

SACRAMENTO 2030 GENERAL PLAN

MASTER ENVIRONMENTAL IMPACT REPORT
SCH NO. 2007072024



Certified March 3, 2009





INTRODUCTION TO THE FINAL MASTER EIR FOR THE 2030 GENERAL PLAN

The City of Sacramento adopted the 2030 General Plan on March 3, 2009. In compliance with the California Environmental Quality Act (CEQA), the City Council certified the Master Environmental Impact Report for the 2030 General Plan immediately prior to approving the General Plan.

The CEQA Guidelines identify the required contents of a Final EIR generally as follows:

- Draft EIR;
- Comments received regarding the Draft EIR;
- List of persons, organizations and agencies commenting on the Draft EIR;
- The Lead Agency's response to significant environmental points raised in the review process; and
- Any other information added by the Lead Agency. (See CEQA Guidelines Section 15132)

The City has consolidated this information into one document, identified here as the "Final Master Environmental Impact Report for the 2030 General Plan." This document includes the following:

- Draft MEIR, as modified by the Final MEIR;
- Final MEIR, which includes the comments received, responses to comments, changes to the Draft MEIR and information added to the Draft MEIR by the City as Lead Agency;
- City Council Resolution No. 2009-130 Certifying the MEIR and adopting the Mitigation Monitoring Program for the Sacramento 2030 General Plan (LR08-022);
- CEQA Findings of Fact and Statement of Overriding Considerations for the Sacramento 2030 General Plan MEIR;
- Mitigation Monitoring Program (MMP) for the Sacramento 2030 General Plan MEIR, and Attachment 1 – Policies and Implementation Measures that Mitigate Climate Change;
- Errata No. 1 and Errata No. 2; and
- Climate Change Supplement.

Climate change and concern regarding greenhouse gas emissions emerged as key CEQA issues during the course of the preparation of the Master EIR. The Climate Change Supplement includes discussions from the original Draft MEIR, Final MEIR including the Climate Change Master Response and comment letters from the California State Attorney General (Letter #2) and the Sacramento Metropolitan Air Quality Management District (Letter #6), and the City's responses, and the Errata No. 2 excerpt that addresses climate change. These materials are included here, in addition to their inclusion in the primary document, as a convenience to readers interested in the various technical aspects of the climate change issue.

Note: Errata No. 1 and Errata No. 2 supersede edits or text changes made in the Final MEIR.





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 - b) Letter from State Attorney General's Office, dated August 29, 2008
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TAB PLACEHOLDER



Draft MEIR



Sacramento 2030 General Plan
Master Environmental Impact Report
City Project #M04-031

SCH No. 2007072024

Prepared for:

City of Sacramento

Prepared by:



Certified March 3, 2009

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1.0 Introduction



This Draft Master Environmental Impact Report (Draft MEIR) examines the potential effects of the proposed Sacramento 2030 General Plan for the City of Sacramento (proposed project). The term “proposed project,” as used in this Draft MEIR, refers to the Sacramento 2030 General Plan (City Project #M04-031) (SCH #2007072024). The proposed project is described in detail in Chapter 3.0, Project Description. The project background and the legal basis for preparing a MEIR are described below.

PROJECT BACKGROUND

In August 2004 the City of Sacramento (City) initiated a comprehensive update of its General Plan. Sacramento’s existing General Plan was adopted in 1988. Various elements of the General Plan have been updated and amended in the intervening years, but the plan has not been comprehensively revised since that time. Much of the data, analyses, and policies in the existing plan were developed in the early-mid 1980s, and do not reflect current conditions in or values of the city’s population or leadership. A new General Plan is necessary to reflect the current vision of quality of life, priorities for resource protection, and manner of future growth within the City of Sacramento over the next 20 years.

A Technical Background Report (TBR) prepared in June 2005 was the first major technical product of the general plan process. The purpose of the TBR was to provide a profile and analysis of existing conditions in and around the city. Existing physical, social and economic conditions were described for the baseline date of December 2004. The TBR serves as the foundation for the development of subsequent goals, policies and programs, and also as the basis for preparing the “Existing Setting” section for each environmental issue area addressed in this Draft MEIR. The TBR is available electronically on the City’s website (www.sacgp.org/documents.html#tbr) and on CD at the back of this document.

ENVIRONMENTAL SETTING/DEFINITION OF THE BASELINE AND EIR ASSUMPTIONS

According to section 15125 of the CEQA Guidelines, an EIR must include a description of the existing physical environmental conditions in the vicinity of the project to provide the “baseline condition” against which project-related impacts are compared. Normally the baseline condition is the physical condition that exists when the Notice of Preparation (NOP) is published.¹ The NOP for the General Plan EIR was published in July 2007. However, the CEQA Guidelines recognize that the date for establishing an environmental baseline cannot be rigid. Because physical environmental conditions may vary over a range of time periods, the use of

1 State CEQA Guidelines, section 15125 (a).

environmental baselines that differ from the date of the NOP is reasonable and appropriate when doing so results in a more accurate or conservative environmental analysis.

For analytical purposes, impacts associated with implementation of the 2030 General Plan are derived from the existing environmental setting in the June 2005 TBR prepared for the 2030 General Plan. Although the TBR was published in 2005, existing conditions are described for the baseline date of December 2004. This baseline year (2004) is used for all impact areas analyzed in this Draft MEIR to determine impacts. Where it was feasible to present more current information, the more current information is also provided and analyzed in each technical section of the Draft MEIR.

The level of development evaluated in this Draft MEIR is based on reasonable assumptions for development activity anticipated to occur over the next 25 years within the proposed project boundaries, which includes the existing city boundaries plus a few small adjacent areas to the north and west (Policy Area). To determine what would be reasonable assumptions for the amount of new residential, commercial, and population growth the City assumed a range of factors, including the physical capacity of the General Plan Preferred Land Use Diagram, the projected growth assumed in the Blueprint, the specific policy direction in the plan, and socioeconomic trends. The results of this analysis include forecasts of the number of new residences, amount of new employment, and increase in population anticipated to occur under the 2030 General Plan. The City also factored in assumptions for development of identified “pipeline” projects. The pipeline projects are projects for which the City has either already received a development application (i.e., Panhandle, Greenbriar, Delta Shores, Railyards, Curtis Park Village) or those in which the City has been actively involved in development planning (i.e., Docks, Camino Norte, R Street, 65th Street, Florin and Meadowview LRT). A more detailed discussion of the development assumptions is included in Chapter 5.0, Population, Employment and Housing.

This Draft MEIR presents a conservative scenario based upon the potential development within the city and adjacent areas from 2008 through 2030. As a practical matter, as illustrated under the current General Plan, actual development in any city or county is typically less than the theoretical limit of development. This is a result of market forces, as well as building and zoning restrictions when applied to specific sites which often dictate the construction of less than the maximum allowable development.

PURPOSE OF THE MASTER ENVIRONMENTAL IMPACT REPORT

This Draft MEIR has been prepared in conformance with the California Environmental Quality Act (CEQA) of 1970 (as amended) to evaluate the environmental effects of implementation of the Sacramento 2030 General Plan.

CEQA requires that a local agency prepare an EIR on any project it proposes to approve that may have a significant effect on the environment. The purpose of an EIR is not to recommend approval or denial of a project, but to provide decision-makers, public agencies, and the general public with objective information regarding the range of the potential environmental effects that could result from a proposed action. The EIR process is specifically designed to objectively evaluate and disclose potentially significant direct, indirect, and cumulative impacts of a proposed project; to identify alternatives that could reduce or eliminate a project's significant effects while continuing to achieve the major objectives of the project; and to identify potentially feasible measures that reduce or avoid the significant effects of a project. In addition, CEQA requires that an EIR identify those adverse impacts that remain significant after mitigation.

According to section 15175(a) of the CEQA Guidelines,

The Master EIR procedure is an alternative to preparing a project EIR, staged EIR, or program EIR for certain projects which will form the basis for later decision making. It is intended to streamline the later environmental review of projects or approval included within the project, plan or program analyzed in the Master EIR. Accordingly, a Master EIR shall, to the greatest extent feasible, evaluate the cumulative impacts, growth inducing impacts, and irreversible significant effects on the environment of subsequent projects.

Projects that are consistent with new general plan and have been fully accounted for in the analysis contained in the Draft MEIR will not, in most cases, require extensive additional environmental review before they can be approved. In many cases an Initial Study can be prepared for such projects to document their consistency with the general plan and MEIR, after which a finding of conformance can be made. Other projects that are within the scope of the MEIR, but whose effects were not analyzed in the MEIR would be addressed in a subsequent CEQA document.

The MEIR may be used for a period of 5 years or as long as the City is able to make findings that “no substantial changes have occurred with respect to the circumstances under which the Master EIR was certified, or that there is no new available information which was not known and could not have been known at the time the Master EIR was certified.”² The City may also, at its discretion, choose to supplement or amend this MEIR to maintain its adequacy under CEQA for a period extending beyond the original five year period.

MASTER EIR PROCESS

In accordance with CEQA regulations, a NOP was released July 6, 2007 for agency and public review (and is contained in full in Appendix A). The NOP comment period closed on August 7, 2007. The NOP was distributed to responsible agencies and interested parties. The purpose of the NOP was to provide notification that an MEIR for the project was being prepared and to solicit guidance on the scope and content of the document. Comment letters received on the

2 Ibid., section 15179 (b)(1).

NOP are included in Appendix B. A public scoping meeting was held on July 19, 2007. Responsible agencies and members of the public were invited to attend and provide input on the scope of the MEIR.

This Draft MEIR is being circulated for public review and comment for a period of 45 days. During this period, the general public, organizations, and agencies can submit comments to the lead agency on the Draft MEIR's accuracy and completeness.

Upon completion of the public review period, a Final MEIR will be prepared that will include all written comments on the Draft MEIR received by the City during the public review period and the City's responses to those comments. The Final MEIR will present any revisions to the Draft MEIR made in response to public comments. The Draft MEIR and Final MEIR together will comprise the MEIR for the proposed project.

Before the City can consider approval of the proposed 2030 General Plan, it must first certify that the MEIR has been completed in compliance with CEQA, that the City Council (decision-making body) has reviewed and considered the information in the MEIR, and that the MEIR reflects the independent judgment of the City. The City Council also would be required to adopt Findings of Fact for any impacts determined to be significant and unavoidable as well as a Statement of Overriding Considerations.

LEAD, RESPONSIBLE AND TRUSTEE AGENCIES

Lead Agency

The City of Sacramento is the lead agency for preparation of the Sacramento 2030 General Plan environmental analysis. In conformance with sections 15050 and 15367 of the State CEQA Guidelines, the City of Sacramento is the "lead agency," defined as the "public agency which has the principal responsibility for carrying out or disapproving a project." The City, as lead agency, is responsible for scoping the analysis, preparing the MEIR and responding to comments received on the Draft MEIR.

Responsible Agencies

Responsible agencies are state and local public agencies other than the lead agency that have authority to carry out or approve a project or that are required to approve a portion of the project for which a lead agency is preparing or has prepared an EIR or Initial Study/Negative Declaration. Because the proposed project is a general plan, there are no agencies other than the City of Sacramento that have approval or permitting authority for the plan's adoption. Implementation of the 2030 General Plan would involve many additional responsible agencies depending upon the specifics of the nature of subsequent projects. The following are some of the agencies that could be required to act as responsible agencies for subsequent projects:

- Caltrans including the Division of Aeronautics
- California Air Resources Board
- State Department of Housing and Community Development
- State Office of Historic Preservation
- State Reclamation Board
- Sacramento Air Quality Management District
- Sacramento Local Agency Formation Commission (LAFCo)
- State Department of Fish and Game
- State Lands Commission
- State Department of Parks and Recreation
- State Water Resources Control Board
- Central Valley Regional Water Quality Control Board

Trustee Agencies

Trustee agencies under CEQA are public agencies with legal jurisdiction over natural resources that are held in trust for the people of California and that would be affected by a project, whether or not the agencies have authority to approve or implement the project. It is anticipated that development under the 2030 General Plan would not directly affect any lands under the jurisdiction of a Trustee Agency; however, the Trustee Agencies with jurisdiction that could be affected by subsequent projects consistent with the 2030 General Plan include the California Department of Fish and Game, the California State Lands Commission, and the California State Department of Parks and Recreation.

REQUIRED PERMITS AND APPROVALS

Project approval requires the following actions by the City Council:

- Certification of this Master EIR
- Adoption of a Mitigation Monitoring Plan

The MEIR will be used to support subsequent actions, including:

- Rezones
- Subdivision maps
- Community Plans
- Specific Plans

- Special Planning Districts
- Special Permits
- Design Review Actions
- Zoning Administrator Actions
- Preservation Actions
- Planning Actions
- Infrastructure and Public Facilities siting and project approvals
- Other related actions

PUBLIC REVIEW OF DRAFT MEIR AND LEAD AGENCY CONTACT

Upon publication of this Draft MEIR, the City will provide public notice of the document's availability for public review and invite comment from the general public, agencies, organizations, and other interested parties. Copies of the Draft MEIR will be available on the City's website at www.sacgp.org and at the following locations:

City of Sacramento Development Services Department
300 Richards Boulevard, Third Floor
Sacramento, CA 95811
(Open to the public from 7:30 am to 3:30 pm and until 5:00 pm with prior arrangement)

City of Sacramento Planning Department
New City Hall
915 I Street, 3rd Floor
Sacramento, CA 95814

Sacramento Public Library
828 I Street
Sacramento, CA 95814

Need assistance with documents or information accessibility? Call City Operator (916) 264-5011 or TTY (916) 808-8563, open 24 hours a day, 7 days a week, 365 days of the year.

The public review and comment period is 45 days from July 9, 2008 through August 22, 2008. All written public comments on the Draft MEIR must be received no later than 5:00 p.m. on Friday, August 22, 2008. All written comments or questions regarding the Draft MEIR should be addressed to:

Tom Buford, Senior Planner
City of Sacramento, Development Services Department
300 Richards Boulevard, Third Floor
Sacramento, CA 95811
tbuford@cityofsacramento.org
(916) 808-7931

Following the public review period, a Final MEIR will be prepared. The Final MEIR will respond to written comments received during the public review period. The City will review and consider the Final MEIR prior to their decision to approve, revise or reject the proposed project.

SCOPE OF THIS DRAFT MEIR

As lead agency, the City determined that this Draft MEIR will address the following technical issue areas:

- Air Quality
- Agricultural Resources
- Biological Resources
- Cultural Resources
- Geology, Soils, and Mineral Resources
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Noise and Vibration
- Parks and Open Space
- Public Services, including Police, Fire, Schools, Libraries, and Emergency Services
- Public Utilities, including Water Supply, Wastewater, Storm Drainage, Solid Waste, Energy, Electricity and Natural Gas, Telecommunications
- Transportation and Circulation
- Urban Design and Visual Resources

The specific topics evaluated are described in each of the technical sections presented in Chapter 6.0. Land Use Consistency and Compatibility and Population, Employment, and Housing are not considered technical issues and are addressed in Chapters 4.0 and 5.0, respectively. Chapter 8.0, Climate Change, addresses greenhouse gas and world wide climate change.

HOW TO USE THIS REPORT

This report includes 12 principal parts: Summary of Environmental Effects; Project Description; Land Use Consistency and Compatibility; Population, Employment, and Housing; Environmental Analysis (Setting, Impacts, and Mitigation Measures); Other CEQA Required Considerations; Climate Change; Alternatives; Acronyms and Abbreviations; References; Report Preparation; and Appendices.

The **Summary of Environmental Effects** (Chapter 2) presents an overview of the results and conclusions of the environmental evaluation. This section identifies impacts of the proposed project and available mitigation measures.

The **Project Description** (Chapter 3) describes the location of the project, existing conditions on the project site, and the nature and location of specific elements of the proposed project, as well as requested project entitlements and/or approvals.

Land Use Consistency and Compatibility (Chapter 4) addresses the land use and planning implications of the project and discusses consistency and compatibility with adopted land use policies.

Population, Employment, and Housing (Chapter 5) identifies, estimates, and evaluates population and housing changes that would be caused by development of the proposed project that have the potential to cause physical environmental effects.

The **Environmental Analysis** (Chapter 6) includes a topic-by-topic analysis of impacts that would or could result from implementation of the proposed project or alternatives. The analysis is organized in 13 topical sections. Each section is organized into two major subsections: Environmental Setting and Regulatory Setting (existing conditions), and Impacts and Mitigation Measures, including cumulative impacts and mitigation measures.

Other CEQA Required Considerations (Chapter 7) discusses issues required by CEQA: unavoidable adverse impacts, irreversible environmental changes, growth inducement, and a summary of cumulative impacts.

Climate Change (Chapter 8) discusses sources and emissions of greenhouse gases, how they affect climate change, and what effect climate change may have on the Policy Area. This chapter also discusses how proposed General Plan policies address climate change.

Alternatives (Chapter 9) includes a description of the project alternatives. An MEIR is required by CEQA to provide adequate information for decision makers to make a reasonable choice between alternatives based on the environmental aspects of the proposed project and alternatives. The impacts of the alternatives are qualitatively compared to those of the proposed project. This chapter also identifies the environmentally superior alternative.

The **Acronyms** (Chapter 10) used through the Draft MEIR are included in this chapter.

The **References** (Chapter 11) used throughout the Draft MEIR are included in this chapter.

Report Preparation (Chapter 12) includes a list of preparers of the Draft MEIR.

The **Appendices** contain a number of reference items providing support and documentation of the analyses performed for this report and are included on CD in the back cover of this document.

2.0 Summary of Environmental Effects



SUMMARY OF ENVIRONMENTAL EFFECTS

PROJECT UNDER REVIEW

The Sacramento 2030 General Plan (proposed project) focuses on how the anticipated population and employment growth projected for the city can be strategically accommodated to both preserve the distinguishing and valued qualities of the community as well as to revitalize those areas that are underutilized. For most of the city, the Sacramento 2030 General Plan conserves the existing pattern of uses and establishes policies for protection and long-term maintenance of established neighborhoods and enhancement of other areas.

The Sacramento 2030 General Plan establishes several land use designations that include residential, commercial, retail, industrial, and recreation uses. The proposed project establishes policies to accommodate an additional 97,000 dwelling units, 136,000 jobs, and 195,000 residents to the city by the year 2030.

For the purposes of the environmental analysis the boundaries of the planning area or Policy Area include the existing city boundaries with some minor exceptions, as shown on Figure 3-1 in Chapter 3.0, Project Description.

SUMMARY OF IMPACTS

Effects Found to be Less Than Significant

As shown in Table 2-1, a number of project impacts identified in the Draft MEIR were found to be less than significant, requiring no mitigation. These impacts are found in the following sections: Air Quality, Agricultural Resources, Biological Resources, Geology, Soils, and Mineral Resources, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise and Vibration, Parks and Open Space, Public Services, Public Utilities, Transportation and Circulation, and Urban Design and Visual Resources. In the course of drafting the Draft MEIR for this project, it was determined that numerous other identified impacts could be reduced to a less-than-significant level with implementation of the proposed mitigation measures described in the Draft MEIR discussion.

Environmental Impacts and Mitigation

Under CEQA, a significant effect on the environment is defined as a substantial or potentially substantial adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance (CEQA Guidelines, section 15382). Implementation of the proposed project would result in significant impacts to some of these resources, which are fully analyzed

in sections 6.1 through 6.13 of this document and summarized in Table 2-1 (provided at the end of this Chapter).

This Draft MEIR discusses mitigation measures that could be implemented by the City to reduce potential adverse impacts to a level that is considered less than significant. Such mitigation measures are noted in this document and are found in the following sections: Air Quality, Biological Resources, Cultural Resources, Hydrology and Water Quality, Noise and Vibration, Public Utilities, Transportation and Circulation, and Urban Design and Visual Resources. However, even with the application of feasible mitigation measures, some impacts could not be reduced to less-than-significant levels. The significant and unavoidable impacts that were identified for both project-level and cumulative impacts are shown below.

Project-Specific Significant and Unavoidable Impacts

- 6.1-2 Implementation of the proposed 2030 General Plan could result in construction activities that would increase NO_x levels above 85 pounds per day.
- 6.1-3 Implementation of the proposed 2030 General Plan would result in operational emissions that would increase either of the ozone precursors, NO_x or reactive organic gases (ROG), above 65 pounds per day.
- 6.1-4 Implementation of the proposed 2030 General Plan would result in PM₁₀ concentrations due to the emission of particulate matter associated with construction activities at a level equal to or greater than five percent of the state ambient air quality standard (i.e., 50 micrograms/cubic meter for 24 hours).
- 6.3-2 Implementation of the proposed 2030 General Plan could adversely affect special-status plant species due to the substantial degradation of the quality of the environment or reduction of population or habitat below self-sustaining levels.
- 6.3-3 Implementation of the proposed 2030 General Plan could result in substantial degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of special-status invertebrates.
- 6.3-4 Implementation of the proposed 2030 General Plan could result in substantial degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of special-status birds, through the loss of both nesting and foraging habitat.
- 6.3-5 Implementation of the proposed 2030 General Plan could result in substantial degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of special-status amphibians and reptiles.

- 6.3-6 Implementation of the proposed 2030 General Plan could result in substantial degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of special-status mammals.
- 6.3-7 Implementation of the proposed 2030 General Plan could result in substantial degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of special-status fish.
- 6.3-8 Implementation of the proposed 2030 General Plan could result in the loss or modification of riparian habitat, resulting in a substantial adverse effect.
- 6.3-9 Implementation of the proposed 2030 General Plan could result in a substantial adverse effect on state or federally protected wetlands and/or waters of the United States through direct removal, filling, or hydrological interruption.
- 6.3-10 Implementation of the 2030 General Plan could result in the loss of CDFG defined sensitive natural communities such as elderberry savanna, northern claypan vernal pool and northern hardpan vernal pool resulting in a substantial adverse effect.
- 6.4-1 Implementation of the 2030 General Plan could cause a substantial change in the significance of historical resources as defined in CEQA Guidelines section 15064.5.
- 6.4-2 Implementation of the 2030 General Plan could cause a substantial change in the significance of an archaeological resource as defined in CEQA Guidelines section 15064.5.
- 6.8-1 Implementation of the 2030 General Plan could result in exterior noise levels in the Policy Area that are above the upper value of the normally acceptable category for various land uses (per Table EC-1) due to an increase in noise levels.
- 6.8-2 Implementation of the 2030 General Plan would result in residential interior noise levels of L_{dn} 45 dB or greater caused by an increase in noise levels.
- 6.8-4 Implementation of the 2030 General Plan could permit existing and/or planned residential and commercial areas to be exposed to vibration-peak-particle velocities greater than 0.5 inches per second due to project construction.
- 6.11-2 Implementation of the proposed 2030 General Plan would result in an increase in demand for potable water in excess of the City's existing diversion and treatment capacity, and could require the construction of new water supply facilities.
- 6.11-4 Implementation of the proposed 2030 General Plan would require the need for expansion of wastewater treatment facilities, which could cause significant environmental effects.

- 6.12-1 Implementation of the proposed 2030 General Plan could result in roadway segments located within the Policy Area that do not meet the City's current LOS C standard or the proposed LOS D-E goal.
- 6.12-2 Implementation of the proposed 2030 General Plan could result in roadway segments located in adjacent jurisdictions that do not meet the jurisdiction's minimum acceptable level of service threshold.
- 6.12-3 Implementation of the proposed 2030 General Plan could result in freeway segments that do not meet the jurisdiction's minimum acceptable level of service threshold.

Cumulative Significant and Unavoidable Impacts

- 6.1-7 Implementation of the proposed 2030 General Plan, in conjunction with other construction activities in the SVAB, would increase cumulative construction-generated NO_x levels above 85 pounds per day.
- 6.1-8 Implementation of the proposed 2030 General Plan, in conjunction with other development in the SVAB, would increase cumulative operational levels of either ozone precursors, NO_x or reactive organic gases (ROG), above 65 pounds per day.
- 6.1-9 Implementation of the proposed 2030 General Plan, in conjunction with other development in the SVAB, would emit particulate pollutants associated with construction activities at a cumulative level equal to, or greater than, five percent of the CAAQS (50 micrograms/cubic meter for 24 hours).
- 6.4-3 Implementation of the 2030 General Plan, in conjunction with other development within the county, could cause a substantial change in the significance of a historical resource as defined in CEQA Guidelines section 15064.5.
- 6.4-4 Implementation of the 2030 General Plan, in conjunction with other development within the Central Valley, could cause a substantial change in the significance of an archaeological resource as defined in CEQA Guidelines section 15064.5.
- 6.8-7 Implementation of the 2030 General Plan along with other development in the region could result in an increase in interior and exterior noise levels in the Policy Area that are above acceptable levels.
- 6.8-9 Implementation of the 2030 General Plan could result in cumulative construction vibration levels that exceed the vibration-peak-particle velocities greater than 0.5 inches per second.
- 6.11-5 Implementation of the proposed 2030 General Plan, in combination with future development in the SRCSD Service Area, would require expansion of wastewater

conveyance and treatment capacity to serve the project's sewer needs in addition to existing commitments.

6.12-8 Implementation of the proposed 2030 General Plan could result in a cumulative increase in traffic that would adversely impact the existing LOS for city roadways.

6.12-9 Implementation of the proposed 2030 General Plan could result in a cumulative increase in traffic on roadway segments located in adjacent jurisdictions that do not meet the jurisdiction's minimum acceptable level of service threshold.

6.12-10 Implementation of the proposed 2030 General Plan could result in a cumulative increase in traffic that could exceed the LOS along some freeway segments.

ALTERNATIVES TO THE PROPOSED PROJECT

The Draft MEIR analyzes the following alternatives to the proposed project:

- **Alternative 1:** No Project/1988 General Plan – Under this alternative, development for the proposed Sacramento 2030 General Plan would not occur. Development would be guided by continued implementation of the existing 1988 General Plan.
- **Alternative 2:** SACOG Blueprint Preferred Scenario – This alternative would follow the principles of the SACOG Blueprint Preferred Scenario and implement the recommended land uses and land use densities within and immediately north and east of the city limits.
- **Alternative 3:** Reduced Footprint – Under this alternative, the Policy Area would be limited to that of the existing General Plan boundaries, with the development intensity being equal to that of the proposed Sacramento 2030 General Plan.

POTENTIAL AREAS OF CONCERN

Responses to the NOP were received from July 6, 2007 through August 7, 2007. A copy of the NOP and responses to the NOP are included in Appendix A and Appendix B, respectively, of this Draft MEIR in accordance with CEQA. The NOP responses are summarized below.

- Concerns were raised regarding increased development pressures on the city's historic landmarks and neighborhoods. There was concern expressed that designating the Central City as "high density traditional" could significantly change the character and integrity of historic buildings and districts. There were also mitigation measures suggested to reduce the impact of new development and redevelopment on historic resources.
- There were a number of comments received related to the preservation of historic resources throughout the city. Some comments suggest the mapping of all potentially significant historic resources as well as identifying and mitigating for any potentially significant impacts to historic resources.

- Concerns about the General Plan’s potential impact on fish and wildlife and their habitat, special status species, wetlands and riparian habitat, and vegetative resources were raised. Questions were raised about whether implementation of the 2030 General Plan would result in impacts subject to regulation by the California Department of Fish and Game.
- One comment suggested that the 2030 General Plan may be an encroachment on the State Adopted Plan of Flood Control.
- There were a number of comments received regarding traffic concerns including the recommendation to prepare a Traffic Impact Study (TIS), a listing of Caltrans significance thresholds, and a listing of potential mitigation measures. The comments also suggested that the 2030 General Plan consider the existing use of alternate modes of transportation and incorporate measures to encourage more multi-modal transportation use. It was encouraged that the City and Caltrans meet to discuss future highway improvements and ensure that planning and management strategies are coordinated.
- One comment suggested that the City of Sacramento follow the land use recommendations in the SACOG Blueprint Preferred Scenario.
- A comment recommended having a variety of housing types available in the Central City to meet the needs of different types of households.
- One comment suggested that in light of potential changes to the allowable level of service (LOS) in the Central City, an equal level of importance should be considered for bicycle and pedestrian travel and safety.
- One comment letter identified potential impacts to sewer facilities, requesting that the cumulative impacts of development on both County Sanitation District 1 (CSD-1) and Sacramento Regional County Sanitation District (SRCSD) be quantified and any future facility needs be identified.
- One comment letter suggested that sensitive receptors not be located near toxic emissions sources such as high volume roadways. The letter also suggested that a global climate change discussion and feasible mitigation measures be included in the EIR. The letter also encouraged implementation of the proposed project to occur in such a manner as to ensure that the resulting transportation outcomes achieve the improvements associated with the SACOG Blueprint Preferred Scenario. The letter stated that transportation outcomes supported by the General Plan are directly related to mobile emissions which are critical to achieving federal and state ambient air quality standards.

SUMMARY TABLE

Table 2-1 (Summary of Impacts and Mitigation Measures), has been organized to correspond with the environmental issues discussed in Chapter 6.0. The summary table is arranged in four columns:

1. Environmental impacts (“Impact”).
2. Level of significance prior to mitigation (“Significance”).
3. Mitigation measures (“Mitigation Measure”).
4. The level of significance after implementation of mitigation measures (“Residual Significance”).

If an impact is determined to be significant or potentially significant after implementation of proposed policies in the 2030 General Plan, mitigation measures are identified, where appropriate and feasible. More than one mitigation measure may be required to reduce the impact to a less-than-significant level. This Draft MEIR assumes that all applicable plans, policies, and regulations would be implemented, including, but not necessarily limited to, proposed City General Plan policies, laws, and requirements or recommendations of the City of Sacramento. Applicable plans, policies, and regulations are identified and described in the Regulatory Setting of each issue area and within the relevant impact analysis. A description of the organization of the environmental analysis, as well as key foundational assumptions regarding the approach to the analysis, is provided in Chapter 6.0, Introduction to the Analysis.

TABLE 2-1

SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
6.1 Air Quality and Climate Change			
Project-Specific Impacts			
6.1-1 Implementation of the proposed 2030 General Plan could conflict with or obstruct implementation of Sacramento area air quality plans.	LS	None required.	NA
6.1-2 Implementation of the proposed 2030 General Plan could result in construction activities that would increase NO _x levels above 85 pounds per day.	S	None available.	SU
6.1-3 Implementation of the proposed 2030 General Plan would result in operational emissions that would increase either of the ozone precursors, NO _x or reactive organic gases (ROG), above 65 pounds per day.	S	None available.	SU
6.1-4 Implementation of the proposed 2030 General Plan would result in PM ₁₀ concentrations due to the emission of particulate matter associated with construction activities at a level equal to or greater than five percent of the state ambient air quality standard (i.e., 50 micrograms/cubic meter for 24 hours).	S	None available.	SU
6.1-5 Implementation of the proposed 2030 General Plan could result in CO concentrations that exceed the 1-hour state ambient air quality standard of 20.0 parts per million (ppm) or the 8-hour state ambient standard of 9.0 ppm.	LS	None required.	NA

LS = Less than Significant

S = Significant

PS = Potentially Significant

SU = Significant and Unavoidable

NA = Not Applicable

TABLE 2-1

SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
6.1-6 Implementation of the proposed 2030 General Plan would result in TAC emissions that could adversely affect sensitive receptors.	LS	None required.	LS
Cumulative Impacts			
6.1-7 Implementation of the proposed 2030 General Plan, in conjunction with other construction activities in the SVAB, would increase cumulative construction-generated NO _x levels above 85 pounds per day.	S	None available.	SU
6.1-8 Implementation of the proposed 2030 General Plan, in conjunction with other development in the SVAB, would increase cumulative operational levels of either ozone precursors, NO _x or reactive organic gases (ROG), above 65 pounds per day.	S	None available.	SU
6.1-9 Implementation of the proposed 2030 General Plan, in conjunction with other development in the SVAB, would emit particulate pollutants associated with construction activities at a cumulative level equal to, or greater than, five percent of the CAAQS (50 micrograms/cubic meter for 24 hours).	S	None available.	SU

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TABLE 2-1			
SUMMARY OF IMPACTS AND MITIGATION MEASURES			
Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
6.1-10 Implementation of the proposed 2030 General Plan, in conjunction with other development in the SVAB, could result in CO cumulative concentrations that exceed the 1-hour State ambient air quality standard of 20.0 ppm or the 8-hour State ambient standard of 9.0 ppm.	LS	None required.	NA
6.1-11 Implementation of the proposed 2030 General Plan, in conjunction with other development in the SVAB, would generate TAC emissions that could adversely affect sensitive receptors.	LS	None required.	LS
6.2 Agricultural Resources			
Project-Specific Impacts			
6.2-1 Implementation of the 2030 General Plan could affect agricultural resources or operations in the Policy Area.	LS	None required.	NA
6.2-2 Implementation of the 2030 General Plan could result in land uses that are incompatible with adjacent agricultural operations.	LS	None required.	NA
6.2-3 Implementation of the 2030 General Plan could conflict with existing zoning for agricultural use or with a Williamson Act contract.	LS	None required.	NA
Cumulative Impacts			
6.2-4 Implementation of the 2030 General Plan in conjunction with proposed future development in Sacramento County could affect agricultural resources or operations.	LS	None required.	NA

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TABLE 2-1			
SUMMARY OF IMPACTS AND MITIGATION MEASURES			
Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
6.2-5 The proposed project in conjunction with proposed future development in Sacramento County could conflict with existing zoning for agricultural use or with a Williamson Act contract.	LS	None required.	NA
6.3 Biological Resources			
Project-Specific Impacts			
6.3-1 Implementation of the proposed 2030 General Plan could create a potential health hazard, or involve the use, production or disposal of materials that pose a potential hazard to plant or animal populations in the affected area.	LS	None required.	NA
6.3-2 Implementation of the proposed 2030 General Plan could adversely affect special-status plant species due to the substantial degradation of the quality of the environment or reduction of population or habitat below self-sustaining levels.	PS	None available.	SU
6.3-3 Implementation of the proposed 2030 General Plan could result in substantial degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of special-status invertebrates.	PS	None available.	SU

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TABLE 2-1			
SUMMARY OF IMPACTS AND MITIGATION MEASURES			
Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
6.3-4 Implementation of the proposed 2030 General Plan could result in substantial degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of special-status birds, through the loss of both nesting and foraging habitat.	PS	None available.	SU
6.3-5 Implementation of the proposed 2030 General Plan could result in substantial degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of special-status amphibians and reptiles.	PS	None available.	SU
6.3-6 Implementation of the proposed 2030 General Plan could result in substantial degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of special-status mammals.	PS	None available.	SU
6.3-7 Implementation of the proposed 2030 General Plan could result in substantial degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of special-status fish.	PS	None available.	SU

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TABLE 2-1			
SUMMARY OF IMPACTS AND MITIGATION MEASURES			
Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
6.3-8 Implementation of the proposed 2030 General Plan could result in the loss or modification of riparian habitat, resulting in a substantial adverse effect.	PS	None available.	SU
6.3-9 Implementation of the proposed 2030 General Plan could result in a substantial adverse effect on state or federally protected wetlands and/or waters of the United States through direct removal, filling, or hydrological interruption.	PS	None available.	SU
6.3-10 Implementation of the 2030 General Plan could result in the loss of CDFG defined sensitive natural communities such as elderberry savanna, northern claypan vernal pool and northern hardpan vernal pool resulting in a substantial adverse effect.	PS	None available.	SU
6.3-11 Implementation of the 2030 General Plan could violate the City's Heritage Tree Ordinance.	LS	None required.	NA
Cumulative Impacts			
6.3-12 Implementation of the City's 2030 General Plan combined with buildout assumed in the greater Sacramento Valley could result in a regional potential health hazard, or involve the use, production or disposal of materials that pose a hazard to plant or animal populations in the affected area.	LS	None required.	NA

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TABLE 2-1			
SUMMARY OF IMPACTS AND MITIGATION MEASURES			
Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
6.3-13 Implementation of the City's 2030 General Plan and regional buildout assumed in the Sacramento Valley could result in a regional loss of special-status plant or wildlife species or their habitat.	LS	None required.	NA
6.3-14 Implementation of the City's 2030 General Plan and regional buildout assumed in the Central Valley could contribute to the cumulative loss of sensitive natural communities including wetlands and riparian habitat in the region.	LS	None required.	NA
6.4 Cultural Resources			
Project-Specific Impacts			
6.4-1 Implementation of the 2030 General Plan could cause a substantial change in the significance of historical resources as defined in CEQA Guidelines section 15064.5.	PS	None available.	SU
6.4-2 Implementation of the 2030 General Plan could cause a substantial change in the significance of an archaeological resource as defined in CEQA Guidelines section 15064.5.	PS	None available.	SU
Cumulative Impacts			
6.4-3 Implementation of the 2030 General Plan, in conjunction with other development within the county, could cause a substantial change in the significance of a historical resource as defined in CEQA Guidelines section 15064.5.	PS	None available.	SU

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TABLE 2-1			
SUMMARY OF IMPACTS AND MITIGATION MEASURES			
Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
6.4-4 Implementation of the 2030 General Plan, in conjunction with other development within the Central Valley, could cause a substantial change in the significance of an archaeological resource as defined in CEQA Guidelines section 15064.5.	PS	None available.	SU
6.5 Geology, Soils, and Mineral Resources			
Project-Specific Impacts			
6.5-1 Implementation of the proposed 2030 General Plan may allow development in areas that could be affected by seismic hazards, such as ground rupture, groundshaking, and liquefaction, potentially exposing people to risk from these hazards.	LS	None required.	NA
6.5-2 Implementation of the proposed 2030 General Plan may allow development in areas that could be affected by geologic hazards associated with unstable soil conditions, including expansive soils and subsidence, potentially exposing people to risk from these hazards.	LS	None required.	NA
6.5-3 Implementation of the proposed 2030 General Plan may allow development that could result in substantial soil erosion.	LS	None required.	NA

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TABLE 2-1			
SUMMARY OF IMPACTS AND MITIGATION MEASURES			
Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
6.5-4 Implementation of the proposed 2030 General Plan may result in the loss of the availability of known mineral resources of State, regional, or local importance.	LS	None required.	NA
6.5-5 Implementation of the 2030 General Plan could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	LS	None required.	NA
Cumulative Impacts			
6.5-6 Implementation of the proposed 2030 General Plan, in combination with other development in Sacramento County, would not result in the loss of the availability of known mineral resources of State, regional, or local importance.	LS	None required.	NA
6.5-7 Implementation of the 2030 General Plan, in conjunction with other development within the Central Valley, could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	LS	None required.	NA
6.6 Hazards and Hazardous Materials			
Project-Specific Impacts			
6.6-1 Implementation of the 2030 General Plan may result in the exposure of people to hazards and hazardous materials during construction activities.	LS	None required.	NA

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TABLE 2-1

SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
6.6-2 Implementation of the 2030 General Plan may result in the exposure of people to hazards and hazardous materials during the life of the General Plan.	LS	None required.	NA
Cumulative Impacts			
6.6-3 Implementation of the 2030 General Plan combined with each airport's ALUCP within and adjacent to the Policy Area may result in the exposure of people to hazards associated with interference to emergency response and airport hazards during the life of the General Plan.	LS	None required.	NA
6.7 Hydrology and Water Quality			
Project-Specific Impacts			
6.7-1 Implementation of the 2030 General Plan could result in construction activities that could degrade water quality and violate state water quality objectives by increasing sedimentation and other contaminants entering streams and rivers.	LS	None required.	NA
6.7-2 Implementation of the 2030 General Plan could generate new sources of polluted runoff that could violate water quality standards.	LS	None required.	NA
6.7-3 Implementation of the proposed 2030 General Plan could increase exposure of people and/or property to risk of injury and damage from a localized 100-year flood.	LS	None required.	NA

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TABLE 2-1			
SUMMARY OF IMPACTS AND MITIGATION MEASURES			
Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
6.7-4 Implementation of the proposed 2030 General Plan could increase exposure of people and/or property to risk of injury and damage from a regional 100-year flood.	LS	None required.	NA
Cumulative Impacts			
6.7-5 Implementation of the proposed 2030 General Plan, in addition to other projects in the watershed, could result in the generation of polluted runoff that could violate water quality standards or waste discharge requirements for receiving waters.	LS	None required.	NA
6.7-6 Implementation of the 2030 General Plan, in addition to other projects in the watershed, could result in increased numbers of residents and structures exposed to a localized 100-year flood event.	LS	None required.	NA
6.7-7 Implementation of the 2030 General Plan, in addition to other projects in the watershed, could result in increased numbers of residents and structures exposed to a regional 100-year flood event.	LS	None required.	NA
6.8 Noise and Vibration			
Project-Specific Impacts			
6.8-1 Implementation of the 2030 General Plan could result in exterior noise levels in the Policy Area that are above the upper value of the normally acceptable category for various land uses (per Table EC-1) due to an increase in noise levels.	S	None available.	SU

