carducci & Associates, Inc. 2007)~~.~~,
- Biological Resources Assessment, Downtown Vernon Street and Historic Old Town Specific Plan, Roseville, Placer County, California (Downtown Solutions, February 28, 2007).

Second paragraph on page 4.12-15 is hereby revised as follows:

Royer and Saugstad Park Improvements: The proposed pedestrian bridge and grand staircase, in combination with relocation of the Ice House Bridge and construction of a bike path (see Figure 6 in Appendix D), would not increase 100-year flood water surface elevations in Royer Park or upstream. However, the favorable results are based on bridge alignments different than those presented in the Specific Plan. Specifically, the HEC-RAS model was revised based on new information gathered in the field and from aerial surveys. Consideration of other alignments and configurations other than those shown as part of the RBF analysis for the two bridges will require additional hydraulic review. Proposed relocation of the Library Bridge in combination with development of the amphitheater would not affect water surface elevations.

SECTION 5.4, GLOBAL CLIMATE CHANGE

Last paragraph on page 5-20 is hereby revised as follows:

Although neither the ARB nor any air district in California, including the PCAPCD, has identified a significance threshold for analyzing GHG emissions generated by a proposed project or a methodology for analyzing air quality impacts related to global warming, California has identified goals to reduce GHG emissions to 1990 levels by the year 2020 with adoption of AB 32. To meet AB 32 goals, California would need to generate lower levels of GHG emissions than current levels, while accommodating 30 years of population and economic growth in the state. In addition, by adoption of SB 97 California has committed to developing and adopting CEQA Guidelines to assist local jurisdictions in their assessment. Because no standards have yet been adopted, it is recognized that for most projects there is no simple metric available to determine if a single project would substantially increase or decrease overall GHG emission levels (e.g., help or hinder meeting the AB 32 emission goals). ~~In addition, at this time AB 32 only applies to stationary source emissions.~~ For the purposes of this analysis and absent guidance from State and local agencies, the City has chosen the following approach to analyzing GHG emissions in the context of CEQA: 1) quantify the mass of GHG emissions associated with the proposed project using recommended and widely accepted calculation tools available at this time of writing, 2) if the project would result in a substantial increase in GHG emissions, then the impact would be considered significant, and 3) implement

3 REFERENCES

City of Roseville. 2008. *Draft Downtown Roseville Specific Plan*. April 4, 2008.

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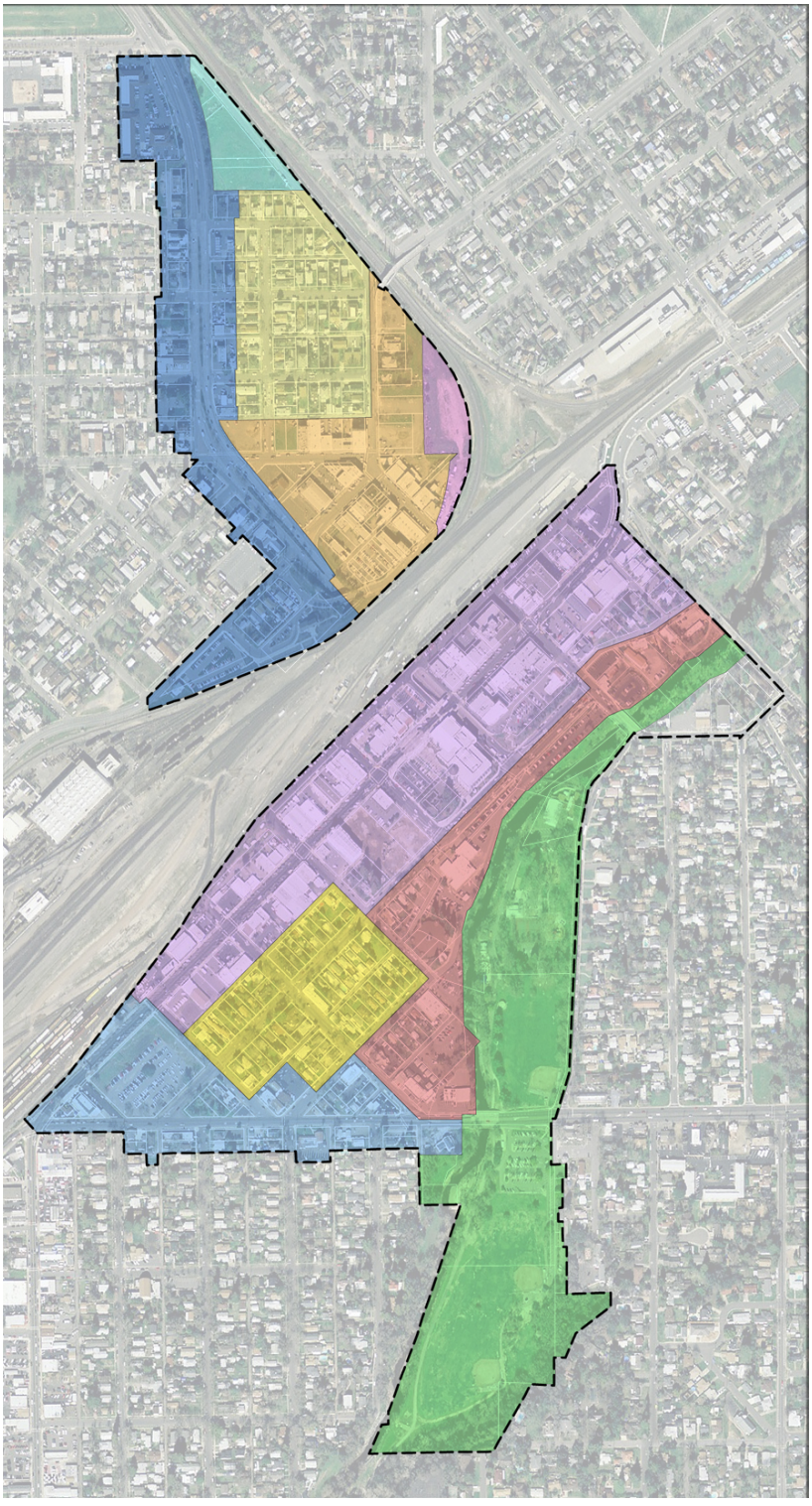
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Mitigation Monitoring Program

Downtown Roseville Specific Plan









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March 2009

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Mitigation Monitoring Program

Downtown Roseville Specific Plan









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MITIGATION MONITORING PROGRAM FOR DOWNTOWN ROSEVILLE SPECIFIC PLAN PROJECT

INTRODUCTION

Sections 15091(d) and 15097 of the State Guidelines for the California Environmental Quality Act (CEQA) require public agencies "to adopt a reporting and monitoring program for changes to the project which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment." A Mitigation Monitoring Program (MMP) is required by the City of Roseville (City) for the Downtown Roseville Specific Plan project because the Final Environmental Impact Report (EIR) for the project identified potentially significant adverse impacts related to construction and implementation activities, and mitigation measures have been identified to mitigate those impacts.

The MMP contained herein is intended to satisfy the requirements of CEQA as it relates to the Downtown Roseville Specific Plan Project EIR. This MMP is intended to be used by City staff and mitigation monitoring personnel to ensure compliance with mitigation measures during implementation of the project. Mitigation measures presented in this MMP were developed during the preparation of the Draft EIR (December 23, 2008) and Final EIR (March 2009) for the project.

The intent of this MMP is to ensure the effective implementation and enforcement of all adopted mitigation measures. The MMP will provide for monitoring of construction activities and in-the-field identification and resolution of environmental concerns that may arise during project implementation. The MMP may be modified by the City during project implementation, as necessary, in response to changing conditions or other refinements.

MITIGATION MONITORING PROGRAM DESCRIPTION

COMPLIANCE

The City will coordinate all monitoring activities and document the implementation of mitigation measures. Unless otherwise specified herein, the City is responsible for taking all actions necessary to implement the mitigation measures according to the specifications provided for each measure, and for demonstrating that the action has been successfully completed. The City, at its discretion, may delegate implementation responsibility or portions thereof to the developer, a licensed contractor, or other designated agent.

The City will coordinate the overall administration of the MMP and will verify that City staff members and/or the construction contractor and other responsible parties have completed the necessary actions for each measure. The table below identifies the mitigation measures adopted in the Final EIR, additional information on the monitoring actions and specific implementing entities, including the responsible parties for monitoring actions, and timing of each mitigation action. In cases where the implementing responsibility is shared between the City and construction contractors, the City will be responsible for ensuring that mitigation requirements are implemented.

FIELD MONITORING OF MITIGATION MEASURES

Prior to the issuance of City-approved construction contracts and applicant-sponsored grading and building permits, and during such time as development plans are being prepared for approval by City staff, the City will be responsible for ensuring compliance with mitigation monitoring applicable to the project design phase.

During construction, the City's Public Works Department will assign inspectors to be responsible for monitoring the implementation of mitigation measures. These inspectors will report to the City's Public Works Department and will be thoroughly familiar with mitigation measures in the MMP. In addition, the inspectors will be familiar

with construction contract requirements, schedules, standard construction practices, and mitigation techniques. The City will be responsible for onsite, day-to-day monitoring of construction activities, reviewing construction plans, and reviewing equipment staging/access plans to ensure conformance with adopted mitigation measures. The City will also have the authority to enforce mitigation measures by suspending specific construction activities.

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

If any mitigation measures are not being implemented, the City may pursue corrective action. Penalties may include, but are not limited to, the following:

1. Written notification and request for compliance,
2. Withholding of permits,
3. Administrative fines,
4. Stop-work orders,
5. Criminal prosecution and/or administrative fines,
6. Forfeiture of security bonds or other guarantees, and/or
7. Revocation of permits or other entitlements.

Mitigation measures applicable to construction contracts issued by the City (e.g., for parking garages) will be conveyed in contract documents. Failure to comply with these requirements by the construction contractor may also necessitate contract-based penalties.

CHANGES TO MITIGATION MEASURES

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

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

OR

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

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

MITIGATION MONITORING PROGRAM

The table presented on the following pages provides the MMP for the Downtown Roseville Specific Plan project. The MMP identifies the following.

Mitigation Measure – This provides the text of the mitigation measure identified in the Final EIR and identifies the mitigation measure according to the number in the Final EIR. The mitigation measures are presented by topic (e.g., air quality) in the same sequence as that presented in the Final EIR.

Implementation – This identifies the entity responsible for complying with the requirements of the mitigation measure and identifies the method and/or process by which the mitigation measure will be implemented.

Timing – This identifies the time frame in which the mitigation will take place.

Reviewing Party – This identifies the party responsible for reviewing and ensuring implementation of each mitigation measure.

Table 1
Downtown Roseville Specific Plan Project Mitigation Monitoring Program

Mitigation Measure	Implementation	Timing	Reviewing Party
Public Services			
4.3-4: Increased Demand for Public School Facilities and Services. The proposed project would generate approximately 23 high school students. To ensure adequate funding is available for high school facilities necessary to accommodate the increase in student population caused by the proposed project, landowners and developers shall pay school mitigation fees in accordance with the City of Roseville Ordinance 2434 before issuance of building permits for construction in the Plan area. Development projects in the Plan area that include only residential land uses shall enter into a Mutual Benefit Agreement (MBA) with school districts serving that area. Implementation of Mitigation Measure 4.3-4 would ensure adequate funding is made available to school districts to pay for construction and operation of new school facilities as needed to serve development. School impact fees are typically an insufficient amount to fund 100% of new school facility construction. However, the California Legislature has declared that the school impact fee is deemed to be full and adequate mitigation under CEQA (Government Code Section 65996). With payment of the state-mandate fees, impacts on school services and facilities would be reduced to a less-than-significant level.	The applicant shall pay school mitigation fees in accordance with the City of Roseville Ordinance 2434	Prior to issuance of building permits	PRD
Geology and Soils			
4.4-3: Seismically-Induced Risks to People and Structures Caused by Landsides. To minimize potential damage from unstable soil (landslides) along Dry Creek, the project applicant shall hire a qualified, licensed geotechnical engineer to map the Dry Creek corridor for clay-rich, weak soils, and high groundwater conditions prior to any construction or grading activities occurring in Dry Creek. Any unstable or hazardous slopes identified during the geotechnical investigation shall be identified by the geotechnical engineer and the geotechnical engineer shall provide recommendations for preventing landslides during project design and/or construction. These measures shall be included in grading permits prior to approval by the City.	The applicant shall hire a qualified, licensed geotechnical engineer to map the Dry Creek corridor for clay-rich, weak soils, and high groundwater conditions The project contractor shall Implement standard engineering requirements The project contractor shall implement all recommendations of the geotechnical investigation	Prior to issuance of grading permit; prior to ground-disturbing construction activities associated with bridges During ground-disturbing construction activities During ground-disturbing construction activities	PWD PWD PWD

PRD = Planning and Redevelopment Department PWD = Public Works Department

Table 1
Downtown Roseville Specific Plan Project Mitigation Monitoring Program

Mitigation Measure	Implementation	Timing	Reviewing Party
Aesthetics			
4.5-3: Impacts from Lighting and Reflective Surfaces. Operation of the golf course at nighttime would require the use of high-powered floodlights mounted on poles approximately 25 to 30 feet high that would be placed near or adjacent to existing residences. Prior to installation of nighttime lighting at the golf course, the City shall coordinate with a company specializing in or expertise with exterior lighting systems for golf courses (e.g., Abacus). Floodlighting used shall consist of a double asymmetric beam distribution that ensures minimum upward light and tight control of light overspill into adjacent areas. The golf course shall be designed to incorporate a line of trees located along the outermost boundary between the golf course and all adjacent residences.	The applicant shall coordinate with a company specializing in or expertise with exterior lighting systems for golf courses The applicant shall design the golf course with double asymmetric beam distribution floodlights The applicant shall design the golf course with a line of trees located along the outermost boundary between the golf course and all adjacent residences	Prior to installation of nighttime lighting at the golf course Prior to operation of the golf course Prior to operation of the golf course	PRD PRD PRD
Traffic and Circulation			
4.6-1: Unacceptable Peak Hour LOS at Signalized Intersections under Existing Plus Project Conditions. The Specific Plan would establish a Pedestrian Overlay District within the Plan area. The Pedestrian Overlay District is would construct physical improvements at intersections in the Plan area to encourage pedestrian activity and increase pedestrian safety. Although three signalized intersections in the study area would operate below LOS C, they would be located in the Pedestrian Overlay District which would make the intersections exempt from the City's LOS C policy. Therefore, the project would result in a less-than-significant impact.	No actions necessary		
4.6-2: Unacceptable p.m. Peak Hour LOS at Signalized Intersections under Cumulative (2020) Plus Project Conditions. The Specific Plan would establish a Pedestrian Overlay District within the Plan area. The Pedestrian Overlay District is would construct physical improvements at intersections in the Plan area to encourage pedestrian activity and increase pedestrian safety. Establishment of a Pedestrian Overlay District would reduce impacts to the Judah Street/Vernon Street and Washington Boulevard/Main Street intersections because it would these intersections exempt from the City's LOS C policy such that the intersections would operate at an acceptable LOS. The following mitigation measures are identified for the significant impacts under the Cumulative (2020) Plus Project scenario at signalized study intersections:			

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Table 1
Downtown Roseville Specific Plan Project Mitigation Monitoring Program

Mitigation Measure	Implementation	Timing	Reviewing Party
► LOS D at Yosemite Street/Atlantic Street. The addition of project traffic at this intersection under cumulative 2020 conditions would deteriorate operations from LOS C to LOS D. To mitigate project impacts, the southbound right-turn lane could be restriped as a shared left/right-turn lane. With this restriping, the intersection would operate at an acceptable LOS C. The project would be responsible to pay their fair share toward this improvement. This intersection improvement shall be incorporated into the City of Roseville Capital Improvement Program. Incorporating this intersection improvement into the City's Capital Improvement Program would establish a funding mechanism to collect the remaining funds for this improvement (beyond the project's fair share). Therefore, implementation of the ultimate improvement would be guaranteed and the impact is considered less than significant.	The City of Roseville shall incorporate into the City of Roseville Capital Improvement Program the restriping of the southbound right-turn lane at the Yosemite Street/Atlantic Street intersection as a shared left/right-turn lane	As part of approval of the Specific Plan	PRD
► LOS D at Orlando Avenue/Marlin Drive/Cirby Way. The addition of project traffic at this intersection under cumulative 2020 conditions would deteriorate operations from LOS C to LOS D. To mitigate project impacts, the northbound and southbound approaches should be widened to provide one dedicated left-turn lane, one through lane, and one right-turn lane. With these improvements, the intersection phasing could be modified to provide protected left-turn movements, and would operate at an acceptable LOS C. Please note that, given the curvature of Marlin Drive and Orlando Avenue, the creek just north of the intersection, and right-of-way constraints, the identified mitigation may not be feasible. Therefore, this impact is considered significant and unavoidable.	No actions necessary		
► LOS D at Harding Drive/Estates Drive. The addition of project traffic at this intersection under cumulative 2020 conditions would deteriorate operations from LOS C to LOS D. To mitigate project impacts, a dedicated southbound right-turn lane would be needed. With this improvement, the intersection would operate at an acceptable LOS C. The project would be responsible to pay a fair share toward this improvement. Please note that existing development is present on all four quadrants of the intersection, limiting the available right-of-way to implement the improvement which may make the identified mitigation infeasible. Therefore, this impact is considered significant and unavoidable.	No actions necessary		
► LOS E at Sunrise Avenue/Eureka Road. The addition of project traffic at this intersection under cumulative 2020 conditions would deteriorate operations from LOS D to LOS E. To mitigate project impacts, a third eastbound left-turn lane could be added to the intersection. With the	No actions necessary		

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Table 1
Downtown Roseville Specific Plan Project Mitigation Monitoring Program