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S = Significant

PS = Potentially Significant

SU = Significant and Unavoidable

NA = Not Applicable

TABLE 2-1

SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
6.8-2 Implementation of the 2030 General Plan would result in residential interior noise levels of L_{dn} 45 dB or greater caused by an increase in noise levels.	S	None available.	SU
6.8-3 Implementation of the 2030 General Plan could result in construction noise levels that exceed the standards in the City of Sacramento Noise Ordinance.	LS	None required.	NA
6.8-4 Implementation of the 2030 General Plan could permit existing and/or planned residential and commercial areas to be exposed to vibration-peak-particle velocities greater than 0.5 inches per second due to project construction.	S	None available.	SU
6.8-5 Implementation of the 2030 General Plan could permit adjacent residential and commercial areas to be exposed to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations.	LS	None required.	NA
6.8-6 Implementation of the 2030 General Plan could permit historic buildings and archaeological sites to be exposed to vibration-peak-particle velocities greater than 0.25 inches per second due to project construction, highway traffic, and rail operations.	LS	None required.	NA

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TABLE 2-1			
SUMMARY OF IMPACTS AND MITIGATION MEASURES			
Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
Cumulative Impacts			
6.8-7 Implementation of the 2030 General Plan along with other development in the region could result in an increase in interior and exterior noise levels in the Policy Area that are above acceptable levels.	S	None available.	SU
6.8-8 Implementation of the 2030 General Plan could result in cumulative construction noise and vibration levels that exceed the standards in the City of Sacramento Noise Ordinance as well as vibration-peak-particle velocities greater than 0.5 inches per second.	LS	None required.	NA
6.8-9 Implementation of the 2030 General Plan could result in cumulative construction vibration levels that exceed the vibration-peak-particle velocities greater than 0.5 inches per second.	S	None available.	SU
6.8-10 Implementation of the 2030 General Plan could result in cumulative impacts on adjacent residential and commercial areas exposed to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations.	LS	None required.	NA

LS = Less than Significant

S = Significant

PS = Potentially Significant

SU = Significant and Unavoidable

NA = Not Applicable

TABLE 2-1				
SUMMARY OF IMPACTS AND MITIGATION MEASURES				
Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation	
6.9 Parks and Open Space				
Project-Specific Impacts				
6.9-1	Implementation of the 2030 General Plan could result in increased use of existing parks or recreational facilities such that substantial physical deterioration of these facilities could occur.	LS	None required.	NA
6.9-2	Implementation of the 2030 General Plan could create a need for construction or expansion of recreational facilities beyond what was anticipated in the General and/or Community Plans.	LS	None required.	NA
6.10 Public Services				
Project-Specific Impacts - Police				
6.10-1	Implementation of the 2030 General Plan could result in the construction of new, or the expansion of existing, facilities related to the provision of police protection.	LS	None required.	NA
Project-Specific Impacts - Fire				
6.10-2	Implementation of the 2030 General Plan could result in the construction of new, or the expansion of existing facilities related to the provision of fire protection.	LS	None required.	NA
Project-Specific Impacts - Schools				
6.10-3	Implementation of the 2030 General Plan would generate additional elementary, middle, and high school students in the Policy Area.	LS	None required.	NA

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PS = Potentially Significant

SU = Significant and Unavoidable

NA = Not Applicable

TABLE 2-1			
SUMMARY OF IMPACTS AND MITIGATION MEASURES			
Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
6.10-4 Implementation of the 2030 General Plan would generate additional higher education students in the Policy Area.	LS	None required.	NA
Cumulative Impacts - Schools			
6.10-5 Implementation of the 2030 General Plan combined with other development within the seven school districts that extend outside the Policy Area would generate additional elementary, middle, and high school students.	LS	None required.	NA
6.10-6 Implementation of the 2030 General Plan combined with other development outside of the Policy Area would generate additional higher education students.	LS	None required.	NA
Project-Specific Impacts - Libraries			
6.10-7 Implementation of the 2030 General Plan could result in the construction of new, or the expansion of existing facilities related to the provision of library services.	LS	None required.	NA
Cumulative Impacts - Libraries			
6.10-8 Implementation of the 2030 General Plan combined with other development within the Sacramento Public Library Authority service area could result in the construction of new, or the expansion of existing facilities related to the provision of library services.	LS	None required.	NA

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TABLE 2-1			
SUMMARY OF IMPACTS AND MITIGATION MEASURES			
Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
Project-Specific Impacts - Emergency Services			
6.10-9 Implementation of the 2030 General Plan could result in the construction of new, or the expansion of existing emergency response facilities related to the provision of emergency services.	LS	None required.	NA
Cumulative Impacts - Emergency Services			
6.10-10 Implementation of the 2030 General Plan combined with other development served by emergency services in the region could result in the construction of new, or the expansion of existing emergency response facilities related to the provision of emergency services.	LS	None required.	NA
6.11 Public Utilities			
Project-Specific Impacts – Water Supply			
6.11-1 Implementation of the proposed 2030 General Plan would increase demand for potable water.	LS	None required.	NA
6.11-2 Implementation of the proposed 2030 General Plan would result in an increase in demand for potable water in excess of the City's existing diversion and treatment capacity, and could require the construction of new water supply facilities.	S	<p>6.11-2</p> <p>a) Implement Diversion and WTP as cost-sharing partner in Sacramento River Water Reliability Study.</p> <p>The City shall agree to a cost-sharing partnership for the construction and operation of a second Sacramento River diversion and WTP to divert and treat water which could result, at a minimum, in the following potentially significant environmental impacts associated with the construction and operation. This project is currently being analyzed under a separate EIR/EIS:</p> <ul style="list-style-type: none"> ○ Exposure of soils to erosion and loss of topsoil during construction; ○ Surface water quality degradation; 	SU

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TABLE 2-1			
SUMMARY OF IMPACTS AND MITIGATION MEASURES			
Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
		<ul style="list-style-type: none"> ○ Destruction or disturbance of subsurface archeological or paleontological resources; ○ Construction-related air emissions; ○ Construction and operations-related noise impacts; ○ Visual and/or light and glare impacts; ○ Loss of protected species and degradation or loss of their habitats; ○ Conversion of existing agricultural lands or resources; ○ Degradation of fisheries habitat and other instream impacts above and downstream of diversion ; and ○ Exposure to pre-existing listed and unknown hazardous materials contamination. <p>Mitigation measures would need to be developed to reduce any potentially significant impacts to less-than-significant levels, to the extent feasible. The following are illustrative of the types of mitigation measures that could be implemented to avoid or reduce those impacts listed above to less-than-significant levels:</p> <ul style="list-style-type: none"> ○ Reduction in operational and construction air emissions as required by SMAQMD; ○ Avoidance of surface water pollution through control of on-site stormwater flows, protection of top soils or stock piles from wind and water erosion, and implementation of related BMPs; ○ Minimization of operational and construction noise through the use of noise attenuation measures; ○ Avoidance and/or implementation of appropriate measures to restore, create, preserve or otherwise compensate for effects to biological resources; 	

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TABLE 2-1			
SUMMARY OF IMPACTS AND MITIGATION MEASURES			
Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
		<ul style="list-style-type: none"> ○ Avoidance of effects to buried cultural resources through investigation and pre-testing, and/or on-site archaeological monitoring and implementation of appropriate steps if cultural resources are discovered during earth moving activities; ○ Avoidance of hazardous materials effects through appropriate investigation and remediation of any on-site hazards; and ○ Avoidance, preservation or other appropriate compensation for loss of or adverse effects to important farmlands. <p>The City, as a cost-sharing local partner participating in the Sacramento River Water Reliability Study project, would be a responsible agency required to implement all mitigation measures within its control.</p> <p>OR</p> <p>b) Implement a City of Sacramento-Only Sacramento River Diversion and WTP</p> <p>The City shall be solely responsible for the construction and operation of a second Sacramento River diversion and WTP to divert and treat water. This would be a separate project that would require its own environmental review, in addition to compliance with all applicable regulatory requirements. The construction and operation of this facility to divert and treat water, although having a smaller capacity than the regional facility, would have the same potentially significant environmental impacts as discussed above, and would entail the same types of mitigation measures, discussed above. The City would be the lead agency if this option were selected.</p>	

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TABLE 2-1			
SUMMARY OF IMPACTS AND MITIGATION MEASURES			
Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
Project-Specific Impacts - Wastewater			
6.11-3 Implementation of the proposed 2030 General Plan would generate additional wastewater and stormwater that could require the expansion of existing conveyance and treatment facilities.	LS	None required.	NA
6.11-4 Implementation of the proposed 2030 General Plan would require the need for expansion of wastewater treatment facilities, which could cause significant environmental effects.	S	None available.	SU
Cumulative Impacts - Wastewater			
6.11-5 Implementation of the proposed 2030 General Plan, in combination with future development in the SRCSD Service Area, would require expansion of wastewater conveyance and treatment capacity to serve the project's sewer needs in addition to existing commitments.	S	None available.	SU
6.11-6 Implementation of the proposed 2030 General Plan, in combination with future development in the lower Sacramento River watershed, would increase the demand for storm drainage infrastructure.	LS	None required.	NA
Project-Specific Impacts – Solid Waste			
6.11-7 Implementation of the proposed 2030 General Plan could result in the construction of new solid waste facilities or expansion of existing facilities.	LS	None required.	NA

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TABLE 2-1

SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
Cumulative Impacts - Solid Waste			
6.11-8 Implementation of the proposed 2030 General Plan, along with other future development in the SRCSWA service area could result in the need for construction of new solid waste facilities or expansion of existing facilities.	LS	None required.	NA
Project-Specific Impacts – Electricity and Natural Gas			
6.11-9 Implementation of the 2030 General Plan would not require or result in the construction of new energy production or transmission facilities.	LS	None required.	NA
Cumulative Impacts - Electricity and Natural Gas			
6.11-10 Implementation of the proposed City of Sacramento 2030 General Plan combined with other development within the areas serviced by SMUD and PG&E would result in permanent and continued use of electricity and natural gas resources.	LS	None required.	NA
Project-Specific Impacts - Telecommunication			
6.11-11 Implementation of the proposed 2030 General Plan could require the construction of new or expansion of existing telecommunication facilities.	LS	None required.	NA
Cumulative Impacts - Telecommunication			
6.11-12 Implementation of the proposed City of Sacramento 2030 General Plan would result in permanent and continued need for telecommunication services.	LS	None required.	NA

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TABLE 2-1

SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
6.12 Transportation and Circulation			
Project-Specific Impacts			
6.12-1 Implementation of the proposed 2030 General Plan could result in roadway segments located within the Policy Area that do not meet the City's current LOS C standard or the proposed LOS D-E goal.	S	None available.	SU
6.12-2 Implementation of the proposed 2030 General Plan could result in roadway segments located in adjacent jurisdictions that do not meet the jurisdiction's minimum acceptable level of service threshold.	S	None available.	SU
6.12-3 Implementation of the proposed 2030 General Plan could result in freeway segments that do not meet the jurisdiction's minimum acceptable level of service threshold.	S	None available.	SU
6.12-4 Implementation of the proposed 2030 General Plan could adversely affect transit facilities.	LS	None required.	NA
6.12-5 Implementation of the proposed 2030 General Plan could result in an impact on pedestrian facilities.	LS	None required.	NA
6.12-6 Implementation of the proposed 2030 General Plan would adversely affect bicycle facilities.	LS	None required.	NA
6.12-7 Implementation of the proposed 2030 General Plan could adversely affect parking facilities.	LS	None required.	NA

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TABLE 2-1			
SUMMARY OF IMPACTS AND MITIGATION MEASURES			
Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
Cumulative Impacts			
6.12-8 Implementation of the proposed 2030 General Plan could result in a cumulative increase in traffic that would adversely impact the existing LOS for city roadways.	S	None available.	SU
6.12-9 Implementation of the proposed 2030 General Plan could result in a cumulative increase in traffic on roadway segments located in adjacent jurisdictions that do not meet the jurisdiction's minimum acceptable level of service threshold.	S	None available.	SU
6.12-10 Implementation of the proposed 2030 General Plan could result in a cumulative increase in traffic that could exceed the LOS along some freeway segments.	S	None available.	SU
6.12-11 Implementation of the proposed 2030 General Plan under cumulative conditions could adversely affect transit facilities.	LS	None required.	NA
6.13 Urban Design and Visual Resources			
Project-Specific Impacts			
6.13-1 Implementation of the proposed 2030 General Plan could cast glare in such a way as to cause a public hazard or annoyance for a sustained period of time.	PS	6.13-1 City shall amend the Zoning Code to prohibit new development from: <ol style="list-style-type: none"> 1) using reflective glass that exceeds 50 percent of any building surface and on the ground three floors; 2) using mirrored glass; 3) using black glass that exceeds 25 percent of any surface of a building; and 	LS

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TABLE 2-1			
SUMMARY OF IMPACTS AND MITIGATION MEASURES			
Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
		4) using metal building materials that exceed 50 percent of any street-facing surface of a primarily residential building.	
6.13-2 Implementation of the proposed 2030 General Plan could cast light onto oncoming traffic or residential uses.	LS	None required.	NA
Cumulative Impacts			
6.13-3 Implementation of the proposed 2030 General Plan, in combination with other projects in the county and West Sacramento, could cast glare in such a way as to cause public hazard or annoyance for a sustained period of time.	PS	6.13-3 Implement Mitigation Measure 6.13-1.	LS
6.13-4 Implementation of the proposed 2030 General Plan, in combination with other projects in the county and West Sacramento, could cast light onto oncoming traffic or residential uses.	LS	None required.	NA

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3.0 Project Description



PROJECT LOCATION

The city of Sacramento is located approximately 80 miles east of San Francisco and 85 miles west of Lake Tahoe in the northern portion of the great Central Valley, at the northern end of the Sacramento/San Joaquin river delta and at the confluence of the Sacramento and American rivers. Sacramento is the seat of government for the State of California and also serves as the county seat of Sacramento County (see Figure 3-1, Project Location). The city of Sacramento is the largest incorporated city in Sacramento County.

Sacramento is a major transportation hub, the point of intersection of major transportation routes that connect Sacramento to the San Francisco Bay area to the west, the Sierra Nevada mountains and Nevada to the east, city of Los Angeles to the south, and Oregon to the north. The city is bisected by a number of major freeways including Interstate 5 (I-5) that traverses the state from north to south; Interstate 80 (I-80) which provides an east-west connection between San Francisco and Reno, as well as Highway 50 which provides an east-west connection between Sacramento and South Lake Tahoe. The Union Pacific (UP) Railroad transects the city. Daily Amtrak service is provided and links the city to areas to the east and west.

General Plan Policy Area

The 2030 General Plan encompasses an approximately 102-square mile area that is referred to as the “Policy Area,” as shown on Figure 3-2. The City recently approved the Greenbriar project, which included a General Plan Amendment to annex the project site into the city which was recently approved by the Local Agency Formation Commission or LAFCO. The graphics included throughout this document do not reflect the City’s recent approval of the Greenbriar project, located in the northwest corner of the city. The graphics throughout this Draft MEIR have not been revised to show Greenbriar within the city limits because the Greenbriar EIR has been challenged and is currently in litigation. Therefore, all of the graphics do not reflect any changes to the city’s existing boundaries because the final disposition of the Greenbriar site is uncertain at the time of the publication of this Draft MEIR.

The General Plan Policy Area covers an area in which the City has formally adopted policies, and areas for which the General Plan designates specific land uses. The General Plan Policy Area covers the existing city limits, along with a few land areas currently located outside the city boundaries in unincorporated Sacramento County. These extraterritorial areas include Greenbriar, the Panhandle area and Camino Norte.

Community Plans

The City of Sacramento currently has seven adopted community plans which include policies and land use diagrams that pertain to the respective community plan areas, including (with date of adoption): Pocket (1979); Central City (1980); Airport Meadowview (1984); North Sacramento (1984); South Sacramento (1986); South Natomas (1988); and the North Natomas Community Plan (1994). The City has not adopted community plans for four other community plan areas: Land Park, East Sacramento, East Broadway and Arden Arcade. Over the years, there have been numerous amendments and updates to the seven adopted community plans.

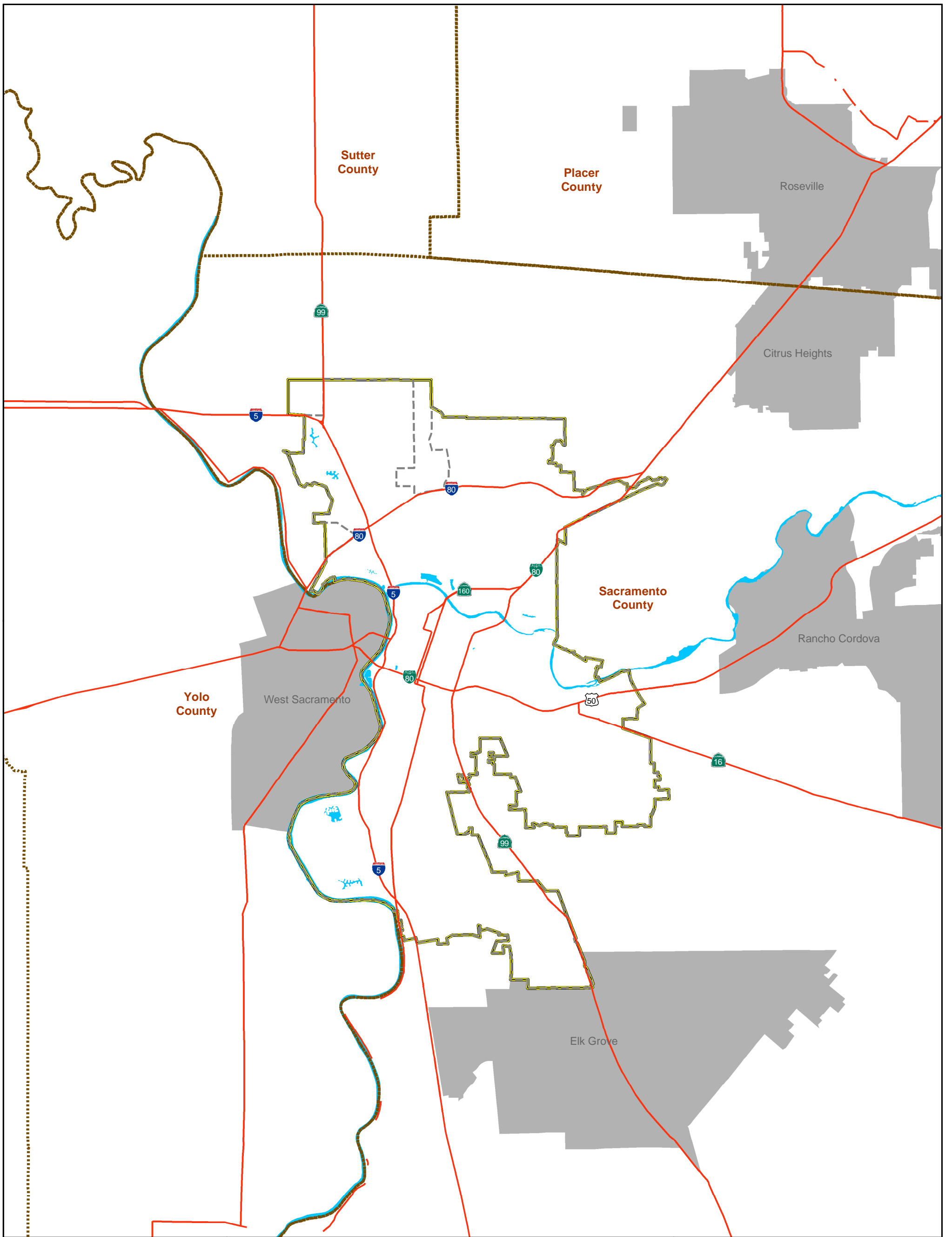
As part of the 2030 General Plan, the City has proposed making adjustments to the existing community plan boundaries. These adjustments include reducing the number of community plan areas from 11 to 10, and reorganizing and streamlining the policy content of the existing community plans. Specifically, policies contained in the community plans have been reviewed by City staff and those policies that are redundant or inconsistent with proposed city wide general plan policy are proposed for removal. In addition, seven separate land use diagrams and any policies that are outdated would be removed. In the proposed 2030 General Plan, the City Wide Land Use Diagram applies to all areas of the city. Additionally, community plans would be incorporated as chapters within the General Plan.

The South Area Community Plan is proposed to include the Airport Meadowview Community Plan (1984) and the western portion of the South Sacramento Community Plan (1986). The Fruitridge Broadway Community Plan is proposed to include the eastern portions of the South Sacramento Community Plan area and the East Broadway Community Plan area, including some policies from the South Sacramento Community Plan.





While the current community plans were developed as self-contained policy plans, community plans in the 2030 General Plan are intended to supplement city wide policies based on conditions or issues unique to the community plan area and do not include separate land use diagrams. Figure 3-3 depicts the boundaries of each of the 10 Community Plans.

The City's ten Community Plans include the following:

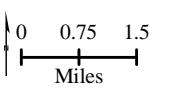
1. Arden-Arcade
2. Central City
3. Fruitridge/Broadway
4. East Sacramento
5. Land Park
6. North Natomas
7. North Sacramento
8. Pocket

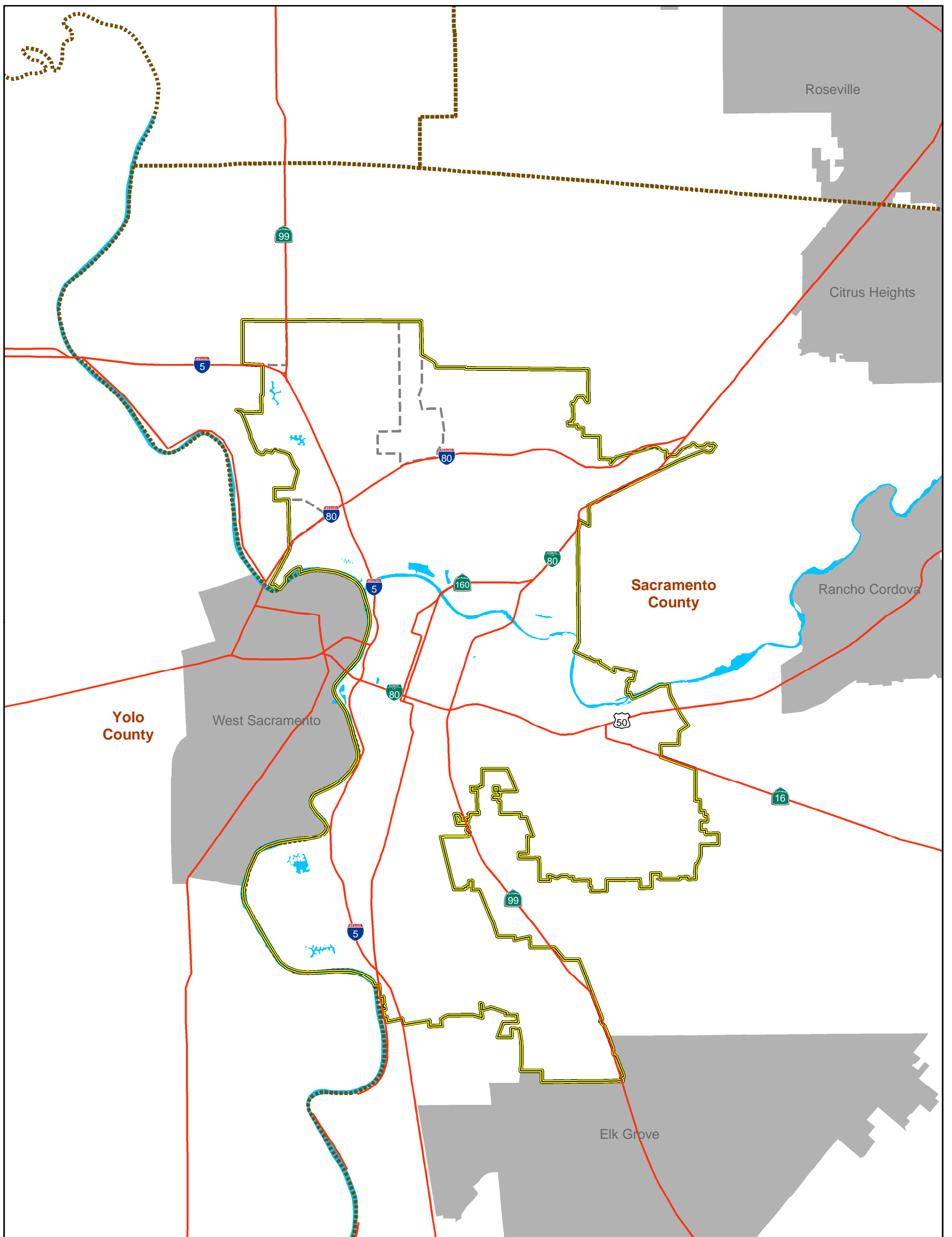


Legend

-  City Limit
-  County Boundary
-  Policy Area
-  Water

**Figure 3-1
Project
Location**

Source: City of Sacramento 2008 



Legend





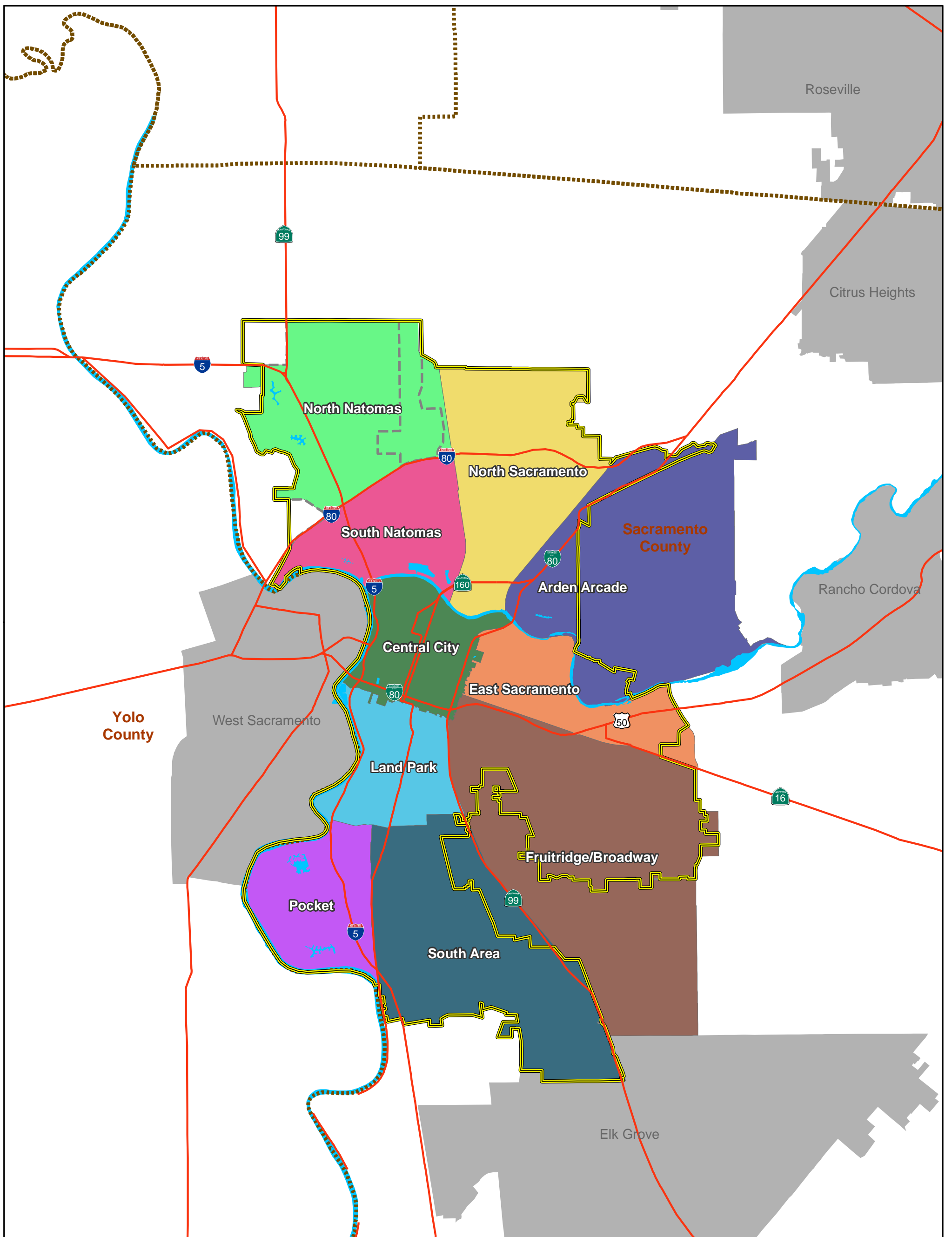
-  City Limit
-  County Boundary
-  Policy Area
-  Water

Figure 3-2
Policy Area



Legend

- | | | |
|----------------------------|------------------|-----------------|
| Community Plan Area | North Natomas | City Limit |
| Arden Arcade | North Sacramento | County Boundary |
| Central City | Pocket | Policy Area |
| East Sacramento | South Area | Water |
| Fruitridge/Broadway | South Natomas | |
| Land Park | | |

**Figure 3-3
Community
Plan
Areas**



9. South Area
10. South Natomas

Prior to the initiation of the General Plan update process, the City received a grant and initiated a process in 2001 to consolidate and update the Airport-Meadowview and South Sacramento Community Plans, resulting in the creation of a new South Area Community Plan. That process was later incorporated into the city wide general plan process in 2004; the result is that the South Area Community Plan contains a number of more detailed policies relating to economic development and revitalization, compared to the other community plans in which no new policies were created. The South Area Community Plan policies supplement and amplify city wide goals and policies contained in the 2030 General Plan. They address issues or conditions unique to the South Area Community Plan area.

Focused Opportunity Areas

Focused Opportunity Areas have been added to the 2030 General Plan as subareas of the city that have been identified in the community plans as important opportunities for future development through infill, reuse, or redevelopment. The community plans present a description for each Focused Opportunity Area including a vision statement, description of key issues, significant infrastructure challenges (e.g., water, sewer, storm drainage, and mobility), and urban form concepts that are based on the city wide Land Use and Urban Form Diagram.

The Focused Opportunity Area urban form concepts reflect some of the unique future challenges in the form of both diagrams and narrative descriptions, and add further specificity to the policy direction provided by the General Plan policies. The six Focused Opportunity Areas in the 2030 General Plan include:

1. River District
2. Robla
3. Arden Fair/Point West
4. 65th Street/University Village
5. Florin Center/Light Rail Station
6. Meadowview Light Rail Station

Figure 3-4 identifies the location and the boundary of each of the Focused Opportunity Areas. A more detailed description of the Focused Opportunity Areas is provided on page 3-310.

Special Study Areas

Beyond the boundaries of the 2030 General Plan, the City has identified several “Special Study Areas,” as shown in Figure 3-5. These are geographic areas immediately adjacent to the city

limits that are strategically important to the City because they are adjacent to the city's borders and are areas which the City may, at some point in the future, consider for possible annexation. At this point, the proposed 2030 General Plan does not have specific policies calling for annexation or changes in land use in these areas; rather, the proposed policies recognize these areas as requiring future coordination between the City and the County. The General Plan includes information that describes why the area is a "Special Study Area" and includes overall goals and policies related to City coordination with the County in managing the future of these areas. The five Special Study Areas are listed below:

- Natomas Joint Vision Study Area
- East Study Area
- Fruitridge Florin Study Area
- Arden Arcade Study Area
- Town of Freeport Study Area

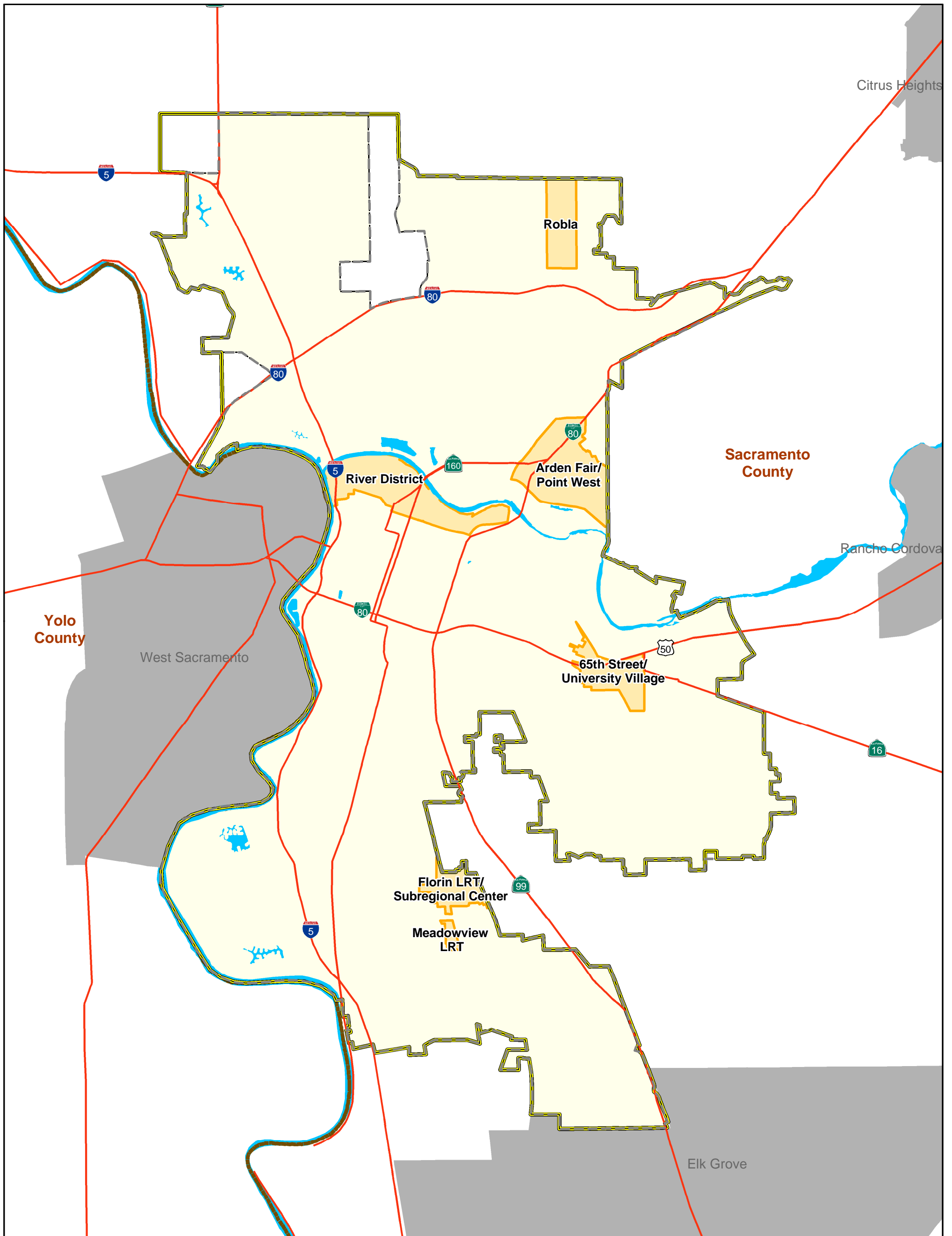
This Draft MEIR analysis does not address potential impacts within the City's Special Study Areas. Any policies proposed within these areas only address future coordination between the City and the County if and when specific development is proposed. There are no existing or proposed policies that address these areas that could result in potential environmental effects.

PROJECT BACKGROUND

The General Plan is a state-required legal document (Government Code section 65300) that provides guidance to decision-makers regarding the conservation of resources and the future physical form and character of development for the city. It is the official statement of the jurisdiction regarding the extent and types of development of land and infrastructure that will achieve the community's physical, economic, social, and environmental goals. The General Plan expresses the City's goals and articulates the City's intentions with respect to the rights and expectations of the general public, property owners, community interest groups, prospective investors, and business interests. Although the General Plan consists of individual sections, or "elements," that address specific areas of concern, it also embodies a comprehensive and integrated planning approach for the City.

Under state law, each General Plan must contain seven elements:

- Land Use
- Circulation
- Housing
- Conservation
- Open Space

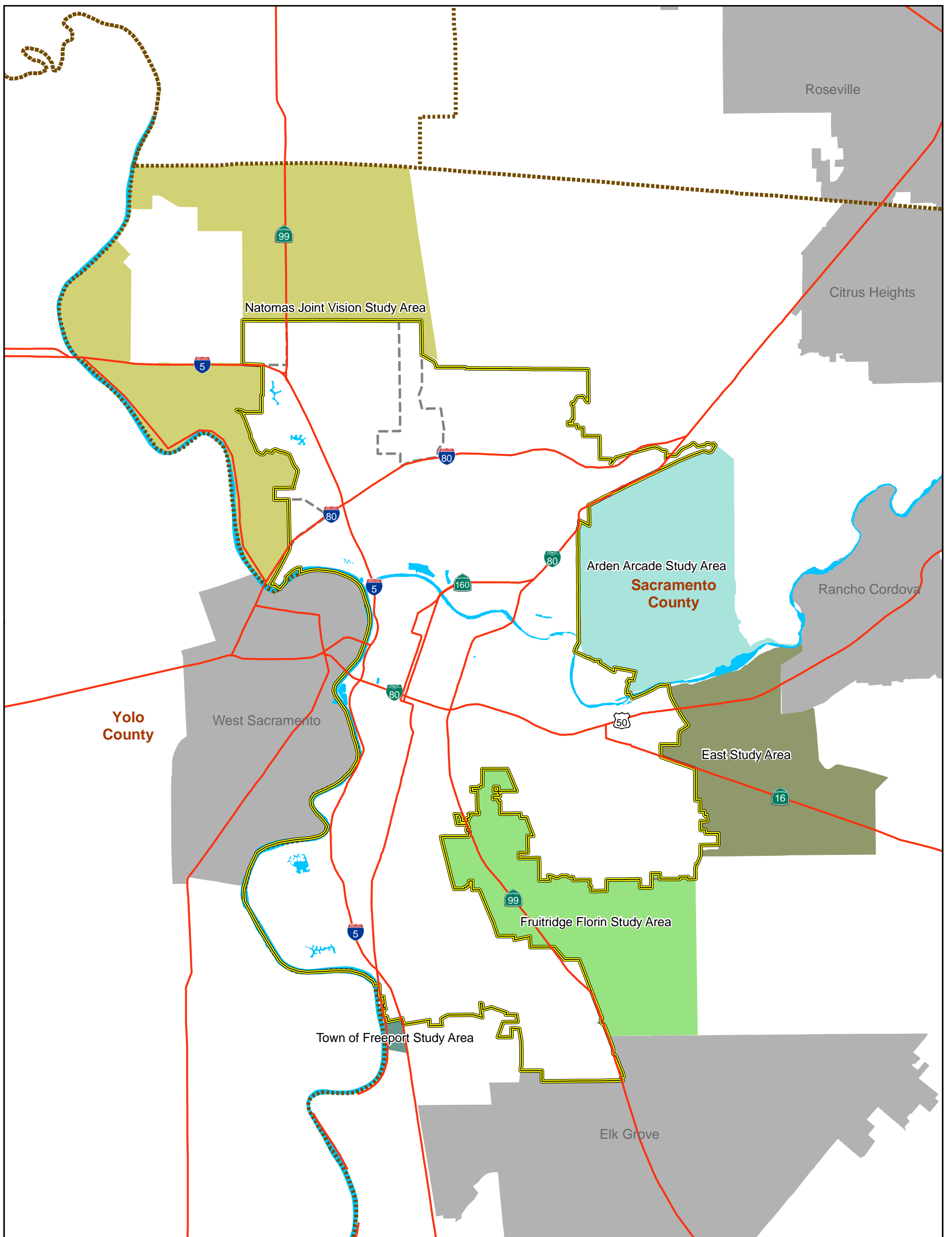


Legend

- Focused Opportunity Area
- City Limit
- Other City Boundaries
- County Boundary
- Policy Area
- Water

Figure 3-4
Focused Opportunity Areas

Source: City of Sacramento 2007



**Figure 3-5
Special Study
Areas**

Legend

- Arden-Arcade Study Area
- East Study Area
- Town of Freeport Study Area
- Fruitridge/Florin Study Area
- Natomas Joint Vision Study Area
- City Limit
- County Boundary
- Policy Area
- Water



- Noise
- Safety

Government Code section 65303 permits local jurisdictions to formulate other elements, chapters or sections, which, in the “judgment of the planning agency,” relate to the physical development of the city. These “permissive” elements, once adopted, are as legally binding as a mandatory element. The City’s 2030 General Plan is organized into four main chapters: Part I: Introduction, Part II: City Wide Goals and Policies, Part III: Community Plans and Special Study Areas, and Part IV: Administration and Implementation.