Mitigation Measure	Implementation	Timing	Reviewing Party
improvement, the intersection would operate at LOS D, consistent with the No Project Condition. However, there are potential right-of-way constraints and inherent design complexities of implementing triple left-turn lanes. Therefore, this impact is considered significant and unavoidable.			
4.6-5: Parking. To mitigate parking impacts for the Plan area, the project shall provide an additional 580 parking spaces. This shall be accommodated by providing extra spaces within the three planned parking structures, providing additional public parking spaces (as part of developing and implementing the Parking Management Plan), or require development to provide additional parking (e.g., in-lieu fees).	The City of Roseville shall provide an additional 580 parking spaces in the Plan area	As part of approval of the Specific Plan	PRD
Cultural Resources			
4.7-1: Disturbance of Architectural Resources. Two of the historic-era resources located within the Plan area to appear to be eligible for CRHR listing. These resources include: 316 Vernon Street and 419-425 Vernon Street. The Old Town Roseville area is designated as a historic district at the local level by the City of Roseville. Consequently, it is recommended that any alterations made to these eligible resources be conducted in a manner consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties, and the Design Guidelines for Central Roseville. Generally, under CEQA, a project that complies with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or the Secretary of Interior's Standards for Rehabilitation is considered to have mitigated impacts to a historical resource to a less-than-significant level (State CEQA Guidelines Section 15064.5).	The applicant shall ensure alterations made to buildings at 316 Vernon Street and 419-425 Vernon Street be conducted in a manner consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties, and the Design Guidelines for Central Roseville	Prior to issuance of demolition or building permit	PRD
Development within the Plan area could result in new land uses, infill development, and streetscape improvements. Over the 20-year build-out period for the Specific Plan, future developments within the Plan area could result in impacts to 25 buildings built between 1963 and 1983. These buildings and their locations are listed in Table 4.7-2. Prior to the approval of demolition or building permits that would result in substantial alteration of any of the 15 buildings that will reach 45 years in age by the build-out date, the City shall ensure that an evaluation of significance according to CRHR criteria shall be performed. If the evaluation indicates the property is not eligible for listing in the CRHR, no further action is necessary. If any of these buildings are found to be eligible for listing in the CRHR in conjunction with future evaluations, the	The applicant shall ensure alterations made to 25 buildings built between 1963 and 1983 are evaluated for significance according to CRHR criteria.	Prior to issuance of demolition or building permit	PRD

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Table 1
Downtown Roseville Specific Plan Project Mitigation Monitoring Program

Mitigation Measure	Implementation	Timing	Reviewing Party
City shall ensure that the proposed development is consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties or develop other methods to avoid significant impacts to these properties in consultation with the State Office of Historic Preservation (OHP). This measure would reduce potentially significant impacts to Architectural Resources to a less-than-significant level.			
If it is not feasible to retain an eligible historic resource, prior to demolition, documentation similar to the standards of the Historic American Building Survey (HABS) shall be conducted. A HABS -like recordation would document the site history, construction history, and current appearance of the eligible resource in the context of Roseville's history. The HABS-like recordation shall be completed by an architectural historian who meets the Secretary of the Interior's professional qualifications standards, and an experienced HABS photographer. The final document shall be filed in a local library / repository. Although this type of documentation eliminates one adverse impact of demolition (i.e., loss of historical information) it does not prevent the physical loss of a historically significant resource.	If an evaluation determines any of the 25 buildings built between 1963 and 1983 are found to be eligible for listing in the CRHR, the applicant shall ensure development consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties or develop other methods to avoid significant impacts to these properties in consultation with the State Office of Historic Preservation (OHP)	Prior to issuance of demolition or building permit	PRD
Implementation of the above mitigation measure would reduce impacts related to disturbance of architectural resources. However, the potential loss of a historically significant resource could occur. While implementation of mitigation measure 4.7-1 would lessen project impacts, demolition of a historical resource would be a significant adverse change and, therefore, considered a significant and unavoidable impact.	If retention of an eligible historic resource is considered infeasible, the applicant shall conduct documentation similar to the standards of the Historic American Building Survey (HABS)	Prior to issuance of demolition or building permit	PRD
4.7-2: Disturbance of Potential Subsurface Cultural Deposits. In the event that unrecorded cultural materials are identified during construction-related ground disturbing activities, potentially destructive work in the vicinity of the find shall cease until a qualified archaeologist can determine the significance of the find and, if appropriate, provide recommendations for treatment to the City. Treatment approved by the City shall be implemented prior to resuming ground disturbing activities.	The project contractor shall Suspend construction work if unrecorded cultural materials are identified	During construction-related ground disturbing activities	PRD
4.7-3: Undiscovered / Unrecorded Human Remains. If human remains are discovered at any project construction site during any phase of construction, work within 50 feet of the remains shall be suspended immediately, and the	The project contractor suspend construction work, if human remains are discovered, and	During construction-related ground disturbing activities	PRD

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Table 1
Downtown Roseville Specific Plan Project Mitigation Monitoring Program

Mitigation Measure	Implementation	Timing	Reviewing Party
City of Roseville, the project applicant, and the county coroner shall be notified immediately. If the remains are determined by the county coroner to be Native American, the Native American Heritage Commission (NAHC) shall be notified within 24 hours, and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. The City or the project applicant shall also retain a professional archaeologist with Native American burial experience who shall conduct a field investigation of the specific site and consult with the Most Likely Descendant (MLD) identified by the NAHC. As necessary, the archaeologist may provide professional assistance to the MLD including the excavation and removal of the human remains. The City or the project applicant shall implement any mitigation before the resumption of activities at the site where the remains were discovered.	notify City of Roseville The City of Roseville shall notify County Coroner if human remains are discovered The City of Roseville shall notify Native American Heritage Commission if human remains are discovered	 During construction-related ground disturbing activities During construction-related ground disturbing activities	 PRD PRD
Hazards and Hazardous Materials			
4.8-1: Exposure of Construction Workers, Residents, and Others to Hazardous Materials. A Health and Safety Plan (HASP) prepared for the construction process, consistent with general industry standards and Occupational Safety and Health Administration (OSHA) requirements, would address the risks to construction personnel and public safety, such that these health and safety risks would be mitigated to an acceptable level. A qualified professional, such as a Certified Industrial Hygienist (CIH), would prepare the HASP to provide guidance for personnel involved in trenching and other excavation work where there is evidence of hydrocarbons or other hazardous materials. The HASP utilized for each construction phase would describe in detail the health and safety guidelines, procedures, and work practices that must be adhered to and the work to be performed, and would also include special details governing certain work, such as working in confined spaces. Should contaminants be found, appropriate measures would be taken to mitigate potential effects related to construction/implementation of the proposed project. This may include excavation of contaminated soils and disposal at an appropriate facility. The potential contaminants of concern are petroleum hydrocarbons and associated chemicals, such as oxygenates and fuel scavengers, and volatile organic carbons (e.g., PCE, TCE).	The project contractor shall prepare site-specific Health and Safety Plan	Prior to grading or construction	PWD

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Table 1
Downtown Roseville Specific Plan Project Mitigation Monitoring Program

Mitigation Measure	Implementation	Timing	Reviewing Party
The HASP would address appropriate personal protective equipment (PPE), monitoring to protect on-site workers; and the appropriate level of worker training (e.g., Hazardous Waste Operations and Emergency Response training). Monitoring may include visual and olfactory observation (e.g., soil staining or unusual odors), or air monitoring with hand-held devices (e.g., photo-ionization detector) to detect volatile hydrocarbons. Health-risk based action levels should be identified for various contaminants that would trigger modifications to work practices. Work practice modifications may include the cessation of construction activities until soil or groundwater sampling is performed, or an increase in the level of PPE or worker training. A Sampling and Analysis Plan (SAP) would accompany the HASP to determine if contaminants of concern are present and at what concentrations. The HASP would also address procedures to follow if unknown objects (e.g., USTs, underground piping) are encountered during construction activities. Specialized contractors would be hired to decommission and remove such USTs and perform confirmation sampling as necessary. The implementation of an adequate site-specific HASP would reduce the health risk to construction personnel by these recognized environmental conditions to a less-than-significant level. In addition, the following measures shall apply to construction activities, as appropriate.			
1) The construction contractor shall notify the Roseville Fire Department if evidence of soil or groundwater contamination (e.g., stained soil, unusual odor in groundwater) is encountered during construction activities. Any contaminated areas shall be remediated in accordance with recommendations made by the Fire Department, RWQCB, DTSC, or other appropriate federal, state, or local regulatory agencies.	The project contractor shall notify the Roseville Fire Department if evidence of soil or groundwater contamination is encountered	During construction-related ground disturbing	PRD
	The applicant shall remediate contaminated areas in accordance with recommendations made by the Fire Department, RWQCB, DTSC, or other appropriate federal, state, or local regulatory agencies	Prior to construction-related ground disturbing activities	PRD

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Table 1
Downtown Roseville Specific Plan Project Mitigation Monitoring Program

Mitigation Measure	Implementation	Timing	Reviewing Party
2) Prior to demolition of any buildings constructed before 1977, the project applicant shall hire a qualified consultant to investigate whether any of these buildings contain lead and/or asbestos-containing materials and lead that could become friable or mobile during demolition activities. If found, the lead and/or asbestos-containing materials shall be removed by an accredited contractor in accordance with EPA and California OSHA standards. In addition, all activities (construction or demolition) in the vicinity of these materials shall comply with California OSHA lead and asbestos worker construction standards. The lead and asbestos-containing materials shall be disposed of properly at an appropriate off-site disposal facility.	The applicant or project contractor shall investigate whether any building constructed before 1977 contain lead and/or asbestos-containing materials and lead that could become friable or mobile during demolition activities	Prior to approval of building or demolition permit	PRD
The City would require contractors to prepare a site-specific HASP for individual projects within the Plan area to address current or historic RECs identified in the Phase I to verify that contractors are aware of site-specific RECs. As an alternative, the City could prepare a Plan-wide programmatic HASP to address all RECs identified in the Plan area, although preparation of the HASP is the ultimate responsibility of the contractor.	The applicant or project contractor shall remove lead and/or asbestos-containing materials by an accredited contractor in accordance with EPA and California OSHA standards	Prior to approval of building or demolition permit	PRD
Biological Resources			
Effects on Special-status Fish Species. The following measures shall be implemented to mitigate adverse effects to special-status fish species potentially resulting from the proposed project. To the extent feasible, the project shall be designed and constructed to avoid and minimize adverse effects to special-status fish species and aquatic habitats within the Specific Plan area. ► Project construction activities within the aquatic habitat of the active creek channel shall be conducted between June 15 and October 15, during the season that migrating chinook salmon and steelhead are not likely to be present. Construction within the riparian habitat along the upper banks of the creek need not be restricted to this timeframe, provided that the following measures (and those described in Section 4.12, Hydrology and Water Quality") are implemented to avoid or minimize sediment runoff into the creek.	The project contractor shall restrict construction activities within the aquatic habitat of the active creek channel to between June 15 and October 15	During construction-related activities	PRD

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Table 1
Downtown Roseville Specific Plan Project Mitigation Monitoring Program

Mitigation Measure	Implementation	Timing	Reviewing Party
► Silt fencing shall be placed around the construction areas within the aquatic habitat of the active creek channel. Silt fencing shall protect upstream and downstream areas from any construction related impacts. All construction activities within the aquatic habitat of the active creek channel shall be conducted within the silt fence area. Cofferdams shall be used if construction in a live channel is necessary. To the extent feasible, they shall be designed to maintain an open channel to allow continued movement of aquatic species. If dewatering of a construction area is needed, it shall occur according to a Fish Translocation and Salvage Plan prepared by a qualified biologist.	The project contractor shall place silt fencing around the construction areas within the aquatic habitat of the active creek channel	During construction-related activities	PRD
	The project contractor shall conduct construction activities inside the silt fence area	During construction-related activities	PRD
	The project contractor shall design silt fence to maintain an open channel to allow continued movement of aquatic species	During construction-related activities	PRD
► All outflow from any project-related dewatering that may be necessary when excavating the outfall installation areas shall be filtered and pumped downstream of the construction area.	The project contractor shall filter and pump all outflows downstream of the construction area	During construction-related activities	PRD
► After completion of construction within the aquatic habitat of the active creek channel, all remaining side cast shall be removed from the work area and silt fencing shall be removed.	The project contractor shall remove all remaining side cast and silt fencing	After completion of construction-related activities	PRD
► Revegetation of disturbed areas within the riparian habitat of the active creek channel with native riparian plants shall be accomplished prior to the onset of the winter rains in the year of construction.	The project contractor shall revegetate disturbed areas within the riparian habitat of the active creek channel with native riparian plants	After completion of construction-related activities; Prior to onset of winter rains in the year of construction	PRD
4.9-2: Effects on Valley Elderberry Longhorn Beetles. The following measures shall be implemented to mitigate adverse effects to valley elderberry longhorn beetles potentially resulting from the proposed project. If valley elderberry longhorn beetles are delisted in the future, as has recently been proposed by USFWS (USFWS 2006a), these measures may be amended to conform to any revised USFWS guidelines regarding this species.	The applicant shall design and construct project components to avoid and minimize adverse effects to elderberry shrubs	Prior to construction-related ground disturbing activities within the riparian habitat of the active creek channel	PRD
► To the extent feasible, implementation of the project shall be designed and constructed to avoid and minimize adverse effects to elderberry shrubs.			
► Before project construction within the riparian habitat of the active creek channel would begin, focused surveys for elderberry shrubs shall be conducted within the Dry Creek riparian corridor and adjacent municipal parks in and within 100 feet of proposed construction-sites. Such surveys will not be required within areas lacking suitable habitat for elderberry	The applicant shall conduct focused surveys for elderberry shrubs shall be conducted within the Dry Creek riparian corridor and adjacent municipal parks in	Prior to construction-related ground disturbing activities within the riparian habitat of the active creek channel	PRD

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Table 1
Downtown Roseville Specific Plan Project Mitigation Monitoring Program

Mitigation Measure	Implementation	Timing	Reviewing Party
shrubs (i.e., areas already in residential development).	and within 100 feet of proposed construction-sites		
► Where elderberry shrubs with 1.0 inch or greater stem diameter are found, USFWS conservation guidelines for valley elderberry longhorn beetles shall be followed by establishing a 100-foot buffer around the dripline of such shrubs wherever feasible to completely avoid potential impacts to valley elderberry longhorn beetles (USFWS 1999). All buffers shall be marked with brightly colored flags or fencing and shall be maintained until project construction is complete. Earthmoving activities, herbicide use, and other construction and maintenance activities with potential to impact valley elderberry longhorn beetles and/or their host shrubs would be avoided within these buffer zones. A qualified biologist will provide project contractors and construction crews working in the vicinity of an elderberry shrub buffer zone with a worker-awareness program before such work begins. This program will be used to describe the species, its habits and habitats, its legal status and required protection, and all applicable mitigation measures.	The project contractor shall establish a 100-foot buffer around the dripline of elderberry shrubs wherever feasible with brightly colored flags or fencing The project contractor shall restrict earthmoving activities, herbicide use, and other construction and maintenance activities within the 100-foot buffer zone The project contractor shall hire qualified biologist to provide a worker-awareness program	Prior to construction-related ground disturbing activities within the riparian habitat of the active creek channel During construction-related ground disturbing activities within the riparian habitat of the active creek channel Prior to construction-related ground disturbing activities within the riparian habitat of the active creek channel	PRD PRD PRD
► If complete avoidance of shrub buffer zones is not feasible, USFWS shall be consulted. It is anticipated that either a new buffer width would be agreed upon along with additional protections for the safety of the beetles and shrubs, or that shrubs that could not be adequately protected would be transplanted to a protected location before construction would begin, in accordance with established USFWS guidelines (USFWS 1999) and a USFWS-approved mitigation and monitoring plan. Shrubs shall be transplanted to an area protected in perpetuity as habitat for valley elderberry longhorn beetles through a conservation easement or similar mechanism. Replacement mitigation plantings shall also be provided based on USFWS guidelines, which require replacement ratios ranging from 1:1 to 8:1 for lost stems at least 1 inch in diameter, depending on the size of the affected stems. Associated native species will be planted at ratios ranging from 1:1 to 2:1 for each elderberry planting. Transplants and mitigation plantings shall be monitored to ensure that USFWS success criteria are met (i.e., 60 percent survival of elderberry plants and associated riparian plantings). The proponent may elect either 10 years of monitoring, with surveys and reports to USFWS every year; or 15 years of monitoring, with surveys and reports on years 1, 2, 3, 5, 7, 10, and 15. The mitigation and monitoring plan shall describe both short- and long-term maintenance and management of the mitigation site; and specify remedial measures to be	The applicant shall consult with USFWS If complete avoidance of elderberry shrub buffer zones is not feasible The applicant shall implement measures as determined through consultation with USFWS	Prior to construction-related ground disturbing activities within the riparian habitat of the active creek channel Prior to construction-related ground disturbing activities within the riparian habitat of the active creek channel	PRD PRD

PRD = Planning and Redevelopment Department PWD = Public Works Department

Table 1
Downtown Roseville Specific Plan Project Mitigation Monitoring Program

Mitigation Measure	Implementation	Timing	Reviewing Party
undertaken if mitigation success criteria are not met. Long-term management of mitigation lands shall be ensured by establishing a management endowment or other suitable funding source. The mitigation shall be implemented in a preserved portion of the project site in Dry Creek's riparian corridor, elsewhere within the Dry Creek watershed, or in suitable habitat elsewhere in Placer County or an adjacent county. If mitigation occurs off-site, it shall be at a location that would provide at least equal-quality habitat for valley elderberry beetles as the project site after implementation of the mitigation.			
4.9-3: Effects on Raptors and Special-status Birds. The following measures shall be implemented to mitigate adverse effects to raptors and special-status birds potentially resulting from the proposed project.	The project contractor shall restrict vegetation removal and grading activities to between September 1 to February 28	Prior to construction-related ground disturbing activities within the riparian habitat of the active creek channel	PRD
► Potential disturbance of nesting special-status birds and raptors shall be reduced by limiting vegetation removal and grading to the non-breeding season (generally September 1 to February 28) to the extent feasible.			
► To avoid nest disturbance and a potential reduction in fledging success resulting from construction activities within the riparian habitat of the active creek channel and during the breeding season (March 1 to August 31), focused surveys for raptors and special-status birds would be conducted by a qualified biologist no more than 15 days prior to the beginning of construction. Surveys for raptors and special-status birds would include suitable nesting habitat within 500 feet of construction areas. If no active nests are found, no further measures would be needed.	The project contractor shall conduct focused surveys for raptors and special-status birds would be conducted by a qualified biologist during the breeding season	Prior to construction-related ground disturbing activities within the riparian habitat of the active creek channel	PRD
► If active raptor or special-status bird nests are found, impacts would be avoided by the establishment of appropriate buffers and/or nest monitoring by a qualified biologist. The size of the buffer would be determined by a qualified biologist and may vary, depending on the species biology, location, nest stage, and specific construction activities to be performed while the nest is active. A qualified biologist shall monitor active nests to determine when the young have fledged and are feeding on their own, or the nest has failed. No construction activities would occur within a buffer zone until a qualified biologist confirms that the nest is no longer active.	If focused surveys find active raptor or special-status bird nests, the project contractor shall establish appropriate buffers as determined by a qualified biologist and/or conduct nest monitoring by a qualified biologist	During construction-related ground disturbing activities within the riparian habitat of the active creek channel	PRD
	The project contractor shall restrict construction activities inside buffer zone until a qualified biologist confirms that the nest is no longer active	During construction-related ground disturbing activities within the riparian habitat of the active creek channel	PRD