Part II includes the following additional sections that are not required by state law.

- Part II: Historic and Cultural Resources (*Preservation Element initially adopted in 1997*)
- Part II: Economic Development (*new section*)
- Part II: Education, Recreation and Culture (*new section*)

The following optional topics are included in required sections that are new and not required by state law, but are also legally binding.

- Part II: Utilities - Telecommunications (*optional topic included in the Utilities section*)
- Part II: Public Health and Safety - Public Health and Human Services (*optional topic included in the Public Health and Safety section*)
- Part II: Environmental Resources - Urban Forest, Air Quality, Aesthetic Resources (*optional topics included in the Environmental Resources section*)
- Part II: Urban Design - (*part of the Land Use and Urban Design section*)
- Sustainability - (*sustainability policies are included in all sections*)

Part III includes chapters for each of the Community Plan Areas as well as a discussion of each of the Special Study Areas included at the end of the section. Part IV includes specific implementation programs as well as a discussion of the overall administration and maintenance of the General Plan.

General Plan Process

In August 2004, the City embarked upon a multi-year effort to comprehensively update the City’s current 1988 General Plan. Between May 2005 and June 2005 the City held 14 Town Hall Forums to solicit community input about key issues and community values. In November 2005, the City adopted a vision and guiding principles statement that set out a conceptual foundation for the City’s 2030 General Plan. From May 2006 through June 2006, the City held a second round of Town Hall Forums consisting of 13 separate forums focused on growth scenarios for the entire city. In June 2007, the City Council gave staff direction to proceed to

develop the Draft General Plan and prepare the required environmental documentation based upon the “Preferred Land Use and Urban Form Diagram”. In June 2005, the City completed the Technical Background Report (TBR) which provides a profile and analysis of existing conditions and trends within Sacramento and the surrounding area. The TBR also provides an informational foundation upon which policies can be developed for the 2030 General Plan, and serves as the foundation for the environmental setting for this MEIR.

The City has sought community input throughout the General Plan process through intensive interviews with community stakeholders and community groups, receiving advice through the Mayor-appointed General Plan Advisory Committee (GPAC), city wide Town Hall Forums, and a public opinion survey. The results of all of these community outreach efforts are available for public review at the City of Sacramento and on the City’s General Plan website (www.sacgp.org).

EXISTING GENERAL PLAN

The City’s current General Plan was adopted in 1988 and is based upon data and analyses from the early to mid-1980s. Various elements of the General Plan have been updated over the years, but the Plan itself has not been comprehensively revised since 1988. Much of the data, analyses, and policies in the existing plan fail to reflect current values or conditions in the City today. A new General Plan is necessary to reflect the City’s current vision for accommodating future growth, for how to protect resources, and how quality of life will be defined and fostered within the City of Sacramento over the next 20 years.

The City of Sacramento General Plan land use diagram and text have been amended numerous times since 1988. Many of the amendments have involved changes initiated by property owners and developers that have substantially altered planned land uses in the General Plan and associated community plans. Other amendments have been a result of City-initiated planning efforts such as the R Street Corridor plan, the Railyards/Richards Boulevard redevelopment area plans, creation of special planning districts, 65th Street Transit Village, North Natomas Community Plan, and other amendments to community plans. Since 1988, the City Council has approved several policy amendments to the General Plan to encourage infill and smarter growth patterns. These amendments include the new Preservation Element adopted in 1997, the Smart Growth Principles adopted in 2001, the Infill Strategy adopted in 2002, the updated Housing Element adopted in 2003, the Transit Oriented Development policies adopted in 2004, and new park policies also adopted in 2004.

STATEMENT OF OBJECTIVES

In proposing the City of Sacramento 2030 General Plan, the City of Sacramento seeks to achieve the following objectives identified by the community during the extensive public outreach and participation process, as outlined above.

- **Character of Place.** Preserve and enhance Sacramento’s quality of life and character as a city with diverse residential neighborhoods, an extensive urban forest, and role as the center of California’s governance.
- **Smart Growth.** Encourage future growth in the city inward into existing urbanized areas and the central business district to foster infill development, as well as encourage density of development and integration of housing with commercial, office, and entertainment uses that fosters increased walking and reduced automobile use.
- **Live More Lightly.** Strive to meet to the intent of Assembly Bill 32, California Global Warming Solutions Act of 2006, by reducing carbon emissions that contribute to global warming by encouraging “green” building practices, use of solar energy systems, and developing a land use pattern that supports walking, biking, and public transit.
- **Maintain a Vibrant Economy.** Support a diversity of business and employment opportunities by retaining existing and attraction of new businesses; maintain and expand recreational, arts, and cultural facilities; and nurture diverse community events and celebrations.
- **Healthy Cities.** Preserve and enhance land use patterns and densities that foster pedestrian and bicycle use and recreation through expanded parklands, sports, and athletic programming as well as provide incentives for expanding the availability of organic foods, and protecting residents from crime and natural or terrorist acts.
- **Sustainable Future.** Accommodate growth that protects important environmental resources as well as ensures long-term economic sustainability and health, and equity or social well being for the entire community.

PROJECT CHARACTERISTICS

Sections and Components of the Proposed 2030 General Plan

The proposed General 2030 General Plan is a comprehensive update of the current General Plan. Elements, chapters or sections of the existing General Plan have been re-organized by thematic topic for clarity and to avoid redundancy. The City of Sacramento 2030 General Plan is organized into the following chapters and sections:

Part I – Introduction

Part II – City Wide Goals and Policies

- Land Use and Urban Design
- Historic and Cultural Resources
- Economic Development
- Housing
- Mobility

- Utilities (water, wastewater, storm drainage, solid waste, energy resources, telecommunications)
- Education, Recreation and Culture (education, parks and recreation, libraries, arts and culture, museums, zoos, and other major destination attractions)
- Public Health and Safety (police, fire, hazardous materials, emergency response and disaster preparedness, public health and human services, code enforcement)
- Environmental Resources (water resources, biological resources, urban forest, agriculture, mineral resources, air quality, aesthetic resources)
- Environmental Constraints (seismic and geologic hazards, flooding, noise)

Part III – Community Plans and Special Study Areas

Community Plans

- Arden Arcade Community Plan
- Central City Community Plan
- East Sacramento Community Plan
- Fruitridge Broadway Community Plan
- Land Park Community Plan
- North Natomas Community Plan
- North Sacramento Community Plan
- Pocket Community Plan
- South Area Community Plan
- South Natomas Community Plan

Special Study Areas

- Natomas Joint Vision Study Area
- East Study Area
- Fruitridge Florin Study Area
- Arden Arcade Study Area
- Town of Freeport Study Area

Part IV – Administration and Implementation

The Administration and Implementation part of the General Plan includes information on monitoring and maintaining the general plan as well as all the specific implementation programs per each section of Part II.

2030 General Plan Potential Land Use Changes

Existing land uses and potential land use changes resulting from the adoption of the 2030 General Plan are described below.

■ Existing Land Uses

The existing city of Sacramento contains 63,182 acres or approximately 99 square miles (as of September 2004) within the incorporated boundaries (see Table 3-1). Existing land uses in the city of Sacramento have been classified into eight primary categories:

- *Residential* – Residential uses include a mix of housing developed at varying densities and types. Residential uses in the Policy Area include single-family, multiple-family, condominium, mobile, and senior housing.
- *Retail/Commercial/Office* – This category includes commercial uses that offer goods for sale to the public (retail) and service and professional businesses housed in offices (accountants, architects, etc). Retail and commercial businesses include those that serve local needs, such as restaurants, neighborhood markets and dry cleaners, and those that serve community or regional needs, such as auto dealers and furniture stores. Visitor-serving retail uses such as regional shopping centers and hotels are also included in this category.
- *Industrial* – The industrial category includes a mix of manufacturing and light industrial uses, some of which are found in business, research, and development parks. Light industrial activities include warehousing and some types of assembly work. This category also includes wholesaling and warehousing.
- *Public Facilities (Health Care, Governmental, Educational, and Institutional)* – Government buildings, libraries, schools and other public institutions are found in this category. Uses in this category support civic, cultural, and educational needs of residents.
- *Transportation/Utilities* – This category includes roadways and public utilities, such as water treatment and wastewater treatment facilities.
- *Parks, Recreation and Open Space* – This category encompasses public and private recreational spaces and local and regional parks. Recreational areas, such as golf courses, also contribute to open space uses in the Policy Area.

Land Use	Acres	Percent of City's Total
Residential	22,291	35%
Retail/Commercial/Office	3,657	6%
Industrial	3,886	6%
Educational, Public Facilities	4,060	6%
Transportation/Utilities	3,399	5%
Parks, Recreation, Open Space	5,356	9%
Vacant Land	8,888	14%
Other Lands ¹	11,645	18%
Total	63,182	100%

Note:
 1. Other land includes non-parcel areas, rights-of-ways and waterways.
 Source: City of Sacramento GIS Database, February 2005.

- *Vacant Land (includes agricultural and other land)* – Vacant lands are undeveloped lands (as of 2005) that are not preserved in perpetuity as open space or for other public purposes.

More detail regarding the existing land uses in the city is presented in the General Plan TBR that is available for review at the City offices and libraries throughout the city as well as on a CD included at the back of this EIR.

■ Proposed Land Use Changes

Table 3-2 presents the proposed land uses for the 2030 General Plan Policy Area. The land use designations included in the table provides a summary and combines all the applicable land use designations designated on the land use diagram included within the Policy Area boundaries. Figure 3-6 Land Use and Urban Form Diagram shows the proposed land uses in the Policy Area. Figure 3-7 identifies those areas where future development is anticipated to occur over the next 25 years in different parts of the Policy Area.

Land Use	Acres	Percent of City's Total⁴
Neighborhoods ¹	36,218	56%
Centers ²	4,578	7%
Corridors ³	3,066	5%
Employment Center/Industrial	8,797	14%
Public/Quasi Public	4,575	7%
Open Space, Parks, Recreation	7,849	12%
Total	65,083	100%

Notes:
 1. Includes all residential designations including Planned Development/Special District, Rural Residential, Suburban Low Density, Suburban Medium Density, Suburban High Density, Traditional Low Density, Traditional Medium Density, Traditional High Density, Urban Low Density, Urban Medium Density, and Urban High Density.
 2. Includes Suburban Center, Traditional Center, Urban Center Low and High and CBD.
 3. Includes Suburban Corridor and Urban Corridor High and Low.
 4. Due to rounding the City's total % may be slightly higher than 100%.
 Source: City of Sacramento, GIS Database, 2008.

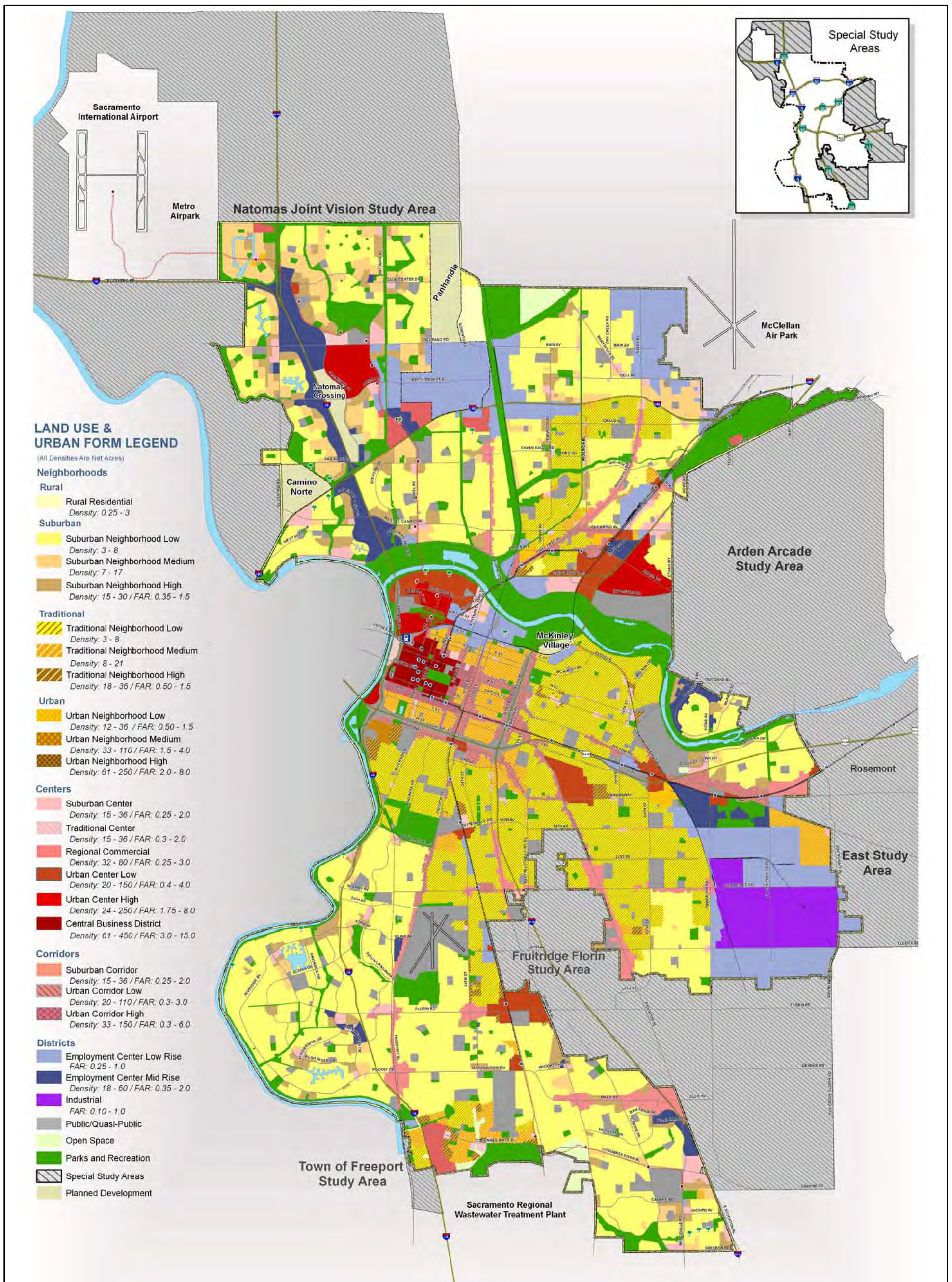
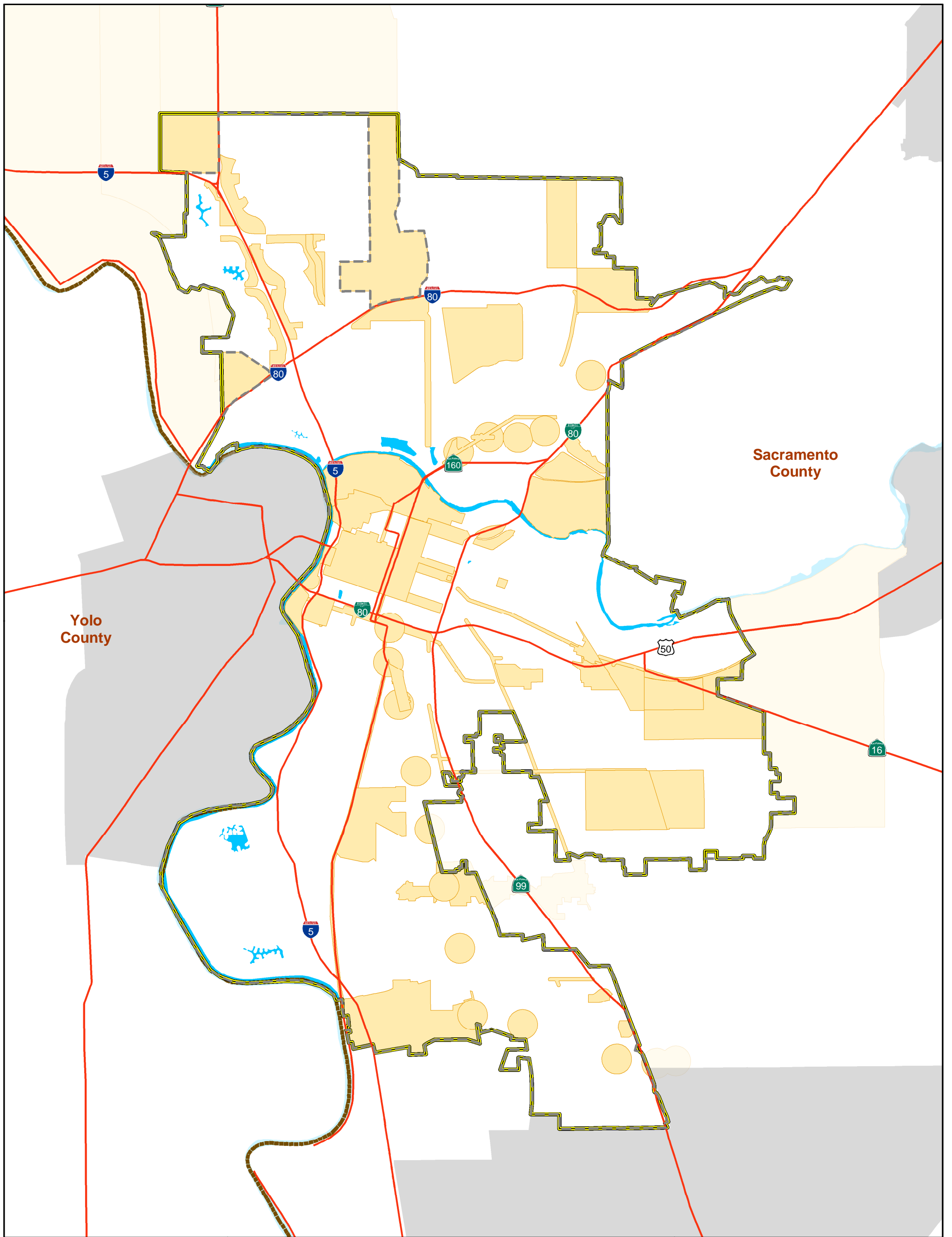


Figure 3-6
Preferred Land Use
and Urban Form

Source: City of Sacramento, General Plan, March 3 2009.

Miles





Legend





-  Policy Area
-  City Limit
-  County Boundary
-  Water

Figure 3-7
City Wide
Opportunity
Areas

Source: City of Sacramento 2008



Land use designations proposed under the 2030 General Plan are grouped together under these primary mixed-use categories: Neighborhoods, Centers, Corridors, Employment, Public/Quasi-Public, Parks, Greenways and Recreation, Special Study Areas, and Planned Development. A brief description of each land use designation is provided below.

Neighborhoods

Under the 2030 General Plan residential land use designations are grouped under Neighborhoods. There are four residential categories: Rural, Suburban, Traditional, and Urban. Each designation is described below.

Rural Neighborhoods

This designation will be used on a limited basis within the Policy Area.

Rural Residential. This designation is the preferred residential designation to provide “buffers” and serve as a physical transition between Suburban and Traditional Neighborhoods and the city’s outer edges that abut open space. The minimum density is 0.25 unit/net acre with a maximum density of 3.0 units/net acre.

Suburban Neighborhoods

The suburban neighborhood designations (low, medium, and high) will continue to be the predominant land use and urban form in Sacramento’s future.

Suburban Neighborhood – Low Density. This designation provides for low intensity suburban neighborhood uses including single family detached and attached units; accessory second units; and limited neighborhood-serving commercial uses. The minimum density is 3.0 units/net acre with a maximum density of 8.0 units/net acre.

Suburban Neighborhood – Medium Density. This designation provides for medium density suburban uses and higher intensity uses including small lot single family units (single family detached, duplexes, condominiums, town homes); accessory second units; multi-family dwellings; and limited neighborhood-serving commercial uses. The minimum density is 7.0 units/net acre with a maximum density of 15 units/net acre.

Suburban Neighborhood – High Density. This designation provides for multi-family high density housing in areas served by major transportation routes and facilities, and near major shopping areas. Suburban neighborhoods could include condominiums, town homes and apartments and mixed-use neighborhood-serving commercial. The minimum density is 15.0 units/net acre with a maximum density of 30.0 units/net acre. The minimum FAR for mixed-use and non residential uses is 0.35 and the maximum FAR is 1.5.

Traditional Neighborhoods

Existing traditional neighborhoods and the characteristics associated with this form are highly desirable. Changes proposed in these traditional neighborhoods focus on preserving and restoring the quality of such areas by protecting and enhancing features such as scale and quality of housing, neighborhood character, and housing choice.

Traditional Neighborhood – Low Density. This designation provides for moderate intensity neighborhood uses, including single family detached, duplex, tri-plex and townhomes; accessory second units; and limited neighborhood-serving commercial uses. The minimum density is 3.0 units/net acre with a maximum density of 8.0 units/net acre.

Traditional Neighborhood –Medium Density. This designation provides for uses between lower and higher intensity uses, including small-lot single family units attached and detached (duplexes, tri-plexes, town homes); accessory second units; multi-family dwellings; and limited neighborhood-serving commercial uses. The minimum density is 8.0 units/net acre with a maximum density of 21 units/net acre.

Traditional Neighborhood – High Density. This designation provides for multi-family housing in areas served by transit (light rail) and facilities, and near local shopping/gathering areas, including condominiums, town homes and apartments; and mixed-use neighborhood-serving commercial uses. The minimum density is 18.0 units/net acre with a maximum density of 36.0 units/net acre. The minimum FAR for mixed-use and non residential uses is 0.50 and the maximum FAR is 1.5.

Urban Neighborhoods

Urban Neighborhoods are highly active areas where of people live, work and recreate seven-days a week. As the city continues to grow, new Urban Neighborhoods will be developed in urban centers outside the Central City.

Urban Neighborhood – Low Density. This designation provides for moderate intensity neighborhood uses, including small-lot single family attached or detached units (duplexes, town homes, and condominiums); accessory second units; and mixed-use neighborhood-serving commercial. The minimum density is 12.0 units/net acre with a maximum density of 36.0 units/net acre. The minimum FAR for mixed-use and non residential uses is 0.50 and the maximum FAR is 1.00.

Urban Neighborhood – Medium Density. This designation provides for moderate to higher intensity uses, including small-lot single family attached or detached units (duplexes, condominiums, and town homes); multi-family dwellings; and mixed-use neighborhood-serving commercial. The minimum density is 33.0 units/net acre with a maximum density of 101.0 units/net acre. The minimum FAR for mixed-use and non residential uses is 1.5 and the maximum FAR is 4.0.

Urban Neighborhood –High Density. This designation provides for multi-family housing in areas served by public transportation and facilities, including small-lot single family attached or detached units, condominiums, town homes, apartments; and mixed-use neighborhood-serving commercial. The minimum density is 101.0 units/net acre with a maximum density of 250.0 units/net acre. The minimum FAR for mixed-use and non residential uses is 2.0 and the maximum FAR is 8.0.

Commercial Designations

The 2030 General Plan has designated commercial areas in Centers, the Central Business District and in Corridors. A Center is located in a neighborhood and generally serves the immediate service and retail needs of that area. The Central Business District serves as the commercial center of the city and the larger region. A Corridor is generally located in a more suburban area and provides connections between centers, districts, and neighborhoods. Each commercial area is described below.

Centers

Centers are places of focused activity that the city's neighborhoods revolve around. Centers are comprised of a combination of employment, services, retail and/or entertainment and higher density housing. Some Centers have a single narrow focus, such as neighborhood-serving retail, while other centers include a complex and diverse mix of uses and activities. Centers are characterized by a physically compact pattern of development that includes a concentration of complementary uses and a distinct identity. A key element of future Centers will be the integration of attributes that complement adjacent uses and neighborhoods including building heights, types of uses, and overall design. The General Plan includes four land use designations for centers: Suburban, Traditional, Regional, and Urban.

Suburban Center. This designation provides for low density/intensity single use commercial development or horizontal and vertical mixed use development that includes retail, service, office, and/or residential uses and central public gathering places. New infill development can be added to surface parking areas and along adjoining public corridors to create more compact and consistent development that adds character and spatial definition to a center. The minimum FAR for mixed-use and non residential uses is 0.25 and the maximum FAR is 2.0.

Traditional Center. Traditional centers are a critical element of many sustainable, walkable traditional neighborhoods that accommodate uses that provide essential daily services and retail needs within walking distance of the surrounding residents. Infill development in areas designated as traditional center can create additional character and spatial definition to traditional neighborhoods. Residential and office uses can also be integrated into traditional centers to create a more balanced mix of uses and additional job opportunities for surrounding residents. The minimum FAR for mixed-use and non residential uses is 0.30 and the maximum FAR is 2.0.

Regional Commercial Center. This designation provides for large-scale regional shopping centers with a mix of uses that includes major retail stores, home improvement stores, offices, restaurants, and services; multi-family units; and central public gathering places. The minimum density is 32.0 units/net acre with a maximum density of 80.0 units/net acre. The minimum FAR for mixed-use and non residential uses is 0.25 and the maximum FAR is 3.0.

Urban Center – Low. Urban Center Low provides for smaller urban areas throughout the city. Each center will include employment-intensive uses, a mix of housing, and a wide variety of retail uses including local shops, restaurants, and services that facilitate pedestrian access and travel. Urban Center Low will develop uses around light rail stations, along local arterials, and in other key areas in the city. This designation provides for a balanced mix of high density/intensity single-use commercial or residential development or horizontal and vertical mixed-use development that includes retail, service, office, and/or residential uses; and gathering places such as a plaza, courtyard, or park. The minimum density is 20.0 units/net acre with a maximum density of 150.0 units/net acre. The minimum FAR for mixed-use and non residential uses is 0.4 and the maximum FAR is 4.0.

Urban Center – High. Urban Center High is envisioned to include employment intensive uses, high-density housing, and a wide variety of retail uses including large-format retail, local shops, restaurants, and services. These areas will include major transportation hubs with connections to public transit, major highways and local arterials, and facilitate pedestrian access and travel. This designation provides for a mix of high density/intensity single-use commercial or residential development or horizontal and vertical mixed-use development that includes retail, service, office, and residential uses; and gathering places such as a plaza, courtyard, or park. The minimum density is 24.0 units/net acre with a maximum density of 250.0 units/net acre. The minimum FAR for mixed-use and non residential uses is .75 and the maximum FAR is 8.0.

Central Business District

The vision for the CBD is a vibrant downtown core that will continue to serve as the office, business, governmental, retail, visitor-serving and entertainment center for the city and the region. A significant element in the future CBD includes new residential uses. All development in the CBD should have easy access to transit. This designation provides for mixed-use high-rise development and single-use or mixed-use development that includes ground floor office/retail beneath residential apartments and condominiums. Uses include office, retail, and service uses; condominiums and apartments; and gathering places such as a plaza, courtyard, or park. The minimum density is 61.0 units/net acre with a maximum density of 450.0 units/net acre. The minimum FAR for mixed-use and non residential uses is 3.0 and the maximum FAR is 10.0.

Corridors

Corridors provide connections between centers, districts, and neighborhoods, and include boulevards and arterial streets. The general plan defines three types of corridors: Suburban Corridor; Urban Corridor Low; and Urban Corridor High.

Suburban Corridor. Sacramento's suburban corridors are envisioned as auto-oriented, moderate-density retail, office, and residential corridors that support surrounding suburban neighborhoods. Low-rise buildings will line auto-oriented corridors with new development along the corridor contributing to a more compact and consistent pattern, with parking relocated to the side and rear of buildings. This designation provides for a mix of single-use commercial and residential development and horizontal and vertical mixed use development that includes retail, service, office, and residential uses; and gathering places such as a plaza or park. The minimum density is 15.0 units/net acre with a maximum density of 36.0 units/net acre. The minimum FAR for mixed-use and non residential uses is 0.30 and the maximum FAR is 2.0.

Urban Corridor – Low. Urban Corridor Low includes street corridors that have multi-story structures and more intense uses at major intersections, lower intensity uses adjacent neighborhoods, and access to transit service, such as light rail or bus lines throughout. At major intersections nodes of intense mixed-use development will be bordered by lower intensity single-use residential, retail, service and office uses. This designation provides for a mix of horizontal and vertical mixed-use development and single-use commercial and residential development that includes retail, service, and office uses; and gathering places such as a plaza, courtyard, or park. The minimum density is 20.0 units/net acre with a maximum density of 60.0 units/net acre. The minimum FAR for mixed-use and non residential uses is 0.40 and the maximum FAR is 3.0.

Urban Corridor – High. Urban Corridors are street corridors in urbanized areas that include multi-story structures and highly developed transit service, such as light rail or heavily patronized bus lines. New development along the corridor will contribute to a more compact and consistent pattern that relocates parking to structures or to the rear of buildings. This designation provides a mix of horizontal and vertical mixed-use development and single-use commercial and residential development that includes retail, service, office, and/or residential uses; and gathering places such as a plaza, courtyard, or park. The minimum density is 33.0 units/net acre with a maximum density of 150.0 units/net acre. The minimum FAR for mixed-use and non residential uses is 0.75 and the maximum FAR is 6.0.

Employment Center

Employment Center – Low Rise. Employment Center Low Rise plays an important role in the city by supporting businesses and providing employment. This designation provides for employment generating uses that generally do not produce loud noise or noxious odor including light industrial or manufacturing that occur entirely within an enclosed building; business parks and general office uses; and retail and service uses that provide support to employees. Minimum FAR of .35 and Maximum FAR of 1.0.

Employment Center – Mid Rise. Employment Center Mid Rise areas play a critical role in accommodating new businesses and the creation of new jobs. This designation provides for large mixed-use office/employment centers that include mid rise office complexes; support retail

and service uses, such as restaurants, dry-cleaners, gym/fitness centers, markets, hotels, and office services (printing/copying/shipping); landscaped gathering places that include support uses; and residential uses as a supportive use to adjacent large employment centers. The minimum density is 18.0 units/net acre with a maximum density of 60.0 units/net acre. Minimum FAR of .35 and Maximum FAR of 2.0.

Industrial. Industrial designated areas represent the built form typically associated with manufacturing, warehousing, and other industrial activities. This designation should not be located adjacent to a residential neighborhood without substantial buffers (employment center low rise, parks, greenways, or open space). This designation provides for employment generating uses that may produce loud noise or noxious odor and tend to have a high volume of truck traffic. These uses include industrial or manufacturing that may occur within or outside a building; and office, retail and service uses that provide support to employees. Minimum FAR of 0.10 and Maximum FAR of 1.0.

Public/Quasi-Public

The Public/Quasi-Public designation describes areas with unique and largely self-contained uses and urban form. These areas provide a combination of community services, and/or educational, cultural, administrative, and recreational facilities. This designation provides for public and quasi-public uses including: government buildings, public and private schools, colleges, hospitals, airports, transportation and utility facilities, and other compatible public and quasi-public uses.

Open Space, Parks, and Recreation

Open space, parks, greenways, and recreation facilities include areas that are intended to remain essentially open with limited or no development. This designation includes largely unimproved open spaces used primarily for passive recreation, resource protection, and/or hazard avoidance. This designation provides for natural, managed, and cultivated open space, including natural parks, woodlands, habitat, agriculture, floodplains, areas with permanent open space easements, and buffers between urban areas. In addition, this designation also provides for large developed parks and other areas primarily used for recreation (smaller parks and recreation facilities are included as elements within other urban form types). This designation provides for recreational opportunities including sports fields, playground equipment, picnic and sitting areas; open turf and natural areas; trails; and golf courses.

Special Study Areas and Planned Development

The Special Study Area designation is applied to five areas identified by the City that are under the significant influence of the city and may be considered for annexation at some point in the future (Natomas Joint Vision Study Area, Arden Arcade Study Area, East Study Area, Fruitridge Florin Study Area, and the Town of Freeport Study Area). The annexation of any of these areas

would require review of additional fiscal and service delivery implications on existing city service providers and ratepayers. If annexation is proposed additional CEQA environmental review would need to be completed, and pre-zoning and land use designations would need to be applied to the land. This would occur in conjunction with a General Plan Amendment in the case of the Natomas Joint Vision and East Study Areas. Sacramento LAFCO local policies discourage concurrent Sphere of Influence Amendment and Annexation. The City would work with LAFCO to amend the SOI prior to submitting an application for annexation except as mutually directed by LAFCO and City Council. It is anticipated that LAFCO would be the lead agency for environmental review relating to a SOI Amendment. Land owned or under the control of the Sacramento County Airport System, the FAA, or Sacramento International Airport within the Natomas Joint Vision Area would not be considered for any future annexation action by the City.

Areas designated Planned Development include six areas with pending projects that are currently undergoing the City's environmental and development review process, have recently been approved for development, or have previously received an application for development (Greenbriar approved in January 2008; Camino Norte; Railyards approved in December 2007; McKinley Village (formerly known as the "Centrage" project); Panhandle active project pending approval; and Delta Shores active project pending approval). Specific land use and urban form designations will be applied to these areas once planning is complete if the project is approved by the City.

FOCUSED OPPORTUNITY AREAS

Within its city limits, the City of Sacramento is substantially developed. The 2030 General Plan focuses on how the anticipated population and employment growth can be strategically accommodated to both preserve the distinguishing and valued qualities of the community as well as to revitalize those areas that are underutilized. For most of the city, the 2030 General Plan conserves the existing pattern of uses and establishes policies for long-term protection and maintenance of established neighborhoods.

Under the 2030 General Plan, development associated with the revitalization of economically underperforming properties and obsolete development would result in the conversion of land uses in response to market demand (e.g., office and industrial could be converted to residential), and could result in a more intense use of land in defined areas. The City has identified 77 Opportunity Areas (see Figure 3-7) that are targeted for future development. A number of these Opportunity Areas are subject to recently completed or currently on-going planning studies or development applications. In approving the General Plan work program, the City Council also directed the General Plan team to study in greater detail six of the Opportunity Areas, identified as the Focused Opportunity Areas. The concepts of future development in these areas are described below.

■ River District

The River District is defined by the American and Sacramento rivers on the north and west, and the UP Railyards and the Central City residential neighborhoods on the south and east. This Focused Opportunity Area extends approximately 2.5 miles east of the confluence of the rivers and includes within its limits the former Sacramento Municipal Landfill located north of Capital City Freeway. Most of the development is concentrated in the western two thirds of the area (generally west of the UP railroad tracks), while the eastern third is largely undeveloped and under-served by roads.

The vision of the River District will be developed in conjunction with the development of a specific plan and design charettes scheduled to begin in early Spring 2008.

■ Robla

The Robla Focused Opportunity Area is located in the northeast section of the North Sacramento Community Plan Area. This Focused Opportunity Area is bounded by the city limits on the north, Bell Avenue on the south, Raley Boulevard on the east, and Dry Creek Road on the west.

The future vision for the Robla area includes integrated residential neighborhoods and light industrial uses that are well-buffered with parkways, pedestrian-friendly streets, and open space. Future development is envisioned to include a mixed-use, tree-lined shopping street, an existing elementary school located central to the neighborhood, and Magpie Creek Park to promote community character and identity.

■ Arden Fair/Point West

The Arden Fair/Point West Opportunity Area is located near the intersections of the Capital City Freeway (Business 80) and Arden Way and Exposition Boulevard just north of Cal Expo.

The vision for this area has not yet been developed. It is anticipated future plans for this area will be developed in the near future.

■ 65th Street/University Village

The 65th Street/University Village Opportunity Area is located in the Fruitridge Broadway community plan area. The general area is located to the south and west of California State University at Sacramento (CSUS) at the intersection of US 50 and the UP rail line. The area is bounded by US 50 and the UP rail line to the north; by San Joaquin Street and Clifton Road to the south; by Howe Avenue to the east, and by the Kroy Way and 63rd Street to the west. The area is generally centered around the 65th Street/University light rail station.

The vision for the 65th Street/University Village Opportunity Area includes a mix of residential and retail/commercial uses that build upon the proximity to the CSUS campus.

■ Florin Center/Light Rail Station

The Florin Center/Light Rail Station is located in the vicinity of the intersection of Florin Road and the South Line light rail line at the edge of the city limits.

The vision for this area includes integrated residential neighborhoods intermixed with community-serving retail and services as well as employment uses that serve the growing residential community in the south area of the city. The vision includes a balanced mix of uses, including neighborhood-serving retail and services and employment uses to serve the growing community, as well as residential uses. A mix of public/civic uses and open space such as parks and plazas is also envisioned. All of these uses would be enhanced because of their proximity to the Florin Light Rail Station. This type of mixed-use development would be well-integrated, both horizontally and vertically, to include a rich and pleasant pedestrian environment that is accessible and provides for access to shopping, recreation, and services, especially related to elder care and child care. While the regional commercial/retail market would be primarily served by the large establishments at Florin Mall and Southgate Plaza, neighborhood-serving retail is the focus of the Florin Subregional Center. Concentrations of employment uses including offices and research and development facilities provide employees in the area with access to transit and other services.

It is envisioned that residents, employees, and visitors of the area would be able to walk safely in a pleasant pedestrian environment that links local serving establishments, employment, diverse mixed-use neighborhoods, and transit. Students attending Luther Burbank High School would have a well-marked, controlled access route from the school to transit, and facilities in the area of the transit station would provide students with opportunities for recreational and support activities. This pedestrian presence, along with adequate pedestrian lighting, would provide the "eyes on the street" necessary to create a safe neighborhood environment.

■ Meadowview Light Rail Station

The Meadowview Light Rail Station is the southernmost light rail station in Sacramento and is located at the intersection of Meadowview Road and the South Line light rail line.

The Meadowview Light Rail Station Focused Opportunity Area is envisioned to include a range of housing types. The densities of housing would vary in order to relate to the boundary conditions that prevail, and proposed housing between the station area and the single-family neighborhoods to the west would include townhouses and flats of no more than three stories in height. Neighborhood-serving commercial and/or community services would also be included in a mixed-use configuration between the transit station and Meadowview Road.

As development continues to occur on and around the station area, the market for new retail, particularly a major grocery store, to serve the growing community is envisioned. Such development would also include community-serving offices as well as employment opportunities. In addition to retail and employment generating uses, gathering places such as restaurants, cafes, parks, and plazas would create dynamic places where all ages, including young and elderly members of the family, can spend time. These uses would be located and built with a neighborhood oriented focus.

Transportation Improvements

Several transportation-related improvements are included in the Mobility section of the proposed General Plan. The Mobility section identifies the components of the Policy Area circulation system and their general location and role within the community. This includes policies for all modes of transportation including the use of pedestrian-ways, public transportation, roadways, bikeways, rail, waterways and aviation.

Key public transportation programs and projects that are assumed to occur include future light rail extensions (i.e., to Sacramento International Airport, Cosumnes River College and Elk Grove, and to Antelope), a significant increase in bus service throughout Sacramento County, bus rapid transit service, and a streetcar line from Downtown Sacramento to West Sacramento. In addition, transportation improvements also include widening of key roadways, as shown in Figures 6.12-7 through 6.12-10 in section 6.12, Transportation and Circulation. Key bicycle improvements are identified in the City's Bikeway Master Plan (1995), which defines bikeway facility types and locations. Regional rail improvements include continued expansion of the Capitol Corridor train service to the Bay Area and new commuter rail service between Davis/Dixon and Auburn using the UP/Amtrak rail corridor.

Goals and Policy Changes

The 2030 General Plan represents a substantial change from the 1988 General Plan with new goals and policies included in all the elements of the Plan. The new chapters and policies are briefly described below. The specific relevant policies are presented in each technical section of the EIR, as appropriate.