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Downtown Roseville Specific Plan Project Mitigation Monitoring Program

Mitigation Measure	Implementation	Timing	Reviewing Party
4.9-6: Jurisdictional Waters and Sensitive Natural Communities. The following measures shall be implemented to mitigate adverse effects to jurisdictional waters and sensitive habitats potentially resulting from the proposed project. ► To the extent feasible, the project shall be designed and constructed to avoid and minimize adverse effects to jurisdictional waters of the United States and riparian habitat within the Specific Plan area. Bioengineering bank stabilization techniques shall be used to the extent feasible and the installation of hardscape within jurisdictional waters of the United States shall be minimized to the greatest extent feasible to achieve the overall project objectives.	The applicant shall design and construct project components to avoid and minimize adverse effects to jurisdictional waters of the United States and riparian habitat	Prior to construction-related ground disturbing activities within the riparian habitat of the active creek channel	PRD
► Wherever possible, riparian woodland habitat shall be avoided and preserved; the connectivity of the Dry Creek riparian corridor shall be maintained and enhanced. Areas of riparian woodland to remain undisturbed shall be clearly marked for avoidance during construction by methods such as fencing of flagging and construction personnel shall be educated about the need to avoid adverse effects on this resource.	The applicant shall avoid and preserve riparian woodland habitat The applicant shall maintain and enhance the connectivity of the Dry Creek riparian corridor The project contractor shall mark areas of riparian woodland with fencing or flagging The project contractor shall avoid construction activities inside areas of riparian woodland	During construction-related ground disturbing activities within the riparian habitat of the active creek channel During construction-related ground disturbing activities within the riparian habitat of the active creek channel During construction-related ground disturbing activities within the riparian habitat of the active creek channel During construction-related ground disturbing activities within the riparian habitat of the active creek channel	PRD PRD PRD PRD
► The project shall incorporate restoration and enhancement of the riparian corridor into the final design plans and construction specifications. Loose rock and concrete debris along the creek banks shall be removed as appropriate. The riparian corridor along the creek channel shall be enhanced by the planting of native shrub, tree, and understory species to	The applicant shall design and construct project components to incorporate restoration and enhancement of the riparian corridor	Prior to construction-related ground disturbing activities within the riparian habitat of the active creek channel	PRD

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Downtown Roseville Specific Plan Project Mitigation Monitoring Program

Mitigation Measure	Implementation	Timing	Reviewing Party
	The project contractor shall remove Loose rock and concrete debris along the creek banks	Prior to construction-related ground disturbing activities within the riparian habitat of the active creek channel	PRD
	The project contractor shall enhance the riparian corridor along the creek channel by planting of native shrub, tree, and understory species	Prior to construction-related ground disturbing activities within the riparian habitat of the active creek channel	PRD
► Before any ground disturbing activities begin within the aquatic or riparian habitat of the active creek channel, a qualified biologist shall map potential waters of the United States as part of a formal delineation of waters of the United States and shall identify all riparian habitat that could be affected by the project. The findings shall be documented in a detailed report and submitted to the USACE for verification as part of the formal Section 404 wetland delineation process. If there would be unavoidable effects under USACE jurisdiction, the Section 404 process shall be completed and the acreage of affected jurisdictional habitat shall be replaced and/or rehabilitated. The acreage of jurisdictional wetland affected shall be replaced on a "no-net-loss" basis is accordance with USACE regulations. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by feasible methods agreeable to USACE. All minimization and compensation measures adopted through the permitting process shall be implemented.	The applicant shall prepare formal delineation map of potential waters of the United States and identify all riparian habitat that could be affected by a qualified biologist	Prior to construction-related ground disturbing activities within the riparian habitat of the active creek channel	PRD
	The applicant shall submit findings to USACE for verification as part of the formal Section 404 wetland delineation process	Prior to construction-related ground disturbing activities within the riparian habitat of the active creek channel	PRD
► Approval by the RWQCB, as determined during the Section 401 and Section 404 permitting processes, shall be required. All mitigation requirements determined through this process shall be implemented before any ground disturbing activities begin.	The applicant shall acquire approval from the RWQCB and implement all requirements of approval	Prior to construction-related ground disturbing activities within the riparian habitat of the active creek channel	PRD
► If there would be unavoidable effects to habitats under DFG jurisdiction, a streambed alteration agreement shall be obtained and affected habitat shall be replaced and/or rehabilitated. Because project implementation could result change to the natural flow and/or bed and bank of Dry Creek, the project could require a Section 1602 streambed alteration agreement from DFG. If complete avoidance of indentified riparian habitat is not feasible, the acreage of riparian habitat that would be removed shall be replaced or rehabilitated on a "no-net-loss" basis in accordance with DFG regulations	The applicant shall obtain streambed alteration agreement, if there would be unavoidable effects to habitats under DFG jurisdiction.	Prior to construction-related ground disturbing activities within the riparian habitat of the active creek channel	PRD

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Mitigation Measure	Implementation	Timing	Reviewing Party
and as specified in the streambed alteration agreement, if needed. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by feasible methods agreeable to DFG. All minimization and compensation measures adopted through the permitting process shall be implemented.	The applicant shall replace or rehabilitate affected habitat on a "no-net-loss" basis in accordance with DFG regulations and as specified in the streambed alteration agreement	Prior to construction-related ground disturbing activities within the riparian habitat of the active creek channel	PRD
4.9-8: Protected Trees. The following measures shall be implemented to mitigate adverse effects to protected trees potentially resulting from the proposed project. Tree removal shall be avoided unless 1) necessary for project construction, 2) identified as safety hazards in a Certified Arborist Tree Survey and located in existing or planned public access areas (e.g., streets, trails), or 3) if exotic invasive species (e.g., tree of heaven). In the Dry Creek riparian corridor, snags, dead wood and branches on live trees, and fallen branches shall be retained to the maximum extent possible due to the important habitat functions that they provide for wildlife.	The applicant shall avoid tree removal to the maximum extent possible	Prior to construction-related ground disturbing activities within the riparian habitat of the active creek channel	PRD
► Based on final approved project plans, the project applicant shall determine where protected trees are present within areas proposed for construction and shall identify trees for avoidance or removal.	The applicant shall determine where protected trees are present within areas proposed for construction and shall identify trees for avoidance or removal	Prior to construction-related ground disturbing activities within the riparian habitat of the active creek channel	PRD
► A Tree Preservation Plan shall be prepared for the protected trees within the Plan area that shall be avoided by the project to ensure that they are adequately protected during construction activities. A Certified Arborist shall prepare a Tree Preservation Plan in accordance with the Title 19 Article IV of the Roseville Municipal Code, which shall contain detailed recommendations for tree preservation and removal based on construction and grading plans. The Tree Preservation Plan shall address each tree potentially affected by construction and recommend preservation or removal based on its suitability for preservation, proximity to construction activities, and ability to tolerate impacts. The Tree Preservation Plan shall also include general preservation and construction guidelines to assist in the protection of trees within or near the grading limits or near construction zones. The Tree Preservation Plan shall include recommendations for specific protective measures for trees before, during, and after construction to reduce impacts to trees from development and maintain their health throughout the construction process. The Tree Preservation Plan shall be prepared using information in a Tree Survey and Assessment or similar report including information on each tree's species, size, location,	The applicant shall prepare a Tree Preservation Plan, by a Certified Arborist and in accordance with the Title 19 Article IV of the Roseville Municipal Code The applicant shall submit the Tree Preservation Plan to the City of Roseville for review and approval	Prior to construction-related ground disturbing activities within the riparian habitat of the active creek channel Prior to construction-related ground disturbing activities within the riparian habitat of the active creek channel	PRD PRD

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Table 1
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Mitigation Measure	Implementation	Timing	Reviewing Party
condition, and suitability for preservation.			
► Where the removal of protected oaks is deemed necessary, the loss shall be mitigated according to Section 19.66.070 of the Roseville Municipal Code which requires that the replacement be calculated based upon an inch-for-inch replacement of the diameter at breast height of the tree removed. Mitigation trees shall be planted at appropriate sites and with appropriate maintenance to ensure their long-term self-sustaining survival. Where possible, mitigation oaks will be planted in canopy gaps along Dry Creek's riparian corridor within the Plan area, or elsewhere within the City of Roseville. A performance standard of 80 percent of the established mitigation trees shall be met after 5 years. The mitigation trees shall not be dependent upon significant maintenance measures within the last 2 years of monitoring, including supplemental irrigation and staking. Alternatively, an in-lieu fee payment can be made to the City of Roseville Native Oak Tree Propagation Fund, which is calculated per inch based on the diameter at breast height of the tree removed.	The applicant shall mitigate loss of protected trees according to Section 19.66.070 of the Roseville Municipal Code	Prior to construction-related ground disturbing activities within the riparian habitat of the active creek channel	PRD
Air Quality			
4.10-1: Generation of Short-term Construction-Related Emissions of Criteria Air Pollutants and Precursors. In accordance with the PCAPCD, the applicant shall comply with all applicable rules and regulations as listed above (e.g., Rule 202, 218 and 228). In addition, the following mitigation measures shall be implemented to reduce short-term construction-related air quality impacts. In addition, dust control measures are required to be implemented by all projects in accordance with the City of Roseville Grading Ordinance, and the PCAPCD Fugitive Dust Rule 228. 1. The applicant shall submit to PCAPCD a Construction Emission / Dust Control Plan within 30 days prior to groundbreaking. If the PCAPCD does not respond within 20 days, the plan shall be considered approved. The plan must address the minimum requirements found in section 300 and 400 of District Rule 228, Fugitive Dust (www.placer.ca.gov/airpollution/airpolut.htm). The applicant shall keep a hard or electronic copy of Rule 228, Fugitive Dust on-site for reference.	The project contractor shall submit a Construction Emission / Dust Control Plan to PCAPCD for review and approval	30 days prior to construction-related ground disturbing activities	PRD

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Table 1
Downtown Roseville Specific Plan Project Mitigation Monitoring Program

Mitigation Measure	Implementation	Timing	Reviewing Party
2. The Construction Emission/Dust Control Plan shall include a comprehensive inventory (i.e. make, model, year, emission rating) of all heavy-duty off-road equipment (50 horsepower (HP) of greater) that will be used an aggregate of 40 or more hours for the construction project. The project representative shall provide PCAPCD with the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreman. The plan shall demonstrate that the heavy-duty (> 50 HP) off-road vehicles to be used in the construction project, including owned, leased and subcontractor vehicles, will achieve a project wide fleet-average 20% NOX reduction and 45% particulate reduction compared to the most recent ARB fleet average. PCAPCD shall be contacted for average fleet emission data. Acceptable options for reducing emissions may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available. Contractors can access the Sacramento Metropolitan Air Quality Management District's web site to determine if their off-road fleet meets the requirements listed in this measure (http://www.airquality.org/ceqa/Construction_Mitigation_Calculator.xls).	The project contractor shall prepare a Construction Emission/ Dust Control Plan that includes a comprehensive inventory list of f all heavy-duty off-road equipment that will be used an aggregate of 40 or more hours for the construction project The project contractor shall prepare a Construction Emission/ Dust Control Plan that includes anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreman The project contractor shall prepare a Construction Emission / Dust Control Plan that demonstrates that the heavy-duty (> 50 HP) off-road vehicles to be used in the construction project, including owned, leased and subcontractor vehicles, will achieve a project wide fleet-average 20% NOX reduction and 45% particulate reduction compared to the most recent ARB fleet average	30 days prior to construction-related ground disturbing activities 30 days prior to construction-related ground disturbing activities 30 days prior to construction-related ground disturbing activities	PRD PRD PRD
3. Clean earth moving construction equipment with water or sweep clean, once per day, or as necessary (e.g., when moving onsite), consistent with National Pollutant Discharge Elimination System Best Management Practices, local ordinances, and municipal codes. Water shall be applied to control dust as needed to prevent dust impacts offsite. Operational water truck(s), shall be on-site, as required, to control fugitive dust. Construction vehicles leaving the site shall be cleaned, as needed, to prevent dust, silt, mud, and dirt from being released or tracked off-site.	The project contractor shall clean earth moving construction equipment with water or sweep clean, once per day, or as necessary (e.g., when moving onsite), consistent with National Pollutant Discharge Elimination System Best Management Practices, local ordinances, and municipal codes	During construction-related ground disturbing activities	PRD

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Table 1
Downtown Roseville Specific Plan Project Mitigation Monitoring Program

Mitigation Measure	Implementation	Timing	Reviewing Party
	The project contractor shall apply water to control dust as needed to prevent dust impacts offsite	During construction-related ground disturbing activities	PRD
4. Spread soil binders on unpaved roads and employee/equipment parking areas. Soil binders shall be non-toxic in accordance with state and local regulations. Apply approved chemical soil stabilizers, or vegetated mats, etc. according to manufacturers' specifications, to all-inactive construction areas (previously graded areas which remain inactive for 96 hours).	The project contractor shall spread soil binders on unpaved roads and employee/equipment parking areas	During construction-related ground disturbing activities	PRD
5. Minimize diesel idling time to a maximum of 10 minutes.	The project contractor shall minimize diesel idling time to a maximum of 10 minutes	During construction-related ground disturbing activities	PRD
6. Utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary diesel power generators, if feasible.	The project contractor shall utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary diesel power generators, if feasible	During construction-related ground disturbing activities	PRD
7. Measures specific to 20+ acre project sites:	The project contractor shall hold a pre-construction meeting to review the construction emission/dust control plan	Prior to construction-related ground disturbing activities	PRD
► A pre-construction meeting shall be held to review the construction emission/dust control plan for projects requiring grading of 20+ acres. PCAPCD shall be notified and may attend.			
► The applicant shall comply with PCAPCD Fugitive Dust Rule 228; including suspending grading operations when conditions exceed designated wind speeds, and executing proper control of lime or other drying agents.	The project contractor shall comply with PCAPCD Fugitive Dust Rule 228	During construction-related ground disturbing activities	PRD
	The project contractor shall perform a Visible Emissions Evaluations, by an ARB-certified representative, routinely (i.e., once per week) to evaluate project related off-road and heavy-duty on-road equipment emissions for compliance with this requirement	During construction-related ground disturbing activities	PRD
► An applicant representative, ARB-certified to perform Visible Emissions Evaluations (VEE), shall routinely (i.e., once per week) evaluate project related off-road and heavy-duty on-road equipment emissions for compliance with this requirement for projects grading	The project contractor shall comply with PCAPCD Visible Emissions Rule 202	During construction-related ground disturbing activities	PRD

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Mitigation Measure	Implementation	Timing	Reviewing Party
more than 20 acres in size, regardless of how many acres are to be disturbed daily.			
► Construction equipment exhaust emissions shall not exceed the PCAPCD Visible Emissions Rule 202. Fugitive dust is not to exceed 40% opacity and not go beyond property boundary at any time. Operators of vehicles and equipment found to exceed opacity limits are to be immediately notified and the equipment must be repaired within 72 hours.	The project contractor shall notify PCAPCD if Operators of vehicles and equipment found to exceed opacity limits	During construction-related ground disturbing activities	PRD
4.10-2: Generation of Long-Term Operation-Related (Regional) Emissions of Criteria Air Pollutants and Ozone Precursors. The following is a list of mitigation measures developed by PCAPCD to reduce long-term operational impacts to local and regional air quality. Due to the severe nonattainment designation in western Placer County for federal standards, all projects should implement those measures that are logical and feasible.	The applicant shall design projects to exceed California Title 24 energy requirements	Prior to issuance of building permit	PRD
1. Exceed California Title 24 2008 energy efficiency standards by a minimum of 10%. Areas of Title 24 to be exceeded (e.g., insulation, appliances, and fixtures) shall be determined by the applicant and the City.			
2. All truck loading and unloading docks shall be equipped with one 110/208-volt power outlet for every two-dock door. Diesel trucks shall be prohibited from idling more than five minutes and must be required to connect to the 110/208-volt power to run any auxiliary equipment. Signage shall be provided.	The applicant shall equip all truck loading and unloading docks with one 110/208-volt power outlet for every two-dock door	During project operation	PRD
	The applicant shall prohibit diesel trucks from idling more than five minutes and require diesel trucks to connect to the 110/208-volt power to run any auxiliary equipment	Prior to issuance of building permit	PRD
3. Install a gas outlet in all outdoor recreational fire pits, and permanently installed cooking appliances.	The applicant shall install a gas outlet in all outdoor recreational fire pits, and permanently installed cooking appliances	Prior to issuance of building permit	PRD

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Mitigation Measure	Implementation	Timing	Reviewing Party
4. Only natural gas fireplace appliances are permitted. Where propane or natural gas service is not available, only EPA Phase II certified wood-burning devices shall be allowed in single-family residences. The emission potential from each residence shall not exceed 7.5 grams per hour. Wood-burning or Pellet appliances shall not be permitted in multi-family developments.	The applicant shall allow only natural gas fireplace appliances	Prior to issuance of building permit	PRD
	Where propane or natural gas service is not available, the applicant shall allow only EPA Phase II certified wood-burning devices	Prior to issuance of building permit	PRD
	The applicant shall prohibit wood-burning or pellet appliances in multi-family developments.	Prior to issuance of building permit	PRD
5. Where feasible, install solar electric generation systems. Recommend participation in Roseville Electric incentive programs for energy-efficient development.	The applicant shall install solar electric generation systems, where feasible	Prior to issuance of building permit	PRD
4.10-3: Exposure of Sensitive Receptors to Toxic Air Contaminant Emissions. The following mitigation measures shall be implemented to reduce the exposure of sensitive receptors to TACs: ► All proposed homes in the Plan area shall be equipped with filter systems with high Minimum Efficiency Reporting Value (MERV) for removal of small particles (such as 0.3 micron) at all air intake points to the home. All proposed dwelling units shall be constructed with mechanical ventilation systems which would allow occupants to keep windows and doors closed and allow for the introduction of fresh outside air, without the requirement of open windows.	The applicant shall equip homes with filter systems with high Minimum Efficiency Reporting Value (MERV) for removal of small particles (such as 0.3 micron) at all air intake points to the home	Prior to issuance of building permit	PRD
► Proposed commercial uses that have the potential to emit TACs (e.g., diesel-fueled engines) shall be located as far away as possible from existing and proposed receptors.	The applicant shall locate commercial uses that have the potential to emit TACs (e.g., diesel-fueled engines) as far away as possible from existing and proposed receptors	Prior to approval of use permit	PRD
► Proponents of projects with a residential component shall provide disclosure to future residents advising them of the proximity to the JR Davis Rail Yard and associated health risk impacts.	The applicant shall disclose future residents advising them of the proximity to the JR Davis Rail Yard and associated health risk impacts	Prior to issuance of building permit	PRD

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Mitigation Measure	Implementation	Timing	Reviewing Party
► When determining the exact type of facility that would occupy the proposed commercial space, the project shall take into consideration its toxic-producing potential.	The applicant shall take into consideration its toxic-producing potential of proposed commercial space	Prior to approval of use permit	PRD
► Proposed facilities that would require the long-term use of diesel equipment and heavy-duty trucks shall develop a plan to reduce emissions, which may include such measures as scheduling such activities when the residential uses are the least occupied, and requiring such equipment to be shut off when not in use and prohibiting heavy-trucks from idling.	The applicant shall prepare and submit plan to reduce emissions to the City of Roseville for review and approval	Prior to issuance of building permit	PRD
► To the extent feasible, sensitive receptors shall be located as far away from the UPRR maintenance facility as possible.	The applicant shall locate sensitive receptors as far away from the UPRR maintenance facility as possible	Prior to approval of use permit	PRD
► Implement Mitigation Measure 4.10-2-2, described above, with respect to electrification of commercial loading dock areas to reduce emissions associated with truck idling.	The applicant shall equip all truck loading and unloading docks with one 110/208-volt power outlet for every two-dock door	Prior to issuance of building permit	PRD
4.10-5: Exposure of Sensitive Receptors to Odors. Implementation of Mitigation Measure 4.10-3 to reduce indoor exposure to TACs would also result in a reduction in the intensity of offensive odors from the surrounding odor sources. In addition, the applicant shall require all businesses that occupy the property to install odor-controls as necessary to prevent a substantial dispersion of odors to adjacent residential areas.	The applicant shall install odor-controls as necessary to prevent a substantial dispersion of odors to adjacent residential areas	During project operation	PRD
Noise			
4.11-1: Short-Term Construction-Generated Noise Levels. Although impacts related to short-term construction-generated noise were considered to be less than significant with implementation of the project, the following mitigation is provided to ensure impacts remain at a less-than-significant level. Construction contractors shall implement the following measures during construction activities.	The project contractor shall maintain construction equipment per manufacturers' specifications and fitted with the best available noise suppression devices (i.e., mufflers, silencers, wraps, etc)	During construction activities	PRD
► Construction equipment shall be properly maintained per manufacturers' specifications and fitted with the best available noise suppression devices (i.e., mufflers, silencers, wraps, etc). Shroud or shield all impact tools, and muffle or shield all intake and exhaust ports on power equipment.	The project contractor shall Shroud or shield all impact tools, and muffle or shield all intake and exhaust ports on power equipment	During construction activities	PRD

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Mitigation Measure	Implementation	Timing	Reviewing Party
► Construction operations and related activities associated with the proposed project shall comply with the operational hours outlined in the City of Roseville Municipal Code Noise Ordinance; construction operations shall be limited to between the hours of 7 a.m. and 7 p.m. Monday through Friday and between 8 a.m. and 8 p.m. Saturday and Sunday.	The project contractor shall comply with the operational hours outlined in the City of Roseville Municipal Code Noise Ordinance	During construction activities	PRD
	The project contractor shall restrict construction activities to between the hours of 7 a.m. and 7 p.m. Monday through Friday and between 8 a.m. and 8 p.m. Saturday and Sunday	During construction activities	PRD
► Construction equipment should not be idled for extended periods of time in the vicinity of noise-sensitive receptors.	The project contractor shall restrict construction equipment from idling for extended periods of time in the vicinity of noise-sensitive receptors	During construction activities	PRD
► Locate fixed and/or stationary equipment as far as possible from noise sensitive receptors (e.g., generators, compressors, rock crushers, cement mixers). Shroud or shield all impact tools, and muffle or shield all intake and exhaust ports on powered construction equipment.	The project contractor shall locate fixed and/or stationary equipment as far as possible from noise sensitive receptors (e.g., generators, compressors, rock crushers, cement mixers).	During construction activities	PRD
	The project contractor shall shroud or shield all impact tools, and muffle or shield all intake and exhaust ports on powered construction equipment.	During construction activities	PRD

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Mitigation Measure	Implementation	Timing	Reviewing Party
▸ Where feasible, temporary barriers shall be placed as close to the noise source or as close to the receptor as possible and break the line of sight between the source and receptor where modeled levels exceed applicable standards. Acoustical barriers shall be constructed material having a minimum surface weight of 2 pounds per square foot or greater, and a demonstrated Sound Transmission Class (STC) rating of 25 or greater as defined by American Society for Testing and Materials (ASTM) Test Method E90. Placement, orientation, size, and density of acoustical barriers shall be specified by a qualified acoustical consultant.	The project contractor shall place temporary barriers as close to the noise source or as close to the receptor as possible and break the line of sight between the source and receptor where modeled levels exceed applicable standards	During construction activities	PRD
	The project contractor shall construct acoustical barriers, as needed, with material having a minimum surface weight of 2 pounds per square foot or greater, and a demonstrated Sound Transmission Class (STC) rating of 25 or greater as defined by American Society for Testing and Materials (ASTM) Test Method E90	During construction activities	PRD
	The project contractor shall acquire expertise of qualified acoustical consultant for placement, orientation, size, and density of acoustical barriers, as needed	During construction activities	PRD
4.11-3: Long-Term Operational Stationary Source Noise Levels. Project applicant(s) for industrial and commercial/office land uses shall implement the following measures to reduce exposure of sensitive receptors to excessive noise levels from future stationary sources.	The applicant shall determine if the proposed use would likely generate noise levels adversely affecting the adjacent noise-sensitive uses	Prior to issuance of use permit	PRD
1. Industrial and Commercial/Office Land Uses. Where these land uses adjoin common property lines with noise-sensitive uses, the following mitigation measures shall be incorporated into the project design to reduce noise exposure from future stationary sources. a. During project review the City's Planning Department shall determine if the proposed use would likely generate noise levels adversely affecting the adjacent noise-sensitive uses. If a proposed project has the potential to generate or expose noise-sensitive uses to noise levels	The applicant shall prepare a site-specific acoustical analysis, If a proposed project has the potential to generate or expose noise-sensitive uses to noise levels exceeding the City of Roseville noise standards or result in a substantial (3 dB or greater)	Prior to issuance of use permit	PRD

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Table 1
Downtown Roseville Specific Plan Project Mitigation Monitoring Program

Mitigation Measure	Implementation	Timing	Reviewing Party
exceeding the City of Roseville noise standards (Tables 4.11-4 through 4.11-6) or result in a substantial (3 dB or greater) permanent increase in ambient noise levels, the project applicant shall prepare a site-specific acoustical analysis. The acoustical analysis shall be conducted in accordance with the City of Roseville General Plan requirements shown in Table 4.11-5.	permanent increase in ambient noise levels		
b. Loading and unloading areas shall be located so that commercial buildings shield nearby residential land uses from noise generated by loading dock and delivery activities. If necessary, additional sound barriers shall be constructed on the commercial sites to protect nearby noise-sensitive uses.	The applicant shall locate loading and unloading areas so that commercial buildings shield nearby residential land uses from noise generated by loading dock and delivery activities	Prior to issuance of use permit	PRD
c. Loading dock activity and delivery truck activity at the commercial uses developed on the project site shall only occur during the daytime hours of 7 a.m. to 10 p.m., in order to prevent evening and nighttime sleep disturbance at nearby residential land uses.	The applicant shall restrict loading dock activity and delivery truck activity at the commercial uses to only occur during the daytime hours of 7 a.m. to 10 p.m.	During project operation	PRD
d. All commercial HVAC machinery shall be located within mechanical equipment rooms wherever possible. Equipment manufacturer's specifications for venting and access to outside air shall be maintained.	The applicant shall locate all commercial HVAC machinery within mechanical equipment rooms wherever possible	Prior to issuance of use permit	PRD
	The applicant shall maintain equipment manufacturer's specifications for venting and access to outside air	During project operation	PRD
e. Localized noise barriers or rooftop parapets shall be constructed around the HVAC, cooling towers, and mechanical equipment so that line-of-site to the noise source from the property line of the noise-sensitive receptors is blocked. Equipment manufacturer's specifications for venting and access to outside air shall be maintained.	The applicant shall construct localized noise barriers or rooftop parapets around the HVAC, cooling towers, and mechanical equipment	Prior to issuance of use permit	PRD

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Table 1
Downtown Roseville Specific Plan Project Mitigation Monitoring Program

Mitigation Measure	Implementation	Timing	Reviewing Party
f. Property maintenance activities at commercial and office uses shall be restricted to daytime hours between 8 a.m. and 9 p.m.	The applicant shall restrict maintenance activities at commercial and office uses to daytime hours between 8 a.m. and 9 p.m.	During project operation	PRD
g. The owner or developer of any mixed-use building containing residential units shall provide written notice to all future residents, occupants, and users that the surrounding area may be subject to levels of noise associated with commercial uses at higher levels than would be expected in residential areas.	The applicant shall provide notice to all future residents, occupants, and users that the surrounding area	Prior to issuance of occupancy permit	PRD
Project applicant(s) for parking structures shall implement the following measures to reduce exposure of sensitive receptors to excessive noise levels from future stationary sources.	The applicant shall orientate parking structures so that nearby noise-sensitive receptors would be shielded from all on-site circulation routes	Prior to issuance of use permit	PRD
2. Parking Structures. Parking structures located in the immediate vicinity of noise-sensitive land uses shall include the following mitigation measures.			
a. Orientate parking structures so that nearby noise-sensitive receptors would be shielded from all on-site circulation routes (entrances, exits, and internal routes). If maintaining visibility is required transparent acoustical screens shall be installed on openings with direct line-of-sight to noise-sensitive receptors.			
b. Parking structures driveways and entrances shall be located so that the structure serves as a barrier to nearby noise-sensitive receptors.	The applicant shall locate parking structures driveways and entrances to act as a barrier to nearby noise-sensitive receptors	Prior to issuance of use permit	PRD
c. Interior reflective surfaces (i.e., ceilings), exposing nearby noise-sensitive receptors to elevated noise levels shall have an acoustically absorptive treatment, such as spray-in cellulose applied.	The applicant shall apply acoustically absorptive treatment to interior reflective surfaces	Prior to issuance of building permit	PRD
d. Parking structure capacity shall be limited during more sensitive evening and nighttime hours (7 p.m. to 7 a.m.). (i.e., 50% capacity from 7 p.m. to 10 p.m., 30% capacity from 10 p.m. to 7 a.m.).	The City of Roseville shall limit parking structure capacity during more sensitive evening and nighttime hours	During project operation	PRD

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Table 1
Downtown Roseville Specific Plan Project Mitigation Monitoring Program

Mitigation Measure	Implementation	Timing	Reviewing Party
e. To ensure compliance, further analysis of on-site noise generation from the proposed parking structures shall be conducted when tentative maps become available.	The City of Roseville shall conduct noise analysis of on-site noise generation from the proposed parking structures	During project operation	PRD
4.11-4: Land Use Compatibility of On-site Sensitive Receptors with Future Traffic Noise Levels. Project applicant(s) shall implement the following measures to substantially reduce the exposure of sensitive receptors to excessive roadway traffic noise levels.	The applicant shall determine if the proposed land use would potentially be exposed to noise levels exceeding the City's noise level standards	Prior to issuance of use permit	PRD
► During project review, the City's planning staff shall determine if the proposed land use would potentially be exposed to noise levels exceeding the City's noise level standards. If a proposed project has the potential to generate or be exposed to noise levels exceeding the City of Roseville noise standards (refer to Tables 4.11-4 through 4.11-6) or result in a substantial permanent increase in ambient noise levels (3 dB or greater), the project applicant shall prepare a site-specific acoustical analysis. The acoustical analysis shall be conducted in accordance with the City of Roseville General Plan requirements shown in Table 4.11-5.	The applicant shall prepare a site-specific acoustical analysis, if a proposed project has the potential to generate or expose noise-sensitive uses to noise levels exceeding the City of Roseville noise standards or result in a substantial (3 dB or greater) permanent increase in ambient noise levels	Prior to issuance of use permit	PRD
► Disclose all transportation noise (i.e., roadway, railway, race track), vibration levels, and their meanings to purchasers and/or renters prior to contract or title transfer for residential property within the Plan area.	The applicant shall disclose all transportation noise (i.e., roadway, railway, race track), vibration levels, and their meanings to purchasers and/or renters prior to contract or title transfer for residential property	Prior to issuance of use permit	PRD
► Incorporate site specific design considerations to reduce exterior noise exposure levels. Site design shall include the following measures as applicable to the project-specific site and when feasible: • Common outdoor activity areas, such as play structures, swimming pools, or other outdoor congregation areas included in multi-family residential and/or mixed-use developments shall be located such that the building(s) serve as a sound barrier to the nearest predominant noise source. • Distances between noise sources and noise-sensitive uses shall be maximized through the use of noise buffers/setbacks. Setback areas can	The applicant shall incorporate site specific design considerations to reduce exterior noise exposure levels	Prior to issuance of use permit	PRD

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Table 1
Downtown Roseville Specific Plan Project Mitigation Monitoring Program

Mitigation Measure	Implementation	Timing	Reviewing Party
take the form of open space, frontage roads, recreational areas, storage yards, or other City approved setback. • Noise barriers shall be constructed to provide shielding of noise-sensitive uses and outdoor activity areas. Barriers may include manmade walls, earthen berms, a combination of walls and berms, and other structures breaking line of sight from noise source to receptor. Barriers shall be located in close proximity to either the noise source or the sensitive receptor. • A site specific acoustical analysis shall be performed consistent with Table 4.11-5, and determine effectiveness of various site design measures based on specific construction plans.	The applicant shall conduct site-specific acoustical analysis to determine effectiveness of various site design measures based on specific construction plans	Prior to issuance of use permit	PRD
4.11-5: Land Use Compatibility of On-site Sensitive Receptors with Future Railroad Noise Levels. Implement mitigation measure 4.11-4 to reduce the exposure of sensitive receptors (i.e., residential, mixed-use development) to significant noise associated with future railroad and rail yard operations.	The applicant shall conduct actions listed above for 4.11-4: Land Use Compatibility of On-site Sensitive Receptors with Future Traffic Noise Levels	Prior to issuance of use permit	PRD
4.11-6: Future Interior Noise Levels at On-site Sensitive Receptors. Project applicant(s) shall implement the following measures for all noise-sensitive land uses with direct exposure to roadways, parking areas, and railways and exterior noise levels greater than 70 dB Ldn: ► All residential uses shall be constructed with air conditioning and mechanical ventilation systems that allow for windows and doors to remain closed and achieve acoustical isolation from traffic and railroad noise. The systems shall allow for the introduction of fresh outside air, without the requirement of open windows. Access to outside air shall be automatically controlled to prevent unintentionally flowing seasonally hot or cold into conditioned space.	The applicant shall construct residential uses with air conditioning and mechanical ventilation systems that allow for windows and doors to remain closed and achieve acoustical isolation from traffic and railroad noise	Prior to issuance of building permit	PRD
► Attic vents direct exposure to elevated noise levels shall be acoustically baffled, containing at least one 90 degree obstruction to the flow of air. The baffle shall be fitted with an acoustically absorbent liner.	The applicant shall acoustically baffle attic vents	Prior to issuance of building permit	PRD
► Exterior walls shall be constructed of a three-coat stucco or wood siding with an exterior underlayment or sound board.	The applicant shall construct exterior walls shall be constructed of a three-coat stucco	Prior to issuance of building permit	PRD

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Table 1
Downtown Roseville Specific Plan Project Mitigation Monitoring Program

Mitigation Measure	Implementation	Timing	Reviewing Party
	or wood siding with an exterior underlayment or sound board		
► All residential windows and doors with direct exposure to elevated noise levels shall be required to meet a minimum STC rating of 34.	The applicant shall design residential windows and doors with direct exposure to elevated noise levels to meet a minimum STC rating of 34	Prior to issuance of building permit	PRD
► Windows and sliding glass doors shall be mounted in low infiltration rate frames (0.5 cubic feet per minute or less, per ANSI specifications).	The applicant shall mount windows and sliding glass doors in low infiltration rate frames (0.5 cubic feet per minute or less, per ANSI specifications)	Prior to issuance of building permit	PRD
► Exterior doors shall be solid core with perimeter weather-stripping and threshold seals.	The applicant shall design exterior doors to be solid core with perimeter weather-stripping and threshold seals	Prior to issuance of building permit	PRD
► The City shall require project applicants to submit an acoustical analysis which verifies compliance with the City of Roseville interior noise level standard of 45 dB L_{dn}. The analysis shall be based on detailed construction plans and site configuration details, and be conducted by a qualified acoustical consultant.	The applicant shall prepare and submit an acoustical analysis which verifies compliance with the City of Roseville interior noise level standard of 45 dB L_{dn}.	Prior to issuance of building permit	PRD
Ground-Borne Noise and Vibration Levels at Sensitive Receptors. Project applicant(s) shall implement the following measures to reduce the potential for human annoyance and architectural/structural damage resulting from elevated ground-borne noise and vibration levels.	The applicant shall utilize alternative installation methods were possible for pile driving required within a 50-foot radius of historic structures	During construction activities	PRD
► Construction-Induced Vibration: • Pile driving required within a 50-foot radius of historic structures should utilize alternative installation methods were possible (e.g., pile cushioning, jetting, pre-drilling, cast-in-place systems, resonance-free vibratory pile drivers). Specifically, geo pier style cast in place systems shall be used where feasible as an alternative to pile driving to reduce the number and amplitude of impacts required for seating the pile.	The project contractor shall record the pre-existing condition of all buildings within a 50-foot radius, and historical buildings within the immediate vicinity of proposed construction activities	Prior to construction activities	PRD
• The pre-existing condition of all buildings within a 50-foot radius, and historical buildings within the immediate vicinity of proposed construction activities shall be recorded in the form of a preconstruction	The project contractor shall document fixtures and finishes within a 50-foot radius of construction activities susceptible to damage	Prior to construction activities	PRD