■ Land Use and Urban Design

The Land Use and Urban Design section contains new General Plan policies related to Community Character. These policies use a new approach to provide direction on the type and form of urban development. The City of Sacramento's 1988 General Plan is based upon a traditional land use diagram that shows the distribution of existing and proposed land uses and describes each category of land use in terms of allowable uses and standards of density and intensity. Most city and county general plans in California today use this same approach.

With the increasing interest in urban form and implementing Smart Growth principles, the proposed 2030 General Plan includes a diagram and a set of designations that combine direction for both land use and urban form. This approach addresses legal requirements for allowed uses and population density and building intensity, as well as urban form criteria for the different neighborhoods and centers throughout the city. These components work together to define allowed uses and building intensities as well as the overall role of each area of the city, whether it is for living (neighborhoods), gathering and employment (centers), travel and commerce (corridors), preservation (open space), or a unique role (other district) such as a college.

New policies related to Urban Form are also included. These policies establish and reinforce the scale and development pattern of different subareas of the city. These policies are included in the 2030 General Plan to help establish or maintain physical and visual continuity and a sense of complete and identifiable neighborhoods and established strategies for areas of the city that require enhancement and revitalization.

■ Historic and Cultural Resources

The Historic and Cultural Resources section addresses the protection and sustainability of Sacramento's rich history. Strategies provide for the recognition of historic and cultural resources and the preservation or adaptive-reuse of historic buildings in accordance with state policy and regulations. Goals and policies presented within this section are intended to recognize, maintain, and protect the community's unique historical, cultural, and archaeological sites and structures.

■ Economic Development

The Economic Development section of the 2030 General Plan is structured to express City goals and policies regarding economic development and to serve as a companion to the City's Land Use and Urban Design, Mobility, and other General Plan sections.

This section incorporates the concepts in the recently-adopted Economic Development Strategy into the City's planning process. The Economic Development Strategy is a short term action program that focuses the City's economic development efforts over the next 3 to 5 year period. The City's Economic Development Strategy will be updated during the life of the 2030 General Plan to respond to changing economic conditions and City initiatives.

The Economic Development Element is divided into four sections:

1. Business – Strengthening the City's Business Climate
2. Workforces – Linking Our Residents to the Economy
3. Place – Land, Sites, and Opportunities

4. Participation – Alignment of Internal and Regional Resource

■ Mobility

The Mobility section provides the framework for decisions in the city of Sacramento regarding the way people move through the community. The various transportation modes addressed in the Mobility Element include public transit, roadways, pedestrian-ways, bikeways, rail, and aviation. The Mobility section also includes a policy encouraging transportation across the river via boats and other watercrafts.

The Mobility section addresses improved mobility and accessibility through the development of a balanced, multi-modal transportation system. Goals and policies are included that encourage a transportation system that is compatible with planned land uses and is sustainable through planning, design, construction, operations, and maintenance practices; increases transit ridership by providing an attractive and convenient transit system that is the first choice for many of the trips made in the city; and develops a managed parking system that provides reduced levels of parking in multi-modal districts to support higher levels of walking and transit use. The Mobility section encourages investment in transit, pedestrian, and bikeway facilities to expand the transportation choices of residents, employees, and visitors; and advances the implementation of transportation backbone facilities in the Central Business District and other urban centers through financial means that include a variety of innovative funding measures.

■ Utilities

The Utilities section includes policies on water, sewer, storm drain, energy, telecommunications, and solid waste. The policies are designed to ensure adequate services and facilities are available to serve the City for the next 20 years. One of the main goals is on sustainable use of resources, such as conservation of water, use of renewable energy sources, as well as encouragement of implementation of modern telecommunications infrastructure to attract businesses and the provision of the latest communication technology for city residents.

■ Education, Recreation, and Culture

The Education, Recreation and Culture section includes policies for schools, parks, arts, and culture, museums and zoos, and libraries to ensure adequate facilities are available and supported to increase the quality of life in the city. Education policies provide for the development of new schools commensurate with population growth that are accessible from every neighborhood. Opportunities for life-long learning are also encouraged, enabling Sacramento's residents to adapt skills to meet the needs of evolving business sectors. Parks and Recreation policies provide for the maintenance of existing and development of new parklands, facilities, and programs for all residents, employees, and visitors. Library and Arts and Culture policies provide for the expansion of resources and new facilities commensurate with population growth, creating a civic environment with vast opportunities for self-learning and

cultural and academic enrichment as well as support the diversity of first-class arts and cultural facilities and programs located in Sacramento. Museums, Zoos, and Other Major Destination Attraction policies facilitate the continued operation and new development of diverse facilities and programs that are accessible to residents and maintain and strengthen Sacramento's role as the primary center of culture in the region.

■ Public Health and Safety

The Public Health and Safety section includes policies that address the provision of police and fire protection services; hazardous materials regulation, transport, and use; emergency response; and public health/human services. The policies are intended to protect residents, businesses, and property from hazards and ensure adequate emergency services and facilities are available to protect the interests of all the residents of the city.

■ Environmental Resources

The Environmental Resources section includes policies that address water resources, biological resources, the city's urban forest, agricultural and mineral resources, air quality, and scenic resources. The City of Sacramento is committed to the protection of environmental resources and recognizes them as critical contributors to its vision as the most livable city in the nation.

■ Environmental Constraints

The City of Sacramento is committed to the protection of life and property from the risks of natural and man-made hazards as a critical contributor to its vision as the most livable city in the nation. Policies are designed to protect the public from potential geologic or seismic hazards by enforcing safety standards and requiring state-of-the-art site design and construction methods. Policies to protect Sacramento residents from flooding include supporting the Sacramento Area Flood Control Agency (SAFCA) in implementing projects that would ultimately provide 200-year level of flood protection or greater. Noise policies are included that protect residents, businesses, and visitors from noise hazards by establishing exterior and interior noise standards.

Growth Assumptions

The 2030 General Plan includes assumptions for the amount of growth that will occur within the Policy Area over the next 25 years. The General Plan assumes the city will grow by approximately 195,000 new residents, 136,000 new jobs, and 97,000 new housing units. Chapter 5.0, Population, Employment and Housing provides a detailed discussion of how the City reached these assumptions and the methodology used to determine a realistic level of growth for the city.

Alternatives

In accordance with section 15126.6 of the CEQA Guidelines, alternatives to the proposed 2030 General Plan are analyzed in Chapter 9.0 of this MEIR. Three alternatives that would feasibly attain the most basic project objectives while avoiding or substantially lessening some of the significant effects of the project were analyzed. An environmentally superior alternative is also identified. These alternatives include the following:

- **Alternative 1:** No Project/1988 General Plan – Under this alternative, development for the proposed Sacramento 2030 General Plan would not occur. Development would be guided by continued implementation of the existing General Plan.
- **Alternative 2:** SACOG Blueprint Preferred Scenario – This alternative would follow the principles of the SACOG Blueprint Preferred Scenario and implement the recommended land uses and land use densities within and immediately north and east of the city limits.
- **Alternative 3:** Reduced Development – Under this alternative it would be assumed that the city would not grow as rapidly as projected under the proposed 2030 General Plan.

Approvals

Approvals for the 2030 General Plan project include certification of this MEIR and approval of the 2030 General Plan. In addition to the approvals required from the City of Sacramento, the proposed project could require entitlements, approvals, and permits from other local agencies.

Subsequent Approvals

If the 2030 General Plan is approved, the City may initiate amendments to the Zoning Ordinance (Title 17) and other sections of the City Code to achieve consistency with the adopted General Plan. The Zoning Ordinance would further define land use designations and the performance standards applicable to the land use designations. The Zoning Ordinance would also establish the land use entitlement process applicable to the land use designations. Additional approvals may include:

- Adoption of financing programs or fee programs for public infrastructure.
- Adoption of the updated Housing Element.
- Rezoning of parcels to ensure consistency with the new General Plan Land Use and Urban Form Diagram.
- Zoning Ordinance amendments to ensure consistency with the 2030 General Plan goals, policies and standards.
- Acquisition of land for public facilities, finance and construction of public infrastructure projects or consideration of private development requests for infrastructure projects such as transit and roadway improvements consistent with the General Plan Mobility Element, construction of parks, trails, infrastructure improvements (e.g., water distribution and

treatment facilities, wastewater facilities, drainage improvements), other capital improvements, natural resource preservation and/or restoration.

- The City would consider approval of various private development entitlement requests (e.g., specific plans, master plans, tentative subdivision maps, design review, use permits) that are consistent with the General Plan and its Land Use Map.

Use of this Master EIR and Subsequent Projects

This MEIR provides a comprehensive overview of the potential environmental impacts that would result from adopting the City of Sacramento 2030 General Plan. A MEIR provides the basis for streamlining the review of later projects that are within its scope.

Projects that are consistent with the analysis contained in this MEIR will not, in most cases, require extensive additional environmental review before they can be approved. For projects that are consistent with the 2030 General Plan and which do not raise environmental effects that were not considered in this MEIR, it is anticipated that an Initial Study could be prepared to document consistency with the MEIR, after which a finding of conformance can be made. Other projects that are within the scope of the MEIR, but that have project-specific effects that were not analyzed in the MEIR, would be addressed in either Mitigated Negative Declarations or Focused EIRs.

Section 15176 of the CEQA Guidelines sets forth Contents of a MEIR. Subsection (d) states the following:

Where a Master EIR is prepared in connection with a project identified in subdivision (b)(1) of section 15175, the anticipated subsequent projects included within a Master EIR may consist of later planning approvals, including parcel-specific approvals, consistent with the overall planning decision (e.g., general plan, specific plan, or redevelopment plan) for which the Master EIR has been prepared. Such Subsequent projects shall be adequately described for purposes of subdivision (b) if the Master EIR and any other documents embodying or relating to the overall planning decision identify the land use designations and the permissible densities and intensities of use for the affected parcel(s). The proponents of such subsequent projects shall not be precluded from relying on the Master EIR solely because that document did not specifically identify or list, by name, the subsequent project as ultimately proposed for approval.

Subsequent projects would include, but would not be limited to land use entitlements, rezones, zoning code and other code amendments to the City Code, use permits, adoption/approval of specific plans, or redevelopment actions. Non-land use entitlements would include required infrastructure projects identified on the City's adopted Capital Improvement Program (CIP) or other infrastructure projects including, but not limited to roadway widening, construction of bridges, construction of interchanges, water or wastewater improvements, etc.

Some projects currently contemplated by the City include the Florin Road Corridor Plan, a joint City-County planning effort currently underway and anticipated to be completed sometime in 2009. The Florin Road Corridor Plan is expected to address potential new mixed use

development along the corridor, as well as the addition of either Bus Rapid Transit (BRT) or Business Access Transit (BAT) lanes to Florin Road, between 24th Street and Franklin Boulevard.

Future development along R Street in downtown, and sphere of influence amendment, annexation and development of Camino Norte located in North Natomas, are also subsequent projects as well as future redevelopment activities anticipated within the six Focused Opportunity Areas discussed above. Camino Norte would require a Sphere of Influence Amendment prior to annexation to the City.

A current list of the City's CIP projects anticipated to be constructed sometime within the next five years are listed in Table 3-3.

TABLE 3-3

CITY OF SACRAMENTO 2030 GENERAL PLAN SUBSEQUENT PROJECTS

Name	Location	Description	Budget/Funding
Parks & Recreation Department Projects			
DPR Master Plan	Citywide	Revise community plan boundaries to correspond to General Plan. May be done on a project-by-project basis.	TBD
Northgate Park	2825 Mendel Way	Renovate tennis and basketball courts, existing signage, restrooms and children's play equipment.	\$510,000 - PIF
Vista Park	TBD in the Railyards Specific Plan area	Master Plan & Development of a new 10 acre community park in the Railyards Specific Plan area, to include grading, amphitheatre, restroom bldg, concession bldg, monument structure, play areas, walkways, lighting, open turf, and landscaping	\$75,000-PIF
Camellia Park	6650 Cougar Drive	Master Plan & Development of a joint-use school/neighborhood park	\$50,000 – Tax increment
19 & Q	19 th St and Q St.	Develop urban plaza including hardscape, seating, landscaping	\$750,000
McKinley Park	601 Alhambra Boulevard	Irrigation system renovation	
Army Depot	Elder Creek and Florin Perkins Roads	Master plan for a baseball, demolition of barracks complex.	\$90,000-PIF \$25,000-Quimby
Delta Shores Regional Park	Delta Shores Planned Development Area	New regional park in the Delta Shores Planned Development area	TBD
Two Rivers Trail Phase 2 and 4	American River, south levee, east of 16 th Street	Off-street Class I bike trail along south bank of American River, connecting with Sutter's Landing Regional Park	TBD
Robert T Matsui Waterfront Park	Jibboom Street/Sacramento River	Develop Science & Space Center at site of former power station building.	TBD
Ninos Parkway Phase 1B/C - DOT	WAPA corridor, South Natomas area	Construct a new bikeway and install basic landscaping.	DPR-\$50,000; DOT Grant
Department of General Services Projects			
Pocket Library	Gloria Drive and Swale River Way in Sojourner Truth Park	Construction of a freestanding 15,000 sf joint use facility with the Sacramento City Unified School District (SCUSD).	\$14,992,987
North Natomas Community Center -General Services Dept	TBD in North Natomas Town Center	Construct a new Community center.	TBD
New City-owned parking structure in Railyards	TBD in the Railyards Specific Plan area	Construct a new parking structure with 2000+/- spaces.	TBD

TABLE 3-3

CITY OF SACRAMENTO 2030 GENERAL PLAN SUBSEQUENT PROJECTS

Name	Location	Description	Budget/Funding
Sacramento Housing and Redevelopment Agency (SHRA) Projects			
7 th & H Street Efficiency Apartments	625 H St.	Construct 150 new affordable efficiency units under the SRO Strategy Project.	TBD
La Valentina Development Site	Vacant lots on the east side of 12 th St. between D & E streets; APNs 002-0121-027, 002-0121-0032, 002-0121-0034, 002-0121-036, 002-0121-038)	Construct a mixed-use, transit-oriented development that includes 56 units, 7,000 sf of commercial spaces (3 story residential over ground floor commercial).	TBD
North Lot Development Site	Vacant lots on the northeast corner of 12 th & C Sts.; APN 002-0082-016 & -002, -0082 & -024	Possible mixed-use or strictly commercial/retail development.	TBD
Boys and Girls Club	1120 F St (APN 002-0157-005); 1126 F St (APN 002-0157-006); 614 12 th St (002-0157-008)	Possible mixed-use, housing or strictly commercially/retail development.	TBD
Egg Warehouse	14 th Street between North A and North B	Construct a 100 unit affordable apartment mixed-use project.	TBD
MLK/Broadway Development Site	3900 Broadway	Development of a mixed-use project, including 60 affordable rental units and 23 for sale market-rate units located at the SW corner of the Broadway and MLK King Jr. Boulevard.	Private funds & SHRA funds
Broadway/2 nd Avenue	Broadway/2 nd Avenue	Mixed-use project including 15,000 sf of medical office, 6,400 sf of retail, 18 condominiums.	Private funds & SHRA funds
Power Inn and Elder Creek Retail Center	Southeast corner of Power Inn and Elder Creek	Retail center of 150,000 to 200,000 sf.	Private funds & SHRA funds
65 th & Folsom Mixed Use	65 th & Folsom	400,000 -600,000 sf mixed-use project, including hotel, office, retail, fitness, residential.	Private funds & SHRA funds
14 th Avenue St. Improvement	14 th Avenue from Power Inn to SR16	Widen and provide basic infrastructure improvements, curb, gutter, and sidewalk.	Private, SHRA, & City funds
Power Inn Road St. Improvement	Power Inn Road from 14 th Avenue south to city limits	Widen and include improved pedestrian and bike amenities.	SHRA, City, state & federal funds
Elvas Avenue Streetscape/Road Improvement	Elvas Avenue between 65 th St. & J St.	Improve the bike, pedestrian, and roadway to include separated sidewalks and bike lanes to improve the roadway safety and aesthetics.	SHRA funds
Greenfair	Broadway and Fairgrounds	Construct 200-400 residential units.	Private & SHRA funds
1000 Block of Del Paso Blvd	1000 Block of Del Paso Blvd	Further transit oriented development with 116 condo units facing Del Paso Boulevard adjacent to the Globe Light Rail Station.	Private funds & SHRA funds

TABLE 3-3

CITY OF SACRAMENTO 2030 GENERAL PLAN SUBSEQUENT PROJECTS

Name	Location	Description	Budget/Funding
1212 Del Paso Blvd	1212 Del Paso Blvd	Further transit oriented development with the mixed use units with 6 townhomes and 20 condominiums facing Del Paso Blvd near the Globe Light Rail Station.	TBD
Rio Linda Superblock	Rio Linda Superblock	Single family residential development with 47 units.	TBD
Department of Transportation Projects			
Access Improvements from the Railyards to Richards Blvd & I-5	Jibboom St. and Bercut Dr. between Richards Blvd. and proposed Gateway Blvd.	Modify Jibboom St. and Bercut Dr. to provide north-south access between Richards Blvd. and proposed Gateway Blvd. Extension project on west side of Railyards.	\$10,500,000
Jed Smith Realignment and Ramona Ave. Extension to Folsom Blvd. & 14 th Ave.	Jed Smith from CSUS to Folsom Blvd. & Ramona Ave. from Folsom Blvd. to 14 th Ave.	Realign Jed Smith from CSUS to Folsom Blvd. and extend Ramona Ave. as a two-lane roadway from Folsom Blvd. to 14 th Ave.	\$10,000,000
SR 16 Realignment	Watt Ave. to Power Inn Rd. at 14 th Ave.	Realign Jackson Road as a four-lane roadway from Watt Ave. to Power Inn Rd. Provide sidewalks and bike lanes in both directions.	\$18,000,000
5 th St. Northerly Extension (formerly 6 th Street)	G St. to North 5 th St. at Richards Blvd.	Extend 5 th St. from G St. to North 5 th St. at Richards Blvd.	\$47,000,000
Rio Linda Blvd. & Main Ave. Intersection Improvements	Intersection of Rio Linda Blvd & Main Ave.	Traffic signal installation and intersection re-configuration at Rio Linda Blvd. and Main Ave. This would require widening the bridge on Rio Linda, south of the intersection.	\$1,200,000
Power Inn Road Widening	Power Inn Road from 14 th Ave. to Fruitridge Rd.	Currently, the Power Inn Road between 14 th Ave. and Fruitridge Road is a four-lane roadway with a two-way left-turn lane. Widen this segment to six lanes including bike lanes and sidewalks in both directions.	\$25,000,000
Elder Creek Rd. Widening	Elder Creek Rd. between Power Inn Rd. to South Watt Ave.	Widen Elder Creek Road between. Power Inn Rd. and Elk Grove-Florin Rd/South Watt Ave. This segment of roadway is approximately two miles long, and varies in width. Widen and improve the entire segment to four lanes.	\$13,000,000
Folsom Blvd. Widening	Folsom Blvd. from 65 th St. to Power Inn Rd.	Widen Folsom Blvd. to four lanes with a two-way left turn between Power Inn Road and 65 th Street. Provide sidewalks and bike lanes in both directions.	\$38,000,000

TABLE 3-3

CITY OF SACRAMENTO 2030 GENERAL PLAN SUBSEQUENT PROJECTS

Name	Location	Description	Budget/Funding
Police Department Projects			
Permanent Downtown Police (essential service) facility	Within the Railyards Specific Plan area	Construct a 25,000 sf 24-hour police facility that houses 200 total staff (sworn & civilian) and includes a public counter, offices, work stations, interview rooms, locker rooms, break rooms, gym, and conference rooms. There is also a separate 8,500 sf service garage and fueling station.	\$750.00/sq. ft.
North Natomas Police (essential service) facility	TBD in North Natomas Town Center south of New market Drive	Construct a 25,000 sf 24-hour police facility that houses 200 total staff (sworn & civilian) and includes a public counter, offices, work stations, interview rooms, locker rooms, break rooms, gym, and conference rooms. There is also a separate 8,500 sf service garage and fueling station.	\$750.00/sq. ft.
South Area Police (essential service) Facility	TBD	Construct a 25,000 sf police facility that houses 200 total staff (sworn & civilian) and includes a public counter, offices, work stations, interview rooms, locker rooms, break rooms, gym, and conference rooms. There is also a separate 8,500 sf. service garage and fueling station.	\$750.00/sq. ft.
Property Warehouse (Police Evidence & Supplies)	555 Sequoia Pacific	Construct 20,000 sf of additional storage space to accommodate both the demands from increased growth and from new evidence retention laws. The current facility will either be expanded or an additional facility will be built or purchased.	\$400.00/sq. ft.
Utilities Department Projects			
5 th St. Relief Sewer U to P Streets (Combined system)	5 th St. between U and P streets	Construct 72-inch diameter combined sewer pipeline in 5 th St. from U St. to P St.	\$2.0M; sewer fees and EPA grants
P St. Relief Sewer (Combined system)	P St. between 5 th & 7 th streets	Construct 72-inch diameter combined sewer pipeline.	\$1.0M; sewer fees, impact fees; and EPA grant
L St. Relief Sewer (Combined System)	L St. from 7 th St. to 9 th St.	Construct 36-inch diameter combined sewer pipeline.	\$750,000; sewer fees
Pioneer Reservoir (Combined System)	Front Street	Major roof repairs.	\$12M; sewer fees
S St. Relief Sewer (Combined System)	S St. from 14 th St. to 17 th St.	Construct 48-inch diameter combined sewer pipeline.	\$750,000 sewer fees
3 rd Relief Sewer (combined system)	Downtown Railyards at I St. to T St.	Construct a 42-inch relief sewer, or size TBD based on demand.	Developer funded

TABLE 3-3

CITY OF SACRAMENTO 2030 GENERAL PLAN SUBSEQUENT PROJECTS

Name	Location	Description	Budget/Funding
Oak Park Storage Project (Combined System)	Oak Park neighborhood	Construct a sewer storage project in Oak Park.	Approximate \$10M; funding sources Combined Sewer System Impact Fees and Sewer Fees
Fire Department Projects			
Fire Station 3	South of Airport & north of I-5	Relocate Fire Station from W. Elkhorn Blvd. and construct a new station.	\$8-10M
Fire Station 4	TBD	Relocate fire station from Granada Way and construct a new station.	\$8-10M
Fire Station 10	66 th St.	Demolish existing fire station and construct a new station.	\$8-10M
Fire Station 14	TBD	Relocate fire station from North C St. and construct a new station.	\$8-10M
Fire Station 15	Newborough Dr.	Demolish existing fire station and construct a new station.	\$8-10M
Fire Station 18	TBD	Relocate fire station from North Market Blvd and construct a new station.	\$8-10M
Fire Station 57	East Parkway	Demolish existing fire station and construct a new fire station.	\$8-10M
Fire Station 60	TBD	Relocate fire station from Julliard Dr. and construct a new station.	\$8-10M
Fire Station 43	El Centro & Arena boulevards	Construct a new fire station.	\$8-10M
Fire Station Greenbriar	Elkhorn & Hwy 99	Construct a new fire station.	\$8-10M
Fire Station Railyards	TBD within Railyards Specific Plan area	Construct a new fire station.	\$8-10M
Fire Station Delta Shores	TBD near Delta Shores project in South Sacramento	Construct a new fire station.	\$8-10M
Fire Station Shasta	Shasta & Bruceville roads	Construct a new fire station.	\$8-10M
Fire Administration, Training & Logistics Centers	TBD	Construct a fire administration, training & logistics center.	TBD
Note: TBD = To Be Determined. Source: City of Sacramento, Long Range Planning Division, May 2008.			

4.0 Land Use Consistency and Compatibility



LAND USE CONSISTENCY AND COMPATIBILITY

INTRODUCTION

This chapter of the EIR analyzes the consistency of the proposed Sacramento 2030 General Plan with existing regional land use plans and policies as well as land use compatibility with adjacent lands. CEQA Guidelines section 15125(d) states that the environmental setting of an EIR must discuss “any inconsistencies between the proposed project and applicable general plans and regional plans.” Potential inconsistencies between the proposed City of Sacramento 2030 General Plan and the Sacramento Area Council of Governments (SACOG) Blueprint and the recently adopted 2007 Sacramento International Airport (SMF) Master Plan are discussed in this chapter. Potential land use inconsistencies with other regional plans including the Natomas Basin Habitat Conservation Plan (NBHCP), Sacramento Metropolitan Air Quality Management District (SMAQMD) Plan, the Central Valley Regional Water Quality Control Board’s (CVRWQCB) Sacramento River and San Joaquin River Basin Plan, and the Sacramento Executive, Sacramento International, McClellan, Mather, and Rio Linda airports’ Airport Land Use Compatibility Plans (ALUCP) are addressed in applicable technical sections in this EIR including section 6.1 Air Quality, section 6.3, Biological Resources, section 6.6, Hazards and Hazardous Materials, as well as others. In addition, the reader is referred to the respective technical sections for a discussion of any potential physical/environmental effects and potential incompatibilities that may be considered in the determination of physical environmental impacts. For example, land uses that produce excessive noise, light, dust, odors, traffic, or hazardous emissions may be undesirable when they intrude on places where people sleep and recreate (residences and parks). Therefore, some industrial or agricultural uses (which can produce noise and odors) would not be considered compatible with residential uses, unless buffers, landscaping, or screening can be used to protect residents from health hazards or nuisances. These potential concerns or land use incompatibilities are addressed in the applicable technical sections.

An EIR may provide information regarding social and economic issues, but CEQA does not recognize these issues as direct physical impacts on the environment. More specifically, CEQA Guidelines section 15131 states “[E]conomic or social effects of a project shall not be treated as significant effects on the environment.” A direct physical change in the environment is a change caused by and immediately related to the project (CEQA Guidelines section 15064(d)(1)). While this chapter does not identify environmental impacts due to plan inconsistencies which would not result in physical changes to the environment, however, physical impacts on the environment that could result from implementation of 2030 General Plan or project alternatives are addressed in the appropriate technical sections.

Four comment letters associated with land use and planning were received in response to the NOP (see Appendices A and B). Comments expressed concern regarding the consistency of

the SACOG Blueprint Project with the proposed 2030 General Plan; the potential impact on midtown neighborhoods caused by the change from Traditional Neighborhood Medium Density to Traditional Neighborhood High Density, particularly with increased height limits; and the increased density and loss of single-family homes in the Central City neighborhoods due to the potential for land speculation. This concern was addressed in more stringent policies included in Part 2, Land Use and Urban Design of the 2030 General Plan. The change in land use designations is discussed in this chapter. Other concerns suggested that historic neighborhoods should be preserved through the use of transition zones between the Central Business District and the midtown historic neighborhoods. This issue is addressed in section, 6.4, Cultural Resources.

Information for this chapter was obtained from the Sacramento Area Council of Government *Special Report: Sacramento Region Blueprint Transportation/Land Use Study* (2005), and City community plans, as described in Chapter 3.0, Project Description and summarized below.

Proposed 2030 General Plan Policy Area Boundary

As shown on Figure 3-2 in Chapter 3.0, Project Description, the boundaries of the proposed Sacramento 2030 General Plan include the existing city limits¹ in addition to the Greenbriar, Panhandle area and Camino Norte area located adjacent to the northern and northwestern boundaries of the city. The approximately 102 square-mile Policy Area covers an area where the City has formally adopted policies, and areas for which the 1988 General Plan designates specific land uses.

The City of Sacramento adopted seven community plans that included specific policies and land use diagrams for the following community plans: Pocket (1979); Central City (1980); Airport Meadowview (1984); North Sacramento (1984); South Sacramento (1986); South Natomas (1988); and North Natomas (1994). Four additional community plan areas: Arden-Arcade, East Broadway, East Sacramento, and Land Park, included boundaries, but did not have separate policies or land use diagrams. The 1988 General Plan had no direct connection to the community plans; the plans were adopted separately either before or after the 1988 General Plan was adopted. Under the proposed 2030 General Plan, separate policies for each of the previously adopted community plan areas are included that are essentially the same as the original adopted policies. Those policies that address more city wide issues have been removed because they are captured in the General Plan policies. Separate land use diagrams are not included for each community plan.

As part of the proposed 2030 General Plan, the City adjusted the current community plans' boundaries, reducing the total number of community plan areas from 11 to 10, and reorganized, streamlined, and updated the policy content of the existing community plans. The South Area

¹ The Greenbriar project was recently approved by the City and the annexation approved by LAFCO.

consolidated the Airport Meadowview Community Plan area and the western portion of the South Sacramento Community Plan area. The East Broadway Community Plan area was consolidated with the eastern half of the South Sacramento Community Plan area and renamed the Fruitridge/Broadway Community Plan. Where the current community plans essentially read as self-contained policy documents, almost like general plans for each community plan area, community plans in the proposed 2030 General Plan are intended to include only area-specific conditions or issues unique to a community plan area. Therefore, all city wide land uses are included in one land use diagram on the City's preferred land use diagram (see Figure 3-6 in Chapter 3.0, Project Description).

■ Focused Opportunity Areas

The City of Sacramento has defined six Focused Opportunity Areas as sub-areas of the 10 community plan chapters in the 2030 General Plan including: River District, Robla, Arden Fair/Point West, 65th Street/University Village, Florin Center/Light Rail Station, and Meadowview Light Rail Station (see Figure 3-3 in Chapter 3.0, Project Description). These areas, which are all within the Policy Area, have been identified as important sub-areas of the community for development in the future through infill, reuse, or redevelopment. A description of each Focused Opportunity Area will be included in the applicable community plan. For example, the South Area plan will include a description of the Florin Center/Light Rail Station and the Meadowview Light Rail Station because these Focused Opportunity Areas are located within the boundaries of the South Area Community Plan. The community plans will include a vision statement, description of key issues, significant infrastructure challenges, and urban form concepts which are based on the city wide Land Use and Urban Form Diagram.

Existing Land Use Designations

The 1988 General Plan established an approximately 99 square mile boundary to provide land use direction in and around the city. The 1988 General Plan includes land use designations for residential uses (rural estates, residential mixed use, low-, medium-, and high-density residential), commercial/industrial uses (community/neighborhood commercial and office, heavy commercial or warehouse, industrial-employee intensive, industrial, regional commercial and office, mixed use), and other miscellaneous uses (agriculture, special planning district, parks-recreation-open space, public offices, public/quasi-public-miscellaneous, transportation/utilities, water, and schools). The reader is referred to Chapter 3.0, Project Description, for details on existing and proposed land use designations included as part of the 2030 General Plan.

■ Sacramento Area Council of Governments

SACOG Blueprint

In March 2003, SACOG began a series of 37 local community workshops to help determine how the Sacramento region should grow through the year 2050. The motivation was to determine if

there are alternatives to current transportation priorities and land use patterns that would make improvements to the region's travel patterns and air quality, while being consistent with local values. After three years, the SACOG Board of Directors, a 28-member board of cities and counties comprised of El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba counties as well as 22 cities, including the City of Sacramento, adopted the Blueprint as a voluntary framework for guiding future growth in the region. The SACOG Blueprint does not approve or prohibit growth in the region, but suggests general land uses and locations for growth; it is not a policy document. The SACOG Preferred Blueprint Scenario (or Blueprint), is a transportation and land use analysis suggesting how cities and counties should grow based on the following seven smart growth principles: 1) provide a variety of transportation choices; 2) offer housing choices and opportunities; 3) take advantage of compact development; 4) use existing assets; 5) mixed land uses; 6) preserve open space, farmland, and natural beauty through natural resources conservation; and 7) encourage distinctive, attractive communities with quality design.

The Blueprint is not intended to be applied or implemented in a literal, parcel-level manner, but rather the Blueprint is intended to provide guidance as to how each jurisdiction can make land use decisions based on smart growth principles and how these decisions would impact the greater Sacramento region.

Existing Land Uses

Existing land uses in the Policy Area include a mix of high-density office buildings and retail, office and commercial areas concentrated in the downtown/Central City. Adjacent to the Central City to the east is a mix of higher density apartments, lofts, single-family residential intermixed with local-serving retail and commercial uses. Further to the east, the land uses transition to more low-density single-family residential with areas of commercial development and light industrial uses along major roadway corridors. The American River runs east/west from the confluence with the Sacramento River north of downtown. The American River parkway runs adjacent to the river from downtown east to the city of Folsom.

To the south of the Central City, the land uses include a mix of low-density residential, neighborhood-serving retail, and pockets of undeveloped land. Executive Airport is located in southern Sacramento along with Land Park.

To the north of the Central City is the 240-acre Union Pacific railyards, recently approved for new residential, office, and commercial uses. Further north includes low-density single-family residential, including the North Natomas community as well as large regional retail centers and smaller neighborhood-serving commercial areas. Large areas of undeveloped land still exist in the northern portion of the Policy Area. The density of development decreases further to the north adjacent to the Policy Area boundaries.

■ Surrounding Land Uses

Land uses to the northwest of the Policy Area are located in the unincorporated county and include undeveloped agricultural land within the Natomas Joint Vision Study Area, the recently approved Metro Air Park employment center, and Sacramento International Airport. Limited development has occurred within Metro Air Park, but it is approved for a significant amount of light industrial and employee intensive uses. McClellan Air Park is located northeast of the Policy Area.

Development to the east of the Policy Area, which is within the unincorporated county, includes a continuation of what is included within the Policy Area: a mix of residential neighborhoods intermixed with retail malls and smaller neighborhood-serving development.

To the south, surrounding land uses include the Town of Freeport located in the unincorporated county, as well as the Sacramento Regional Wastewater Treatment Plant (SRWWTP) bufferlands. The Town of Freeport includes a mix of single-family residential and small, independently-owned commercial uses. Much of the land adjacent to the southern boundary of the Policy Area is undeveloped because it is within the SRWWTP bufferlands. Also adjacent to the southern boundary of the Policy Area is the city of Elk Grove. Much of the area within the northern portion of the city of Elk Grove is currently undeveloped. Further to the south is the Stone Lakes National Wildlife Refuge Area.

To the west is the Sacramento River with the city of West Sacramento located along the west side of the river.

Proposed Land Use Changes

The 2030 General Plan focuses on how the anticipated population and employment growth can be strategically accommodated to both preserve the distinguishing and valued qualities of the community and to revitalize those areas that are underutilized. For most of the City, the 2030 General Plan conserves the existing pattern of uses and establishes policies for protection and long-term maintenance of established neighborhoods and enhancement of other areas.

Figure 4-1 identifies the specific areas in the Policy Area that are expected to be preserved, improved, or transformed between now and 2030. These areas will experience significant to dramatic change through infill, reuse, and redevelopment or through major new development projects. Each community plan and Focused Opportunity Area is described in more detail in Chapter 3.0, Project Description.

Regulatory Context

■ Federal and State

There are no specific federal or state regulations pertaining to land use consistency or compatibility that would be applicable to the proposed 2030 General Plan.

■ Local

Zoning

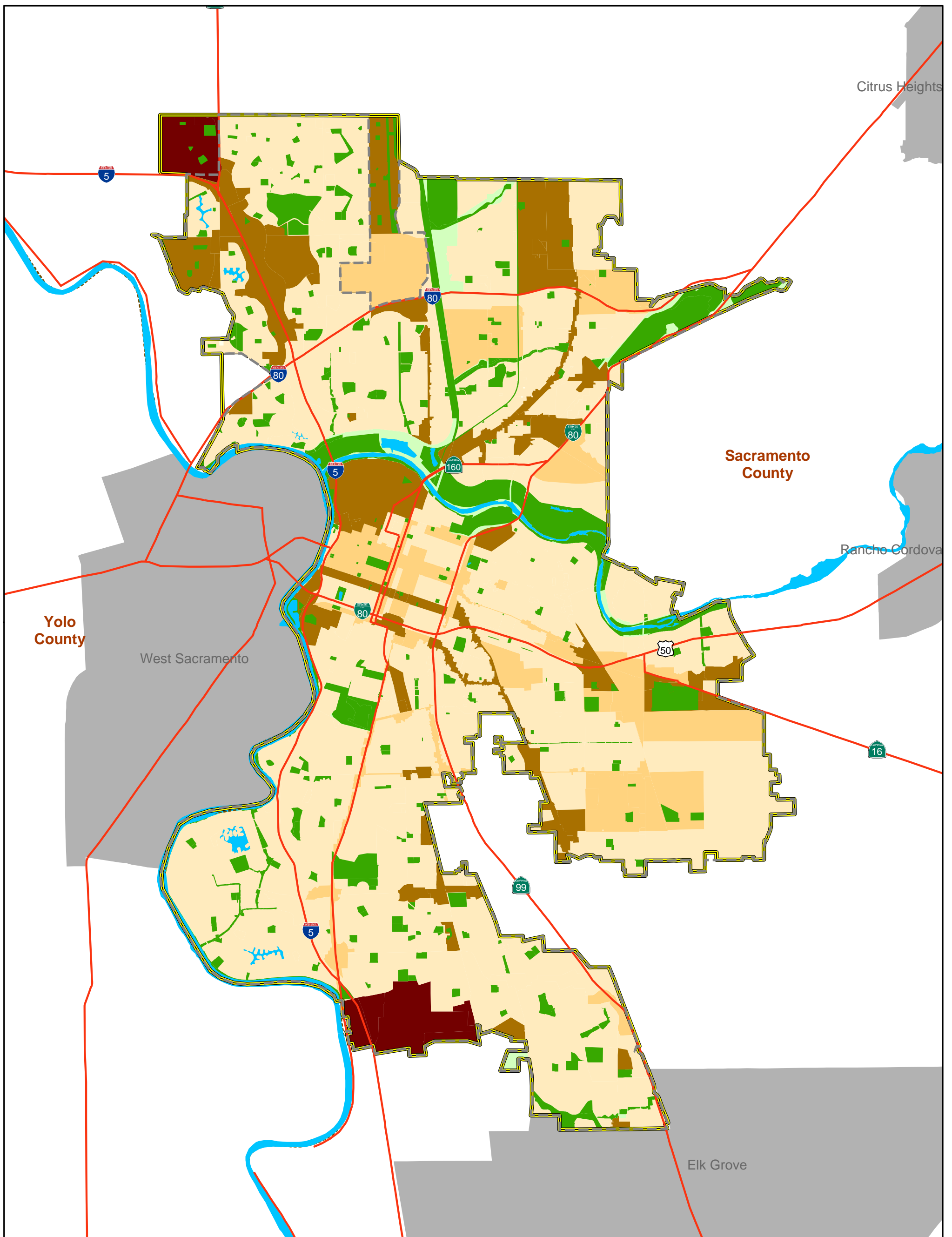
Zoning is the instrument that implements the land use designations in a General Plan. In addition to establishing permitted uses, zoning may also establish development standards relating to issues such as development intensity, building setbacks and height, and parking. Projects submitted for review and approval are evaluated by the City for consistency with the zoning code.

Figure 2.1-18 on page 2.1-64 of the Technical Background Report (TBR) shows existing zoning within the Policy Area. Please refer to pages 2.1-61 through 2.1-70 of the TBR for more details about existing zoning and acreages. Sacramento City Code section 17.20.010 establishes the official zoning categories and their development restrictions in the city. Zoning categories are designed to protect citizens and their homes and businesses from conflicting activities in scope or purpose within the vicinity. For example, commercial business cannot be conducted in a residential area except under certain conditions. The city of Sacramento has more than 30 zoning designations within its boundaries.

Sacramento International Airport (SMF) Master Plan

The SMF Master Plan was adopted by the Sacramento County Board of Supervisors on August 7, 2007. The SMF Master Plan establishes a program for modifications of existing facilities and development of new facilities at SMF through the year 2020. The Master Plan addresses all aspects of the airport including the airfield, terminals and related passenger services, cargo, general aviation (GA), airport support, and airport access.