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Table 1
Downtown Roseville Specific Plan Project Mitigation Monitoring Program

Mitigation Measure	Implementation	Timing	Reviewing Party
survey. The preconstruction survey shall determine conditions that exist			
before construction begins for use in evaluating damage caused by construction activities. Fixtures and finishes within a 50-foot radius of construction activities susceptible to damage shall be documented (photographically and in writing) prior to construction. All damage will be repaired back to its pre-existing condition.	The project contractor shall repair all damage back to its pre-existing condition	Within 30 days after completion of construction activities	PRD
• Vibration monitoring shall be conducted prior to and during pile driving operations occurring within 100 feet of the historic structures. Every attempt shall be made to limit construction generated vibration levels in accordance with Caltrans recommendations during pile driving and impact activities in the vicinity of the historic structures.	The project contractor shall conduct vibration monitoring prior to and during pile driving operations occurring within 100 feet of the historic structures	Prior to and during construction activities	PRD
• Provide protective coverings or temporary shoring of on-site or adjacent historic features as necessary, in consultation with the Preservation Director.	The project contractor shall provide protective coverings or temporary shoring of on-site or adjacent historic features	During construction activities	PRD
► Railroad Induced Vibration: • Vibration sensitive uses shall be located a minimum of 100 feet from the UPRR centerline. To ensure compliance with FTA and Caltrans recommended guidelines, and site specific ground-borne noise and vibration assessment should be conducted.	The applicant shall locate vibration sensitive uses a minimum of 100 feet from the UPRR centerline	Prior to issuance of use permit	PRD
• A ground-borne vibration assessment shall be conducted at proposed building pad locations within 200 feet of UPRR right of ways, prior to project approval. Vibration monitoring and assessment shall be conducted by a qualified noise and vibration control engineer.	The applicant shall conduct ground-borne vibration assessment, by a qualified noise and vibration control engineer, at proposed building pad locations within 200 feet of UPRR right of ways	Prior to issuance of use permit	PRD
Hydrology and Water Quality			
4.12-5: Expose People or Structures to a Significant Risk of Flooding. All habitable structures constructed in the Plan area shall be located outside the adjusted 100-year flood plain as identified in the *Downtown Specific Plan Hydraulic Study* (RBF 2008) prepared for the Downtown Roseville Specific Plan. Additional encroachment into areas within the adjusted 100-year flood plain shall require site specific hydraulic modeling. Specific structures identified in the Downtown Roseville Specific Plan shall be prohibited from being constructed inside the adjusted 100-year flood plain unless evaluated and	The applicant shall locate all habitable structures constructed in the Plan area outside the adjusted 100-year flood plain as identified in the *Downtown Specific Plan Hydraulic Study* (RBF 2008) prepared for the Downtown Roseville Specific	Prior to issuance of use permit	PRD

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Table 1
Downtown Roseville Specific Plan Project Mitigation Monitoring Program

Mitigation Measure	Implementation	Timing	Reviewing Party
	Plan		
approved through project specific hydraulic modeling including structures associated with mixed-use development and high-density residential.	The applicant shall conduct site specific hydraulic modeling when additional encroachment into areas within the adjusted 100-year flood plain is required	Prior to issuance of use permit	PRD
4.12-6: Proposed Project Structures within the 100-year Flood Zone Could Impede or Redirect Flood Flows. To prevent impeding or redirecting storm water flows in Dry Creek, the following actions shall be implemented for design and construction of improvements identified in the Downtown Roseville Specific Plan adjacent to Dry Creek.	The applicant shall construct Creek Walk at the existing top of bank elevation for Dry Creek and make the area south of the new library bridge inaccessible during major storm events	Prior to construction activities	PWD
1. The Creek Walk identified in the Downtown Roseville Specific Plan shall be constructed at the existing top of bank elevation for Dry Creek and the area south of the new library bridge shall be made inaccessible during major storm events.	The applicant shall align all pedestrian bridges and the grand staircase to prevent increased 100-year flood water surface elevations in Dry Creek	Prior to construction activities	PWD
2. All pedestrian bridges in the Specific Plan area and the grand staircase shall be aligned to prevent increased 100-year flood water surface elevations in Dry Creek. Additional hydraulic analyses shall be conducted for the new pedestrian bridge alignments that are inconsistent with the RBF hydraulic analysis.	The applicant shall conduct hydraulic analyses for new pedestrian bridge alignments if inconsistent with the RBF hydraulic analysis	Prior to construction activities	PWD
3. Prior to any golf course related development activities in Saugstad Park, a site-specific hydraulic analysis or other acceptable analysis shall be conducted for a more specific golf course development plan to ensure that there is no risk of impeding or redirecting flood flows. This future analysis shall be reviewed and approved by the City's Public Works Department.	The applicant shall conduct hydraulic analyses for a more specific golf course development plan to ensure that there is no risk of impeding or redirecting flood flows	Prior to construction activities	PWD
	The applicant shall submit the hydraulic analyses for a more specific golf course development plan to PWD for review and approval	Prior to construction activities	PWD
4.12-7: Inundation by Seiche, Tsunami, or Mudflow. Implement Mitigation Measure 4.4-3.	The applicant shall hire a qualified, licensed geotechnical engineer to map the Dry Creek corridor for clay-rich, weak soils,	Prior to any construction or grading activities occurring in Dry Creek	PWD

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Table 1 Downtown Roseville Specific Plan Project Mitigation Monitoring Program			
Mitigation Measure	Implementation	Timing	Reviewing Party
	and high groundwater conditions		

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RESOLUTION 09-120

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ROSEVILLE CERTIFYING A FINAL ENVIRONMENTAL IMPACT REPORT RELATING TO THE DOWNTOWN ROSEVILLE SPECIFIC PLAN AND DOWNTOWN CODE PROJECT, MAKING FINDINGS OF FACT, ISSUING A STATEMENT OF OVERRIDING CONSIDERATIONS IDENTIFYING THE BENEFITS OF THE PROJECT THAT RENDER ACCEPTABLE ITS SIGNIFICANT ENVIRONMENTAL EFFECTS AND ADOPTING A MITIGATION MONITORING PROGRAM

WHEREAS, the City of Roseville (City) desires to implement the Downtown Roseville Specific Plan and Downtown Code Project (which includes, among other things, a General Plan amendment)(the "Project"); and

WHEREAS, the City determined that an environmental impact report (EIR) should be prepared for the Project pursuant to the California Environmental Quality Act (CEQA- Public Resources Code 21000 et seq.); and

WHEREAS, on December 23, 2008, the Draft EIR (State Clearinghouse #2007102090) was distributed to the public for review and comment. The review and comment period for the Draft EIR ended February 13, 2009; and

WHEREAS, on February 26, 2009, the Draft EIR was reviewed by the Planning Commission, which recommended that the City Council certify the EIR; and

WHEREAS, written and oral comments to the Draft EIR were received, and responses to those comments have been prepared and are presented in the Final EIR; and

WHEREAS, the Final EIR consists of the Draft EIR, corrections and revisions to the Draft EIR, a list of persons and agencies commenting on the Draft EIR, comments received on the Draft EIR, responses to the significant environmental issues raised in those comments, and an Errata Sheet; and

WHEREAS, the Final EIR was presented to the City Council and City Council has reviewed and considered the information in the Final EIR,

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City as follows:

1. Certification of the Final EIR

A. It is hereby certified that the City Council (Council) has reviewed the Final EIR prepared for the Project, all staff reports pertaining to the Project, and all other pertinent documents relating to the preparation of the Final EIR, including the Draft EIR and all comment received thereon, and that the Final EIR has been prepared and completed in compliance with CEQA.

B. It is hereby certified that the Final EIR, on file with the City Clerk, reflects the independent judgment and analysis of the City of Roseville.

C. The Final EIR, as certified, is hereby adopted for the Project.

2. Findings on Environmental Impact

The Council finds:

A. The Final EIR identifies several impacts as "less than significant," which do not need mitigation. The Council finds the impacts defined as less than significant before mitigation, as set forth in Table ES-1 of the Final EIR are less than significant.

B. The Final EIR identifies some significant impacts which can be mitigated to less-than-significant levels. The Council makes findings and statements of fact with respect to the significant impacts set forth in Table ES-1.

C. The Final EIR identifies significant environmental impacts which cannot be mitigated to less-than-significant levels.

The Council hereby makes findings and statements of fact on the following significant impacts that cannot be reduced to a less-than-significant level, as set forth in Table ES-1:

- 4.6-2b Unacceptable Peak Hour Level of Service (LOS) at Signalized Study Intersections under Cumulative (2020) Plus Project Conditions
- 4.6-2c Unacceptable Peak Hour Level of Service (LOS) at Signalized Study Intersections under Cumulative (2020) Plus Project Conditions
- 4.6-2d Unacceptable Peak Hour Level of Service (LOS) at Signalized Study Intersections under Cumulative (2020) Plus Project Conditions
- 4.7-1 Disturbance of Architectural Resources
- 4.10-1 Generation of Short-Term Construction-Related Emissions of Criteria Air Pollutants
- 4.10-2 Generation of Long-Term Operation-Related (Regional) Emissions of Criteria Air Pollutants
- 4.10-3 Exposure of Sensitive Receptors to Toxic Air Contaminant Emissions
- 4.11-5 Land Use Compatibility of On-Site Sensitive Receptors with Future Railroad Noise Levels
- 5.4-1 Increases in Greenhouse Gas Emissions

3. Findings on Project Alternatives

The Council hereby finds that alternatives to the proposed project were identified in the EIR to address potential environmental effects of the project. The Council makes the findings of fact with respect to project alternatives as set forth in Chapter 8 of the Draft EIR, on file with the City Clerk.

4. Statement of Overriding Considerations

Specific economic, social or other considerations, as set forth below, make infeasible the mitigation measures or project alternatives identified in the Final EIR but not adopted herein. These considerations are: economic, social, public safety, and other benefits of the project, including:

- The project will improve connectivity within Downtown as well as between Downtown and its surroundings.

- The project will respect and honor the history and influence of the railroad.

- The project will identify land uses and development standards that are responsive to market opportunities and that facilitate quality architecture and urban design.
- The project will reinforce identity through the establishment of character districts and gateway elements.
- The project will create and enhance public places that support community activity, spirit, and involvement.
- The project will promote arts, culture, heritage, education, and entertainment.
- The project will restore habitat values and flood conveyance functions along Dry Creek.
- The project will develop a viable and approved land use matrix.
- The project will stimulate investment and reinvestment in the Plan area (as defined in the Project).

5. Adoption of Mitigation Monitoring Program

It is hereby certified that the Council makes findings of fact regarding mitigation measures and adopts the Mitigation Monitoring Program on file with the City Clerk.

6. Project Approval and Posting the Notice of Determination

The City Clerk is directed, after the City Council adopts resolutions formally approving the Project, to post a Notice of Determination, together with this resolution and its exhibits, in the Office of the County Clerk of Placer County and, in accordance with the Public Resources Code Section 21152, shall cause such Notice to be posted in the County Clerk's Office, all within five working days following adoption of the Resolution formally approving the Project.

PASSED AND ADOPTED by the Council of the City of Roseville this 1st day of April, 2009 by the following on roll call:

AYES COUNCILMEMBERS: Allard, Gray, Garcia, Roccucci, Garbolino

NOES COUNCILMEMBERS: None

ABSENT COUNCILMEMBERS: None

MAYOR

ATTEST:

CITY CLERK

CITY OF ROSEVILLE
CALIFORNIA

City Clerk
311 Vernon Street
Roseville, California 95678-2649

NOTICE OF ENVIRONMENTAL DETERMINATION
for an ENVIRONMENTAL IMPACT REPORT

TO: County Clerk
County of Placer
2954 Richardson Drive
Auburn, CA 95603

State Clearinghouse
P. O. Box 3044
Sacramento, CA 95812-3044

FROM: CITY OF ROSEVILLE
Sonia Orozco, City Clerk
311 Vernon Street
Roseville, CA 95678

DATE: April 3, 2009

SUBJECT: NOD FILING, AS REQUIRED BY CEQA (Public Resources Code Section 21152)

PROJECT TITLE: Downtown Roseville Specific Plan

PROJECT APPROVAL DATE: April 1, 2009

STATE CLEARINGHOUSE NUMBER: 2007102090

CONTACT PERSON: Kevin Payne, Assistant Director, Planning & Redevelopment, (916) 774-5276

PROJECT LOCATION: Roseville, Placer County

SUMMARY PROJECT DESCRIPTION: The proposed project is implementation of the Downtown Roseville Specific Plan in a 176-acre area comprised of the existing Historic Old Town, Vernon Street Civic Core, and Royer and Saugstad Park. The proposed project area encompasses an infill area completely surrounded by built-out neighborhoods and the Union Pacific Railyard in central Roseville, California. The Plan would establish the appropriate distribution, mix, intensity, physical form, and functional relationships of land uses in the Downtown area to encourage and facilitate infill development, mixed-use, pedestrian scale, urban amenities, transit use, creative design, and general revitalization of the Downtown area. In addition, the Plan establishes policies for pedestrian movement, alternative transportation facilities, transit routes, vehicle traffic, and parking within the Downtown area. Lastly, the Plan would implement improvements related to connectivity, place making, and creek restoration and flood conveyance identified in the Royer/Saugstad Park Master Plan. Actions to be considered with the project include General Plan Amendment, Rezone, Zoning Ordinance Amendment, Sign Ordinance Amendment, Noise Ordinance Amendment, Community Design Guidelines document amendment, and Tree Permit.

DETERMINATIONS FOR ENVIRONMENTAL IMPACT REPORT (EIR)
This notice is to advise interested parties that the Roseville City Council (Lead Agency) has approved and made the following determinations regarding the above-described project:

- *A Final Environmental Impact Report*, including comments and responses, was prepared and certified for this project, pursuant to the provisions of CEQA, and is available to the general public.
- As approved, the project will have a significant effect on the environment.
- Written Findings were prepared for significant impacts identified in the EIR (CEQA Guidelines, Section 15091).
- A Statement of Overriding Considerations was adopted for significant/unavoidable impacts (CEQA Guidelines Section 15093).
- Mitigation measures and a Mitigation Monitoring Plan ***were*** made "required conditions of approval" for the project.

The environmental documentation and record of project approval may be examined at the City of Roseville, Office of the City Clerk, 311 Vernon Street, Roseville, CA 95678; Monday-Friday, 8 a.m. to 5 p.m. (774-5263).

April 3, 2009
DATE

Sonia Orozco
SONIA OROZCO, City Clerk

THE FACE OF THIS DOCUMENT HAS A COLORED BACKGROUND. THE BACK OF THIS DOCUMENT CONTAINS AN ARTIFICIAL WATERMARK - HOLD AT AN ANGLE TO VIEW.

CITY OF ROSEVILLE
TRADITION · PRIDE · PROGRESS
311 Vernon Street, Roseville, CA 95678

Bank of America
Government Banking
555 Capitol Mall
Sacramento, CA 95814

11-35/1210 CA

NO. 00064164

DATE 03/27/09

PAY TWO Thousand EIGHT Hundred EIGHTEEN Dollars and TWENTY FIVE Cents $ *****2,818.25

VOID AFTER 6 MONTHS

TO THE ORDER OF

PLACER COUNTY CLERK
2954 RICHARDSON DRIVE
AUBURN, CA 95603

W. Craig Robinson
Russell C. Branson

⑈00064164⑈ ⑆121000358⑆ 14990⑈29633⑈

City Clerk

00064164		CITY OF ROSEVILLE		03/27/09	
DATE	INV. NO.	ACCOUNT NO.	P.O. NO.	NET INVOICE	DESCRIPTION
01/07/09	OHSYS6637	08200 5115		2,818.25	NOD FEES FOR DTSP FEIR
			TOTAL:	2,818.25	

Addendum to the Downtown Roseville Specific Plan Final Environmental Impact Report

Lead Agency: City of Roseville, 311 Vernon Street, Roseville, CA 95678

Telephone: 916/774-5334

Contact Person: Mark Morse, Environmental Coordinator, City Manager's Office

Project Title: Downtown Roseville Specific Plan – Oak Street/Washington Boulevard Roundabout

Project Location: The proposed project is located at the intersection of Oak Street and Washington Boulevard in the Downtown Specific Plan area (Plan area), City of Roseville, Placer County (see Figures 1 and 2)

Project Background and Previously Certified EIR: The City of Roseville (City) prepared the *Draft Environmental Impact Report Downtown Specific Plan* (Draft EIR) (EDAW 2008) that evaluated potentially significant impacts and identified mitigation measures to reduce significant impacts associated with the implementation of the Downtown Roseville Specific Plan (State Clearinghouse #2007102090). Consistent with the State CEQA Guidelines, the Draft EIR was circulated for public review, and the Final EIR (EDAW 2009) was certified by the City on April 1, 2009. For purposes of this EIR Addendum, the Draft and Final EIRs are collectively referred to as the "prior EIR".

The prior EIR evaluated roadway improvements that would be required to support implementation of the Downtown Roseville Specific Plan. The Oak Street/Washington Boulevard intersection was one of the intersections that was identified as requiring improvements to support future downtown development. Although the Downtown Roseville Specific Plan had designated this intersection as a signalized intersection, an analysis of other potential alternatives for the intersection revealed that a roundabout would have a 23 percent less total delay of traffic than a signalized intersection at this location. After reviewing this analysis, the City determined that a multilane roundabout at the Oak Street/Washington Boulevard intersection would suitably accommodate the future traffic volumes along the corridor.

Proposed Changes to the Project: This EIR Addendum addresses the construction of a multilane roundabout at the intersection of Oak Street and Washington Boulevard (Figure 3). As stated above, this roundabout was not evaluated in the prior EIR for the Downtown Specific Plan. The existing intersection consists of a four-legged intersection, with a 4-lane section of Oak Street on the southwestern approach, a 5-lane section of Oak Street on the northeastern approach, a 2-lane section of Washington Boulevard on the southeastern approach (from the Oak Street Parking lot), and a 4-lane section of Washington Boulevard on the northwestern approach. The project site is bounded by primarily City-owned parcels which include parking

lots, the City Civic Center building, and a fire station site. All work would occur within existing public right-of-ways or City-owned parcels, and no right-of-way acquisitions are anticipated with this project. Dry Creek is located south of the intersection, but will not be impacted by the proposed project changes.