Implementation of the Master Plan would occur in three phases. Major improvements that would occur during Phase I (2007-2013) include construction of a new Terminal B and concourse, development of new airport, airfield and equipment maintenance facility buildings, roadway improvements, and other facilities, including a new employee parking lot south of I-5. In addition, Phase I improvements would also include the acquisition of land for approach protection and land use buffers. Major improvements that would occur during Phase II (2014-2020) include a 2,400-foot extension of Runway 16L/34R (east runway), taxiway modifications, and the expansion of terminal facilities. Improvements that would occur during Phase III (2020 and beyond) include a new 8,600-foot runway parallel to the existing Runway 16R/34L, a new



Sacramento County

Citrus Heights

Rancho Cordova

Yolo County

West Sacramento

Elk Grove

Legend

- Park
- Open Space
- Preserve and Enhance
- Improve and Evolve
- Transform - Urban
- Transform - New Growth
- City Limit
- County Boundary
- Policy Area
- Water

Figure 4-1

Areas of Change



mass transit link, and new commercial development north of I-5 and east of Airport Boulevard, and north of Elverta Road.²

LAND USE EVALUATION

This section evaluates the proposed 2030 General Plan for consistency with the principles of the SACOG Blueprint. Physical environmental impacts resulting from future development under the 2030 General Plan are discussed in the applicable technical sections in this EIR. This chapter differs from impact discussions in that only plan or policy consistency issues are discussed, as opposed to a discussion of the physical impacts on the environment that could occur with implementation of the proposed project. This discussion complies with section 15125(d) of the CEQA Guidelines, which requires EIRs to discuss potential conflicts with local or regional plans as part of the environmental setting. Therefore, the following discussion analyzes the proposed 2030 General Plan for effects resulting in: 1) physically dividing an established community; 2) conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the proposed project adopted for the purpose of avoiding or mitigating an environmental effect; or 3) short or long-term land use conflicts due to the placement of incompatible uses in proximity to one another.

Several regionally and locally adopted land use plans, policies, and regulations would be applicable to development under the proposed 2030 General Plan. These include the 2003 SMAQMD Air Quality Management Plan, Natomas Basin Habitat Conservation Plan (NBHCP), City of Sacramento Zoning Code, City of Sacramento Urban Form Guidelines, and the Airport Land Use Compatibility Plans (ALUCP), as well as the Sacramento International Master Plan (SMF Master Plan).

Analyses of consistency with these plan are provided in sections 6.1 (Air Quality), 6.2 (Agricultural Resources), 6.3 (Biological Resources), 6.6 (Hazards and Hazardous Materials), 6.7 (Hydrology and Water Quality), 6.8 (Noise), 6.12 (Transportation and Circulation), and 6.13 (Urban Design and Visual Resources).

Physical Division of an Established Community

The land use policies included in the Land Use and Urban Design Element of the proposed 2030 General Plan are supported by six themes: 1) making great places, 2) growing smarter, 3) maintaining a vibrant economy, 4) creating a healthy city, 5) living lightly – reducing the carbon footprint, and 6) developing a sustainable future. The city of Sacramento consists of neighborhoods and districts that the City wants to protect and maintain. As a result, future growth and change would be directed primarily into areas that are not achieving their full potential and that would benefit from enhancement, revitalization, or redevelopment in a manner

² County of Sacramento, *Sacramento International Airport Master Plan*, adopted August 27, 2007.

that complements and enhances Sacramento's character and livability. These areas of the city can be found on Figure 4-1, Areas of Change.

Land use policies provide for strategic growth and change that preserves existing viable neighborhoods and targets new development primarily to infill areas that are vacant or underutilized areas, and only secondarily to new "greenfield" areas. Proposed changes to established areas focus on enhancing the quality of life through improved connectivity with other parts of the city, greater access to amenities, enhanced safety, and greater housing and employment choices. The City's growth policies strengthen and expand the framework of neighborhoods, centers, and corridors throughout Sacramento, ensuring compatible transitions between established neighborhoods and future development.

The 2030 General Plan contains city wide policies as well as policies specific to the 10 Community Plans. The South Area Community Plan contains policies that are designed to focus on issues unique to this area of the city. In addition, the policies contained within the other nine Community Plans are also consistent and compatible with the 2030 General Plan policies. All planned development areas or Focused Opportunity Areas would be developed consistent with the same six themes listed above. Therefore, the proposed 2030 General Plan has been designed as a cohesive plan that builds upon existing neighborhoods and developed areas and would not physically divide an existing established community.

Conflicts with Existing Plans, Policies, or Regulations

The City of Sacramento Zoning Code, Title 17 of the City's Municipal Code, is one of the primary means of implementing the General Plan. Adoption of the proposed 2030 General Plan would require updating the Zoning Code regarding policies pertaining to land use, density/intensity of development, design and development, resource conservation, public safety, and other pertinent topics to ensure consistency with the General Plan. After the General Plan and Land Use and Urban Form Diagram are adopted, the City would update the Zoning Map to be consistent with the Land Use and Urban Form Diagram. Further, the proposed 2030 General Plan proposes new land use designations that would be reflected in the Zoning Code once it is updated. This includes a broader range of zoning categories for residential uses; a new "Centers" category that provides for a combination of employment, services, retail, and/or entertainment with higher density housing with new mixed use designations; and a new "Corridors" category that provides connections between neighborhoods, centers, and public facilities with new mixed-use designations. While state law requires that the Zoning Code be revised to reflect the adopted 2030 General Plan within a reasonable period of time, which is typically one year, as a charter city, Sacramento is not subject to this requirement. However, the Zoning Code would be revised as quickly as possible to minimize conflicts with the General Plan. There are several implementation programs included in Part IV of the 2030 General Plan that call for updates to the Zoning Code.

The boundaries of the proposed Sacramento 2030 General Plan include the existing city limits (including the recently-annexed Greenbriar project area) in addition to the Panhandle area and Camino Norte area located adjacent to the northern and northwestern boundaries of the city. The Greenbriar and Camino Norte areas are located approximately 1 mile and 1-1/2 mile to the east, respectively, of the SMF airport's eastern boundary. The proposed expansion of the airport would be located within existing airport property and would involve the construction of compatible airport-related uses. The purchase of land for approach protection and land use buffers during Phase I would also occur to the west of the airport's boundary. Development within the Policy Area boundary would not encroach or interfere with planned airport improvements and land acquisition. Therefore, implementation of the proposed project would not conflict with implementation of the SMF Master Plan.

In addition, implementation of the proposed project and SMF Master Plan would not violate the terms of the Natomas Joint Vision MOU adopted by the City and County of Sacramento. The MOU states that the City would act as the agent of development within the Natomas area while the County would act as the agent of permanent open space preservation. Both jurisdictions would work to protect SMF and land use buffers.³ As the Policy Area of the proposed 2030 General Plan does not encroach upon existing or future airport operations no conflicts with the Natomas Joint Vision would occur.

Land use policies adopted by SACOG as the Blueprint for regional growth, as described previously, would guide regional development in a number of cities, including Sacramento, to mitigate for regional transportation congestion as a result of modeled future growth without the Blueprint. The proposed 2030 General Plan incorporates the following principles that reflect the Blueprint adopted by SACOG: 1) making great places, 2) smart growth with predominantly infill development focused within current Policy Area boundaries, 3) maintaining a vibrant economy, 4) creating a healthy city, 5) living lightly by creating pedestrian, bicycle, and transit oriented development and, thus, reducing the carbon footprint, and 6) developing a sustainable future. Because the proposed 2030 General Plan has been designed to incorporate the Blueprint principles that mitigate for potential traffic congestion in the region, the proposed project would not conflict with the Blueprint.

The 2030 General Plan also includes the development assumptions included in the Blueprint allocated for the city of Sacramento in terms of population, housing units, and employment. In 2005, the City adopted Resolution #2005-755 that defined the city's allocation of the Blueprint. The City has worked closely with SACOG to ensure their commitment to the Blueprint and to shouldering their portion of the region's population, housing, and jobs. Since the Resolution was adopted, the city's allocation of population, housing units, and employment has been

3 County of Sacramento, *Sacramento International Airport Master Plan Final Environmental Impact Report*, certified August 27, 2007, p. 5-4.

revised by SACOG as well as the City, based on new information. The specific allocation is reflected in an amendment to the City's current (1988) General Plan.

■ Land Use Compatibility with Adjacent Lands

Implementation of the 2030 General Plan includes land use designations of Suburban Residential, Parks, Employment Center, and Industrial uses in those areas adjacent to the boundaries of the Policy Area. In most instances, the types of land uses, as well as land use designations proposed under the 2030 General Plan are a continuation of what currently exists. The types of land uses proposed are very similar to what currently exists and, in many instances, the transition from the Policy Area into the adjacent unincorporated county is seamless.

Generally, the Policy Area is adjacent to urban, developed areas in the county to the east and undeveloped land to the north and south with the exception of the Sacramento International Airport located to the north. Depending on the specific location of certain uses, potential incompatibilities could occur. If there are any specific incompatibilities associated with noise, odor, light, or traffic, these concerns are addressed in the applicable technical section. Based on the analysis of the proposed General Plan, this MEIR concludes that the proposed land use designations under the 2030 General Plan would not produce excessive noise, light, odors, or traffic that could result in a land use incompatibility with adjacent lands.

5.0 Population, Employment, and Housing



POPULATION, EMPLOYMENT, AND HOUSING

INTRODUCTION

This Chapter describes existing levels of and trends in population, employment, and housing in the Policy Area and Sacramento County, including jobs-housing balance. It identifies 2030 Sacramento General Plan growth assumptions and analyzes projected population, employment, and housing growth in relation to planned buildout of the Policy Area under the 2030 General Plan.

Changes in population, housing, and employment in and of themselves are generally characterized as social and economic effects, not physical effects on the environment. CEQA provides that economic or social effects are not considered significant effects on the environment unless the social and/or economic effects are connected to physical environmental effects. A social or economic change related to a physical change may be considered in determining whether the physical change is significant (CEQA Guidelines section 15382). The direction for treatment of economic and social effects is stated in section 15131(a) of the CEQA Guidelines:

Economic or social effects of a project shall not be treated as significant effects on the environment. An EIR may trace a chain of cause and effect from a proposed decision on a project through anticipated economic or social changes resulting from the project to physical changes caused in turn by the economic or social changes. The intermediate economic or social changes need not be analyzed in any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on physical changes.

While increased population and changes to demographics resulting from new development do not necessarily cause direct adverse physical environmental effects, indirect physical environmental effects such as increased vehicle trips and associated increases in air pollutant emissions could occur. The information in this Chapter is used as a basis for analysis of project and cumulative impacts in the technical sections of this EIR. Physical environmental effects associated with the increase in population and employment are discussed in the technical sections included in Chapter 6.0.

Comments received in response to the NOP (see Appendices A and B) requested the General Plan EIR evaluate environmental impacts that could result from increased development densities in accordance with the SACOG Blueprint for land use, which has been adopted by the City of Sacramento. Potential environmental impacts associated with increased development densities are addressed in the applicable technical sections of this EIR.

Sources for the information included in this Chapter include the City of Sacramento General Plan Technical Background Report (TBR), the Draft 2008–2013 City of Sacramento Housing Element, The U.S. Census Bureau, the 2005 American Community Survey (ACS), the California

Department of Finance (DOF), the California Employment Development Department, and the Sacramento Area Council of Governments (SACOG).

The TBR prepared for the project is available electronically on the City's website (<http://www.sacgp.org/documents.html#tbr>) and on CD at the back of this document.

ENVIRONMENTAL SETTING

Population

The population of the city of Sacramento is racially and ethnically diverse, represented by a mix of White, African-American, Asian, and Latino people. Approximately 45 percent of the city's population is estimated to be low or very low income compared to the estimated countywide median income. Since 1990, a total of 72,000 jobs were added in Sacramento, and approximately 136,000 jobs are forecast to be added by 2030. Government and service jobs are the most common in the city, together making up 75 percent of the city's job base.

The city's average household size is larger for owner-occupied than rental units, and has increased steadily since 1990. The population that is of retirement age (over 65) has increased since 1990, while the population of young children (under 10) has shown a decline. Adolescents (10–19), young adults (20–29) and older adults (50–59) are the fastest growing age groups in the city.

■ Population Growth Rates

According to the state Department of Finance (DOF), Sacramento's population was 467,343 on January 1, 2007. Between 1990 and 2007, the city experienced a 26.5 percent increase in population.¹ The County has seen a more dramatic percentage change of 35.1 percent during this same time frame. The city's share of the total county population decreased between 1990 and 2000, but the city has retained a relatively constant share (33.2 percent of the total) of the county population between 2000 and 2007. Sacramento's share of the state population has remained relatively constant (at 1.2 to 1.3 percent of the total), while the county's share has increased slightly over time. Population within the city of Sacramento is forecast by SACOG to reach 512,060 by 2015, 523,200 by 2020, and 528,880 by 2025. These projections are based on historical trends in the region.

1 U.S. Census Bureau 2000, California Department of Finance, 2007.

■ Population by Community Plan Area

Table 5-1 provides the breakdown of the city's past, existing, and future population data by community plan area. South Natomas, North Natomas, South Sacramento, and the Pocket communities all have had the highest population growth between 1980 and 2000. Population totals decreased slightly between 1990 and 2000 in the Central City, East Broadway, and East Sacramento Community Plan areas, although the 2000 populations of Central City and East Broadway were still higher than 1980 totals.

Community Plan Area	1980	1990	2000 ¹	2025 ¹ (Projected)
Airport/Meadowview ²	30,486	32,684	37,137	48,083
Arden/Arcade	10,248	10,680	11,891	12,165
Central City	28,956	33,090	32,764	51,894
East Broadway	37,845	45,476	43,093	47,615
East Sacramento	34,644	33,111	32,181	34,682
Land Park	33,839	33,128	33,546	35,875
North Natomas	643	594	1,607	63,340
North Sacramento	34,560	44,823	54,650	60,330
Pocket	23,716	42,884	45,419	49,671
South Natomas	10,418	34,587	38,678	40,703
South Sacramento	28,721	56,752	76,022	83,722
Total	274,076	367,706	407,018	527,990

Notes:
 1. SACOG Population and Housing Module 2001.
 2. The Airport Meadowview Community Plan and portions of the South Sacramento Community Plan are now included in the revised South Area Community Plan.
 Source: 2000 Census.

Employment

Total employment in the county grew steadily from 517,400 in 1990² to 656,100 in 2005.³ Sacramento County registered a net increase of 67,600 total jobs between 2000 and 2005. On average, the pace of job growth was faster between 2000 and 2005 than during the 1990s. The city of Sacramento gained 72,000 jobs between 1990 and 2005; again, the pace of job growth was faster in the first half of the 2000 decade, with almost half of total job growth occurring in these five years. These time horizons presented in the TBR do not capture the slower growth that occurred in the early 1990s compared to the vigorous economy and rapid growth of the late 1990s. The government jobs sector leads the city's employment base at 43 percent, followed by the service sector at 32 percent. These two sectors provided 75 percent of the city's employment in 2005, and the closest following employment sector is retail trade, at 7.9 percent. The employment makeup of the city is expected to be similar in 2030, with two exceptions. The

2 U.S. Census Bureau, American Fact Finder, <www.factfinder.census.gov>, accessed July 7, 2008.

3 Ibid.

City believes that by 2030 the services sector will grow to a larger share of total employment and the government sector will decline slightly as a share of total employment.⁴

As shown in Table 5-2, Economic & Planning Systems, Inc. (EPS) prepared a projection of what the region could accommodate in terms of employment through 2030. This data was prepared in 2005 during preparation of the TBR and are only projections of future employment. Based on the EPS projections, an increase of approximately 140,000 jobs was assumed by 2030. The largest gains are expected to occur in services, retail trade, and wholesale trade. This is consistent with statewide and national trends. The occupations with the most projected job openings include low-wage service occupations (retail salespersons, cashiers, waiters/waitresses, food preparation workers, and customer service representatives), as well as nurses, office clerks, carpenters, laborers, and teachers assistants.

Sectors	2005 Estimated Employment		2030 Projected Employment		2005-2030 Projected Change	
	Number	Percent	Number	Percent	Change	Percent Average Annual Growth
Retail Trade	24,613	7.9	36,111	8.0	11,498	1.5
Services	99,304	32.0	167,000	37.1	67,696	2.1
Education	3,891	1.3	5,321	1.2	1,424	1.3
Government	133,370	43.0	175,938	39.1	42,569	1.1
Mining	176	0.1	176	0.0	0	0.0
Construction	11,987	3.9	17,162	3.8	5,174	1.4
Manufacturing	9,368	3.0	9,368	2.1	0	0.0
Transportation & Public Utilities	4,856	1.6	6,209	1.4	1,352	1.0
Wholesale Trade	9,323	3.0	13,542	3.0	4,219	1.5
Finance, Insurance & Real Estate	13,383	4.3	19,145	4.3	5,761	1.4
Total (rounded)	310,300	100.0	450,000	100.0	139,700	1.5
<small>Note: Sectors are categorized according to the Standard Industry Classification System (SIC). Source: Economic & Planning Systems, Inc. (2005) – taken from <i>Sacramento General Plan Economic Technical Report</i>, page 2.6-55.</small>						

The fastest growing occupations include those with a small number of total employees and a rapid growth rate. These occupations may provide clues about what industries or areas of the economy are positioned for faster growth in Sacramento. The projected growth in software engineers and communications analysts, for instance, may indicate an overflow from Bay Area technology firms as some functions are moved to lower cost housing markets such as Sacramento. Increases in employment opportunities for vocational education teachers and special education teachers may reflect changing education priorities.

The U.S. Census estimated that median household income for the city of Sacramento in 2005 (the most recent available data) was \$44,867 (the equivalent hourly wage is approximately

4 City of Sacramento, City of Sacramento 2008–2013 Housing Element, June 2008, p. H 3-15.

\$21.60). Although a number of the fastest growing occupations are relatively high-paying, the occupations with the most job openings are primarily low-wage occupations.

Housing

As of the 2000 Census, about 64 percent of the city's housing units were single-family homes. Since the 1990s, more single-family have been constructed than multi-family units, and the mix of housing is shifting towards more single-family homes. About 64 percent of Sacramento's housing units are single-family, with 36 percent multi-family units. Individual communities have a range of housing distributions – from eight percent single-family units in the Central City to 76 percent in the South Area.

The 2000 Census indicated that 65.4 percent of existing housing units (107,229) were single-family homes, 32.4 percent (53,015) were multi-family homes and 2.2 percent (3,670) were mobile homes. According to the Department of Finance, in 2007 66 percent of existing housing units were single-family homes, 32 percent were multi-family homes and 2 percent were mobile homes or other.

As of the 2005 American Community Survey (ACS), 52.8 percent of Sacramento households owned their homes and 47.2 percent rented their homes. This compares to 50.1 percent owners and 49.9 percent renters in 2000. The increase in homeownership is likely due to single-family construction in North Natomas and other new growth areas between 2000 and 2005. The bulk of new construction was single-family, accounting for a gain of 17,798 units, compared to 7,789 new attached or multifamily units and only 16 mobile homes.

■ Distribution of Multi-Family Housing

Table 5-3 identifies the distribution of single- and multi-family housing by Community Plan area. The Central City, Arden Arcade and South Natomas communities have the highest percentage of multi-family units in the city. These communities are characterized by a larger share of commercial and/or office development than other areas of the city, and higher density residential patterns (although not necessarily walkable patterns, in the case of Arden Arcade and South Natomas) are consistent with these more intense uses.

■ Vacancy Rates

The 2006 ACS reported Sacramento contained approximately 185,843 total housing units. Of these units, 169,225 were occupied, resulting in an 8.9 percent vacancy rate. Vacancy rates below 5 percent are likely due to increased housing pressures. Over the next year or two, vacancies among single-family homes could rise slightly due to the number of foreclosures resulting from loans made over the past several years with adjustable interest rates, initial

Community Plan Area	Total Housing Units (SF & MF) ²	Percent Single-Family	Percent Multi-Family ²
Arden/Arcade	6,012	34	66
Central City	17,873	8	92
Fruitridge/Broadway	22,633	65	25
East Sacramento	15,009	69	31
Land Park	14,939	72	28
North Natomas	13,495	70	30
North Sacramento	18,160	69	31
Pocket	19,194	70	30
South Natomas	15,757	57	43
South Area	29,951	76	24
Total	173,023	59	40

Notes:
 1. Year 2005 is the data available from SACOG.
 2. The table does not include the number of mobile homes in the city. Percentages of single-family and multi-family units are based on total units in Community Plan Areas including mobile homes.
 Source: SACOG, August 2007.

interest-only payments converting to full payments, and/or very small down payments.⁵ Table 5-4 presents the average rental vacancy rates for the city by neighborhood for 2007.

Community Plan Area	2007 Average Vacancy Rate
Central City/East Sacramento	5.5%
South Natomas	5.2%
Arden/Arcade	5.7%
North Natomas	7.0%
North Sacramento	6.0%
Pocket/Land Park	6.3%
South Area	4.6%
Fruitridge/Broadway	4.6%
2007 Total	5.61%

Source: City of Sacramento 2007; CB Richard Ellis, Inc. First Quarter through Fourth Quarter of the 2007 Multi-Family Housing Vacancy/Rental Survey; Sacramento Self Help Housing Quarterly Reports to the City of Sacramento.

■ Housing Costs

As with California in general and major portions of the United States, prices for single-family homes in the Sacramento area experienced dramatic increases over the past five years. Since 2002, both the city and county of Sacramento have experienced approximately 12 percent increases in median sales price. The county tends to have higher home values than the city. Peak home prices in both the city and the county occurred during 2006, with a drop of

5 Ibid. p. H 3-26.

approximately 14.2 percent for the county and 14.7 percent for the city between June 2006 and June 2007. The drop is related to problems in the mortgage lending market. It is not yet clear how long the current trend of dropping prices will continue, but in the medium to long term, increases in the median sales price are expected to resume.⁶

■ Rental Rates

In the second quarter of 2006, the average rent in the Sacramento area was \$955, representing a 2.3 percent annual increase over the average of \$933 in the second quarter of 2005. Rents have risen at an average rate of 5.5 percent per year since 2001, when the average rental price for the Sacramento area was \$691. In the short term, high vacancy rates and dropping home prices are expected to keep growth rates for rents low. In the second quarter of 2007, the average rent in the city of Sacramento was \$905 (compared to the area average of \$955).⁷

■ Household Size

The City experienced a trend toward rising household sizes in the 1990s. Sacramento's average household size in 1990 was 2.50, which increased to 2.57 in 2000. This trend may reflect young people living at home longer or moving back in with their parents, shared housing for affordability, and new populations with larger extended families. In 2005, the city's household size has shown a continued growth trend and increased to 2.69 persons, almost matching the county at 2.70 persons per household.⁸

Jobs-Housing Balance

The concept of jobs/housing balance refers to the relationship of residences to jobs in a given community or area. Assuming a reasonable match between the affordability of housing and the incomes of jobs in the local market, if the number and proximity of residences is proportionate to the number and proximity of jobs, the majority of employees would have the opportunity to work and reside in the same community. A well-balanced ratio of jobs and housing can contribute to reductions in the number of vehicle trips resulting from commuting due to employment opportunities in closer proximity to residential areas. Such a reduction in vehicle trips would necessarily result in lower levels of air pollutant emissions (including lower greenhouse gas emissions) and less congestion on area roadways and intersections. An important consideration in evaluating the jobs/housing balance is whether housing in the community is affordable to local employees. The availability of an adequate housing supply, presenting various price levels including those that are reasonably available to those holding jobs that are offered in the community, provides the potential to reduce the length of commutes between residences and work sites.

6 Ibid.

7 Ibid. p. H 3-27.

8 U.S. Census Bureau, American Community Survey, <www.census.gov/acs/www/index.html>, accessed May 9, 2008.

Sacramento's employment base in 2005 was 339,000, with 179,000 total housing units. This translates into an employee per unit ratio of 1.89:1,⁹ which implies that employees are traveling from the surrounding region to fill jobs within the city. The extent to which this occurs depends on a variety of factors related not only to employment and housing in the city, but economic factors affecting the city and region, including, importantly, the affordability of housing. People are often willing to commute longer distances from areas where their housing dollar goes further. Using SACOG projections for employment and housing units for 2035 (975,662 and 732,678, respectively) the countywide jobs/housing balance would be 1.33:1.¹⁰

Regulatory Context

Federal, state, and local regulations pertaining to population, employment, and housing, including local land use controls and the production of housing to accommodate all income ranges and assurance of adequate siting for housing, are discussed in the Chapter 2.5, Housing, of the TBR.

■ City of Sacramento General Plan Housing Element

The adopted City of Sacramento General Plan Housing Element (June 2003) includes goals, policies, and implementation programs for the development, improvement, and maintenance of housing in the city of Sacramento. The City views housing policies as part of the City's overall mission to strengthen neighborhoods, improve livability and conditions for all residents, and maintain the economic well being of the city and all its residents. Preparation of an update to the City's Housing Element is currently ongoing and is not included in this MEIR. A separate environmental analysis will be prepared for the Housing Element.

■ Proposed General Plan Policies

The following goals and policies from the proposed 2030 General Plan relevant to population, employment, and housing are listed below. As of the publication of this MEIR, the Housing Element of the City of Sacramento 2030 General Plan is available for public review on the City's website. The City of Sacramento 2008-2013 Housing Element is undergoing a separate environmental review and proposed housing policies are not evaluated in this MEIR.

LAND USE AND URBAN DESIGN (LU)

Goal LU 1.1 Growth and Change. Support sustainable growth and change through orderly and well-planned development that provides for the needs of existing and future residents and businesses, ensures the effective and equitable provision of public services, and makes efficient use of land and infrastructure.

9 An employee per unit ratio that exceeds 1.0 reflects the fact that there are more jobs than housing units within the City. An employee per unit ratio of 1.0 would mean that there is one job per housing unit.

10 Sacramento Area Council of Governments, *Projection Data, January 2007*, <www.sacog.org>, accessed August 30, 2007.

Policies

- LU 1.1.2 **Building Intensity and Population Density.** The City shall regulate the levels of building intensity and population density according to the standards and land use designations set out in the General Plan and the Sacramento City Code. Within these designations, cumulative development shall not exceed 650,000 persons and 474,000 employees by 2030.
- LU 1.1.3 **Growth and Change Evaluation.** The City shall review and adjust, as needed, the General Plan's land use, population, and employment capacities every five years, subject to the evaluation of their impacts.

Goal LU 2.8 City Fair and Equitable. Ensure fair and equitable access for all citizens to employment, housing, education, recreation, transportation, retail, and public services, including participation in public planning for the future.

Policies

- LU 2.8.1 **Equitable Distribution of Uses and Amenities.** The City shall strive to ensure that that desirable uses and neighborhood amenities are distributed equitably throughout the city.
- LU 2.8.2 **Public Facilities and Services.** The City shall strive to equitably distribute public facilities, improvements, and services throughout the city, with priority given to remedying existing deficiencies in blighted or under-served neighborhoods.
- LU 2.8.3 **High Impact Uses.** The City shall avoid the concentration of high-impact uses and facilities in a manner that disproportionately affects a particular neighborhood, center, or corridor to ensure that such uses do not result in an inequitable environmental burden being placed on low income or minority neighborhoods.
- LU 2.8.4 **Housing Type Distribution.** The City shall promote an equitable distribution of housing for all income groups throughout the city and promote mixed-income developments rather than creating concentrations of below market rate housing in certain areas.
- LU 2.8.5 **Jobs Housing Balance.** The City shall encourage a balance between job type, the workforce, and housing development to reduce the negative impacts of long commutes and provide a range of employment opportunities for all city residents.

Goal LU 4.1 Neighborhoods. Promote the development and preservation of neighborhoods that provide a variety of housing types, densities, and designs, and mix of uses and services that address the diverse needs of Sacramento residents of all ages, socio-economic groups, and abilities.

Policies

- LU 4.1.10 **Balanced Neighborhoods.** The City shall require new major residential development to provide a balanced housing mix that includes a range of housing types and densities.
- LU 4.1.11 **Senior Housing Development.** The City shall encourage the development of senior housing in neighborhoods that are accessible to public transit, commercial services, and health and community facilities.

Goal LU 7.1 Employment Centers. Encourage employee-intensive uses throughout the city in order to strengthen Sacramento’s role as a regional and West Coast employment center and to encourage transit ridership and distribute peak hour commute directions.

Policies

LU 7.1.1 **Employment Intensive Uses.** The City shall encourage employee intensive uses such as medical and professional offices, light industry, research, and skill training.

LU 7.1.2 **Housing in Employment Centers.** The City shall require compatible integration of housing in existing and proposed employment centers to help meet housing needs and reduce vehicle trips and commute times, where such development will not compromise the City’s ability to attract and maintain employment-generating uses.

Economic Development (ED)

Goal ED 2.1 Workforce. Assist in preparing an educated, skilled and competitive workforce to match the employment needs of the region and its businesses.

Policies

ED 2.1.1 **Higher Education and Local Economy.** The City shall work with local organizations such as Linking Education and Economic Development (LEED) in developing links between public and private providers of primary, secondary, and post-secondary education and with local businesses and industries to develop and promote educational programs relevant to the needs of the local economy.

ED 2.1.2 **Attraction of Key Technical Institutions.** The City shall identify and seek to attract public and private technical institutions, such as those with specialized training programs in arts, trade and technical subjects to serve the workforce requirements of Sacramento businesses.

ED 2.1.3 **Retention of Local College Graduates.** The City shall encourage and actively support efforts by local educational institutions, businesses and public agencies to assimilate local college graduates into the city and regional workforce in order to reduce leakage to other employers outside the region.

ED 2.1.4 **Attract Skilled Workers.** The City shall work to improve the quality of life in the city to retain existing skilled workers as well as skilled workers from beyond the region.

POPULATION, EMPLOYMENT, AND HOUSING ANALYSIS

2030 Sacramento General Plan Growth Assumptions

To estimate the amount of growth that is anticipated to occur within the Policy Area over the next 25 years, the City considered a range of factors, including the physical capacity of the General Plan Land Use Diagram, the projected growth in the SACOG region, the specific policy directions in the plan, and socioeconomic trends. The results of this analysis include forecasts of the number of new residences, amount of new employment, and increase in population.

The City evaluated the available development capacity remaining within the city limits under the Preferred Land Use and Urban Form Diagram. The concept of capacity refers to the ultimate

development of land (whether it occurs now or in 2030) assuming development would be at 80 percent of the maximum development potential associated with each land use designation. For example, if an area is designated Traditional Neighborhood – Low Density, the maximum density for development is 8.0 units/net acre. Therefore, assuming an 80 percent capacity only 6.0 units/net acre are anticipated to be developed. The 2030 Buildout refers to the amount of development (within the capacity) that is estimated to occur by 2030.

To forecast growth, the City examined “pipeline projects,” those projects either already being evaluated by the City or slated for development in the near future (see Table 5-5). In addition, the City also identified and studied the development capacity of vacant land and areas suitable for redevelopment in the Policy Area. For the purposes of forecasting, the City assumed that pipeline projects would build out completely during the timeframe of the Plan (through 2030). The pipeline projects account for approximately 50 percent of the approximately 97,000 new housing units assumed. Vacant land and redevelopment sites were assumed to build out at 80 percent of capacity (versus 100 percent capacity which would not be realistic) based on the density and intensity assumptions associated with each land use designation. An additional reduction of buildout capacity (or “dial-down”) was applied to each of the six Focused Opportunity Areas (see Chapter 3.0 for a full description of the Focused Opportunity Areas). This “dial-down” from full buildout capacity is based on an evaluation prepared by Mintier & Associates which provides a discussion of projected market conditions through the timeframe of the General Plan.¹¹ A copy of this report is included in Appendix L.

Pipeline Projects	Housing Unit Assumptions	Employment Assumptions (# of employees)
Greenbriar	3,400	500
Panhandle	3,145	3,119
Camino Norte	1,500	373
Richards Boulevard (including T9)	8,000	10,600
UP Railyards	12,000	15,700
R Street	5,280	9,698
The Docks	1,640	1,213
65 th Street North/South	2,600	562
Curtis Park Village	549	2,400
Florin LRT	1,200	1,640
Meadowview LRT	1,200	138
Delta Shores	6,127	5,480
Total	46,641	51,423

Source: City of Sacramento GIS, 2007.

The 2030 General Plan development forecast is for approximately 97,000 new housing units and approximately 136,000 new employees (target net new growth). The “dial-down” assumption for the six Focused Opportunity Areas only slightly reduces the net new growth

11 Mintier & Associates, Sacramento General Plan Update Buildout Methodology, June 29, 2007.

capacity (development on vacant sites and redevelopment sites). Because pipeline projects are counted towards the target growth and are considered built for the purposes of this analysis, the number of units and employees produced by pipeline projects is removed from the 2030 target assumptions prior to “dialing down” the available vacant and redevelopment capacity. Thus, the target that is used to “dial down” vacant and redevelopment capacity is the 2030 new growth (97,000 residential units and 136,000 new employees) minus pipeline projects.

Table 5-6 indicates the land use assumptions used for preparation of the 2030 General Plan with the existing number of residential units, jobs, and population identified along with the net new growth and the 2030 dial-down assumptions.

Residential Units	Existing (2005) ¹	2005-2030 Net New Growth	2030 Dial Down (Existing + Project) ²
Total Units	179,000	97,000	276,000
Attached	60,000	75,000	135,000
Detached	119,000	22,000	141,000
Jobs	339,000	136,000	475,000
Population	446,000	195,000	641,000

Notes:
 1. Within the city limits.
 2. Includes pipeline projects as well as vacant and redevelopable lands within the Policy Area boundaries.
 Source: City of Sacramento GIS, 2007.

Population

As shown in Table 5-6, population within the City of Sacramento is forecasted to reach 641,000 by 2030. Based on historical trends in the region, it is highly unlikely that the population of the Policy Area would exceed the General Plan 2030 dial-down assumption. Buildout of the Policy Area under the Preferred Land Use Diagram would, based on these assumptions, accommodate the projected population growth.

The 2030 General Plan includes a number of goals and policies designed to support infill development along with well-planned development that accommodates the growing needs of the city while also preserving the many unique aspects of Sacramento. Proposed Goal LU 1.1 of the 2030 General Plan would encourage sustainable growth and change through orderly and well-planned development that provides for the needs of existing and future residents and businesses. Proposed policies LU 1.1.2 and LU 1.1.3 would ensure that the City regulates the levels of building intensity and population density according to the standards and land use designations set out in the General Plan and the City’s Zoning Code which requires that cumulative development not exceed 650,000 persons and 474,000 employees by 2030, and requires the City to review and adjust remaining capacities of the General Plan’s land use, population, and employment every five years, subject to evaluation of their impacts.

Employment

As shown in Table 5-6, the City projects an increase of approximately 136,000 jobs by 2030, bringing the total estimated jobs in the city to 475,000. The 2030 General Plan is designed to balance future housing, office, retail, commercial and industrial uses to accommodate projected employment growth. One of the visions of the General Plan is to maintain its role as the center of government, employment and culture in the region. This includes broadening the city's economy to provide jobs in all sectors, including those related to small and locally-owned businesses. Proposed Goal LU 7.1 of the General Plan encourages the location of employee-intensive uses throughout the city in order to strengthen Sacramento's role as a regional and West Coast employment center. In addition, Policies LU 7.1.1 and LU 7.1.2 encourage employee intensive development along corridors, adjacent to transit centers, within urban centers, and where community plan and redevelopment goals would be implemented. They would also require sensitive and compatible integration of housing into existing and proposed employment centers to help meet housing needs and reduce vehicle trips and commute times. Adequate land is designated in the proposed General Plan to accommodate the increase in projected employment slated to occur over the next twenty years.

Housing

The 2030 General Plan includes goals and policies that encourage and support development of a range of housing types including suburban low density, medium density traditional neighborhood, and higher density urban, mixed-use. The plan is designed to support and accommodate housing throughout the Policy Area to encourage a jobs/housing balance and to promote usage of alternate modes of transportation. Buildout of the Policy Area under the Preferred Land Use Diagram would accommodate projected population growth within the Policy Area. The General Plan dial-down scenario assumes a total of approximately 641,000 residents in the Policy Area by 2030. As shown in Table 5-6, the General Plan dial-down scenario assumes approximately 276,000 residential units in the Policy Area by 2030. Assuming a persons-per-household ratio of 2.0 for Net New Growth units, and a persons per household ratio of 2.69 for existing units, the housing demand for 641,000 residents would be approximately 263,299 units. Buildout of the Policy Area under the Preferred Land Use Diagram would accommodate projected housing demand within the Policy Area.

Proposed General Plan Policies LU 2.8.4, and LU 2.8.5 promote an equitable distribution of housing for all income groups throughout the city and designate sufficient land and development potential for housing and employment opportunities for a range of incomes and household types throughout the city, and encourages a balance between job type, the workforce, and housing development. Proposed Goal LU 4.1 promotes the development of neighborhoods that provide a variety of housing types, densities, and designs, and mix of uses and services that address the diverse needs of Sacramento residents of all age and socio-economic groups. Proposed Policies LU 4.1.10 and LU 4.1.11 require new major residential development to provide a

balanced housing mix that includes a range of housing types and densities and encourage the development of senior housing in areas that are accessible to public transit, commercial services, and health and community facilities. The General Plan designates adequate land for a mix of residential densities to accommodate the projected increase in housing units contemplated under the Plan.

Jobs-Housing Balance

The City anticipates that Sacramento's employment base in 2030 would be 475,000, with a total of 276,000 residential units in the Policy Area. The employee-per-unit ratio under buildout conditions in the Policy Area would be 1.72:1. While this projected ratio would represent an imbalance between jobs and housing within the Policy Area, it is an improvement over the existing ratio of 1.89:1. Over time, several factors, including recent demographic trends, ongoing housing and development patterns, and General Plan buildout projections and policies, would likely result in a more balanced ratio of jobs and housing in the Policy Area along with a reduction in vehicle trips and associated pollutant emissions and congestion on area roadways and intersections. For example, major infill projects within the Policy Area, including the Railyards and Township 9 developments as well as recently approved loft, condominium and single-family residential in downtown/midtown Sacramento, provide a wide range of housing types as well as housing and employment centers in close proximity to transit as well as bike lanes and a safe, walkable pedestrian network of sidewalks. In addition, recent trends indicate that an increasing number of professionals and so-called "empty nesters" prefer to live in urban areas in closer proximity to job centers and retail, dining, and cultural amenities not as readily available in the suburbs. The proposed General Plan includes several goals and policies that encourage a greater balance between jobs and housing, including Goal LU 2.8 of the Land Use and Urban Design Element, which ensures fair and equitable access for all citizens to employment, housing, education, recreation, transportation, retail, and public services; Policy LU 2.8.5, which encourages a balance between job type, the workforce, and housing development to reduce the negative impacts of long commutes and provide a range of employment opportunities for all city residents; Goal LU 7.1, which encourages the location of employee-intensive uses throughout the city in order to strengthen Sacramento's role as a regional and West Coast employment center and to encourage transit ridership; Policy LU 7.1.1, which encourages employee-intensive development that provides for training and employment centers adjacent to transit centers, within urban centers, and where community plan and redevelopment goals would be implemented; and Policy LU 7.1.2, which requires the sensitive and compatible integration of housing into existing and proposed employment centers to help meet housing needs and reduce vehicle trips and commute times.

6. Environmental Analysis

6.0 Introduction to the Environmental Analysis



INTRODUCTION TO THE ENVIRONMENTAL ANALYSIS

BASELINE EXISTING CONDITIONS ASSUMED IN THE ANALYSIS

Section 15125(a) of the CEQA Guidelines requires that an EIR include a description of the physical environmental conditions (environmental setting) as they exist at the time the Notice of Preparation (NOP) is published. The environmental setting will normally constitute the baseline physical conditions used by the Lead Agency to assist in determining the significance of an impact.

Each technical section of this MEIR (see sections 6.1 through 6.13) describes the environmental setting specific to that topic or issue area. The environmental setting information is based on information that was prepared as part of the Technical Background Report (TBR) published in June 2005 and updated, where necessary, to reflect any changed circumstances or more current information. A copy of the TBR is included on CD at the back of this document.

BUILDOUT ASSUMPTIONS

Future growth assumed in the Policy Area is guided by land uses identified on the Land Use Diagram (see Figure 3-6 in Chapter 3.0, Project Description). A discussion of the growth assumptions assumed for the analysis is included in Chapter 5.0, Population, Employment and Housing. Specifically, Table 5-5 identifies those projects either already being evaluated by the City or slated for development in the near future. Table 5-6 provides a breakdown of the net new growth assumed as well as the “dial down” (reduction of buildout capacity) assumptions for the current land use combined with the projected new growth minus the pipeline projects. The 2030 General Plan assumes a net new growth of approximately 97,000 new residential units as well as 136,000 new jobs and an increase in population of approximately 195,000 new residents. Cumulative buildout of the Policy Area assuming existing development plus the net new growth (dial down numbers) minus the pipeline projects assumes a total of approximately 276,000 residential units, 475,000 jobs, and 641,000 residents.