Environmental Analysis to Support Addendum: In summary, the proposed project change (roundabout at Oak Street/Washington Boulevard intersection) would not result in any new significant environmental effects or a substantial increase in the severity of previously identified significant effects described in the prior EIR. All pertinent mitigation measures from the prior EIR will be implemented and no new mitigation measures have been identified as necessary. A brief environmental analysis is provided below to support this determination.

Transportation and Circulation (prior EIR Section 4.6). The Specific Plan has established a Pedestrian Overlay District within the Plan area. This district will result in physical improvements at intersections in the Plan area to encourage pedestrian activity and increase pedestrian safety. The prior EIR Impact 4.6-1 (*Transportation and Circulation-Unacceptable Peak Hour LOS at Signalized Intersections under Existing Plus Project Conditions*) states that with the introduction of traffic from future Specific Plan development, peak hour traffic volumes would increase at several signalized study intersections in the Plan area, resulting in a level of service (LOS) of D or worse at several intersections (LOS F at the Oak Street/Washington Boulevard intersection). The analysis goes on to state that, however, with the implementation of the Pedestrian District Overlay in the Plan area, the LOS impact at all Plan area intersections would be considered less than significant because the intersections are exempt from the City's LOS C policy. Therefore, all impacts to signalized study intersections under the existing plus project conditions were considered in the prior EIR to be less than significant.

With the implementation of the proposed project change, this impact would remain less than significant. In fact, based on current traffic projections (see technical memorandum prepared by Fehr & Peers in Addendum Attachment A), implementation of the roundabout at the Oak Street/Washington Boulevard intersection would result in a beneficial impact on traffic at this intersection and the local network of intersections, including Oak Street/Grant Street, Oak Street/Lincoln Street, Vernon Street/Grant Street, and Vernon Street/Lincoln Street.

According to the traffic analysis that was conducted by Fehr & Peers (Addendum Attachment A) to compare the relative effectiveness of the roundabout and the signalized intersection, the Oak Street/Washington Boulevard intersection will function more efficiently and have fewer average time delays with a roundabout rather than a signalized intersection. As shown in Table 2 (Attachment A), the average time delay at the intersection under the signal alternative would be 268 hours. The estimated time delay under the roundabout alternative would be 241 hours. The projected LOS for the signalized alternative would be LOS E and the roundabout would be LOS C (Table 1 in Attachment A). The difference in the projected LOS for the signalized intersection in the prior EIR (LOS F) and the recent traffic analysis (LOS E) for the intersection is described in the traffic technical memorandum in Attachment A. According to Fehr & Peers, the difference in the signalized intersection LOSs is the result of different analysis methods that were used in the prior EIR and recent traffic analysis. The prior EIR analyzed intersection operations using the Circular 212 method. Since roundabouts cannot be analyzed using the Circular 212 method, the recent traffic analysis used the VISSIM micro-simulation model to analyze intersections and provide for a consistent intersection to roundabout comparison.

Although there will be minor modifications to other nearby intersections (listed in Table 1 in Attachment A), the recent traffic analysis determined that the entire intersection network in the

area will function more efficiently and nearby intersections will have overall fewer delays with a roundabout at the Oak Street/Washington Boulevard intersection. Based on the results of this recent traffic analysis, the project change would not result in any new or greater impacts on traffic.

The prior EIR also analyzed potential impacts to parking. According to the prior EIR, Impact 4.6-5 (*Transportation and Circulation-Parking),* the Specific Plan would result in inadequate parking supply which was considered a potentially significant impact. The prior EIR stated that the Specific Plan would generate demand for parking in excess of existing and proposed parking supply in the Plan area by a maximum of 580 spaces. However, Specific Plan policies call for development of additional parking to meet projected future demands. Furthermore, prior EIR mitigation measure 4.6-5 requires an additional 580 parking spaces by providing extra spaces within the three planed parking structures, providing additional public parking spaces (as part of developing and implementing the Parking Management Plan), and/or requiring development to provide additional parking (e.g. in-lieu fees). The prior EIR found that potential parking impacts could be mitigated to less than significant with implementation of mitigation measure 4.6-5.

The proposed project change would result in the loss of fourteen (14) parking spaces in the Oak Street Parking Lot (located between Dry Creek and Oak Street and shown in Figure 3). Eleven (11) spaces would be removed to accommodate the proposed roundabout and three (3) additional spaces would be removed in order to provide temporary access to the existing fire station after the roundabout is constructed. The loss of 14 parking spaces would not represent a substantial increase to the 580 space parking deficiency identified in the prior EIR. In fact, the 14 spaces lost as a result of roundabout construction are included in the 580 parking space deficit cited in the prior EIR. In the Specific Plan, the Oak Street Parking Lot is assumed to build out with a mix of retail, restaurants, office, residential, and public uses which would displace and reallocate (both on- and off-site) existing parking. Therefore, no new parking impacts would result from roundabout construction and the project would not change the prior EIR's less than significant impact determination. This impact would remain less than significant with the proposed project change.

Cultural Resources (prior EIR Section 4.7). Efforts to located cultural resource within the roundabout area of potential effects (APE) consisted of ICF International conducting a records search and a site visit and contacting potentially interested parties. No archaeological resources are known to be located within the roundabout's APE, which is located entirely within the Plan area. No historic structures, eligible for listing in the NRHP or CRHR are located within the roundabout's APE.

Impacts to cultural resources would be unlikely because the APE is developed and no historic structures are located within or adjacent to the project area. However, the area is located adjacent to a perennial stream (Dry Creek), which means that it may be sensitive for archaeological resources.

As described in prior EIR Impacts 4.7-2 and 4.7-3, there is the potential for buried cultural resources or human remains to be located beneath the developed surface and disturbed by construction activities that involve excavation below the road prism or area of existing pavement. These effects were considered potentially significant impacts in the prior EIR. To

reduce this impact to a less than significant level, areas where construction activities exceed the depth of previous construction would be monitored by a qualified archaeologist. Should any buried resources be uncovered, work would stop and Mitigation Measures 4.7-2 (*Cultural Resources – Potential Subsurface Cultural Deposits*) and 4.7-3 (*Cultural Resources – Undiscovered/Unrecorded Human Remains)* of the prior EIR would be implemented. The project change would not result in any new or greater impacts on cultural resources.

Biological Resources (prior EIR Section 4.9). Construction of the roundabout would occur within landscaped/developed areas of the Plan area. An ICF International biologist reviewed information sources and determined that the roundabout area does not support special-status species habitat, jurisdictional waters, or sensitive natural communities. While project construction would include the removal of some non-native landscape trees along Oak Street, the City would comply with the Migratory Bird Treaty Act and prior EIR Mitigation Measure 4.9-3 (*Raptors and Special-Status Bats*). Therefore, the proposed project change would not result in any new or greater impacts on special-status plants or other sensitive biological resources.

Air Quality (prior EIR Section 4.10). Construction-related criteria air pollutant and toxic air contaminate (TAC) emissions will likely be greater than that analyzed in the prior EIR, as construction of the roundabout will require additional construction equipment and a lengthier construction period than a signalized intersection. However, this will not be a substantial increase. While construction-related emissions would be greater for roundabout construction compared to signal construction, the prior EIR identified this impact as significant and unavoidable. While mitigation measures for this impact detailed in the prior EIR would be applied to the proposed project change, this impact would remain significant and unavoidable for the roundabout.

With regard to operational-related criteria pollutant emissions, the roundabout would likely result in a beneficial impact. Based on traffic information provided by Fehr & Peers (2012), implementation of the roundabout would reduce PM peak-hour delay within the traffic study area by 27 hours (from 268 hours to 241 hours) under design-year conditions (2020). The improved traffic operations provided by the project would increase PM-peak hour traffic by approximately 29 trips. Despite this small increase in vehicle traffic, peak-hour emissions are expected to decrease with the proposed project change, relative to a signalized intersection (Fehr & Peers 2012). This decrease is attributable to reductions in overall vehicle delay and fuel consumption, which offset emissions increases associated with additional vehicle trips.

Implementation of the proposed project change is expected to result in a network-wide decrease in criteria pollutant emissions, relative to a signalized intersection. The reduction in mass emissions of carbon monoxide (CO) would likewise have corresponding reductions in localized CO concentrations immediately adjacent to the intersection. Accordingly, implementation of the proposed project change is expected to reduce the severity of operational-related air quality impacts, as compared to the levels disclosed in the prior EIR.

Despite the reduction in emissions associated with roundabout operations compared to signalized operations, criteria pollutant emissions associated with implementation of the entire Specific Plan would remain significant and unavoidable as the emissions reductions achieved by the proposed project change would not be sufficient to offset other emissions increases

documented in the prior EIR to a less-than-significant level. Impacts associated with CO concentrations would remain less than significant.

Noise (prior EIR Section 4.11). Short-term construction-related noise impacts would likely be greater under the proposed project change than previously analyzed in the prior EIR. However, due to the short-term nature of project construction on the comparatively small scale of the proposed project as compared to the scope of the Specific Plan analyzed in the prior EIR, project-related impacts would not be significant enough to alter the level of significance (less than significant) detailed in the prior EIR. Operational noise impacts would be the same as those disclosed in the prior EIR. The City will implement prior EIR Mitigation Measure 4.11-1 (*Short-Term Construction-Generated Noise Levels*) as part of the project to ensure that short-term construction-related noise impacts are maintained at a less than significant level.

Land Use Planning (prior EIR Section 4.1), Public Utilities (prior EIR Section 4.2), Public Services (prior EIR Section 4.3), Geology and Soils (prior EIR Section 4.4), Aesthetics (prior EIR Section 4.5), Hazardous Materials (prior EIR Section 4.8), Hydrology (prior EIR Section 4.12). There would be no new impacts or increase in severity of impacts for these issue areas because all other aspects of the proposed project change, including construction activities and proposed operation, would be the same as analyzed in the prior EIR.

Conclusions: The State California Environmental Quality Act (CEQA) Guidelines provide the authority for a lead agency to adopt an Addendum as the environmental analysis for changes made to a project that was previously the subject of an EIR. Specifically, CEQA Guidelines Section 15164 provides as follows:

> 15164. ADDENDUM TO AN EIR OR NEGATIVE DECLARATION
> (a) The lead agency or responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred.
> (b) An addendum to an adopted negative declaration may be prepared if only minor technical changes or additions are necessary or none of the conditions described in Section 15162 calling for the preparation of a subsequent EIR or negative declaration have occurred.
> (c) An addendum need not be circulated for public review but can be included in or attached to the final EIR or adopted negative declaration.
> (d) The decision making body shall consider the addendum with the final EIR or adopted negative declaration prior to making a decision on the project.
> (e) A brief explanation of the decision not to prepare a subsequent EIR pursuant to Section 15162 should be included in an addendum to an EIR, the lead agency's findings on the project, or elsewhere in the record. The explanation must be supported by substantial evidence.

CEQA Guidelines Section 15162(a) states that no subsequent EIR shall be prepared unless one or more of the following three criteria have been met:

> (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant

environmental effects or a substantial increase in the severity of previously identified significant effects;

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows any of the following:

(A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;

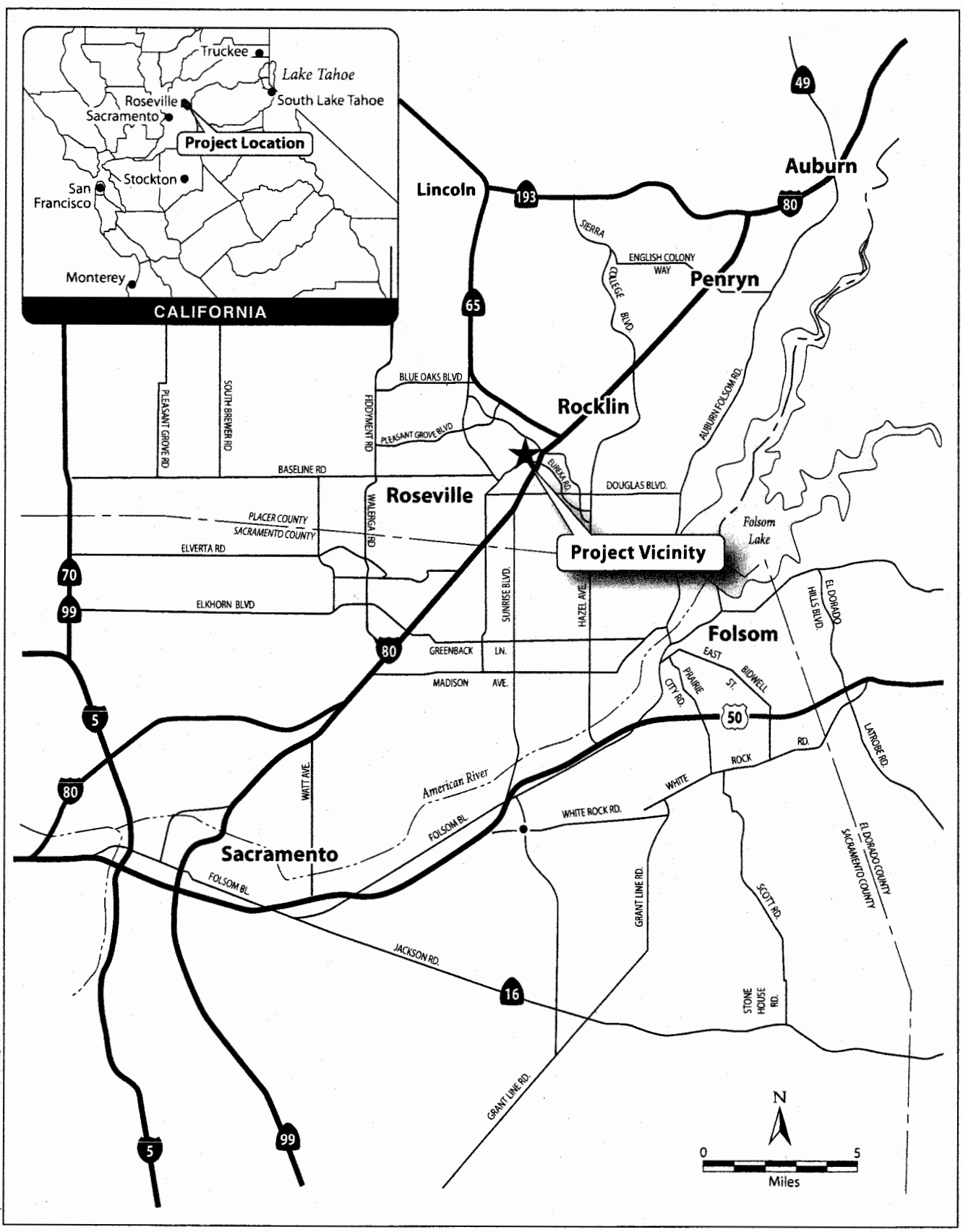
(B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

(C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

(D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

As discussed in the environmental analysis above, the construction of a roundabout rather than a signalized intersection at the Oak Street/Washington Boulevard intersection would not result in a new or substantially more severe significant effect. All of the pertinent mitigation measures identified in the prior EIR will be implemented as part of the proposed project change. Therefore, the conditions under which preparation of a subsequent IS/MND or supplemental EIR would be required have not been triggered pursuant to Section 15162 of the State CEQA Guidelines.

The decision-making body will consider the EIR Addendum together with the Final EIR prior to making a decision on the project changes. Copies of the prior EIR are available for review in the City's offices.



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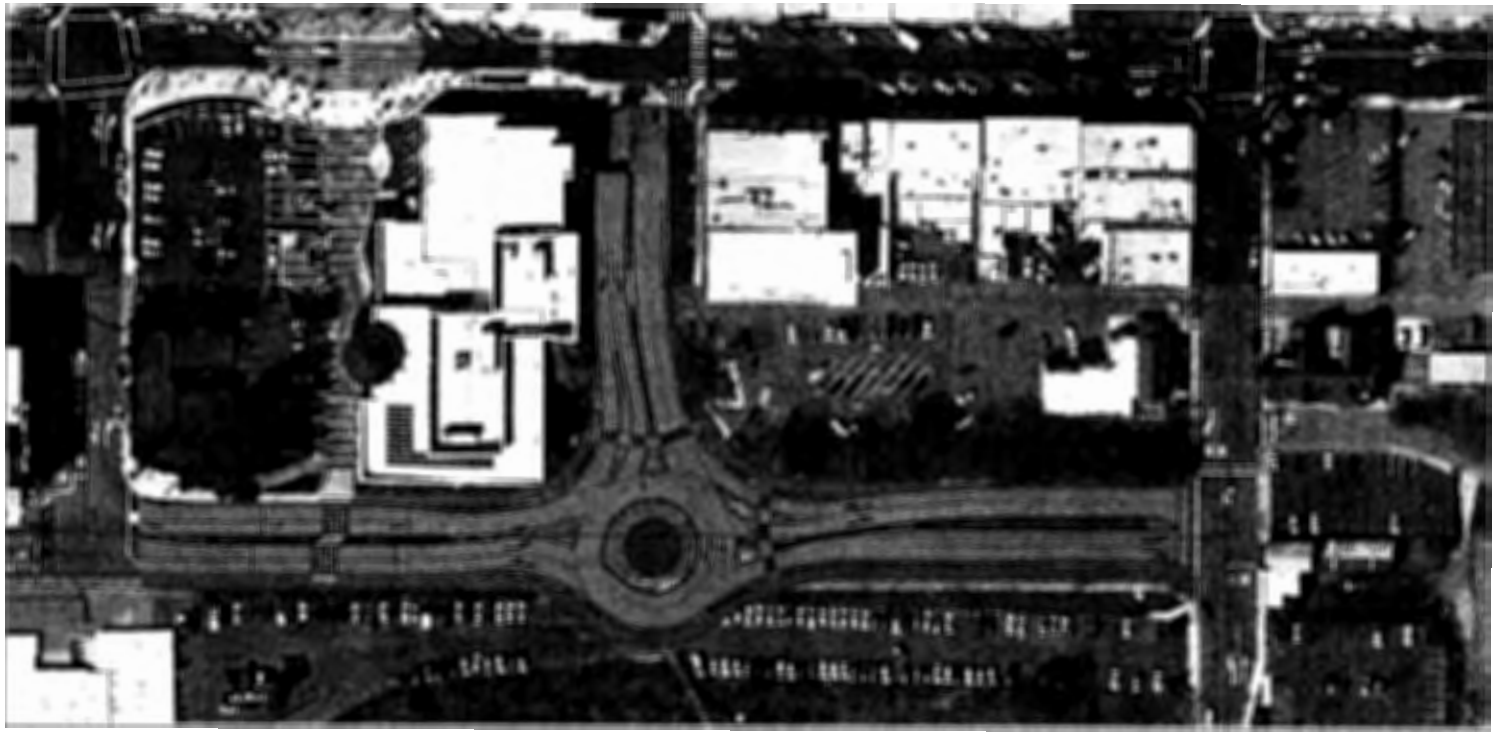
Figure 1
Regional Location



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Figure 2
Project Location



DOWNTOWN ROSEVILLE SPECIFIC PLAN STREETSCAPE

SCALE: 1" = 50'

Source: Mark Thomas & Company

CITY OF ROSEVILLE
TRADITION · PRIDE · PROGRESS

Figure 3

Attachment A. Addendum to the Downtown Roseville Specific Plan Final Environmental Impact Report

FEHR PEERS

TECHNICAL MEMORANDUM

Date:	October 22, 2012
To:	Rhon Herndon, Raul Cervantes, and Mark Morse – City of Roseville Zach Siviglia – Mark Thomas & Company
From:	David Stanek and John Gard – Fehr & Peers
Subject:	***Oak Street VISSIM Analysis – Year 2020 Conditions***

RS11-2943

Fehr & Peers has completed a traffic analysis of proposed improvements along the Oak Street corridor in downtown Roseville for Year 2020 conditions. This memorandum describes the study purpose, analysis methods, results, and key findings.

PURPOSE

This analysis was prepared to understand how the Oak Street corridor in downtown Roseville would operate for Year 2020 PM peak hour conditions under the following two scenarios:

- Scenario 1 – Traffic Signal at Oak Street/Washington Boulevard Intersection
- Scenario 2 – Roundabout at Oak Street/Washington Boulevard Intersection

Operations were analyzed for Year 2020 conditions because this year corresponded to the cumulative horizon analyzed in the *Downtown Roseville Specific Plan Draft EIR* (2008). Since this traffic analysis is being used to support an Addendum to the *Downtown Roseville Specific Plan Draft EIR* (2008), it is appropriate to apply the same horizon year. Therefore, the 2020 Plus Project forecasts from the EIR were used in this analysis.

Both scenarios assume traffic signals at the Grant Street/Oak Street and Lincoln Street/Oak Street intersections. As described on page 4.6-21 of the EIR, a traffic signal is proposed at the Grant Street/Oak Street intersection as part of the Vernon Street District circulation improvements. This analysis also assumed a signal in place at the Lincoln Street/Oak Street intersection based on the projected traffic levels at that location.

ANALYSIS METHODOLOGY

The study area was analyzed using the VISSIM micro-simulation traffic analysis software. This software considers the effects of coordinated signal operations, vehicular queue spillbacks on upstream/downstream intersections, bicycle/pedestrian interactions, lane utilization, and other operational parameters. In addition to the three intersections on Oak Street, the VISSIM model also

includes the Vernon Street/Lincoln Street, Vernon Street/Grant Street, and Washington Boulevard/Main Street intersections.

Consistent with current City practice, the VISSIM model assumed a peak hour factor of 1.0 to reflect hourly conditions. Trucks were assumed to be two percent of the traffic flow. Coordinated signal operations were assumed at the downtown intersections. Pedestrian crossings ranged from 15 to 30 pedestrians per hour depending on the crosswalk location, which included a mid-block crossing of Oak Street between Grant Street and Washington Boulevard.

RESULTS

Table 1 presents the overall level of service and average delay for each study intersection during the PM peak hour under 2020 conditions. Detailed output from the VISSIM analysis is provided in Attachment A.

TABLE 1 – INTERSECTION OPERATIONS – 2020 PM PEAK HOUR CONDITIONS

Intersection	Control	Scenario 1 – Traffic Signal at Oak/Washington	Scenario 2 – Roundabout at Oak/Washington
1. Oak St / Grant St	Signal	C / 25	C / 28
2. Oak St / Washington St	Signal / Roundabout	E / 55	C / 24
3. Oak St / Lincoln St	Signal	C / 31	D / 39
4. Vernon St / Grant St	Signal	B / 20	B / 19
5. Vernon St / Lincoln St	Signal	D / 44	E / 58

Note: LOS and average delay in seconds per vehicle are reported in the table.
Source: Fehr & Peers, 2012

This table shows that the roundabout would operate at LOS C, while the traffic signal would operate at LOS E (the reported delay of 55 seconds per vehicle is at the cusp of LOS D and E). Reasons why the roundabout operates with less delay include channelized free right-turn lanes, and multi-lane roundabout entry and exits where warranted. In contrast, the traffic signal would have several operational challenges including close spacing to adjacent signals, which cause challenges in coordinating traffic progression through the signals. Additionally, split-phase signal operation and frequent pedestrian calls would also contribute to the delay.

Table 2 compares network-wide performance for the two scenarios. Given the close spacing of intersections and effects of one facility on another (i.e., upstream/downstream queuing), it is important to review system-wide performance measures in addition to individual intersection performance. This table shows that the Roundabout scenario results in 10 percent less overall delay (241 versus 268 hours) in the

study area, when compared to the Signal scenario. Average travel time is also improved and average delay per vehicle is reduced with the Roundabout scenario.

TABLE 2 – NETWORK-WIDE PERFORMANCE – 2020 PM PEAK HOUR CONDITIONS

Performance Measure	Units	Scenario 1 – Traffic Signal at Oak/Washington	Scenario 2 – Roundabout at Oak/Washington
Volume Served	vehicles	7,846	7,817
Percent of Volume Served	--	90%	89%
Average Speed	miles/hour	8.8	9.4
Travel Time	hours	391	368
Total Delay	hours	268	241
Average Delay per Vehicle	seconds	117	106

Source: Fehr & Peers, 2012

FINDINGS

The following key findings are offered based on data in Tables 1 and 2:

1. Oak Street/Washington Street Intersection – operations would be at LOS C with a roundabout in 2020. Since LOS C is considered acceptable in the City, the roundabout would not cause an impact at this intersection. In addition, it would improve average travel time through the corridor and reduce the average delay per vehicle.

2. Oak Street/Lincoln Street Intersection – operations at this signalized intersection would worsen from LOS C (with the Oak/Washington traffic signal) to LOS D (with the Oak/Washington roundabout). Reasons for the degradation are two-fold. First, the roundabout causes slightly more queuing that spills back to this intersection. Second, the roundabout is able to deliver more southbound Washington Boulevard to eastbound Oak Street traffic to this intersection. The Oak Street/Lincoln Street intersection is located within the City's Pedestrian Overlay District, which according to General Plan circulation policies 1 and 5 exempts this district from the City's LOS standard based on the recognition that pedestrian travel takes higher priority than automobile travel in these areas. Therefore, impacts to this intersection are less than significant.

FEHR PEERS

3. Vernon Street/Lincoln Street Intersection – operations at this signalized intersection would worsen from LOS D (with the Oak/Washington traffic signal) to LOS E (with the Oak/Washington roundabout). The *Downtown Roseville Specific Plan Draft EIR* (2008) also reported LOS E operations at this intersection under 2020 plus project conditions[1]. As noted above, this intersection is within the City's Pedestrian Overlay District, which exempts these intersections from the City's LOS standard. Therefore, impacts to this intersection are less than significant.

We hope this information is helpful. Please call or e-mail us with any questions or comments.

[1] The EIR analyzed intersection operations using the Circular 212 method. Since roundabouts cannot be analyzed using Circular 212, this study used the VISSIM micro-simulation model to analyze intersections. Differences in how the two methods calculate LOS explains the variation in results at the Vernon Street/Lincoln Street intersection.

CITY OF ROSEVILLE CALIFORNIA

GENERAL INFORMATION MEMORANDUM

TO: Mayor Pauline Roccucci and Members of the City Council

FROM: John Sprague, Assistant City Manager

PREPARED BY: Kevin Payne, Revitalization Manager
Rhon Herndon, Acting Public Works Director

DATE: July 20, 2012

SUBJECT: **Downtown Public Improvement Program – June 18th Public Meeting**

Purpose

The purpose of this GIM is to inform Council on the Downtown Public Improvement Program (DPIP) public meeting that was conducted on June 18, 2012.

Summary

As part of an on-going effort to inform and engage the Roseville community on the capital improvement projects both currently under construction and in the future as part of the DPIP a public meeting was held on Monday, June 18th from 6:30-8:00PM in the Council Chambers. The projects that were discussed included the; 1) Town Square, 2) Phase I Infrastructure, 3) Oak Street Roundabout, 4) Bridges and Bike Trail, and 5) Fire Station No. 1 relocation. As part of this meeting, staff provided a brief presentation covering each project and then facilitated a public question and answer session. Once this process was completed, staff remained on-site to further discuss the individual projects providing anyone in attendance an opportunity to discuss specific projects with city staff directly working on that project.

Each of the various projects raised a variety of comments and questions. The bulk of the discussion did revolve around the installation of the roundabout at the intersection of Washington and Oak Street. There was a mix of both individuals that were in favor of the roundabout and those that were not in favor. This mix of opinions on this type of improvement is not unusual based on past public discussions regarding roundabouts.

Staff has prepared a "Response to Comments" document addressing the items raised during this meeting (**Attachment 1).** This document will be posted on our website and those individuals that left their contact information will be notified on how to access the document. Additionally, the Council can view the meeting in its entirety at by accessing the following link: *http://roseville.granicus.com/MediaPlayer.php?publish_id=389* .

APPROVED:

Ray Kerridge
City Manager

DOWNTOWN PUBLIC IMPROVEMENT PROJECTS
Response to Comments

On June 18, 2012 the City of Roseville sponsored a public meeting to inform and update the public on the approved public improvement projects that will be under construction in Downtown Roseville, from now through 2015. The projects that were discussed included the; 1) Town Square, 2) Phase I Infrastructure, 3) Oak Street Roundabout, 4) Bridges and Bike Trail and 5) Fire Station No.1 relocation. These improvement projects implement the Downtown Specific Plan (DTSP) and support the City's overall vision to create an active and vibrant downtown! This document summarizes the dialogue, comments and questions that were raised and responded to during this meeting.

Town Square: The development of a Town Square is an important improvement identified within the vision and Downtown Specific Plan (DTSP). In general the Town Square was supported by the public that attended this forum. The following comment was raised in regards to this facility:

1. **Who is responsible for the programming of events in the square and the maintenance following these events?**
   The City's Parks and Recreation Department will be responsible for the programming and maintenance of this facility. As part of their responsibilities they will oversee the removal of trash and clean-up of the facility following events within the square.

Vernon Area Phase I Streetscape and Infrastructure: This project is critical to support the existing businesses and future uses identified by the Downtown Specific Plan. The following comments were raised:

1. **How are the streetscape and infrastructure improvements being funded?**
   They are being paid for through utility rehabilitation funds, future connection fees, Strategic Improvement Funds and tree mitigation funds. No General Fund monies are being spent on these projects.

2. **What is the City going to do about the bike traffic and maintenance of the underpass?**
   This is an ongoing concern for the City. We are looking for funds to provide a greater level of maintenance in this area. (**Note:** *Since this meeting Roseville Police have started to warn and cite bicyclist for not walking their bikes. City staff has also allocated additional Streets Maintenance resources to sweep the underpass and remove litter on a weekly basis.*)

3. **We need a safe crossing on Oak Street, and down further by the library.**
   The project will install a signal at Oak Street and S. Grant Street with pedestrian crosswalks.

4. **We would like a safe bike/pedestrian path from Church Street to the Historic District.**
   Comment noted.

Roundabout: In the past, a roundabout at this location had been discussed as part of a series of three roundabouts on Oak Street, but was not included as an improvement in the DTSP. Recently, the City evaluated the use of a single roundabout at the intersection of Oak Street and Washington Boulevard. Prior to the June 18th meeting this project was discussed at two public hearings and approved by the Transportation Commission and City Council. Of the people who addressed this item, the majority spoke against it, but there were attendees that spoke in favor of this improvement.

1. **When is the roundabout going to be developed and how long will it take?**
   It is anticipated to start construction in May of 2013 and be completed in the fall of 2013.

2. **Does this project require eminent domain?**
   No. Any land impacted by this improvement is either existing right-of-way or owned by the City.

3. **What is the cost of the roundabout and how is it funded?**
   The estimated cost for the roundabout is approximately 1.3 million dollars. It is being funded primarily through federal funds which can only be allocated to roadway improvements that improve air quality.

4. **Does this intersection stay open during construction?**
   Yes, the contractor will be responsible for submitting a traffic mitigation plan to allow traffic to continue to flow through the intersection.

5. **What will be placed in the center of the roundabout?**
   That has yet to be determined. It will be determined by the available budget. If funding for a feature is available then we would look for community input on the design of that feature.

6. **In addition to the roundabout where will the signals be located as part of this project?**
   New signals will be located at the intersections of Oak Street/S. Grant Street and Oak Street/Lincoln Street.

7. **Why not put three roundabouts in a row instead of signals at Oak Street/S. Grant Street and Oak Street/Lincoln Street?**
   Roundabouts at these locations would require significant expansion of the right-of-way increasing the cost and potentially requiring eminent domain. These potential impacts, as well as others, ruled this option out.

8. **With the installation of the two signals won't traffic back up into the roundabout?**
   Based on the modeling for the existing and future traffic volumes the signal timing will allow for the roundabout to continue to function efficiently. As modeled, this system provides a higher Level of Service (LOS) than continuing with a signal at this location. In comparison, at future volumes a signal would operate at LOS D and the roundabout operates at LOS C. The micro simulation analysis of the Oak Street corridor showed that vehicle queues from the signalized intersections at Oak Street/Grant Street and Oak Street/Lincoln Street would not spill back into the roundabout.

9. **With a signal at Oak Street/Lincoln Street what type of future impacts occur on Sutter Street and Folsom Road?**
   A traffic signal at the Oak Street/Lincoln Street intersection will reduce the expected amount of vehicular queuing under 2025 conditions on Sutter Street approaching this intersection (which would occur if the existing all-way-stop remained). This in turn, would improve travel times on this street. Little to no change is expected to occur on Folsom Road.

10. **How does the roundabout function when Vernon Street is closed for events?**
    Due to the infrequent nature of these events, this scenario was not modeled. It is recognized that during events, such as Downtown Tuesday night Oak Street becomes much busier. The diversion of traffic caused by the closure of Vernon Street is likely to cause traffic levels to approach or exceed the capacity of the Oak Street/Washington Boulevard intersection, regardless of whether it is signalized or a roundabout is installed.

11. **How do emergency vehicles get through the roundabout during an emergency event?**
Emergency vehicles get through a roundabout similar to how they negotiate a standard intersection, as drivers are required to move to the shoulder. Additionally, there is a mountable curb and apron in the center that allows for vehicles to move out of the way or for the emergency vehicles to use.

12. **How will pedestrian safety be insured by the roundabout design?**
The design of the roundabout requires that pedestrians only cross one or two lanes at the most before an island refuge is provided. Additionally, the heaviest pedestrian movement is from the Civic Center to the Oak Street parking lot. As part of the Oak Street improvements a mid-block crossing will be constructed eliminating the need for a crosswalk at this location.

13. **How does a bicyclist travel through the roundabout and how safe is it?**
The safest way for a bicyclist to travel through the roundabout is to share the car lane. The decreased speeds within the roundabout allow the bicyclist to move through the intersection similar to a standard intersection. Other options are to create a side path or use the pedestrian crossings. Development of a side path will be analyzed as part of the ultimate design.

14. **People do not know how to drive through roundabouts, how will this be addressed?**
As part of the Transportation Commission and City Council discussions this concern was expressed and staff was directed to put together an out-reach and informational campaign on how to use a roundabout.

15. **The neighborhood needed more notice on this item, and future changes to the previously approved capital improvements in Downtown should have more public discussion prior to approval.**
Comment noted.

Bike Trail/Downtown Bridges: The Downtown Bridges and Trail Project includes 3 components of work:

1) The ***Replacement Bridge*** which connects the lower area of Royer Park to Downtown Roseville and the Main Library
2) The ***Downtown Bridge to Royer Park***, which connects the upper area of Royer Park to the Town Square and Civic Center
3) The ***Oak Street Class I Bridge/Trail*** near the Veterans Hall which creates the seamless Class I trail connection to and through Downtown Roseville

Please see the attached map for a preliminary layout of the project.

1. **Will the Rube Nelson "Icehouse" Bridge be re-used as part of the project?**
The intent of the DTSP is to re-use the Icehouse Bridge. The DTSP calls for re-use and rotation of the bridge at its current location as part of the Class I trail project. However, the Icehouse Bridge was designed primarily for pedestrian use and not as a bicycle facility. As a result, the City will evaluate the potential for re-use of the Icehouse Bridge near the Main Library as the Replacement Bridge.

2. **Will the design contest apply to the existing Icehouse Bridge or only to the new bridges?**
The design contest will primarily involve the proposed new bridges. However, all three downtown bridges will have landings and other hardscape elements that may be considered in the design contest process.

3. **Will the Oak Street Class I Trail be routed underneath Lincoln Street?**
   The Class I trail is intended to have an undercrossing of Lincoln Street to provide a seamless Class I trail experience that does not require trail users to cross Lincoln Street at-grade.

4. **Does the Specific Plan consider combining the *Downtown Bridge to Royer Park* and the *Oak Street Class I Trail Bridge* into a single bridge in order to save money?**
   Combining the bridges may result in conflicts between bicyclists and pedestrians. In fact, the DTSP states that the City should consider routing the *Oak Street Class I Trail* underneath the *Downtown Bridge* to reduce conflicts between bicyclists and pedestrians. If the bridges are combined, either the functionality of the bikeway or the pedestrian way would have to be compromised or the bridge would have to be widened to separate bicycle and pedestrian use. Widening the bridge for this purpose would increase costs and eliminate any cost savings resulting from the elimination of a second bridge.

5. **How will parking in Royer Park, the Dry Creek parking area and along Park Drive be impacted?**
   The DTSP calls for removal of the Oak Street parking lot and the Main Library parking lot and modifications to the Royer Park parking lot in order to accommodate planned improvements, including the Downtown Bridges and Trail Projects. These long term changes are based upon the provision of new parking elsewhere in the DTSP (i.e. the existing parking garage at Oak/Grant, which is currently underutilized, and a future parking garage at Oak/Lincoln.)