The MEIR analysis is based on these buildout projections. In addition, the following assumptions or scenarios were made for the traffic modeling.

Allocations of future land use for both the No Project (existing) and 2030 General Plan (project) by traffic analysis zone (TAZ) are assigned for 2030 conditions. The TAZs are geographic areas used to organize land use input data for the traffic model. The TAZs are defined by natural borders such as roads, waterways, and topography and typically represent areas of common travel behavior. The No Project or existing 1988 General Plan and 2030 General Plan have similar employment forecasts. The No Project is forecast to have approximately 44,150

fewer residential units than the 2030 General Plan. To maintain a similar number of total residential units in the six-county region for each of the alternatives, the land use forecast for the No Project was adjusted by allocating an additional 44,150 residential units to TAZs in planned future growth areas outside of the city of Sacramento.

The land use forecasts and network assumptions for 2030 were input in the regional travel demand model developed and maintained by the Sacramento Area Council of Governments (SACOG), and the model was run to generate regional transportation performance measures (for use in comparing the No Project conditions versus the 2030 General Plan) and daily roadway segment volumes.

STRUCTURE OF THE IMPACT ANALYSIS

Each technical section begins with a detailed description of the environmental setting including the applicable regulatory setting followed by the thresholds of significance and impact analysis.

Thresholds of Significance

The thresholds of significance that will serve as the basis for judging impact significance is identified in each technical section. Thresholds of Significance used for the evaluation of impacts include those thresholds currently used by the City. The City of Sacramento relies on these thresholds as those that are appropriate for evaluating the significance of impacts in the city.

Impacts

The project impacts discussion describes potential consequences to each resource that would result from implementation of the Sacramento 2030 General Plan.

Potential environmental impacts have been classified in the following categories:

- **Less than Significant** – Results in no substantial adverse change to existing environmental conditions
- **Potentially Significant** – Causes a substantial adverse change to existing environmental conditions that can be mitigated to less-than-significant levels by implementation of feasible mitigation measures or by the selection of an environmentally superior project alternative
- **Significant and Unavoidable** – Causes a substantial adverse change to existing environmental conditions that cannot be fully mitigated by implementation of all feasible mitigation measures, or by the selection of an environmentally superior project alternative

Mitigation Measures and Residual Impacts

If impacts are considered significant and it is determined that implementation of the proposed General Plan policies would not reduce impacts to a less-than-significant level, mitigation measures are proposed to reduce or avoid these impacts. In many instances the mitigation measures are new policies or revised policies that address the impact. This section also describes the level of significance of impacts following the implementation of mitigation measures. Upon completion of this process, impacts are defined as either significant but mitigable or significant and unavoidable. Significant but mitigable impacts are those impacts that could be reduced to a less-than-significant level with the implementation of mitigation measures. Significant and unavoidable impacts are those impacts that would remain significant either due to the unavailability of feasible mitigation measures to reduce impacts or inability for mitigation measures to reduce impacts to a less-than-significant level.

CUMULATIVE IMPACTS

The discussion of cumulative impacts (contained within each technical section of Chapter 6.0) describes potential impacts from buildout of the Sacramento 2030 General Plan in combination with other development or actions that would add to the effect on a specific resource. A cumulative impact would occur, for example, from the incremental effect or impact of the project when added or combined with other closely related past, present or reasonably foreseeable future projects outside of the boundaries of the Policy Area. Cumulative impacts can result from individually minor, but collectively significant projects taking place over a period of time. In many cases development under the Sacramento 2030 General Plan serves as the context for the cumulative analysis, as it includes all development within the Policy Area over the next 25 years. For some environmental resource areas, however, the cumulative context extends beyond the borders of the Policy Area and may be the boundaries of a particular service provider (such as the Sacramento City Unified School District, the Sacramento Valley, or the greater Central Valley). If the cumulative impact is determined to be significant, the cumulative analysis evaluates whether the contribution of the proposed 2030 General Plan is “cumulatively considerable”. If the contribution is not considerable, the cumulative impact is deemed less than significant. If the contribution is considerable, the EIR must identify potentially feasible mitigation measures that could reduce the magnitude of the contribution to a less-than-considerable level. If the mitigation does so, then the impact is deemed less than significant, and no further mitigation is necessary. If mitigation is unavailable to reduce the contribution to a less-than-considerable level, the cumulative impact is deemed significant and unavoidable.

ASSUMPTIONS

This MEIR makes several assumptions about development within the Policy Area. The environmental analysis assumes a conservative scenario, and in some cases a worst-case scenario, for all technical issue areas evaluated.

6.1 Air Quality



INTRODUCTION

This section addresses potential effects of the proposed 2030 General Plan (proposed project) on ambient air quality and the potential for exposure of people (especially sensitive individuals who consist of children, the elderly, acutely ill, and chronically ill) to unhealthy pollutant concentrations. This section also evaluates the potential for the proposed General Plan to: conflict with or obstruct implementation of applicable air quality plans; to violate an air quality standard or contribute substantially to an existing or projected air quality violation; to result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment; or expose sensitive receptors to substantial pollutant concentrations. Air pollutants of concern for Sacramento County include ozone (O₃), which results from reactive organic gases (ROG) and nitrogen oxides (NO_x), carbon monoxide (CO), and particulate matter (PM).

Air quality improvements are fundamental objectives that underlie policies throughout the 2030 General Plan. The 2030 General Plan addresses air quality primarily by providing land use and mobility policies intended to reduce automobile trips on a per capita basis.

Chapter 8.0, Climate Change, evaluates potential changes in global climate associated with greenhouse gas emissions and the potential for emissions generated by implementation of the 2030 General Plan to cumulatively contribute to global climate change.

Comments received in response to the NOP (see Appendix B) included concerns expressed by the Sacramento Metropolitan Air Quality Management District (SMAQMD) that the proposed General Plan should include effective mechanisms for dealing with the issue of sensitive land use compatibility with toxic air contaminant (TAC) exposure, include a discussion of climate change, and include a comparison between the proposed General Plan's land use and that of SACOG's Blueprint Proposed Scenario as they relate to motor vehicle travel demand. Odors are not addressed in this section because a specific development project is not analyzed. The issue of climate change is addressed in Chapter 8.0.

Data for this section was taken from the 2005 City of Sacramento General Plan Technical Background Report (TBR), the SMAQMD, and the California Air Resources Board (CARB). The TBR is available electronically on the City's website (www.sacgp.org/documents.html#tbr) and on CD at the back of this document.

ENVIRONMENTAL SETTING

The discussion of air quality included below is presented on a city wide basis. There are no unique issues present in any of the six Focused Opportunity Areas or the South Area Community Plan area associated with air quality issues; therefore, these areas of the city are not specifically discussed in the environmental setting.

Regional and Local Climate

The Policy Area is located within the Sacramento Valley Air Basin (SVAB) which is a valley bounded by the North Coast Ranges on the west and the Northern Sierra Nevada Mountains on the east. The valley floor is approximately 25 feet above sea level.

Hot dry summers and mild rainy winters characterize the Mediterranean climate of the Sacramento Valley. Throughout the year, daily temperatures may range from a low of 20 degrees Fahrenheit in the winter to a high of 100 degrees in the summer months. Average annual rainfall is about 20 inches with snowfall being very rare.

The annual temperature in the city averages approximately 60 degrees Fahrenheit, with monthly averages that can consistently reach as high as 100 degrees Fahrenheit in July and August, and as low as 20 degrees Fahrenheit in December and January. Summertime temperatures are normally moderated by the presence of the "Delta Breeze" which arrives through the Carquinez Strait in the evening hours. More information pertaining to air quality in the Policy Area can be located in section 6.5 of the TBR starting on page 6.5-1.

■ Stationary and Mobile Sources of Air Pollutants

Air pollutant emissions within the SVAB are generated by stationary and mobile sources. Stationary sources can be divided into two major subcategories: point and area sources. Point sources are usually subject to a permit to operate from the local air district, occur at specific identified locations, and are usually associated with manufacturing and industry. Examples of point sources include refineries, concrete batch plants, and can coating operations.

Area sources are widely distributed and produce many small emissions and do not require permits to operate from any air agency. Examples of area sources include residential and commercial water heaters, painting operations, portable generators, lawn mowers, and consumer products such as barbeque lighter fluid and hairspray. The wide-spread use of these items and operations contributes to local and regional air pollution.

Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and are classified as either on-road or off-road. On-road sources are those that are legally operated on roadways and highways. Off-road sources include aircraft, ships, trains,

racecars, and construction vehicles. Mobile sources account for the majority of the air pollutant emissions within the SVAB.

■ Ambient Air Quality Standards

Both the federal and state governments have established ambient air quality standards for outdoor concentrations of various pollutants in order to protect public health. The national and state ambient air quality standards have been set at levels at which concentrations could be generally harmful to human health and welfare and to protect the most sensitive persons from experiencing health impacts. The air pollutants for which national and state standards have been promulgated and which are most relevant to air quality planning and regulation in the air basins include ozone, carbon monoxide, suspended particulate matter, sulfur dioxide, and lead.

Please refer to section 6.5, Air Quality, of the TBR for more specific information pertaining to specific pollutants.

■ Regional and Local Air Quality

Regionally, some portions of the SVAB have fewer air quality problems than others. Only the southern portion of the SVAB is in nonattainment for federal ozone standards, and Sacramento County has not been redesignated to attainment for the federal PM₁₀ standard. The entire SVAB is in non-attainment for state standards for ozone and PM.

The California Air Resources Board (CARB) collects ambient air quality data through a network of air monitoring stations throughout the state. These data are summarized annually and are published in the CARB's California Air Quality Data Summaries. There are seven monitoring stations in Sacramento County. Three of those monitoring stations are located in the city of Sacramento: 1) northern portion of Sacramento at 3801 Airport Road, 2) downtown at 1309 T Street, and 3) at 2221 Stockton Boulevard, just east of Highway 99. Table 6.5-1 on page 6.5-4 of the TBR identifies the national and state ambient air quality standards for air pollutants of concern and lists the ambient pollutant concentrations that have been measured within the county through the period of 2004 to 2006. As shown, the Sacramento area has a recent history of federal and state exceedances for the ozone and particulate matter standards, although the standards for CO have not been exceeded during this time.

Since the TBR was compiled, monitoring data for the years 2004 and 2006 have become available. A summary of this more recent monitoring data is shown in Table 6.1-1 below. Federal and state standard exceedances for the ozone and particulate matter still persist, but standards for CO have not been exceeded in recent years.

TABLE 6.1-1				
SUMMARY OF AMBIENT AIR QUALITY MONITORING DATA IN THE POLICY AREA				
Pollutant	Air Quality Standards	Year		
		2004	2005	2006 ¹
Ozone				
Maximum 1-hour concentration		0.105	0.108	0.106
# of days exceeding national 1-hour standard.	>0.12 ppm	0	0	0
# of days exceeding State 1-hour standard.	>0.09 ppm	1	4	6
Maximum 8-hour concentration.		0.075	0.087	0.090
# of days exceeding national 8-hour standard.	>0.08 ppm	0	1	3
Carbon Monoxide (CO)				
Maximum 8-hour concentration		3.53	2.97	3.15
# of days exceeding national 8-hour standard	≥9.5 ppm	0	0	0
# of days exceeding State 8-hour standard	>9.0 ppm	0	0	0
Respirable Particulate Matter (PM₁₀)				
Maximum 24-hour concentration		44.0	64.0	57.0
# of days exceeding national standard	>150 µg/m ³	0	0	0
# of days exceeding State standard	>50 µg/m ³	0	3	4
Fine Particulate Matter (PM_{2.5})				
Maximum 24-hour concentration measured		47.0	59.0	45.0
# of days exceeding national standard	>65 µg/m ³	0	0	0
Notes: µg/m ³ = micrograms per cubic meter of air. ppm = parts by volume per million of air. 1. Year 2006 is the most recent year with complete data available from the CARB. Source: California Air Resources Board, <www.arb.ca.gov/adam/cgi-bin/db2www/adamtop4b.d2w>, 2008.				

Toxic Air Contaminants

Toxic air contaminants (TACs) are airborne substances that are capable of causing chronic (i.e., of long duration) and acute (i.e., severe but of short duration) adverse effects on human health. They include both organic and inorganic chemical substances that may be emitted from a variety of common sources including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. TACs are different than the “criteria” pollutants previously discussed in that ambient air quality standards have not been established for them, largely because there are hundreds of air toxics and their effect on health tend to be local rather than regional.

Lifetime cancer risk is defined as the increased chance of contracting cancer over a 70-year period as a result of exposure to a toxic substance or substances. It is the product of the estimated daily exposure of each suspected carcinogen multiplied by its respective cancer unit risk. Daily exposure could differ for different analysis scenarios. The CARB has produced a series of estimated inhalation cancer risk maps based on modeled levels of outdoor airborne toxic pollutant levels. TAC cancer risk, as modeled by the CARB for the baseline years 2001 and 2010, in the Policy Area ranges from 250 persons per million to over 1,000 persons per

million at the downtown core.¹ The largest contributor to this inhalation cancer risk is particulate matter emitted by diesel engines.

Sensitive Receptors

The national and state ambient air quality standards have been set at a level designed to protect the most sensitive persons from illness or discomfort with a reasonable margin of safety. Air pollution regulatory agencies typically define sensitive receptors to include residences, schools, playgrounds, child care centers, athletic facilities, hospitals, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. Each of these land use types is present in the Policy Area.

Regulatory Context

Air quality within the Policy Area is regulated through the efforts of various federal, state, regional and local government agencies. These agencies cooperate to improve air quality through legislation, planning, policy-making, education, and a variety of other programs. The agencies responsible for monitoring and improving the air quality within the air basins are discussed in detail in the TBR starting on page 6.5-5 through 6.5-8 of section 6.5, Air Quality. The reader is referred to the TBR for this information.

The following regulatory developments have occurred since the TBR was completed in 2005.

■ State and Local

The SMAQMD issued its *2003 Triennial Report* in 2005, which identifies “all feasible measures” the SMAQMD would study or adopt over the ensuing three years to make progress toward attainment of state ozone standards. The measures included additional controls on stationary sources such as process heaters, boilers, steam generators, space heaters, internal combustion engines, natural gas fired water heaters, fugitive emissions from oil and gas production and processing facilities and organic liquid loading. The *Report* also proposed programs to provide incentives for improvements to mobile heavy-duty vehicles/engines, CEQA mitigation for construction and land use development, and a *Spare the Air* program to reduce vehicle trips. Additional rules under consideration included rules that would reduce emissions from degreasing and solvent cleaning operations, adhesives and sealants, solvents and unspecified coatings. Control measures proposed for further study included measures to limit emissions from automotive refinishing, concentrated animal feeding operations, food product manufacturing and processing, polyester resins, accelerated vehicle retirement, free gas caps and construction equipment. In addition to the Triennial Report, the CARB requires the SMAQMD to prepare an *Annual Progress Report*. The *2006 Annual Progress Report*, the most recent, adopted in October 2007, provides updates for all the proposed SMAQMD control

1 California Air Resources Board, Maps of Estimated Cancer Risk From Air Toxics <www.arb.ca.gov/toxics/cti/hlthrisk/hlthrisk.htm>.

programs, the schedule for adopting control measure commitments, and the evaluation of further study measures.

City of Sacramento 1988 General Plan

The City's 1988 General Plan does not contain an Air Quality Element and there are no specific goals or policies that pertain to air quality.

IMPACTS AND MITIGATION MEASURES

Methods of Analysis

The analysis in this section focuses on the nature and magnitude of the change in the air quality environment due to implementation of the proposed General Plan. Air pollutant emissions would result from construction activities, increased stationary source activity, and increased traffic volumes within the Policy Area. The net increase in emissions generated by these activities and other secondary sources have been estimated and quantified, where feasible. Operational criteria and pollutant emissions from stationary sources (e.g., heating/cooling of buildings, associated maintenance equipment) and motor vehicles were estimated by using the URBEMIS 2007 model for the 2030 buildout year.

Total construction emissions from all individual projects that would occur under the proposed General Plan and changes to CO levels at congested intersections resulting from the proposed General Plan's changes to traffic flows were not estimated quantitatively because no project-specific information is available for a general plan analysis.

For estimates of construction emissions to be meaningful and comparable to the significance thresholds, the size, type and schedule for every individual development project to be undertaken in the city over the next 20 years would have to be known in detail. Therefore, for this analysis, the acreage, or amount of land for each land use type (e.g., residential, commercial) under current conditions as well as buildout of the existing General Plan (1988 General Plan), and for buildout of the proposed General Plan (2030) are known. This is sufficient data to estimate stationary and mobile source operational emissions at full buildout, but not daily average emissions from construction (the quantity to which the SMAQMD threshold would apply) over the course of buildout. Because project detail is not available, URBEMIS modeling for construction activity was not conducted. The construction impacts section below considers whether the SMAQMD construction thresholds would likely be exceeded for individual development projects and for the combined average daily total of all development projects in Sacramento. The URBEMIS model was used, however, to evaluate operational changes in mobile and operational emissions. The data and assumptions for these calculations are included in the model output files in Appendix C.

For estimates of intersection worst-case CO concentrations to be possible and comparable to ambient air quality standards, peak commute period traffic volumes and intersection levels of service data would have to be available from the project traffic study. For this project, only daily average traffic volumes and roadway segment levels of service under existing conditions, existing General Plan buildout assumptions, and proposed 2030 General Plan buildout assumptions were generated by the project traffic consultant. Use of such data would not guarantee that the modeled CO values would be worst-case. The CO impacts analysis below qualitatively considers whether the ambient air quality standards would likely be exceeded given present local ambient levels of CO and likely trends in state vehicular CO emission rates, and specifies SMAQMD's recommended measures to mitigate CO levels if standards would be exceeded.

For potential TAC impacts, the analysis relies on the CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (April 2005), which identifies major TAC sources (e.g., freeways, large warehouses/distribution centers, rail yards, etc.) and makes general recommendations to avoid significant impacts to nearby sensitive land uses.

Proposed General Plan Policies

The following goals and policies from the proposed 2030 General Plan are relevant to Air Quality within the entire Policy Area. The proposed General Plan does not include any policies regarding Air Quality that are unique to any of the City's Community Plans or Focused Opportunity Areas.

ENVIRONMENTAL RESOURCES (ER)

Goal ER 6.1 Improved Air Quality. Improve the health and sustainability of the community through improved regional air quality and reduced greenhouse gas emissions that affect climate change.

Policies

- ER 6.1.1 **Maintain Ambient Air Quality Standards.** The City shall work with the California Air Resources Board and the Sacramento Metropolitan Air Quality Management District (SMAQMD) to meet State and Federal ambient air quality standards.
- ER 6.1.2 **New Development.** The City shall review proposed development projects to ensure projects incorporate feasible measures that reduce construction and operational emissions for reactive organic gases, nitrogen oxides and particulate matter (PM₁₀ and PM_{2.5}) through project design.
- ER 6.1.3 **Emissions Reduction.** The City shall require development projects that exceed SMAQMD ROG and NO_x operational thresholds to incorporate design or operational features that reduce emissions equal to 15 percent from the level that would be produced by an unmitigated project.
- ER 6.1.4 **Protect all Residents Equally.** The City shall ensure that all land use decisions are made in an equitable fashion in order to protect residents, regardless of age, culture,

ethnicity, gender, race, socioeconomic status, or geographic location, from the health effects of air pollution.

- ER 6.1.5 **Development near TAC Sources.** The City shall ensure that new development with sensitive uses located adjacent to toxic air contaminant sources, as identified by the California Air Resources Board (CARB), minimizes potential health risks. In its review of these new development projects, the City shall consider current guidance provided by and consult with CARB and SMAQMD.
- ER 6.1.6 **Sensitive Uses.** The City shall require new development with sensitive uses located adjacent to mobile and stationary toxic air contaminants (TAC) be designed with consideration of site and building orientation, location of trees, and incorporation of appropriate technology for improved air quality (i.e., ventilation and filtration) to lessen any potential health risks. In addition, the City shall require preparation of a health risk assessment, if recommended by Sacramento Metropolitan Air Quality Management District, to identify health issues, reduce exposure to sensitive receptors, and/or to implement alternative approached to development that reduces exposure to TAC sources.
- ER 6.1.7 **Greenhouse Gas Reduction Goal.** The City shall work with the California Air Resources Board to comply with statewide greenhouse gas reduction goals as established in the *Global Warming Solutions Act of 2006 for 2020* and any subsequent targets.
- ER 6.1.8 **Citywide Greenhouse Gas Assessment.** The City shall comply with pertinent State regulations to assess citywide greenhouse gas emissions for existing land uses and the adopted General Plan buildout.
- ER 6.1.9 **Greenhouse Gas Reduction in New Development.** The City shall reduce greenhouse gas emissions from new development by discouraging auto-dependent sprawl and dependence on the private automobile; promoting water conservation and recycling; promoting development that is compact, mixed use, pedestrian friendly, and transit oriented; promoting energy-efficient building design and site planning; improving the jobs/housing ratio in each community; and other methods of reducing emissions.
- ER 6.1.10 **Climate Change Assessment and Monitoring.** The City shall continue to assess and monitor the effects of climate change.
- ER 6.1.11 **Coordination with SMAQMD.** The City shall coordinate with SMAQMD to ensure projects incorporate feasible mitigation measures if not already provided for through project design.
- ER 6.1.12 **Reduced Emissions for City Operations.** The City shall promote reduced idling, trip reduction, routing for efficiency, and the use of public transportation, carpooling, and alternate modes of transportation to for operating departments within the City.
- ER 6.1.13 **Fleet Operations.** The City shall continue to purchase low-emission vehicles for the City's fleet and to use available clean fuel sources for trucks and heavy equipment.
- ER 6.1.14 **Zero-Emission and Low-Emission Vehicle Use.** The City shall encourage the use of zero-emission vehicles, low-emission vehicles, bicycles and other non-motorized vehicles, and car-sharing programs by requiring sufficient and convenient infrastructure and parking facilities in residential developments and employment centers to accommodate these vehicles.

- ER 6.1.15 **Preference for Reduced Emission Equipment.** The City shall give preference to contractors using reduced-emission equipment for City construction projects and contracts for services (e.g., garbage collection), as well as businesses which practice sustainable operations.
- ER 6.1.16 **Transportation Systems Management and Trip Reduction.** The City shall encourage all City employees to use means other than a single occupant vehicle for their daily work commute.
- ER 6.1.17 **Wood Stove/Fireplace Replacement.** The City shall promote the replacement of non-EPA certified fireplaces and woodstoves and encourage city residents to participate in SMAQMD's Wood Stove and Wood Fireplace Change Out Incentive Program.
- ER 6.1.18 **Employer Education Programs.** The City shall encourage employers to participate in SMAQMD public education programs.
- ER 6.1.19 **Air Quality Education.** The City shall educate the public about air quality standards, health effects, and efforts they can make to improve air quality and reduce greenhouse gas emissions in the Sacramento region.

Thresholds of Significance

For the purposes of this EIR, impacts on air quality are considered significant if the proposed General Plan would:

- conflict with or obstruct implementation of an applicable air quality plan.

In the Sacramento Federal Ozone Nonattainment Area, the *Rate of Progress Plan* has been adopted and the *2011 Reasonable Further Progress Plan* is being considered for adoption, both to address attainment of the federal 8-hour ozone standard. Similarly, the *2003 Triennial Report* and the *2006 Annual Progress Report* address attainment of the State ozone standard. The SMAQMD considers that any development project or plan with the following emissions of ozone precursors, nitrogen oxide (NO_x) and reactive organic gases (ROG) would represent a significant conflict or obstruction to the success of the regional ozone attainment plans:

- short-term (construction) emissions of NO_x above 85 pounds per day;
- long-term (operational) emissions of NO_x or ROG above 65 pounds per day; or
- violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Current violations of the federal and state 10-micron particulate (PM₁₀) standards are being recorded at Sacramento monitoring stations. There is evidence of federal and state carbon monoxide (CO) standard violations at Sacramento monitoring stations in the recent past. The SMAQMD considers that the following concentrations of PM₁₀ and CO would represent a significant violation of these ambient air quality standards:

- PM₁₀ concentrations equal to or greater than five percent of the state ambient air quality standard (i.e., 50 micrograms/cubic meter for 24 hours) in areas where there is evidence of existing or projected violations of this standard. Further, the SMAQMD holds that if project/plan emissions of NO_x and ROG are below the emission thresholds given above, then the project/plan would not threaten violations of the PM₁₀ ambient air quality standards;
- CO concentrations that exceed the 1-hour state ambient air quality standard (i.e., 20.0 ppm) or the 8-hour state ambient standard (i.e., 9.0 ppm); or
- expose sensitive receptors to substantial pollutant concentrations.

Ambient air quality standards have not been established for toxic air contaminants (TAC). TAC exposure is deemed to be significant if:

- TAC exposures create a risk of 10 in 1 million for stationary sources, or substantially increase the risk of exposure to TACs for mobile sources; or
- the project results in a cumulatively considerable net increase of any criteria pollutant for which the project area is in non-attainment under an applicable federal or state ambient air quality standard (including the release of emissions that exceed quantitative thresholds for ozone precursors).

Impacts and Mitigation Measures

A summary of all Air Quality impacts and their levels of significance are located at the end of this technical section.

Impact 6.1-1	Implementation of the proposed 2030 General Plan could conflict with or obstruct implementation of Sacramento area air quality plans.
Applicable Regulations	<i>SMAQMD regional ozone standard attainment plans</i>
Significance Before Mitigation	<i>Significant</i>
Mitigation Included in the SGP	<i>Policies ER 6.1.1, ER 6.1.2, ER 6.1.3, ER 6.1.11, ER 6.1.12, ER 6.1.13, ER 6.1.14, ER 6.1.15, ER 6.1.16, ER 6.1.17</i>
Significance after Mitigation Included in the SGP	<i>Less than Significant</i>
Additional Mitigation	None required
Residual Significance	Less than Significant

The regional air quality plans in effect for the City of Sacramento are the SMAQMD's *Rate of Progress Plan* (February 2006) and *2011 Reasonable Further Progress Plan* (February 2008), both of which address attainment of the federal 8-hour ozone standard, and the *2003 Triennial Report* (April 2005) and the *2006 Annual Progress Report* (October 2007), both of which address attainment of the state ozone standard.

The City of Sacramento's 2030 General Plan is based on the promotion of "Smart Growth Principles" for future development. The 2030 General Plan favors a more compact growth pattern for the city, emphasizing infill development and reuse of underutilized properties over expanding outward into undeveloped areas known as "greenfields." By intensifying development near transit and mixed-use activity centers, it would reduce private automobile use in favor of mass transit, and encourage walking, bicycling, and alternative transportation modes by co-locating residential and employment uses. Thus, fuel consumption would decrease, with a consequent decline in air pollutant emissions. Also, there would be policy preferences for installation of reduced-emission construction equipment (see Policy ER 6.1.15), removal of fireplaces/woodstoves, and siting sensitive land uses away from large pollutant sources.

Implementation of policies under Goal ER 6.1 (Improved Air Quality) of the proposed General Plan would directly promote improvements in regional air quality that are not supported under the existing (1988) General Plan. The proposed General Plan promotes the goals of the regional air quality plans (i.e., attainment of federal and state ozone standards); therefore, the impact would be **less than significant**. However, there could be specific conflicts with SMAQMD policies regarding ozone control if consequent net emissions of NO_x and ROG with the proposed General Plan would exceed the SMAQMD quantitative significance thresholds. This issue is evaluated in Impacts 6.1-1 and 6.1-2, below.

Mitigation Measure

None required.

Impact 6.1-2	Implementation of the proposed 2030 General Plan could result in construction activities that would increase NO_x levels above 85 pounds per day.
Applicable Regulations	<i>SMAQMD guidelines and regulations</i>
Significance Before Mitigation	<i>Significant</i>
Mitigation Included in the SGP	<i>Policies ER 6.1.2, ER 6.1.11, ER 6.1.15</i>
Significance after Mitigation Included in the SGP	<i>Significant</i>
Additional Mitigation	None available
Residual Significance	Significant and Unavoidable

Many different types of construction equipment would be used in various combinations for the many individual development projects that are expected to occur in the Policy Area over the next 20 years. Much of this equipment likely would be diesel-fueled and would emit NO_x as part of the fuel-combustion process. The amount of NO_x emitted per day at any individual development project site would depend on the number and type of equipment used; specifically the total daily average construction NO_x for the entire Policy Area would depend on the number and intensity of concurrent individual development projects during the 20-year Plan horizon. Detailed information on the construction schedules and equipment use by every development project that would be built in the City of Sacramento is not available. However, because the SMAQMD threshold is relatively low compared to the total daily emissions of construction-

related NO_x in Sacramento, it would not be unusual for even a single, moderate-sized construction project to exceed the threshold. Consequently, the total average daily NO_x emissions from any construction projects taking place within the Policy Area would be virtually certain to exceed the threshold on most days.

SMAQMD has developed standard construction mitigation measures that require project applicant's to provide a plan, for approval by both the City and SMAQMD, that demonstrates that construction equipment would achieve an average 20 percent NO_x reduction and 45 percent particulate reduction. Another standard SMAQMD mitigation measure requires project applicants to submit a comprehensive inventory of all off-road construction equipment that would be used for an aggregate of 40 or more hours during any phase of the construction project.

The equipment inventory must include the horsepower rating, engine production year, projected hours of use or fuel throughput for each piece of equipment, and its compliance status with respect to CARB emission reduction regulations for off-road diesel equipment. SMAQMD also limits vehicle idling time to five minutes or less.

For projects whose emissions still exceed SMAQMD's daily emission threshold of 85 lbs/day after implementation of the above measures, SMAQMD requires the project applicant to pay into the SMAQMD's construction mitigation fund to offset construction-generated emissions of NO_x. Payment into the construction offset program allows the air district to offset the contribution of NO_x associated with individual construction projects by removing other NO_x generating sources elsewhere in the basin. Compliance with the measures set forth by the air district mitigates NO_x associated with construction activities to a less-than-significant level. Even though compliance with these measures would help to reduce NO_x they would not eliminate the generation of NO_x emissions to below the threshold. Multiple individual projects under construction throughout the Policy Area could still exceed the threshold.

The 2030 General Plan includes Policy ER 6.1.2, which requires the City to review proposed development projects to ensure projects incorporate feasible measures that reduce construction and operational emissions for ROG, NO_x and PM through project design; and Policy ER 6.1.11, which requires the City to coordinate with the SMAQMD to ensure that projects incorporate feasible mitigation measures to reduce emissions, if not already provided through project design. In addition, Policy ER 6.1.15 allows the City to give preference to contractors that use reduced-emission equipment for City construction projects. These policies would include compliance with all of SMAQMD's latest standard construction mitigation measures.

Even with implementation of these policies which reduce actual emissions from construction projects and provide funds for off-site reductions from other NO_x generating sources, construction NO_x emissions from a single large development project or a combination of development projects within the Policy Area could exceed the SMAQMD threshold of 85 pounds per day. This would be considered a *significant impact*.

Mitigation Measure

Compliance with policies ER 6.1.2, ER 6.1.11 and ER 6.1.15 would result in measurable reductions in construction emissions from individual projects within the Policy Area; payment into SMAQMD's construction mitigation fund would reduce off-site sources to ensure that construction emissions would not result in substantial increases in ozone precursors in the air basin; and compliance with other SMAQMD standard mitigation measures would all help to reduce the amount of NO_x generated by construction equipment. However, there are no other feasible mitigation measures to ensure that construction emissions for individual or multiple concurrent projects can be reduced below the 85 pounds per day threshold. Therefore, this impact would remain **significant and unavoidable**.

None available.

Impact 6.1-3	Implementation of the proposed 2030 General Plan would result in operational emissions that would increase either of the ozone precursors, NO_x or reactive organic gases (ROG), above 65 pounds per day.
Applicable Regulations	<i>SMAQMD guidelines and regulations</i>
Significance Before Mitigation	<i>Significant</i>
Mitigation Included in the SGP	<i>Policies ER 6.1.2, ER 6.1.3, ER 6.1.11</i>
Significance after Mitigation Included in the SGP	<i>Significant</i>
Additional Mitigation	None available
Residual Significance	Significant and Unavoidable

Sacramento County is currently in nonattainment of the federal and state ozone standards. Operation of each individual development project built in the Policy Area over the next 20 years would generate emissions of ROG and NO_x, the primary ozone precursors, in addition to such emissions from existing land uses.

Most of the ozone precursor emissions from sources that the proposed General Plan would influence comes from two general source categories: (1) "area wide" sources (as defined in the CARB's California Emission Forecasting System (CEFS),² this category would include pollutants generated from furnaces, water heaters/boilers, facility maintenance equipment, and consumer products) and (2) motor vehicle traffic. The amount of ROG and NO_x that would be generated by all mobile sources in the Policy Area under both the existing (1988) and proposed General Plan at the 2030 buildout year were calculated using the EMFAC 2007 model run in the Burden mode for Sacramento County, with the model estimates of ROG and NO_x adjusted by the ratio of the year 2030 VMT projections of the City of Sacramento transportation model (see Appendix C) to the County year 2030 VMT estimate from EMFAC 2007. ROG and NO_x from area wide sources in the Policy Area were calculated by adjusting the EMFAC 2007 values for mobile sources by the ratio of the area wide-to-mobile source categories from the CEFS inventory. Similar calculations were

2 California Air Resources Board, Forecasted Emissions by Summary Category 2006 Almanac, page updated April 5, 2006, <www.arb.ca.gov/app/emsinv/fcemssumcat2006.php>, accessed May 2008.

done for ROG and NO_x emissions from the six-county region, the SACOG regional planning area which includes the counties of El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba. Table 6.1-2 shows the total ROG and NO_x emissions from area wide and mobile sources in the year 2030 from all land uses in the Policy Area and the six-county region under both the existing General Plan and the proposed 2030 General Plan, and the net change in emissions with the proposed General Plan. The net emissions from sources within the Policy Area would exceed the SMAQMD thresholds of 65 lbs/day (0.0325 tons/day) for ROG and NO_x. However, the net emissions from sources within the six-county region would not exceed the SMAQMD thresholds, in fact they are expected to decrease, as shown in Table 6.1-2.

Pollutant	Under 1988 General Plan		Under 2030 General Plan		Net Emissions ²	
	General Plan Area	Six-County Region ¹	General Plan Area	Six-County Region	General Plan Area	Six-County Region
ROG	21.0	62.8	21.3	61.9	+ 0.25	- 0.92
NO _x	9.8	29.4	10.0	29.0	+ 0.12	- 0.43

Notes:

- Six-County Region refers to the Sacramento Area Council of Governments (SACOG) regional planning area which includes the counties of El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba.
- Mobile sources were calculated using the EMFAC 2007 model run in the Burden mode for Sacramento County, with the model estimates of ROG and NO_x adjusted by the ratio of the year 2030 VMT projections of the City of Sacramento transportation model (see Appendix C) to the County year 2030 VMT estimate from EMFAC 2007; area sources were calculated by adjusting the EMFAC 2007 values for mobile sources by the ratio of the area wide-to-mobile source categories from CARB's California Emission Forecasting System inventory.
Source: PBS&J, 2008.

The proposed 2030 General Plan includes Policy ER 6.1.3, which requires development projects that result in substantial air quality impacts (i.e., exceeding the SMAQMD ROG and NO_x operational thresholds) to incorporate design or operational features that result in at least a 15 percent reduction in emissions; Policy ER 6.1.2, which requires City review of proposed development projects to ensure construction and operation of projects incorporate feasible measures that reduce emissions through project design; and Policy ER 6.1.11, which requires the City to coordinate with the SMAQMD to ensure projects incorporate feasible mitigation measures if not already provided for through project design. Even with the inclusion of these policies, the net emissions of ozone precursors from all land uses in the Policy Area after implementation of the 2030 General Plan would exceed SMAQMD threshold of 85 pounds per day.

The most common mitigation for operational ozone precursor emissions from individual projects is the preparation and implementation of a SMAQMD-approved Air Quality Management Plan (AQMP) which includes all feasible measures that would reduce ozone precursor emissions. As discussed above, there are a number of General Plan policies that require projects to coordinate with the SMAQMD to include feasible mitigation measures to reduce the contribution of ROG and NO_x emissions. It is anticipated that individual projects within the Policy Area would be required to prepare and implement AQMPs; however, since many of the proposed General Plan policies (i.e., ER 6.1.3 Emissions Reduction, and ER 6.1.2 New Development) would require

emissions reductions as part of a project's design that under the current General Plan would have been imposed by AQMPs. Even with an approved AQMP often individual project emissions would still exceed the threshold. Also, there is no guarantee with AQMPs imposed on all projects in the Policy Area that net emissions would be below the SMAQMD thresholds.

It is unlikely that the resulting net emissions from all projects contemplated under the 2030 General Plan within the Policy Area would be less than the SMAQMD significance threshold; therefore, this impact would be *significant*.

Mitigation Measure

Compliance with proposed policies ER 6.1.2, ER 6.1.3, and ER 6.1.11 would result in measurable reductions in operational emissions from individual projects within the Policy Area combined with SMAQMD's standard operational mitigation measures would all help to reduce the amount of NO_x and ROG generated by the increase in vehicles and other sources of NO_x and ROG associated with development. Further, net emissions for the six-county region, of which the Policy Area is a part, are expected to decrease. However, even with these measures it is unlikely that emissions from the Policy Area would be reduced to below the threshold. Therefore, there are no other feasible mitigation measures available which would reduce the severity of the impact. Therefore, the impact would remain ***significant and unavoidable***.

None available.

Current violations of the federal and state PM₁₀ standards are being recorded at Sacramento area monitoring stations, and there is monitoring evidence of federal and state CO standard violations in the recent past. Thus, any contribution of the proposed General Plan to violations of PM₁₀ or CO ambient air quality standards, which the SMAQMD has adopted as quantitative thresholds for CEQA documents, would be significant impacts. This is evaluated in more detail in Impacts 6.1-4 and 6.1-5, below.

Impact 6.1-4	Implementation of the proposed 2030 General Plan would result in PM₁₀ concentrations due to the emission of particulate matter associated with construction activities at a level equal to or greater than five percent of the state ambient air quality standard (i.e., 50 micrograms/cubic meter for 24 hours).	
Applicable Regulations	<i>State ambient air quality standards (CAAQS) and SMAQMD guidelines and regulations</i>	
Significance Before Mitigation	<i>Significant</i>	
Mitigation Included in the SGP	<i>Policies ER 6.1.1, ER 6.1.2, ER 6.1.11</i>	
Significance after Mitigation Included in the SGP	<i>Significant</i>	
Additional Mitigation	None available	
Residual Significance	Significant and Unavoidable	

Most construction sites in the Policy Area would have to be graded and prepared for development. Grading activities involve clearing and leveling the land using heavy equipment such as scrapers, bulldozers, and backhoes. As the ground is disturbed, fugitive dust or PM₁₀ is generated. The total amount of PM₁₀ generated is normally determined by the size of the graded area and the length of time of grading activities. The larger the area and the longer the grading operation, the more PM₁₀ is created. Particulate emissions also occur to a lesser extent during other construction phases.

The SMAQMD recommends a PM₁₀ threshold of significance that is equal to or greater than five percent of the CAAQS for PM₁₀. The SMAQMD's CEQA Guide specifies a methodology for evaluating whether a project would exceed this PM₁₀ standard during construction (i.e., Appendix B of SMAQMD's Guide; Table B.1 – Particulate Matter Screening Level for Construction Projects). This table lists various acreages and mitigation associated with the various acreage ranges which would reduce PM₁₀ impacts to less-than-significant levels. It is typically the case if an area larger than 15 acres is graded, the recommended mitigation included in the SMAQMD Guide would not be sufficient to reduce the impact to less than significant and additional analysis is recommended.

The proposed 2030 General Plan includes a number of policies designed to address this concern. Specifically, Policy ER 6.1.1, which requires the City to work with the CARB and the SMAQMD to meet and maintain state and federal ambient air quality standards; Policy ER 6.1.2, which requires City review of proposed development projects to ensure the construction and operational aspects of a project be designed to incorporate feasible measures that reduce emissions through project design; and Policy ER 6.1.11, which requires the City to coordinate with the SMAQMD to ensure that projects incorporate feasible mitigation measures if not already provided in project design. Even with compliance with these policies, which would require implementation of feasible measures, including SMAQMD's standard measures the PM₁₀ standard could still be exceeded either from individual large projects or from concurrent projects. Therefore, this impact would be **significant**.

Mitigation Measure

Compliance with General Plan policies, which requires implementation of feasible mitigation measures to reduce PM₁₀ emissions, would result in reductions in construction PM₁₀ emissions from individual projects within the Policy Area. However, there are no feasible mitigation measures beyond what is required by the SMAQMD and the proposed policies to ensure that construction emissions for individual or multiple concurrent projects can be reduced to ensure that PM₁₀ emissions would not exceed thresholds. Therefore, construction-phase emissions of PM₁₀ in the Policy Area would remain **significant and unavoidable**.

None available.

Impact 6.1-5	Implementation of the proposed 2030 General Plan could result in CO concentrations that exceed the 1-hour state ambient air quality standard of 20.0 parts per million (ppm) or the 8-hour state ambient standard of 9.0 ppm.
Applicable Regulations	<i>State ambient air quality standards (CAAQS) and motor vehicle emission standards, and SMAQMD guidelines and regulations</i>
Significance Before Mitigation	<i>Less than Significant</i>
Mitigation Included in the SGP	<i>Policies ER 6.1.1, ER 6.1.12, ER 6.1.13, ER 6.1.14, ER 6.1.15, ER 6.1.16, ER 6.1.18</i>
Significance after Mitigation Included in the SGP	<i>Less than Significant</i>
Additional Mitigation	None required
Residual Significance	Less than Significant

Motor vehicles are the primary source of CO, a pollutant that has its highest ambient concentrations near congested intersections. Development allowed under the proposed General Plan would add traffic to and change traffic flows on the City's road network. Increasing traffic volumes and lowering level of service (LOS) on busy intersections would tend to increase local CO levels. Existing CO levels in Sacramento are relatively low (see Table 6.1-1) and CO emission rates from vehicles that travel on city roadways, as estimated by EMFAC 2007, are expected to decline substantially from their present average values.

The 2030 General Plan includes the following policies that would help maintain acceptable air quality levels and reduce motor vehicle trips and traffic congestion: Policy ER 6.1.1, requires the City to meet and maintain state and federal ambient air quality standards; Policy ER 6.1.12, requires the City to promote reduced idling, trip reduction, routing for efficiency, and the use of public transportation, carpooling, and alternate modes of transportation for operating departments within the city; Policy ER 6.1.13, requires the City to incorporate low-emission vehicles into fleet operations and to use available clean fuel sources for trucks and heavy equipment; Policy ER 6.1.14, requires the City to encourage the use of zero-emission vehicles, low-emission vehicles, bicycles and other non-motorized vehicles, and car sharing programs through requiring infrastructure and parking facilities in residential developments and employment centers to accommodate these vehicles; Policy ER 6.1.15, requires the City to give preference to contractors using reduced emission equipment for City construction projects, and contracts for services (e.g., garbage collection), as well as businesses which practice sustainable operations; Policy ER 6.1.16, encourages all employees within the city to arrive at their worksite by means other than a single occupant vehicle; and Policy ER 6.1.18, encourages employers to participate in SMAQMD public education programs.

With the implementation of these policies, future (2030) CO concentrations would not exceed the CAAQS under either the existing or proposed General Plan. This would be considered a ***less-than-significant impact***.

Mitigation Measure

None required.

TACs have no ambient air quality standards. Consequently, any development allowed under the proposed General Plan that would cause a TAC exposure exceeding the SMAQMD quantitative cancer risk thresholds would be significant. This possibility is evaluated in Impact 6.1-6 below.

Impact 6.1-6	Implementation of the proposed 2030 General Plan would result in TAC emissions that could adversely affect sensitive receptors.
Applicable Regulations	<i>CARB land use guidance and SMAQMD protocol</i>
Significance Before Mitigation	<i>Significant</i>
Mitigation Included in the SGP	<i>Policies ER 6.1.4, ER 6.1.5, ER 6.1.19</i>
Significance after Mitigation Included in the SGP	<i>Less than Significant</i>
Additional Mitigation	None required
Residual Significance	Less than Significant

One of CARB's highest public health priorities is reducing diesel particulate matter (DPM) generated by trucks, which is one of the primary toxic air contaminant (TAC) found to be responsible for most of the cancer and non-cancer health risks associated with airborne exposures. There are also other key TACs associated with specific types of facilities (e.g., dry cleaners, gas stations, chrome plating facilities) that are the focus of the CARB's control efforts. Regulations to reduce TAC emissions from such sources are in place, but significant reductions are expected to take considerable time. In the interim, the CARB has made specific recommendations to land use agencies to consider proximity to existing sensitive uses when siting new TAC-emitting facilities or proximity to TAC-emitting facilities when siting new sensitive land uses.

The CARB has issued a guidance document on air quality and land use entitled *Air Quality and Land Use Handbook: A Community Health Perspective*, which recommends that sensitive land uses not be located within 500 feet of a freeway and that a site-specific health risk assessment (HRA) be performed as a way to more accurately evaluate the risk. In response to this document, SMAQMD has developed a methodology to assist local land use jurisdictions in assessing the potential cancer risk of siting sensitive land uses adjacent to major roadways. This methodology is contained in SMAQMD's *Recommended Protocol for Evaluating the Location of Sensitive Land Uses Adjacent to Major Roadways*. The methodology also provides a disclosure mechanism for those risks, and shows the relationship between potential cancer risk from DPM exposure and distance from a major roadway. According to the SMAQMD evaluation criteria, a site specific HRA is recommended only when cancer risks meet or exceed 446 cases per million.

Several policies in the 2030 General Plan would have beneficial effects on TAC exposures including Policy ER 6.1.4, which requires the City to ensure that all land use decisions are made in an equitable fashion in order to protect residents, regardless of age, culture, ethnicity, gender, race, socioeconomic status, or geographic location, from the health effects of air pollution; Policy ER 6.1.5, which requires that new development involving sensitive uses adjacent to TAC sources consider potential health risks and Policy ER 6.1.19, which requires the City to educate the public about air quality standards, health effects, and efforts they can make to improve air quality in the Sacramento region.

Implementation of policies contained in the 2030 General Plan would ensure that exposure to TACs is taken into account in planning for future projects and land use planning, and that precautions are taken to reduce potential health risks resulting from exposure to TACs. As a result, the impact would be *less than significant*.

Mitigation Measure

None required.

Cumulative Impacts and Mitigation Measures

Ozone precursors emitted anywhere in the SVAB can affect ozone air quality throughout the Valley. Therefore, the proposed project's cumulative context for ozone precursor emissions would be existing and future development in the entire Sacramento Valley. In contrast, CO, PM₁₀ and TAC effects are much more limited to the immediate vicinity of their specific sources. Consequently the proposed project's cumulative context for CO, PM₁₀ and TAC emissions would be existing and proposed future development in the SVAB.

Impact 6.1-7	Implementation of the proposed 2030 General Plan, in conjunction with other construction activities in the SVAB, would increase cumulative construction-generated NO_x levels above 85 pounds per day.
Applicable Regulations	<i>SMAQMD guidelines and regulations</i>
Significance Before Mitigation	<i>Significant</i>
Mitigation Included in the SGP	<i>Policies ER 6.1.2, ER 6.1.11</i>
Significance after Mitigation Included in the SGP	<i>Significant</i>
Additional Mitigation	None available
Residual Significance	Significant and Unavoidable

Construction activities for other projects outside of the Policy Area that occur simultaneously with project construction within the Policy Area would contribute emissions of NO_x. While those emissions would be temporary, combined they could exceed the SMAQMD thresholds. However, the SMAQMD oversees a large area outside of the Policy Area boundaries that would require projects comply with SMAQMD mitigation requirements. It is anticipated that individual projects within the Policy Area would comply with General Plan policies requiring

implementation of feasible mitigation. Nonetheless, large projects or concurrent projects both within the Policy Area as well as within the SVAB would likely exceed the SMAQMD significance threshold, resulting in a significant cumulative impact. As discussed in Impact 6.1-2, even with the imposition of SMAQMD-required NO_x mitigation measures, which would reduce actual construction emissions and provide offsets for remaining emissions exceeding the threshold, ozone precursors could be generated during project construction activities that exceed standards. Therefore, the project's contribution to this cumulative impact would be considerable and this would be a **significant cumulative impact**.

Mitigation Measure

Compliance with General Plan policies would result in reductions in construction emissions from individual projects in the Policy Area; payment into SMAQMD's construction mitigation fund would reduce off-site sources to ensure that construction emissions would not result in substantial increases in ozone precursors in the air basin. However, as discussed under Impact 6.1-2, there are no other feasible mitigation measures to ensure that construction emissions for individual or multiple concurrent projects, including projects outside of the Policy Area, can be reduced below the 85 pounds per day threshold. Therefore, the project's contribution to this impact would remain considerable and the impact would be **significant and unavoidable**.

None available.

Impact 6.1-8	Implementation of the proposed 2030 General Plan, in conjunction with other development in the SVAB, would increase cumulative operational levels of either ozone precursors, NO_x or reactive organic gases (ROG), above 65 pounds per day.	
Applicable Regulations	<i>SMAQMD guidelines and regulations</i>	
Significance Before Mitigation	<i>Significant</i>	
Mitigation Included in the SGP	<i>Policies ER 6.1.2, ER 6.1.3, ER 6.1.11</i>	
Significance after Mitigation Included in the SGP	<i>Significant</i>	
Additional Mitigation	None available	
Residual Significance	Significant and Unavoidable	

As discussed in Impact 6.1-3, significant levels of ozone precursors NO_x or ROG would be generated by future development within the Policy Area associated with mobile and stationary sources. According to the *SMAQMD Guide* development projects are considered cumulatively significant if the project would require a change in the existing land use designation (e.g., general plan amendment, rezone) and if the projected ozone precursor emissions from the new uses would be greater than the emissions anticipated for the site under the existing land use designation. The change in land use designations from what they were in the General Plan in effect when the regional Air Quality Attainment Plan (AQAP) was developed could jeopardize regional attainment of the ozone standards. Since the proposed 2030 General Plan entails a change in land use designations in the Policy Area that would result in an increase in ozone

precursors, as quantified in Table 6.1-2, such emissions would be above those assumed in the regional AQAP and the project's contribution would be considerable. Therefore, cumulative long-term operational ozone precursor emissions would be considered a *significant cumulative impact*.

Mitigation Measure

As discussed under Impact 6.1-3, compliance with the proposed policies as well as SMAQMD standard mitigation measures would help to reduce the significance of the project-specific impact. However, because future development within the Policy Area would generate operational emissions associated with an increase in vehicles as well as development, the project's contribution to cumulative operational emissions would remain above the SMAQMD significance threshold. Consequently, the project's contribution would remain considerable and cumulative operational ozone precursor emissions would remain ***cumulatively significant and unavoidable***.

None available.

Impact 6.1-9	Implementation of the proposed 2030 General Plan, in conjunction with other development in the SVAB, would emit particulate pollutants associated with construction activities at a cumulative level equal to, or greater than, five percent of the CAAQS (50 micrograms/cubic meter for 24 hours).	
Applicable Regulations	<i>State ambient air quality standards (CAAQS) and SMAQMD guidelines and regulations</i>	
Significance Before Mitigation	<i>Significant</i>	
Mitigation Included in the SGP	<i>Policies ER 6.1.1, ER 6.1.2, ER 6.1.11</i>	
Significance after Mitigation Included in the SGP	<i>Significant</i>	
Additional Mitigation	None available	
Residual Significance	Significant and Unavoidable	

As discussed in Impact 6.1-4, significant levels of particulate matter could be generated during project grading and other construction activities taking place within the Policy Area. The PM₁₀ emissions from construction projects that occur simultaneously in the vicinity of one another and within the Policy Area combined with development in the larger SVAB could have significant cumulative effects. Because the particulate matter emissions due to implementation of the proposed 2030 General Plan would exceed established thresholds, its contribution would be considerable resulting in a *significant cumulative impact*.

Mitigation Measure

Compliance with General Plan policies, which requires implementation of feasible mitigation measures to reduce PM₁₀ emissions, would result in reductions in construction PM₁₀ emissions from individual projects within the Policy Area. However, there are no other feasible mitigation measures to ensure that construction emissions for individual or multiple concurrent projects,

including those outside of the Policy Area boundaries, can be reduced to ensure that PM₁₀ emissions would not exceed thresholds. Therefore, emissions of PM₁₀ in the Policy Area would remain cumulatively considerable and the impact would be **significant and unavoidable**.

None available.

Impact 6.1-10	Implementation of the proposed 2030 General Plan, in conjunction with other development in the SVAB, could result in CO cumulative concentrations that exceed the 1-hour State ambient air quality standard of 20.0 ppm or the 8-hour State ambient standard of 9.0 ppm.	
Applicable Regulations	<i>State ambient air quality standards (CAAQS) and motor vehicle emission standards, and SMAQMD guidelines and regulations</i>	
Significance Before Mitigation	<i>Less than Significant</i>	
Mitigation Included in the SGP	<i>Policies ER 6.1.1, ER 6.1.12, ER 6.1.13, ER 6.1.14, ER 6.1.15, ER 6.1.16, ER 6.1.17</i>	
Significance after Mitigation Included in the SGP	<i>Less than Significant</i>	
Additional Mitigation	None required	
Residual Significance	Less than Significant	

Other development occurring outside of the Policy Area within the SVAB, in addition to projects occurring within the Policy Area, would increase traffic and change traffic flows on the city's roadway network. Increasing traffic volumes and lowering the level of service at busy intersections would tend to increase local CO levels. However, existing CO levels in the Sacramento area are relatively low (see Table 6.1-1) and CO emission rates from the City's motor vehicle fleet, as estimated by EMFAC 2007, are expected to decline substantially from their present average values due to cleaner burning fuels. The project's contribution is not anticipated to be considerable and CO levels are not expected to exceed the NAAQS or CAAQS for CO. Therefore, this impact would be **cumulatively less than significant**.

Mitigation Measure

None required.

Impact 6.1-11	Implementation of the proposed 2030 General Plan, in conjunction with other development in the SVAB, would generate TAC emissions that could adversely affect sensitive receptors.	
Applicable Regulations	<i>CARB land use guidance and SMAQMD protocol</i>	
Significance Before Mitigation	<i>Significant</i>	
Mitigation Included in the SGP	<i>Policies ER 6.1.4, ER 6.1.5, ER 6.1.18</i>	
Significance after Mitigation Included in the SGP	<i>Less than Significant</i>	
Additional Mitigation	None required	
Residual Significance	Less than Significant	

As discussed in Impact 6.1-6, significant TAC impacts could occur if sensitive land uses were sited too close to TAC-emitting sources, including major roadways. The increase in vehicles and trucks on major roadways in the Policy Area would be a major source of mobile TAC. Several policies in the 2030 General Plan would have beneficial effects on TAC exposures including Policy ER 6.1.4, which requires the City to ensure that all land use decisions are made in an equitable fashion in order to protect residents, regardless of age, culture, ethnicity, gender, race, socioeconomic status, or geographic location, from the health effects of air pollution; Policy ER 6.1.8, which requires that new development involving sensitive uses adjacent to TAC sources consider potential health risks and Policy ER 6.1.19, which requires the City to educate the public about air quality standards, health effects, and efforts they can make to improve air quality in the Sacramento region.

Implementation of policies contained in the 2030 General Plan would ensure that exposure to TACs is taken into account in planning for future projects and land use planning, and that precautions are taken to reduce potential health risks resulting from exposure to TACs. As a result, the impact would be ***cumulatively less than significant***.

Mitigation Measure

None required.

South Area Community Plan

No site-specific air quality measurements (e.g., CO modeling at specific sensitive receptor locations) were done for this MEIR. All the city wide air quality impacts and mitigation measures identified for the entire General Plan Policy Area apply to this Community Plan area.

Focused Opportunity Areas

No site-specific air quality impacts measurements (e.g., CO modeling at specific sensitive receptor locations) were done for this MEIR. All the city wide air quality impacts and mitigation measures identified for the entire Policy Area apply as well to all of the Focused Opportunity Areas.

Insufficient Information to Support a Complete Analysis of the Potential Impacts

Section 15176(c) of the CEQA Guidelines acknowledges that all the information necessary to analyze potential impacts associated with anticipated future development may not be available. It is anticipated that future development within the Focused Opportunity Areas, as well as in the SACP and future development within the Policy Area could include potential impacts associated with air quality. At this time specific project information is not available (e.g., individual project site characteristics, site-specific location, construction equipment, etc.) and standards differ

based on the type of development (e.g., commercial, industrial, residential) to evaluate potential impacts associated with air quality. Once specific development proposals are prepared and submitted to the City, a project-specific environmental analysis would be prepared to analyze potential impacts related to air quality.

SUMMARY OF AIR QUALITY IMPACTS

LEVEL OF SIGNIFICANCE

	6.1-11 Implementation of the proposed 2030 General Plan, in conjunction with other development in the SVAB, would generate TAC emissions that could adversely affect sensitive receptors.	6.1-10 Implementation of the proposed 2030 General Plan, in conjunction with other development in the SVAB, could result in CO cumulative concentrations that exceed the 1-hour State ambient air quality standard of 20.0 parts per million (ppm) or the 8-hour State ambient standard of 9.0 ppm.	6.1-9 Implementation of the proposed 2030 General Plan, in conjunction with other development in the SVAB, would emit particulate pollutants associated with construction activities at a cumulative level equal to, or greater than, five percent of the CAAQS (50 micrograms/cubic meter for 24 hours).	6.1-8 Implementation of the proposed 2030 General Plan, in conjunction with other development in the SVAB, would increase cumulative operational levels of either ozone precursors, NO _x or reactive organic gases (ROG), above 65 pounds per day.	6.1-7 Implementation of the proposed 2030 General Plan, in conjunction with other construction activities in the SVAB, would increase cumulative construction-generated NO _x levels above 85 pounds per day.	6.1-6 Implementation of the proposed 2030 General Plan would result in TAC emissions that could adversely affect sensitive receptors.	6.1-5 Implementation of the proposed 2030 General Plan could result in CO concentrations that exceed the 1-hour state ambient air quality standard of 20.0 parts per million (ppm) or the 8-hour state ambient standard of 9.0 ppm.	6.1-4 Implementation of the proposed 2030 General Plan would result in PM ₁₀ concentrations due to the emission of particulate matter associated with construction activities at a level equal to or greater than five percent of the state ambient air quality standard (i.e., 50 micrograms/cubic meter for 24 hours).	6.1-3 Implementation of the proposed 2030 General Plan would result in operational emissions that would increase either of the ozone precursors, NO _x or reactive organic gases (ROG), above 65 pounds per day.	6.1-2 Implementation of the proposed 2030 General Plan could result in construction activities that would increase NO _x levels above 85 pounds per day.	6.1-1 Implementation of the proposed 2030 General Plan could conflict with or obstruct implementation of Sacramento area air quality plans.
Community Plan Areas											
Arden-Arcade	○	○	●	●	●	○	○	●	●	●	○
Central City	○	○	●	●	●	○	○	●	●	●	○
East Broadway	○	○	●	●	●	○	○	●	●	●	○
East Sacramento	○	○	●	●	●	○	○	●	●	●	○
Land Park	○	○	●	●	●	○	○	●	●	●	○
North Natomas	○	○	●	●	●	○	○	●	●	●	○
North Sacramento	○	○	●	●	●	○	○	●	●	●	○
Pocket	○	○	●	●	●	○	○	●	●	●	○
South Area	○	○	●	●	●	○	○	●	●	●	○
South Natomas	○	○	●	●	●	○	○	●	●	●	○
○ = less than significant											
● = less than significant with mitigation incorporated											
● = significant and unavoidable											

SUMMARY OF AIR QUALITY IMPACTS

LEVEL OF SIGNIFICANCE

6.1-1	Implementation of the proposed 2030 General Plan could conflict with or obstruct implementation of Sacramento area air quality plans.	○	○	○	○	○	○	○	○	○	○	○	○
6.1-2	Implementation of the proposed 2030 General Plan could result in construction activities that would increase NO _x levels above 85 pounds per day.	●	●	●	●	●	●	●	●	●	●	●	●
6.1-3	Implementation of the proposed 2030 General Plan would result in operational emissions that would increase either of the ozone precursors, NO _x or reactive organic gases (ROG), above 65 pounds per day.	●	●	●	●	●	●	●	●	●	●	●	●
6.1-4	Implementation of the proposed 2030 General Plan would result in PM ₁₀ concentrations due to the emission of particulate matter associated with construction activities at a level equal to or greater than five percent of the state ambient air quality standard (i.e., 50 micrograms/cubic meter for 24 hours).	●	●	●	●	●	●	●	●	●	●	●	●
6.1-5	Implementation of the proposed 2030 General Plan could result in CO concentrations that exceed the 1-hour state ambient air quality standard of 20.0 parts per million (ppm) or the 8-hour state ambient standard of 9.0 ppm.	○	○	○	○	○	○	○	○	○	○	○	○
6.1-6	Implementation of the proposed 2030 General Plan would result in TAC emissions that could adversely affect sensitive receptors.	○	○	○	○	○	○	○	○	○	○	○	○
6.1-7	Implementation of the proposed 2030 General Plan, in conjunction with other construction activities in the SVAB, would increase cumulative construction-generated NO _x levels above 85 pounds per day.	●	●	●	●	●	●	●	●	●	●	●	●
6.1-8	Implementation of the proposed 2030 General Plan, in conjunction with other development in the SVAB, would increase cumulative operational levels of either ozone precursors, NO _x or reactive organic gases (ROG), above 65 pounds per day.	●	●	●	●	●	●	●	●	●	●	●	●
6.1-9	Implementation of the proposed 2030 General Plan, in conjunction with other development in the SVAB, would emit particulate pollutants associated with construction activities at a cumulative level equal to, or greater than, five percent of the CAAQS (50 micrograms/cubic meter for 24 hours).	●	●	●	●	●	●	●	●	●	●	●	●
6.1-10	Implementation of the proposed 2030 General Plan, in conjunction with other development in the SVAB, could result in CO cumulative concentrations that exceed the 1-hour State ambient air quality standard of 20.0 parts per million (ppm) or the 8-hour State ambient standard of 9.0 ppm.	○	○	○	○	○	○	○	○	○	○	○	○
6.1-11	Implementation of the proposed 2030 General Plan, in conjunction with other development in the SVAB, would generate TAC emissions that could adversely affect sensitive receptors.	○	○	○	○	○	○	○	○	○	○	○	○
Focused Opportunity Areas													
65 th Street/University Village	○	○	○	○	○	○	○	○	○	○	○	○	○
Arden Fair/Point West	○	○	○	○	○	○	○	○	○	○	○	○	○
Florin LRT/Subregional Center	○	○	○	○	○	○	○	○	○	○	○	○	○
Meadowview LRT	○	○	○	○	○	○	○	○	○	○	○	○	○
River District	○	○	○	○	○	○	○	○	○	○	○	○	○
Robla	○	○	○	○	○	○	○	○	○	○	○	○	○
○ = less than significant ○ = less than significant with mitigation incorporated ● = significant and unavoidable													

6.2 Agricultural Resources



AGRICULTURAL RESOURCES

INTRODUCTION

This section of the EIR examines the effects of implementation of the Sacramento 2030 General Plan (proposed project) on agricultural resources and operations in the Policy Area and on nearby lands. It analyzes the potential conversion of farmland to non-agricultural uses, the potential conflicts with existing zoning for agricultural uses or land under Williamson Act contract, and the potential conflicts with City goals and policies that may lead to substantial physical effects on the environment.

The 2030 General Plan includes policies to support community-gardens and access to locally grown and organic foods as a means of supporting local farms and promoting sustainable agricultural practices. The 2030 General Plan focuses on promoting infill growth, and also provides for the continuation of planning efforts to permanently preserve viable habitat/agricultural lands in unincorporated Natomas, should future expansion occur there.

No comments pertaining to agricultural resources were received in response to the NOP (see Appendices A and B).

This section is based on information included in the City of Sacramento General Plan Technical Background Report (TBR), the California Department of Conservation Farmland Mapping and Monitoring Program, aerial photographs of the city, and the Natural Resources Conservation Service Soil Survey. The TBR prepared for the project is available electronically on the City's website (<http://www.sacgp.org/documents.html#tbr>) and on CD at the back of this document.

ENVIRONMENTAL SETTING

City Wide

■ Existing Agriculture

The city of Sacramento is built upon soil that is among the most fertile in California. As the city has grown, agricultural lands have been converted to non-agricultural uses. Today, the city of Sacramento is mostly urbanized, with limited amounts of active commercial agricultural lands remaining that support large-scale operations. The commercial agricultural activity is located, to a large extent, in the northwestern and southernmost portions of the city (see Figure 6.2-1). Remaining agricultural land within the city limits is located in the southern area of the city and the northern area located within the North Natomas Community Plan area. The specific acreage amount of any remaining farmland is discussed below.

The City supports approximately 22 community gardens in which city residents grow produce, flowers, and other plants. This also serves as civic and educational spaces.¹ The City of Sacramento Department of Parks and Recreation operates several permanent community gardens, including the Fremont Community Garden at 14th and Q Street (approximately 50 spaces), the J. Neely Johnson Park Community Garden at 516 11th Street in downtown (approximately 10 spaces), the Danny Nunn Park Community Garden at 6920 Power Inn Road in South Sacramento (approximately 20 spaces), the Southside Park Community Garden at 5th Street near W Street in downtown (approximately 40 spaces), and the Strauch Park Community Garden at 3075 Northstead Drive in South Natomas (approximately 24 spaces).²

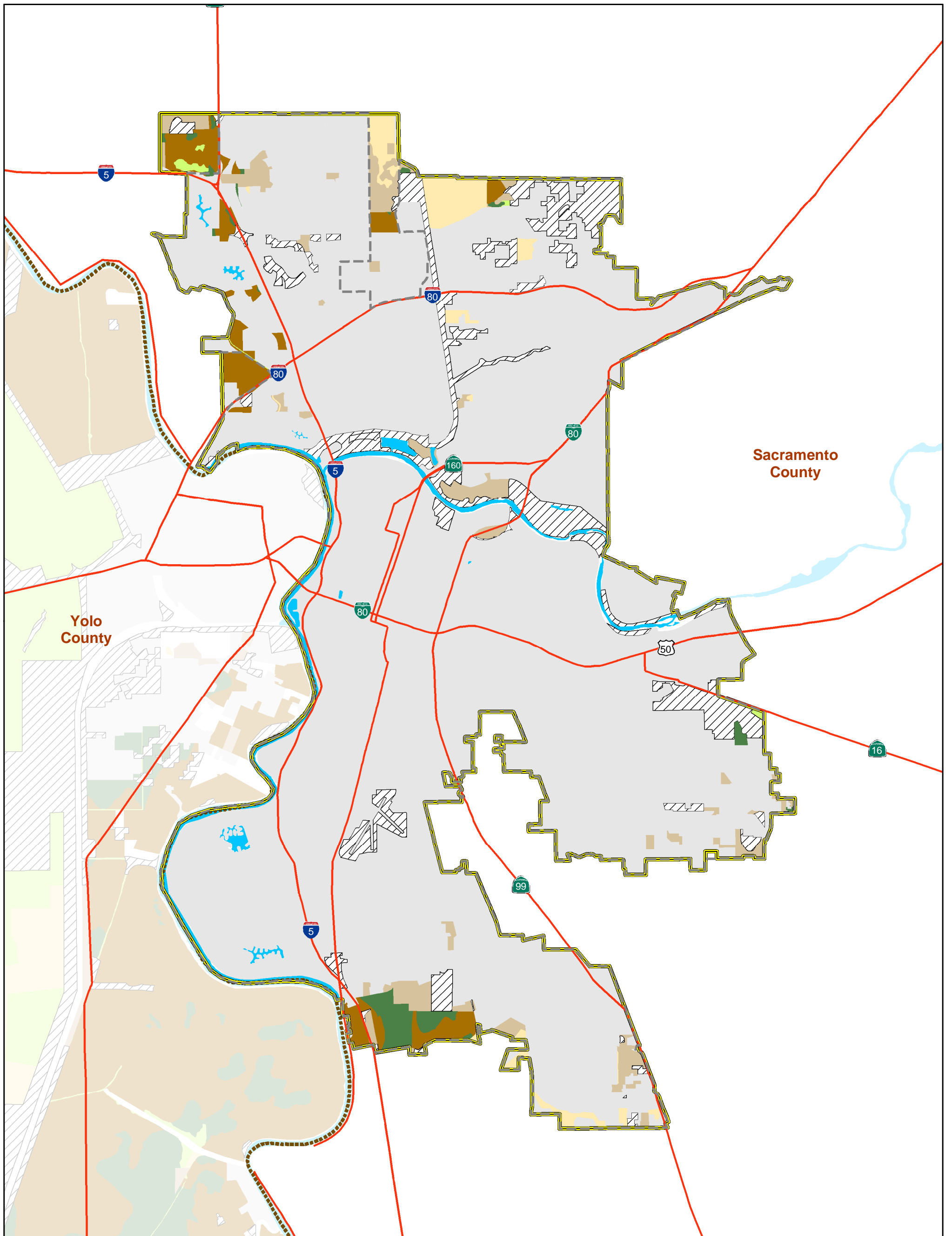
■ California Department of Conservation Important Farmland Classifications

The California Department of Conservation (CDC) Farmland Mapping and Monitoring Program (FMMP) combine technical soils ratings and current land use information to create an inventory of Important Farmland. Information on soils is primarily taken from the U.S. Department of Agriculture soil surveys. The CDC divides Important Farmland into four categories: 1) Prime Farmland, 2) Farmland of Statewide Importance, 3) Unique Farmland, and 4) Farmland of Local Importance. According to the most recent information available, the Policy Area contains 1,469 acres of Prime Farmland, 543 acres of Farmland of Statewide Importance, 114 acres of Unique Farmland, and 1,861 acres of Farmland of Local Importance, for a total of 4,840 acres in the Policy Area.³ Due to the amount of development that has occurred in the city since 2004, especially in the North Natomas area, the 2004 FMMP maps (which contains the most recent published data) was compared against 2006 aerial maps, ground truthing, and known entitlements to determine a more realistic account of existing farmland in the Policy Area. The CDC anticipates publishing the 2005 farmland maps in summer 2008. The FMMP classification is based on multiple factors, including soil type, the type of crop produced, agricultural zoning, and potential for irrigation. Important Farmland in the Policy Area, as verified and ground truthed, is shown on Figure 6.2-1. Important Farmland category definitions and Farmland acreages within the Policy Area are shown in Table 6.2-1.

■ Soils

The Natural Resources Conservation Service (NRCS) has mapped over 30 individual soil units in the Policy Area (see Figure 6.5-2 in section 6.5, Geology, Soils, and Mineral Resources). The predominant soil units in the Policy Area are the San Joaquin, Clear Lake, Galt, Cosumnes, and Sailboat soils, which account for over 60 percent of the total land area. The remaining soil

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- 1 City of Sacramento, *Community Gardens in Sacramento*, <www.cityofsacramento.org/planning/policies-and-programs/community-gardens.cfm>, page last updated on October 5, 2006, accessed December 27, 2007.
 - 2 City of Sacramento, *Community Gardens* <www.cityofsacramento.org/parksandrecreation/parks/community_garden.htm> page last updated on June 29, 2007, accessed December 27, 2007.
 - 3 2004 FMMP data shows that there were 2,652 acres of Prime Farmland, 868 acres of Farmland of Statewide Importance, 114 acres of Unique Farmland, and 3,835 acres of Farmland of Local Importance.



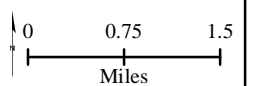
Legend

- | | | |
|----------------------------|----------------------|-----------------|
| Important Farmlands | Prime Farmland | City Limit |
| Urban/Built-Up | Statewide Importance | County Boundary |
| Grazing Land | Unique Farmland | Policy Area |
| Local Importance | Other | Water |

Figure 6.2-1

Important Farmlands

FMMP Data, CA Dept. of Conservation, 2004 and City of Sacramento



Land Classification	Definition	Acres within Policy Area ¹
Prime Farmland	Prime Farmland generally consists of Class I and II soils. They have the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops when treated and managed, including water management, according to current farming methods.	1,469
Farmland of Statewide Importance	Similar to Prime Farmland but with some minor differences, such as greater slopes or less ability to store soil moisture. The land must have been used for irrigated agricultural production some time during the four years prior to the mapping date.	543
Unique Farmland	Farmland that is not classified as prime or of statewide importance, which produces one of California's 40 leading economic crops, such as grapes, artichokes, avocados, and dates. Soil characteristics and irrigation are not considered.	114
Farmland of Local Importance	Land other than Unique Farmland, which may be important to the local economy due to its productivity or value. Determined by each county's board of supervisors and a local advisory committee.	1,861
Grazing Land	Land on which the existing vegetation is suited to the grazing of livestock. The minimum mapping unit for Grazing Land is 40 acres.	1,112
Urban and Built-up Land	Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. Common examples include residential, industrial, commercial, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, and water control structures.	54,961
Other Land	Land not included in any other mapping category. Examples of land classified as Other Land include low density rural developments; timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than forty acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is also mapped as Other Land.	4,294
Total		64,354
<small>Note: Acreages shown in this table reflect the comparison of 2004 FMMP data versus examining 2006 aerials and ground truthing. Source: California Department of Conservation, Farmland Mapping and Monitoring Program Data, 2004; PBS&J, 2008.</small>		

units each account for only a few percent or less of the total. The San Joaquin soils are generally present in the eastern and southeastern part of the Policy Area; Clear Lake and Cosumnes soils occur in the northern part of the Policy Area; and Galt soils are in the southwestern part of the Policy Area, in an area generally bounded by I-5 and State Route 99. Sailboat soils occur along the American and Sacramento rivers.

Capability Rating

There are several methods for classifying soil quality for agricultural uses. One method involves a soil capability rating provided by the NRCS. Capability ratings indicate, in a general way, the suitability of soils for most kinds of field crops. The classes are developed according to the limitation of the soils when used for field crops, the risk of damage when they are used, and the way they respond to treatment. The broadest capability groups are designated by Roman

numerals I through VIII. Prime Farmland, which comprises approximately 1,469 acres in the Policy Area, usually consists of Class I and Class II soils.

Storie Index Rating

The NRCS has identified and mapped soils in Sacramento County in the Sacramento County Soil Survey and rated suitability of soils for agriculture using the Storie Index. This index expresses numerically the relative degree of suitability of a soil for general intensive agriculture, as it exists at the time of evaluation. The rating is based on soil characteristics only and is obtained by evaluating such factors as soil depth, surface texture, subsoil characteristics, drainage, salts and alkali, and relief.

■ Williamson Act Contracts

The California Land Conservation Act of 1965 (commonly referred to as the Williamson Act) enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. The Williamson Act is described in detail below in the Regulatory Setting. As shown on Figure 6.2-2, there are several parcels adjacent to the Policy Area under Williamson Act contract, but none within the Policy Area.

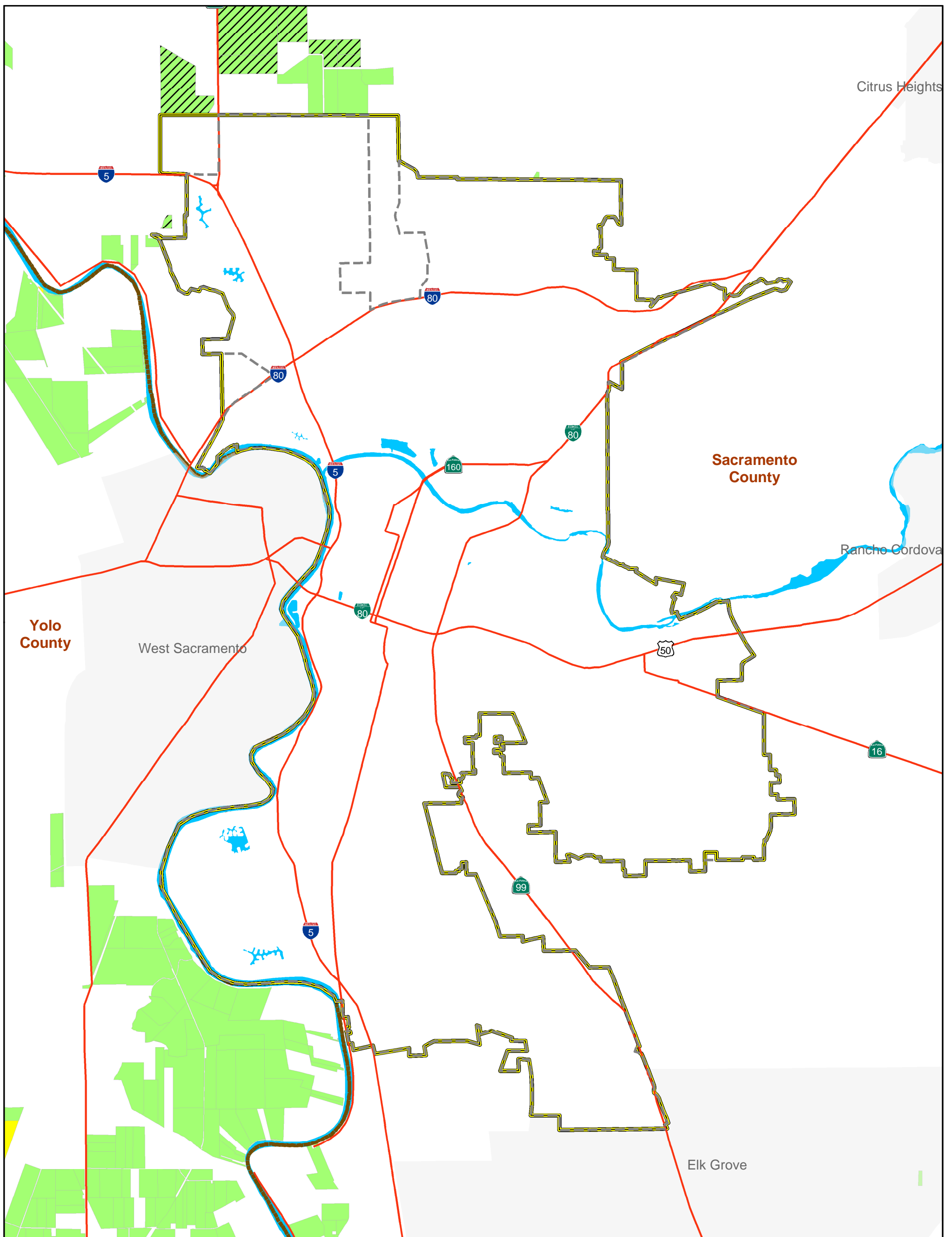
Adjacent Lands

Lands adjacent to the Policy Area are among the most productive agricultural regions in California. The area south of the Policy Area and extending into the Delta and the area west of Policy Area and extending towards the city of Davis are productive regions for such crops as tomatoes, pears, sugar beets, and alfalfa. The land to the east of the Policy Area is less suitable for crop production, but is well-suited for grazing livestock. Lands to the north of the Policy Area are productive sources of rice, grains, fruits, and other field crops. Agriculture, including fruit and vegetable processing and shipping, comprises a significant portion of the Sacramento region's income and employment. Rice, tomatoes, wine grapes, prunes, peaches, almonds, and walnuts are among the more lucrative crops.

Regulatory Context

■ Federal

There are no specific federal regulations that pertain to agricultural resources.



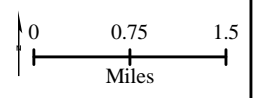
**Figure 6.2-2
Williamson Act
Lands**



- Legend**
- Williamson Act Prime Farmland
 - Williamson Act Prime Farmland in Non-Renewal
 - City Limit

- County Boundary
- Policy Area
- Water

Williamson Act, CA Dept. of Conservation, 2004



■ State

California Code of Regulations (Title 3. Food and Agriculture)

CCR Title 3, sections 6000-6920 regulate the registration, management, use, and application of pesticides on agricultural lands. These regulations are enforced by the Sacramento County Agricultural Commissioner's office. Generally, specific regulations vary for each pesticide, its method of application and use. However, sections 6600 and 6614 have some general regulations relating to the application of pesticide.

Section 6600 describes the standards of care that shall be used when applying pesticides. Standards include using equipment that is in good condition, performing pest control in a careful manner, properly applying pesticides, and exercising reasonable precautions to avoid contamination of the environment.