   Since the Oak/Lincoln parking garage is not being built at this time, there is a potential parking impact in this "interim" phase of DTSP build out. To address this, the Downtown Bridges and Trail projects will to the extent feasible minimize impacts to all three parking areas and will evaluate the potential impact of any unavoidable loss of parking. As part of this review, staff will conduct outreach to the Veterans Hall and the Christian Science Church at 145 Park Drive.

Fire Station No. 1 Relocation: As identified in the DTSP, Fire Station No. 1 is to be relocated to allow for future development adjacent to the creek walk abutting Dry Creek and Royer Park. The land for this improvement has been secured and the anticipated schedule to open a new facility is in 2015. The following comments were discussed as part of the June 18th meeting:

1. **Where will the new Fire Station No. 1 be located?**
   It will be located on the southwest corner of Lincoln Street and Linda Drive where the existing public parking lots and Roseville Plumbing shop are currently located.

2. **Was a realignment of Linda Drive to become an extension of Oak Street through to Folsom Drive analyzed?**
   Yes. The analysis showed that this would create degradation in the level of service at the signals on Oak Street due to creating additional wait time at the Oak/Lincoln Street signal.

3. **Will the parking next to the Salvation Army still remain?**
   No. Under the current design this lot would become part of the fire station.

4. **Can the fire truck make the turn on to Lincoln Street and down Sutter Street?**
   With a signalized intersection and the fire truck bays being recessed back from the street, creating a large driveway apron, they should not have any access issues. This location was specifically analyzed to insure that access would not be an issue.

5. **How will the demolition of the existing station take place and will it impact the surrounding businesses?**
   The City or the future developer/contractor will determine the best method for the removal of this structure. The proximity of the existing businesses will definitely need to be considered prior to starting the work. Additionally, there is liability exposure to either of these parties, so every precaution will be taken to minimize the impacts to the surrounding properties.

6. **There has been discussion regarding relocation of the Main Library as part of a future development project. Is this going to occur?**
   This has been discussed in concept, but it needs to be fully vetted. There has been no formal proposal to relocate this facility. Prior to moving forward this concept would need to be further analyzed, including an opportunity for public input.

Following your review of this information, if you have any further questions please contact Raul Cervantes at (916) 746-1300 or rcervantes@roseville.ca.us regarding the Roundabout; Mike Dour at (916) 746-1304 or mdour@roseville.ca.us regarding bridges/bike trails; or Kevin Payne at (916) 774-5276 or kpayne@roseville.ca.us for other improvement related questions. Additionally, you can view the content of the meeting held on June 18th at the City's web page at the following link:

http://roseville.granicus.com/MediaPlayer.php?publish_id=389

Thank you for your interest in Downtown Roseville!

ORDINANCE NO. 5163

ORDINANCE OF THE COUNCIL OF THE CITY OF ROSEVILLE AUTHORIZING CERTAIN AMENDMENTS TO THE 2012-13 BUDGET AND DECLARING THIS ORDINANCE TO BE IMMEDIATELY EFFECTIVE AS AN APPROPRIATION MEASURE

THE CITY OF ROSEVILLE ORDAINS:

SECTION 1. The City of Roseville Annual Budget, Fiscal Year 2012-13 is hereby amended by transferring an additional appropriation to and from the activities indicated below:

From:	To:	
00502-8911 Auto Replacement Loan to SIF	00110-3911 SIF loan from Auto Replacement	$1,200,000.00
00110-8902 SIF transfer to Pub Fac for 099001	00222-3902 Public Facilities transfer from SIF for 099001	$500,000.00
Town Square (099001) funded By SIF	90006-6130/099001-45 Town Square Project	$500,000.00
00110-8902 SIF transfer to TMF for 132502	00221-3902 TMF transfer from SIF to 132502	$700,000.00
Wash/Oak R/About (132502) Funded by SIF	20004-6130/132502-45 Washington/Oak Roundabout	$700,000.00

SECTION 2. This ordinance is hereby declared to be an appropriation measure, immediately effective pursuant to the provisions of Section 5.03 of the Charter.

SECTION 3. The City Clerk is hereby authorized and directed to post a true copy of the foregoing ordinance in each of three (3) conspicuous locations in the City and she shall immediately after such posting enter in the ordinance book, under the record of the ordinance, a certificate under her hand stating the time and place of such publication by posting.

PASSED AND ADOPTED by the Council of the City of Roseville, this _____ day of _____, 20__, by the following vote on roll call:

AYES COUNCILMEMBERS:

NOES COUNCILMEMBERS:

ABSENT COUNCILMEMBERS:

_____

MAYOR

ATTEST:

_____

City Clerk

CITY OF ROSEVILLE CALIFORNIA

COUNCIL COMMUNICATION

5133
City Clerk Use Only

DATE:	**January 10, 2013**
TITLE:	**Downtown Public Improvements: Oak Street Roundabout Improvement Project - Approval of Plans and Specifications, and Budget Adjustment**
CONTACT:	**Hossein Naghibzadeh, 746-1300, hnaghibzadeh@roseville.ca.us**

Meeting Date: March 06, 2013

SUMMARY RECOMMENDATION

Staff recommends that the City Council:

1. Consider the Addendum to the Downtown Roseville Specific Plan Final Environmental Impact Report (attached hereto), and;
2. Approve the plans and specifications for the Oak Street Roundabout Improvement Project on file with the City Clerk's Department and authorize staff to call for bids,
3. Approve an internal loan of $1.2 million from the City's Vehicle Replacement Fund to be reimbursed per the terms in the staff report and;
4. Adopt the attached ordinance for a budget adjustment transferring $1.2 million from the City's Vehicle Replacement Fund to the appropriate projects CIP accounts ($700,000 for the Oak Street Improvements, and $500,000 for the Town Square).

BACKGROUND

On May 16, 2012 the Council directed staff to:

- Prepare plans and specifications, and prepare all required environmental documentation, to construct a roundabout at the intersection of Oak Street and Washington Boulevard
- Reprogram $1,321,950 in Federal CMAQ (Congestion Mitigation & Air Quality) funds from the Washington/Andora project to the roundabout at Oak/Washington.

The above Council action was in response to a traffic analysis that evaluated roundabouts at three intersections along Oak Street: one at Lincoln, one at Washington, and one at Grant. The results of that analysis were first presented to the Transportation Commission on April 17, 2012. The evaluation concluded that the most efficient configuration for traffic operation is to construct a roundabout at Oak/Washington and install traffic signals at Oak/Grant and Oak/Lincoln. Based on that evaluation the Transportation Commission recommended that the City Council take the two actions bulleted above.

BENEFITS OF A ROUNDABOUT AT OAK/WASHINGTON

Simply put, traffic will flow better with a roundabout at Oak/Washington as compared to a traffic signal. As traffic volumes grow in the future, southbound traffic on Washington is forecasted to stack all the way to Main Street if a signal is at Oak/Washington. The traffic modeling that we

Routing Approval:

_____ASD _____ACM _____ATTY

AGENDA ITEM
7.1

showed the Council in May 2012 demonstrated that having a roundabout at Oak/Washington will dramatically mitigate that queuing. In terms of level-of-service (LOS), assuming 2020 traffic volumes, a signal at Oak/Washington would operate at LOS E with an average vehicle delay of 55 seconds, and a roundabout would operate at LOS C with an average vehicle delay of 24 seconds. In other words, the average vehicle delay with a roundabout would be less than half the delay of having a signal at that location.

In addition, a roundabout at Oak/Washington will provide a signature feature in the downtown area that will help create a sense of place, and will ultimately provide an amenity that will blend well with the planned land uses along Oak Street. Creating such a sense of place will help bolster existing businesses in the Downtown area as well as increase the attraction for new businesses to consider locating in Downtown Roseville.

PUBLIC OUTREACH

Part of the Transportation Commission's recommendation was to include a public outreach component to help educate the public on how to drive roundabouts. We will be working with our communications team to develop a public outreach campaign that will include, among other things, instructional videos on the City's website on how to drive roundabouts. Also, as part of the Council's direction in May 2012, the Council directed staff to hold a public workshop to provide an opportunity for the public to comment on the proposed roundabout. Staff subsequently held that public workshop on June 18, 2012. A summary of the results of that workshop was sent to the Council via GIM dated July 20, 2012, a copy of which is attached for reference. The GIM includes an attachment that contains responses to comments received at the workshop.

On January 8, 2013 staff provided a presentation on the roundabout to the Cresthaven Neighborhood Association. Staff also provided a presentation on the roundabout to the RCONA Board on January 17, 2013. Both of those meetings were well attended, and staff received positive responses regarding the roundabout.

To get the word out to the public regarding this item going to Council on March 6, staff wrote a story on the roundabout and posted it on our website. Staff sent notices to the RCONA Board and included a link to the information on our website. Staff also included the same link in our City newsletter. Staff also sent out notifications of this item on the Council agenda through all of our social media outlets (Facebook & Twitter) as well as the Roseville Press Tribune and the Roseville Patch with the expectation that they will post to their websites and make efforts to get the notice in the Press Tribune's February 22 and March 1 print editions as news stories/announcements.

PLANS AND SPECIFICATIONS

As directed by the Council, staff has worked with our consultant to complete the plans and specifications for the subject project, a copy of which is available for Council review at the City Clerk's office. Staff intends to bid the project in March/April 2013 with construction planned to begin in May/June 2013 and be completed by December 2013.

PHASE 1/TOWN SQUARE

Council approved the construction of the Phase1/Town Square project in May of 2012. The Phase 1/Town Square project was bid at 75% plans with a total cost of $10.25 million. It was approved with a budgeted amount of $8.25 million. Although a significant effort has been made to reduce this down to the budgeted amount, there were several unanticipated items that impacted the project budget. These items were required to get the project under construction and to obtain final plan approval. The major budget impacts were: 1) unanticipated relocation costs for the dental building, 2) redesign of the fountain infrastructure to incorporate a vault

system that met health and safety requirements, and, 3) additional infrastructure/street work in the project area that evolved between the 75% plan set and the 100% drawings. To ensure that the project fulfills the vision for the area and to absorb these added costs, $500,000 of the $1.2 million in Vehicle Replacement Funds are being requested to fund the remainder of the Town Square project.

FISCAL IMPACT

Funding for this project has been provided from a variety of sources. These sources include a loan from the City's Vehicle Replacement Funds (VRF), Traffic Mitigation (TMF), Congestion Mitigation and Air Quality Funds (CMAQ). The VRF funds are to ensure that complete funding is in place for the Oak Street improvements and to complete the Town Square. The following addresses the terms of the VRF loan, the application of these funds and the funding for the roundabout:

VRF LOAN TERMS

In order to provide funding for the Oak Street improvements and the Town Square, the project is seeking an internal loan from the VRF. The primary reason for this action is due to the loss of redevelopment funds that were previously allocated for these projects. With the demise of redevelopment these funds have been suspended or will not be available, depending on future findings from the State. In order to continue to move the vision for downtown forward and complete these projects, staff is requesting a loan be granted from the VRF under the following terms:

- **Interest Rate:** City's average interest rate
- **Term:** 10 year payment period
- **Deferred payment:** Payments to be deferred until July 1, 2013
- **Amortization:** Full principal and interest payments

The repayment of these funds is anticipated to be provided through the revenues from one or a combination of the following sources:

- $7.5 million being held in reserve from the Redevelopment Agency for repayment of Enforceable Obligations that was distributed back to the Strategic Improvement Fund. These funds were originally intended to be spent on these improvements but have been suspended until a finding of completion has been issued by the State.
- Revenues from the future electronic freeway billboard signage;
- Revenues from the bus signage/transit revenues; and lastly,
- Diversion of a portion of future community benefit fee payments from the West Plan, Sierra Vista and Creekview Specific Plans.

These revenue sources have the capability of backfilling the VRF per the terms of the loan.

ROUNDABOUT BUDGET

It is important to note that if the roundabout project does not move forward, the plans for Oak Street would require: 1) an additional travel lane to be added, 2) pedestrian crossings, 3) landscaping and lighting, and 4) paving, curb, gutter and sidewalk improvements. These would require local funds of approximately $1.6 million. With the construction of the roundabout we are able to leverage our funds and require an investment of approximately $700,000 in local funding. Funding for the Oak Street improvements including the roundabout is as follows:

▪ City's Vehicle Replacement Funds	$ 700,000
▪ Traffic Mitigation Funds (TMF)	$ 515,000
▪ Congestion Mitigation & Air Quality Funds (CMAQ)	$1,563,950
▪ Total available funds	$2,778,950
▪ Engineer's Estimate for construction	$2,767,500

The remaining $11,450 will be used to cover a portion of the soft costs such as design, project management, and construction engineering (surveying, materials testing, etc.). We will re-evaluate the budget after we receive construction bids. Based on previous construction projects, bids have been coming in around 20% below the engineer's estimate due to the economic climate.

PHASE 1/TOWN SQUARE
As noted, there were several unanticipated items that impacted the project budget to get the project to final plan approval and under construction. To ensure that the project fulfills the vision for the area, $500,000 of the VRF funds will be directed to the Town Square project.

ECONOMIC DEVELOPMENT/JOBS CREATED

Based on Federal guidelines, there is one job created for every $92,000 in direct government spending. Based on that, this project will create 32 jobs.

ENVIRONMENTAL REVIEW

Background: On April 1, 2009 the Roseville City Council certified the final EIR for and approved the *Downtown Roseville Specific Plan* (State Clearinghouse #2007102090). The Downtown Roseville Specific Plan Environmental Impact Report (EIR) (referred to as the prior EIR) evaluated the environmental effects and identified mitigation measures associated with implementation of the Downtown Roseville Specific Plan. The prior EIR included analysis of the transportation system and improvements called for in the Downtown Specific Plan, including signalization of the following Oak Street Corridor intersections: Oak/Grant, Oak/Washington, and Oak/Lincoln. The Downtown Specific Plan final EIR is available for review at the City of Roseville Permit Center Counter or can be reviewed via the City's web site using the following link:
http://www.roseville.ca.us/planning/planning_document_library/specific_plans/downtown.asp

To comply with CEQA and address Council's direction to move forward with substituting the Oak/Washington signalized intersection with a roundabout, an addendum to the prior EIR has been prepared. Under the California Environmental Quality Act (CEQA), an addendum to a certified EIR is needed if minor technical changes or modifications to the proposed project occur (CEQA Guidelines § 15164). In this instance the change to the Downtown Roseville Specific Plan involves substituting a roundabout for a signalized intersection. An addendum is appropriate if minor technical changes or modifications to the original project do not result in any new significant impacts or a substantial increase in the severity of previously identified significant impacts. An addendum need not be circulated for public review (CEQA Guidelines § 15164 [c]); however, an addendum is to be considered along with the final EIR by the decision making body prior to making a decision on the project (CEQA Guidelines § 15164 [d]).

Downtown Roseville Specific Plan EIR Addendum: The Addendum to the Downtown Roseville Specific Plan final EIR (Addendum) is attached. The Addendum compares impacts disclosed in the prior EIR with impacts that would result from the proposed project change: the substitution of a roundabout for the previously approved signalized intersection at

Oak/Washington. All environmental issue areas examined in the prior EIR are reviewed in the Addendum with particular emphasis on transportation and circulation, parking, cultural resources, biological resources, air quality and noise.

As discussed in the Addendum, from a traffic operations standpoint, with the implementation of the proposed project change, impacts would remain less than significant consistent with the prior EIR. In fact, according to the traffic analysis conducted by Fehr & Peers (October 2012) in support the Addendum (included as Addendum Attachment A), projected year 2020 Level of Service (LOS) for the Oak/Washington signal alternative would be LOS E while the roundabout would be LOS C (see Addendum Attachment A, Table 1). Although there will be minor modifications to vehicle delay at other nearby intersections, the Fehr and Peers study determined that the entire intersection network in the area will function more efficiently with a roundabout at Oak/Washington when compared to a signal. Therefore, the project change would not result in any new or substantially greater traffic impacts.

In terms of parking, the prior EIR found that Specific Plan implementation would result in demand for parking in excess of supply in the Plan area by a maximum of 580 spaces. However, Specific Plan policies call for development of additional parking to meet projected future demands. Furthermore, prior EIR mitigation measure 4.6-5 requires an additional 580 parking spaces by providing extra spaces within the three planned parking structures, providing additional public parking spaces (as part of developing and implementing the Parking Management Plan), and/or requiring development to provide additional parking (e.g. in-lieu fees). The prior EIR found that potential parking impacts could be mitigated to less than significant with implementation of mitigation measure 4.6-5.

The proposed project change would result in the loss of fourteen (14) parking spaces in the Oak Street Lot (located between Dry Creek and Oak Street and shown in Figure 3). Eleven (11) spaces would be removed to accommodate the proposed roundabout and three (3) additional spaces would be removed in order to provide temporary access to the existing fire station after the roundabout is constructed. The loss of 14 parking spaces would not represent a substantial increase to the 580 space parking deficiency identified in the prior EIR. In fact, the 14 spaces lost as a result of roundabout construction are included in the 580 parking space deficit cited in the prior EIR. This is because under the Specific Plan the Oak Street Parking Lot is assumed to build out with a mix of retail, restaurants, office, residential, and public uses which would displace and reallocate (both on and off site) existing parking. Therefore no new parking impacts would result from roundabout construction and the project would not change the prior EIR's impact determination which would remain less than significant with the proposed project change.

According to the balance of Addendum analysis, implementation of a roundabout at the Oak/Washington intersection would not result in any new significant environmental effects or a substantial increase in the severity of previously identified significant effects compared to that described in the prior EIR. Consequently, no subsequent EIR is required as described in the findings section of the Addendum. All pertinent mitigation measures from the prior EIR will be implemented and no new mitigation measures are necessary. As such staff has concluded that the Addendum adequately evaluates the project change consistent with the State CEQA Guidelines. Procedurally, no formal Council action on the Addendum is required other than consideration of the document prior to taking action on the proposed plans and specifications.

Respectfully submitted,

Hossein Naghibzadeh
Associate Engineer

Mark Morse
Environmental Coordinator

Kevin Payne
Revitalization Manager

Rhon Herndon
Public Works Director

APPROVED:

Ray Kerridge
City Manager

Attachments:

Addendum to the Downtown Roseville Specific Plan Final EIR
Copy of GIM dated July 20, 2012
Oak/Washington Roundabout Plans and Specifications (available in City Clerk's office)
Budget Adjustment Ordinance