Section 6614 requires that nontarget crops, animals, or public or private property shall not be damaged by pesticide application.

Sections 3482.5 and 3482.6 protects the right-to-farm in California by stating that agricultural activity and operations are not considered a nuisance due to any changed condition in or about the locality, after it has been in continuous operation for more than three years if it was not a nuisance at the time it began. Section 3482.6 does not preclude a city, county, or other political subdivision of this state, acting within its constitutional or statutory authority and not in conflict with other provisions of state law, from adopting an ordinance that allows notification to a prospective homeowner that the dwelling is in close proximity to an agricultural processing activity, operation, facility, or appurtenances. Many jurisdictions that have active agricultural activities do adopt local right-to-farm ordinances.

Williamson Act

The California Land Conservation Act of 1965 (or Williamson Act) (California Government Code section 51200) recognizes the importance of agricultural land as an economic resource which is vital to the general welfare of society. The enacting legislation declares that the preservation of a maximum amount of the limited supply of agricultural land is necessary to the conservation of the state's economic resources, and is necessary not only to the maintenance of the agricultural economy of the state, but also for the assurance of adequate, healthful, and nutritious food for future residents of the state and the nation.

Intended to assist the long-term preservation of prime agricultural land in the state, Williamson Act contracts provide the agricultural landowner with a protection against property tax increases in exchange for keeping the land in agricultural use. When under contract, the landowner no longer pays property tax for an assessed valuation based upon the property's urban development potential. The Williamson Act stipulates that for properties under contract, "the

highest and best use of such land during the life of the contract is for agricultural uses.” Therefore, property under a contract is assessed and taxed based upon its agricultural value. Williamson Act contracts remain in effect for 10 years unless the property owner files for a notice of non-renewal with the County.⁴

The Williamson Act also addresses “compatible” uses. In section 51231, the Williamson Act states that “the board or council, by resolution, shall adopt rules governing the administration of agricultural preserves...Rules related to compatible uses shall be consistent with the provisions of section 51238.1.” Section 51238.1 states the following:

- (a) Uses approved on contracted lands shall be consistent with all of the following principles of compatibility:
 - (1) The use will not significantly compromise the long-term productive agricultural capability of the subject contracted parcel or parcels or on other contracted lands in agricultural preserves.
 - (2) The use will not significantly displace or impair current or reasonably foreseeable agricultural operations on the subject contracted parcel or parcels or on other contracted lands in agricultural preserves . . .
 - (3) The use will not result in the significant removal of adjacent contracted land from agricultural or open-space use.

■ Local

City of Sacramento Comprehensive Zoning Ordinance

The City of Sacramento Comprehensive Zoning Ordinance (Sacramento City Code Title 17 or Zoning Ordinance) is intended to encourage the most appropriate use of land, conserve, stabilize, and improve the value of property, provide adequate open space for recreational, aesthetic, and environmental amenities, and control the distribution of population to promote health, safety, and the general welfare of the population of the city. To achieve this goal, the Zoning Ordinance regulates the use of land, buildings, or other structures for residences, commerce, industry, and other uses required by the community. The two City agriculture-open space zoning classifications are defined below.

A: Agricultural Zone: This is an agricultural zone restricting the use of land primarily to agriculture and farming. It is also considered an open space zone. Property in this zone will be considered for reclassification when proposed for urban development which is consistent with the general plan.

A-OS: Agriculture-Open Space Zone: This is an exclusive agricultural zone designed for the long-term preservation of agricultural and open space land. This zone is designated to prevent the premature development of land in this category to urban uses. The maximum height is 50 feet.

4 California Department of Conservation, *Williamson Act Program - Basic Contract Provisions* <www.conservation.ca.gov/dlrp/lca/basic_contract_provisions/Pages/wa_overview.aspx>, accessed December 26, 2007.

Within the Policy Area there are 2,299 acres zoned as Agricultural (A) and 2,044 acres zoned as Agriculture-Open Space (A-OS).⁵

City of Sacramento 1988 General Plan

The City's 1988 General Plan contains policies and implementation measures relevant to agricultural resources. Upon approval of the proposed 2030 General Plan, all policies and implementation measures in the 1988 General Plan would be superseded. Therefore, they are not included in this analysis.

Natomas Basin Habitat Conservation Plan (NBHCP)

The Natomas Basin Habitat Conservation Plan (NBHCP) seeks "to promote biological conservation in conjunction with economic and urban development within the Permit Areas." Some species identified in and protected by the NBHCP rely on agricultural activities to sustain their populations. Figure 6.3-3 in section 6.3, Biological Resources, shows the location of the NBHCP area. For a complete description of the NBHCP, please refer to pages 6.1-23 and 6.1-24 of the TBR.

IMPACTS AND MITIGATION MEASURES

Methods of Analysis

Potential project-specific and cumulative impacts on agricultural resources were assessed based on information contained in a variety of sources, including the City of Sacramento General Plan TBR, the FMMP, the NRCS Soil Survey, and Geographic Information Systems (GIS) data. A review of aerial maps and limited ground truthing was also undertaken in order to provide a more accurate description of designated farmland within the Policy Area. In addition, the proposed project was analyzed in relation to existing state and local regulations and policies pertaining to agricultural resources and operations.

Proposed General Plan Policies

The following goals and policies from the proposed 2030 General Plan are relevant to agricultural resources within the entire Policy Area. The proposed General Plan does not include any policies regarding agricultural resources that are unique to any of the City's Community Plans or Focused Opportunity Areas.

ENVIRONMENTAL RESOURCES (ER)

Goal ER 4.1 Access to Locally-Grown and Organic Foods. Support access to locally grown and organic foods to Sacramento residents as a means of supporting local farmers, keeping agricultural lands in production, improving access to fresh

5 City of Sacramento, GIS Data, 2007.

produce, promoting sustainable agricultural practices, reducing energy expended on food transport, and preserving Sacramento's agricultural heritage.

Policies

ER 4.1.1 **Locally Grown and Organic Foods.** The City shall provide venues for farmer's markets, particularly in areas that lack access to fresh and healthy foods, and encourage serving locally-grown and organic foods at City public facilities.

ER 4.1.2 **Community and Rooftop Gardens.** The City shall support community and rooftop gardens and recognize their value in providing fresh food in urban areas in addition to their recreational, community building, landscaping, and educational value.

Goal ER 4.2 Growth and Agriculture. Support the preservation and protection of agricultural lands and operations outside of the city for its open space, habitat, flood protection, aesthetic values, and aid in future food security.

Policies

ER 4.2.1 **Protect Agricultural Lands.** The City shall encourage infill development and compact new development within the existing urban areas in order to minimize the pressure for conversion of productive agricultural lands for urban uses.

ER 4.2.2 **Permanent Preservation.** The City shall work with the County, Natomas Basin Conservancy, and other entities to protect and permanently preserve a one mile buffer outside of the current city limits as of adoption of the General Plan to serve viable agricultural activities and as a community separator between Sutter and Sacramento Counties and along the Sacramento River.

ER 4.2.3 **Coordinate to Protect Farmland.** The City shall continue to work with the County and other adjacent jurisdictions to implement existing conservation plans to preserve prime farmland and critical habitat outside of the city.

ER 4.2.4 **Development Adjacent to Agriculture.** The City shall require open space or other appropriate buffers for new development abutting agricultural areas to protect the viability of existing agricultural operations outside of the city and to ensure compatibility of uses with residents in adjacent areas.

ER 4.2.5 **Homeowner Notification.** The City shall require that purchasers of homes located in the vicinity of agricultural operations be provided notification of such activities by way of their deeds and/or escrow documentation.

Thresholds of Significance

For the purposes of this EIR, impacts on agricultural resources are considered significant if the proposed General Plan would:

- affect agricultural resources or operations (e.g., impacts to soils or farmlands, or impacts from incompatible land uses, or premature conversion of Williamson Act contracts).

Impacts and Mitigation Measures

A summary of all Agricultural Resources impacts and their levels of significance is located at the end of this technical section.

Impact 6.2-1	Implementation of the 2030 General Plan could affect agricultural resources or operations in the Policy Area.
Applicable Regulations	<i>None</i>
Significance Before Mitigation	<i>Significant</i>
Mitigation Included in the SGP	<i>Policies ER 4.2.1 and ER 4.2.3</i>
Significance after Mitigation Included in the SGP	<i>Less than Significant</i>
Additional Mitigation	None required
Residual Significance	Less than Significant

According to the most recent information available from the 2004 FMMP updated through a review of 2006 aerial maps and ground truthing, the Policy Area contains approximately 3,987 acres of Important Farmland. This total includes 1,469 acres of Prime Farmland, 543 acres of Farmland of Statewide Importance, 114 acres of Unique Farmland, and 1,861 acres of Farmland of Local Importance. Implementation of the 2030 General Plan could result in the conversion of these agricultural lands to urban uses.

Goals and policies included in the Environmental Resources section of the proposed 2030 General Plan encourage the continued productivity and preservation of existing local agricultural lands and operations in areas outside of the city. These policies include Policy ER 4.2.1, which encourages infill development and compact new development within the existing urban areas of the city in order to prohibit the premature conversion of productive agricultural lands for urban uses, and Policy ER 4.2.3, which ensures that the City continues to work with Sacramento County and other adjacent jurisdictions to ensure implementation of all existing conservation plans to preserve prime farmland outside the city.

To the extent that the proposed 2030 General Plan accommodates future growth within the Policy Area, the conversion of Important Farmland outside the Policy Area (or city limits) is being minimized.

As an urban jurisdiction, the City of Sacramento intends to develop all land within the Policy Area as shown on Figure 3-6, Preferred Land Use Plan. Although the city still contains agricultural land or land designated as Important Farmland, much of this land within the Policy Area has been designated and zoned for development and in many instances has been entitled for future development, in part to limit the conversion of agricultural lands outside of the city limits. There are no large scale active agricultural operations within most of the Policy Area because it is presently not viable due to adjacent development with surrounding parcels developed with urban uses, all of which limit agricultural activities. For example, aerial pesticide

spraying and use of agricultural equipment on public roads in urban areas creates a situation where urban development place pressure on agricultural activities to limit or cease operations.

The City has not adopted a right-to-farm ordinance, which is common in more rural cities and counties, because Sacramento is an urban city where active agricultural operations would conflict with urban development. By keeping development within established growth areas the City is helping to limit urban sprawl into other agricultural regions, thereby helping to minimize or reduce impacts on agricultural resources and operations in more agriculturally productive areas. Infrastructure already exists or is planned for the areas within the city, signaling the intention for urban growth within the Policy Area. The City is focusing new growth within the Policy Area away from agricultural areas outside the city. The city's contribution to the state's inventory of Important Farmland is insubstantial. Because projected growth would be focused within the Policy Area and not on surrounding agricultural areas outside the city - the remaining agricultural land within the Policy Area is not considered viable or suitable for large scale agricultural operations and therefore, the impact on agricultural resources and operations would be *less than significant*.

Mitigation Measure

None required.

Impact 6.2-2	Implementation of the 2030 General Plan could result in land uses that are incompatible with adjacent agricultural operations.	
Applicable Regulations	<i>CCR Title 3, sections 6000-6920 (various enactment and amendment dates) and CCR Title 3, sections 3482.5 and 3482.6 (enacted in 1981, amended in 1993 and 1999)</i>	
Significance Before Mitigation	<i>Potentially Significant</i>	
Mitigation Included in the SGP	<i>Policies ER 4.2.2, ER 4.2.3, ER 4.2.4, ER 4.2.5</i>	
Significance after Mitigation Included in the SGP	<i>Less than Significant</i>	
Additional Mitigation	None required	
Residual Significance	Less than Significant	

Lands surrounding the Policy Area are among the most agriculturally productive in California. The area to the south and extending into the Delta and the area west of the Policy Area and extending towards the city of Davis are productive regions for crops such as tomatoes, pears, sugar beets, and alfalfa. Undeveloped land to the east of the Policy Area is less suitable for crop production, but is well-suited for grazing livestock. Lands to the north of the Policy Area are productive sources of rice, grains, fruits, and other field crops.

Urban development primarily adjacent to the northern and western portion of the Policy Area could adversely affect adjacent agricultural operations. New development within the Policy Area adjacent to existing agricultural operations that generates substantial external effects (e.g., dust, odors or pesticide drift) could effectively require an adjacent farmer or rancher to modify

agricultural operations (e.g., the selection of alternate crops) to accommodate proposed development. Furthermore, transportation of farm equipment such as tractors could be hindered on local roadways due to the increased number of vehicles resulting from new urban development. Future residents could also inconvenience farmers through the introduction of domestic pets, pests, and at times vandalism or theft on farm properties.

The Environmental Resource section of the proposed 2030 General Plan includes several policies that would address potential incompatibilities between land uses within the Policy Area and adjacent agricultural operation. Policy ER 4.2.2 requires the City to work with Sacramento County, Natomas Basin Conservancy, and other entities to establish a method to protect and permanently preserve a one mile buffer that can serve as a means to preserve viable agricultural activities and as a community separator between Sutter and Sacramento counties and along the Sacramento River.

Policy ER 4.2.4 requires the City to control development abutting agriculture areas and requires open space or other appropriate buffers to protect the viability of existing agricultural operations and health and safety of residents in adjacent areas. Policy ER 4.2.3 ensures that the City would work with Sacramento County and other adjacent jurisdictions to implement existing conservation plans to preserve prime farmland and critical habitat.

Policy ER 4.2.5 requires that purchasers of homes located in the vicinity of agricultural operations be provided notification of such activities by way of their deeds and/or escrow documentation. The California Code of Regulations (CCR) Title 3, sections 6000-6920, included in the Regulatory Setting above, regulates the registration, management, use, and application of pesticides on agricultural lands, and includes provisions for the protection of persons, animals, and property. CCR Title 3, sections 3482.5 and 3482.6, also included in the Regulatory Setting above, protects the right-to-farm in California by establishing that agricultural operations in operation for more than three years and are conducted in accordance with accepted customs and standards shall not be considered a private or public nuisance due to any changes in condition or within the locality.

Because proposed General Plan policies and existing regulations would ensure that land uses within the Policy Area would not adversely affect agricultural productivity at nearby agricultural operations, this impact is considered ***less than significant***.

Mitigation Measure

None required.

Impact 6.2-3	Implementation of the 2030 General Plan could conflict with existing zoning for agricultural use or with a Williamson Act contract.	
Applicable Regulations	<i>City of Sacramento Comprehensive Zoning Plan and the California Land Conservation Act of 1965</i>	
Significance Before Mitigation	<i>Less than Significant</i>	
Mitigation Included in the SGP	<i>Policies ER 4.1.2, ER 4.2.1, ER 4.2.4</i>	
Significance after Mitigation Included in the SGP	<i>Less than Significant</i>	
Additional Mitigation	None required	
Residual Significance	Less than Significant	

According to the City's GIS information, the Policy Area includes 2,299 acres zoned as Agricultural (A) and 2,044 acres zoned as Agriculture-Open Space (A-OS). Agricultural (A) zoning restricts the use of land primarily to activities associated with agriculture and farming. It is also considered an open space zone. Property currently zoned A would be considered for rezoning once the City adopts the General Plan and associated Land Use Diagram and moves forward to rezone land within the Policy Area consistent with the Land Use Diagram. The Agriculture-Open Space Zone (A-OS) is an exclusive agricultural zone designed for the long-term preservation of agricultural and open space land. This zone is designated to prevent the premature development of land in this category to urban uses.

While development of the Policy Area under the proposed 2030 General Plan could result in the rezoning of properties currently zoned as A or A-OS, changes to the City's Comprehensive Zoning Code would require City approval and would be required to comply with existing laws and regulations pertaining to proposed zoning changes. The proposed General Plan includes policies that aim to preserve agricultural land for open space, habitat, flood protection, and aesthetic values. Policy ER 4.2.1 encourages infill development and compact new development within the existing urban areas in order to prohibit the premature conversion of productive agricultural lands for urban uses. Policy ER 4.1.2 promotes opportunities for urban agriculture (community gardens) and recognizes their value in providing fresh food in urban areas in addition to their recreational, community building, landscaping, and educational value.

There are currently no properties under Williamson Act contracts within the Policy Area. There are several parcels adjacent to the Policy Area under Williamson Act contract, see Figure 6.2-2. As discussed in Impact 6.2-2 above, existing regulations and proposed General Plan policies would ensure that land uses within the Policy Area would not be incompatible with adjacent agricultural operations. See specifically proposed General Plan Policy ER 4.2.4 which requires the City to include appropriate buffers for new development abutting agricultural areas to protect the viability of existing agricultural operations outside of the city and ensure compatibility of uses with residents in adjacent areas.

Because potential rezoning of properties currently zoned as A or A-OS, would require City approval and compliance with existing laws and regulations pertaining to proposed zoning changes, and because the proposed General Plan includes policies that recognize existing

Williamson Act contracts and aim to preserve agricultural land for open space, habitat, flood protection, and aesthetic values, future development proposed under the 2030 General Plan would not conflict with existing zoning for agricultural use or with a Williamson Act contract. This impact is considered *less than significant*.

Mitigation Measure

None required.

Cumulative Impacts and Mitigation Measures

The geographic context for cumulative agricultural resource impacts that would occur under the proposed General Plan is proposed future development in the Policy Area as well as within Sacramento County. The cumulative analysis does not address potential effects related to land use incompatibilities with adjacent agricultural operations because the project-specific analysis considers both existing and future planned land uses and impacts resulting from the additive effect of other proposed or speculative land use plans would not differ from those identified in the above impact discussion. Similarly, because the analysis of applicable goals and policies pertaining to agricultural resources considers both existing and planned land uses, cumulative land use compatibility impacts are not considered independently.

Impact 6.2-4	Implementation of the 2030 General Plan in conjunction with proposed future development in Sacramento County could affect agricultural resources or operations.	
Applicable Regulations	<i>None</i>	
Significance Before Mitigation	<i>Significant</i>	
Mitigation Included in the SGP	<i>Policies ER 4.2.2, ER 4.2.4, ER 4.2.5</i>	
Significance after Mitigation Included in the SGP	<i>Less than Significant</i>	
Additional Mitigation	None required	
Residual Significance	Less than Significant	

According to the CDC, the amount of agricultural land in Sacramento County decreased from 2002 to 2004. As of 2004, Sacramento County has approximately 384,653 acres of agricultural land. Within Sacramento County's classified agricultural land uses, the amount of Prime Farmland, Unique Farmland, and Farmland of Statewide Importance decreased by approximately 6,990 acres. The amount of Farmland of Local Importance increased by 1,949 acres, and Grazing Land decreased by 1,850 acres. Excluding grazing land conversions, the net decrease of farmland for crops from 2002 to 2004 within Sacramento County was 5,041 acres.⁶ Although the precise number of acres is not known at this time, data compiled by the

⁶ California Department of Conservation, Farmland Mapping and Monitoring Program, *Important Farmland Data Availability, Sacramento County 2002-2004 Land Use Conversion, Table A-23*, <www.consrv.ca.gov>, accessed July 9, 2007.

CDC⁷ and countywide development trends indicate that future buildout of Sacramento County would result in the conversion of a substantial amount of Important Farmland to non-agricultural uses, resulting in a significant cumulative impact on agricultural resources.

According to the most recent information from the FMMP (2004) combined with a comparison of 2006 aeriels and ground truthing, the Policy Area contains approximately 3,987 acres of Important Farmland. This total includes 1,469 acres of Prime Farmland, 543 acres of Farmland of Statewide Importance, 114 acres of Unique Farmland, and 1,861 acres of Farmland of Local Importance. While goals and policies included in the Environmental Resources section of the proposed 2030 General Plan encourage the continued productivity and preservation of existing local agricultural lands and operations to protect future food security, this analysis assumes the entire Policy Area would be developed with urban uses by 2030. Therefore, implementation of the 2030 General Plan would result in the conversion of approximately 3,987 acres of Important Farmland to non-agricultural uses.

Implementation of the 2030 General Plan would focus future growth within the Policy Area while maintaining policies to protect the conversion of farmland outside of the Policy Area. Although existing farmland within the Policy Area would be removed from agricultural use, future development would be restricted to areas inside the Policy Area, therefore not contributing to the decline of agricultural resources within the county. Because the 2030 General Plan would not contribute to the decline of agricultural resources in the county, the project's contribution would not be considerable. Therefore, the impact would be a ***less-than-significant cumulative impact***.

Mitigation Measure

None required.

Impact 6.2-5	The proposed project in conjunction with proposed future development in Sacramento County could conflict with existing zoning for agricultural use or with a Williamson Act contract.
Applicable Regulations	<i>City of Sacramento Comprehensive Zoning Plan and the California Land Conservation Act of 1965</i>
Significance Before Mitigation	<i>Less than Significant</i>
Mitigation Included in the SGP	<i>Policies ER 4.1.2, ER 4.2.1, ER 4.2.3, ER.4.2.4</i>
Significance after Mitigation Included in the SGP	<i>Less than Significant</i>
Additional Mitigation	None required
Residual Significance	Less than Significant

As discussed in Impact 6.2-3 above, development of the Policy Area under the proposed 2030 General Plan could result in the rezoning of properties currently zoned as Agricultural or

7 California Department of Conservation, *Sacramento Area Continues to See Farmland Urbanized*, <www.conservation.ca.gov/index/news/2004>, accessed December 26, 2007.

Agriculture-Open Space requiring changes to the City's Comprehensive Zoning Code. Any rezones would require City approval and would be required to comply with existing laws and regulations pertaining to proposed zoning changes. There are currently no properties under Williamson Act contracts within the Policy Area; however, as shown on Figure 6.2-2, there are several parcels located in the county adjacent to the Policy Area under Williamson Act contracts. Proposed General Plan Policy ER 4.2.1 requires the City to support existing farming operations by encouraging infill development and compact new development within the existing urban areas of the city in order to minimize the pressure for premature conversion of productive agricultural lands, and Policy ER 4.2.3 ensures that the City would continue to work with Sacramento County and other adjacent jurisdictions to implement existing conservation plans to preserve prime farmland and critical habitat. Because Sacramento County and other jurisdictions within the County have policies and regulations aimed at preventing conflicts with agricultural uses and with Williamson Act contracts, cumulative (e.g., countywide) impacts are considered *less than significant*.

Mitigation Measure

None required.

Focused Opportunity Areas

All six of the Focused Opportunity Areas are located in areas of the city that do not have extensive agricultural resources. However, the Robla Focused Opportunity Area is currently underutilized and could contain agricultural resources. Site-specific analysis for individual development projects within each Focused Opportunity Area would determine whether individual project sites would result in the conversion of agricultural resources into non-agricultural uses and whether additional mitigation beyond compliance with mandated federal, state, and city requirements would be required.

Insufficient Information to Support a Complete Analysis of the Potential Impacts

Section 15176(c) of the CEQA Guidelines acknowledges that all the information necessary to analyze potential impacts associated with anticipated future development may not be available. It is anticipated that future development within the Focused Opportunity Areas, as well as in the South Area Community Plan and future development within the Policy Area could include potential impacts on agricultural resources. At this time specific project information is not available (i.e., individual project site characteristics, site-specific location, etc.) to evaluate potential impacts on agricultural resources. Once specific development proposals are prepared and submitted to the City, a project-specific environmental analysis would be prepared to analyze potential impacts on agricultural resources.

SUMMARY OF AGRICULTURAL RESOURCES IMPACTS						
LEVEL OF SIGNIFICANCE						
	6.2-1 Implementation of the 2030 General Plan could affect agricultural resources or operations in the Policy Area.	6.2-2 Implementation of the 2030 General Plan could result in land uses that are incompatible with adjacent agricultural operations.	6.2-3 Implementation of the 2030 General Plan could conflict with existing zoning for agricultural use or with a Williamson Act contract.	6.2-4 Implementation of the 2030 General Plan in conjunction with proposed future development in Sacramento County could affect agricultural resources or operations.	6.2-5 The proposed project in conjunction with proposed future development in Sacramento County could conflict with existing zoning for agricultural use or with a Williamson Act contract.	
Community Plan Areas						
Arden-Arcade	○	○	○	○	○	○
Central City	○	○	○	○	○	○
East Broadway	○	○	○	○	○	○
East Sacramento	○	○	○	○	○	○
Land Park	○	○	○	○	○	○
North Natomas	○	○	○	○	○	○
North Sacramento	○	○	○	○	○	○
Pocket	○	○	○	○	○	○
South Area	○	○	○	○	○	○
South Natomas	○	○	○	○	○	○
Focused Opportunity Areas						
65 th Street/University Village	○	○	○	○	○	○
Arden Fair/Point West	○	○	○	○	○	○
Florin LRT/Subregional Center	○	○	○	○	○	○
Meadowview LRT	○	○	○	○	○	○
River District	○	○	○	○	○	○
Robla	○	○	○	○	○	○
○ = less than significant ● = less than significant with mitigation incorporated ● = significant and unavoidable						

6.3 Biological Resources



INTRODUCTION

This section evaluates effects of the proposed 2030 General Plan (proposed project) on biological resources within the Policy Area. Biological resources in the Policy Area include plant and animal species listed as threatened or endangered, proposed for federal and/or state listing as threatened or endangered, or any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies or regulations, or by the California Department of Fish and Game (CDFG) or U.S. Fish and Wildlife Service (USFWS). Additionally, sensitive habitats, habitat for any of the listed or sensitive species described above, and wetlands or other waters under the jurisdiction of the U.S. Army Corps of Engineers (Corps) under Section 404 of the Clean Water Act (CWA) are considered significant biological resources.

The 2030 General Plan contains policies to guide the location, design, and quality of development to protect important biological resources such as wildlife habitat, open space corridors, and ecosystems. Conservation and protection of important biological resources contribute to human health and nurtures a viable economy.

In response to the NOP, one comment letter was received (see Appendix B) from the CDFG that raised concerns associated with biological resources. The comments requested that the EIR identify natural habitats including special-status species that are state and/or federally listed as threatened and endangered and provide a discussion of how the proposed plan would affect their function and value. Specific concerns included impacts on wetlands, including vernal pools and riparian habitat; growth inducing and cumulative impacts of the 2030 General Plan on fish, wildlife, water quality, and vegetative resources; consistency with applicable land use, or species recovery plans, such as Habitat Conservation Plans, and Critical Habitat Designation; and the EIR should provide an analysis of specific alternatives which reduce impacts on fish, wildlife, water quality, and vegetative resources. The concerns raised by the CDFG are addressed in this section.

Information for this section is based on data and a variety of resources obtained from the CDFG's California Natural Diversity Database (CNDDDB information dated September, 2007),¹ the California Native Plant Society's (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants of California,² USFWS Endangered and Threatened Species list³ (information dated September, 2007), U.S. Geological Survey's (USGS) 7.5-minute quadrangles for Taylor

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- 1 California Department of Fish and Game (CDFG), Biogeographic Data Branch, California Natural Diversity Database, September 2007.
 - 2 California Native Plant Society, Electronic Inventory, <http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi/Html?item=checkbox_9.htm#q9>, accessed September 12, 2007.
 - 3 USFWS, Federal Endangered and Threatened Species List, <www.fws.gov/sacramento/es/spp_list.htm>, accessed September 12, 2007.

Monument, Rio Linda, Citrus Heights, Sacramento West, Sacramento East, Carmichael, Clarksburg, Florin, and Elk Grove, USFWS⁴ and CDFG⁵ species information websites and a variety of environmental documents including the Natomas Basin Habitat Conservation Plan (NBHCP),⁶ Panhandle Annexation and PUD Draft EIR,⁷ Railyards Specific Plan Draft EIR,⁸ various environmental documents generated for the Delta Shores Development,⁹ the Final Draft Bufferlands Master Plan,¹⁰ and the City of Sacramento 2030 General Plan Technical Background Report (TBR).

The TBR prepared for the project is available electronically on the City's website (<http://www.sacgp.org/documents.html#tbr>) and on CD at the back of this document.

ENVIRONMENTAL SETTING

City Wide

■ Habitats

Generally, the Policy Area is bordered by farmland to the north, farmland and the Sacramento River to the west, the city of Elk Grove to the south, and developed unincorporated portions of Sacramento County to the east. Historically, the natural habitats within the Policy Area included perennial grasslands, riparian woodlands, oak woodlands, and a variety of wetlands including vernal pools, seasonal wetlands, freshwater marshes, ponds, streams and rivers. From a biological perspective, the area near the confluence of the Sacramento and American rivers is a particularly rich and diverse part of the region, due to the rich soils and diversity of vegetation they supported. Over the last 150 years, development from agriculture, irrigation, flood control,

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- 4 USFWS, Federal Endangered and Threatened Species List, <www.fws.gov/sacramento/es/spp_info.htm>.
- 5 CDFG, Life History Accounts and Range Maps - California Wildlife Habitat Relationships System <www.dfg.ca.gov/biogeodata/cwhr/cawildlife.aspx>.
- 6 City of Sacramento, 2003, *Final Natomas Basin Habitat Conservation Plan*, prepared by the City of Sacramento, Sutter County, Natomas Basin Conservancy, in Association with Reclamation District No. 1000 and the Natomas Central Mutual Water Company, prepared for the U.S. Fish and Wildlife Service and the California Department of Fish and Game, April 2003.
- 7 City of Sacramento, 2007, *Panhandle Annexation and PUD Final Environmental Report*, prepared by PMC, May 2007.
- 8 PBS&J, 2007, *Railyards Specific Plan Draft Environmental Impact Report*, prepared for the City of Sacramento, August 2007.
- 9 ECORP Consulting, *Special-Status Species Assessments for East Delta Shores*, August 18, 2006; ECORP Consulting, *Special-Status Species Assessment for West Delta Shores*, August 18, 2006; ECORP Consulting, *Arborist Survey Report for East Delta Shores*, June 15, 2006; ECORP Consulting, *Arborist Survey Report for West Delta Shores*, August 17, 2006; ECORP Consulting, *Delta Shores – Valley Elderberry Longhorn Beetle Survey Report*, April 30, 2007; ECORP Consulting, *Wetland Delineation Report for East Delta Shores*, September 5, 2006; ECORP Consulting, *Wetland Delineation Report for West Delta Shores*, June 13, 2006; ECORP Consulting, *Special-Status Species Assessment for Delta Shores Off-Site*, July 30, 2007; ECORP Consulting, *Wetland Delineation for Delta Shores Off-Site*, July 30, 2007; ECORP Consulting, *Arbor Survey Report for Delta Shores Off-Site*, July 30, 2007.
- 10 Jones & Stokes, 2000, *Bufferlands Master Plan – Final Draft*, prepared for the Sacramento Regional County Sanitation District, August 2000.
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and urbanization has resulted in the loss or alteration of much of the natural habitat within the Policy Area boundaries. Non-native annual grasses have replaced the native perennial grasslands, many of the natural streams have been channelized, much of the riparian and oak woodlands have been cleared, and most of the marshes have been drained and converted to agricultural or urban uses.

Though the majority of the Policy Area is currently in residential, commercial, and other urban development, valuable plant and wildlife habitat still exists. These natural habitats are located primarily outside the city boundaries in the northern, southern and eastern portions of the Policy Area, but also occur along river and stream corridors and on a number of undeveloped parcels within the Policy Area. Habitats that are present in the Policy Area include annual grasslands, riparian woodlands, oak woodlands, riverine (rivers and streams), ponds, freshwater marshes, seasonal wetlands, and vernal pools. These habitats and their general locations within the Policy Area are discussed briefly below. A complete discussion of special-status plant and wildlife species found within these habitat types follows at the end of this section. For a complete discussion regarding these habitat types, please refer to section 6.1 of the TBR, pages 6.1-1 through 6.1-7.

Annual Grassland

Annual grassland habitat occurs throughout the undeveloped portions of the Policy Area, primarily as a distinct vegetation community, but also as an understory to oak and riparian woodland habitats. The largest concentration of annual grassland occurs in the northern portion of the Policy Area – in North Sacramento and North Natomas - but significant concentrations are also present in south Sacramento and in the eastern portion of the Policy Area. This habitat occupies (and has largely replaced through competition) what was once native perennial bunch grass habitat. Annual grassland species commonly observed in the Policy Area include ripgut brome (*Bromus diandrus*), soft chess (*Bromus mollis*), wild oat (*Avena fatua*), Italian rye (*Lolium multiflorum*), Mediterranean barley (*Hordeum marinum* spp. *gussoneanum*), foxtail barley (*Hordeum murinum* spp. *leporinum*), hairgrass (*Aira caryophylla*) and medusahead grass (*Taeniatherum caput-medusae*). Some of the more common forbs found in these annual grasslands include cutleaf geranium (*Geranium dissectum*), red stem filaree (*Erodium botrys*), clover (*Trifolium* spp.), bur clover (*Medicago polymorpha*), fiddle-neck (*Amsinckia menziesii*), curly dock (*Rumex crispus*), wild radish (*Raphanus sativa*), wild mustard (*Brassica* spp.), star thistle (*Centaurea solstitialis*), milk thistle (*Silybum marianum*), bull thistle (*Cirsium vulgare*), blue dicks (*Dichelostemma capitatum*), spikeweed (*Hemizonia fitchii*), and vinegar weed (*Trichostema lanceolatum*).

Riparian

Riparian woodland and scrub habitats are generally associated with rivers, low gradient streams, floodplains and occasionally ponds and canals. The composition of species in riparian woodland communities is highly variable and dependent on geographic location, elevation,

substrate, and amount of flow in the watercourse. This habitat can be found along many of the perennial and ephemeral drainages and other waterways in the Policy Area, but the largest expanses of riparian vegetation occur along the American and Sacramento rivers, Natomas Main Drainage Canal (NEMDC) (also known as historic Steelhead Creek), Arcade Creek, and lower Morrison Creek/Beach Lake. The vegetation of the riparian woodland habitat is variable and often structurally diverse. Trees characteristic of riparian habitats in the Policy Area include valley oak (*Quercus lobata*), Fremont cottonwood (*Populus fremontii*), California black walnut (*Juglans californica*), white alder (*Alnus rhombifolia*), willow (*Salix* spp.), and Oregon ash (*Fraxinus latifolia*). Typical understory include shrubs, box elder (*Acer negundo*), button willow (*Cephalanthus occidentalis*), California buckeye (*Aesculus californicus*), coyote brush (*Baccharis pilularis*), California grape (*Vitis californicus*), Himalayan blackberry (*Rubus discolor*), and poison oak (*Toxicodendron diversilobum*). The herbaceous species occurring in the understory include seashore vervain (*Verbena littoralis*), bedstraw (*Galium* spp.), sedges (*Carex* spp.), umbrella sedges (*Cyperus* spp.), rushes (*Juncus* spp.), spike rush (*Eleocharis macrostachya*), and a variety of annual grasses.

Oak Woodlands

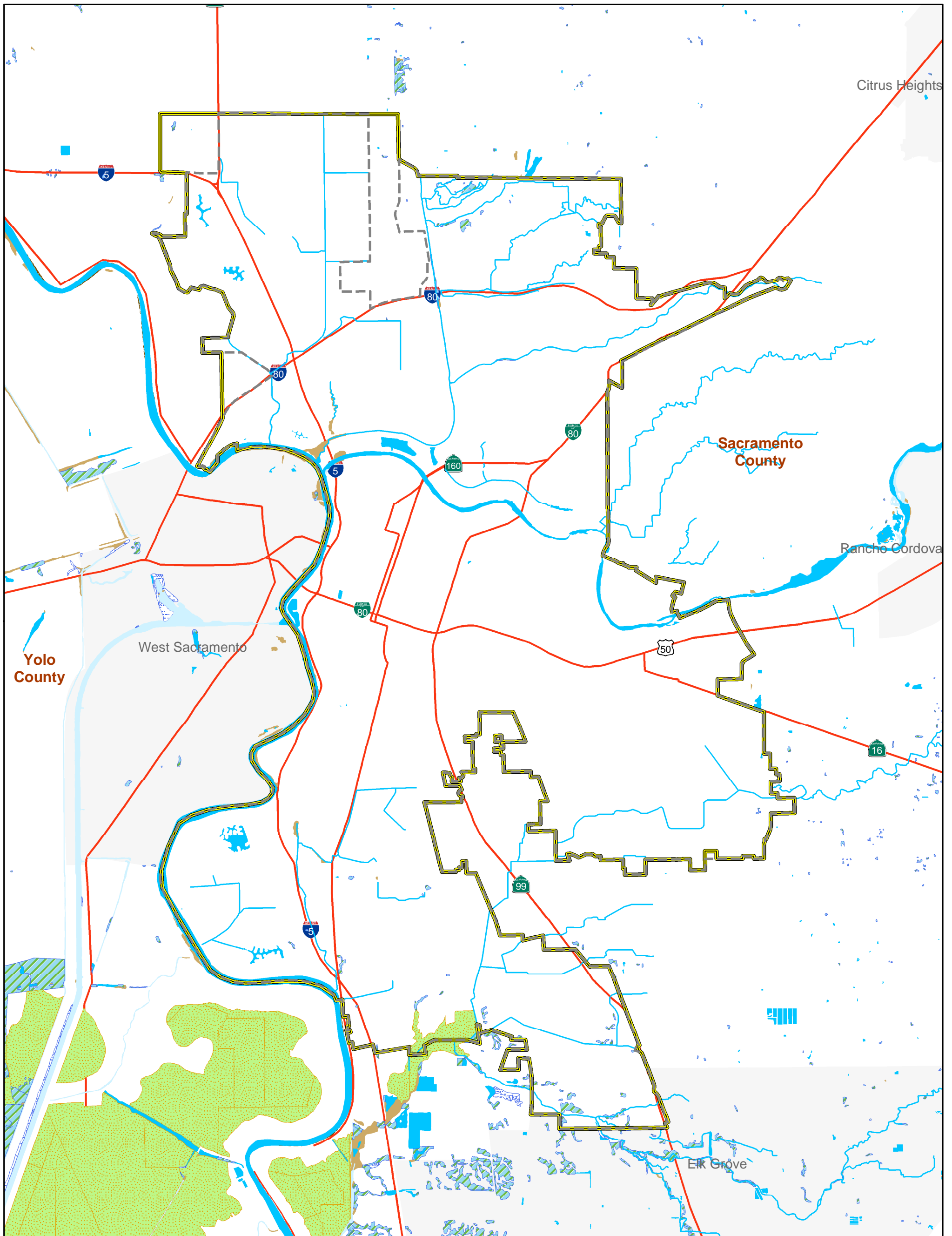
Oak woodlands are very limited in the Policy Area and occur only in upland areas adjacent to (or integrated with) riparian woodland habitat. The largest concentration of oak woodland occurs in North Sacramento, but some areas are still present to a limited extent in the southwestern portion of the Policy Area near Beach Lake and the Sacramento Regional Wastewater Treatment Plant buffer lands. Plant species composition in this habitat can be variable, but is typically dominated by an overstory of valley oaks, and/or interior live oaks, with blue oak, California buckeye, California black walnut, and foothill pine. Understory plant species include poison oak, toyon, coyote brush, Himalayan blackberries, and a variety of annual grasses such as wild oats, wild rye and foxtail barley.

Wetlands

Figure 6.3-1 shows wetlands within the Policy Area, and different wetland types are discussed below; the complete description can be found in section 6.1 of the TBR, pages 6.1-4 through 6.1-7. Due to the small scale of the map, wetlands still present in the city are either barely visible or not visible on this map due to their small size. A map with a larger scale is available at the city in the Development Services Department.

Rivers, Creeks and Canals

The Policy Area surrounds the confluence of the American and Sacramento rivers. These rivers, their tributaries and other waterways in the Policy Area are important to local wildlife, not only for the habitat they provide, but for the connectivity they create between otherwise isolated areas of wildlife habitat, acting as corridors through which wildlife species can migrate. The Sacramento River forms the western boundary of the Policy Area. Roughly one third of the



Legend

- Farmed Wetlands
- Lakes and Ponds
- Open Water
- Riparian Woodland
- Seasonal Wetlands
- Tidal Salt, Brackish Freshwater Marsh
- City Limit
- County Boundary
- Policy Area
- Water

**Figure 6.3-1
Biological Resources
Wetlands**

Policy Area occurs north of the American River and the remaining two thirds occurs to the south of the American River. Creeks and waterways within the Policy Area that occur north of the American River include the NEMDC, Chicken Ranch Slough, Strong Ranch Slough, Arcade Creek, Magpie Creek, Dry Creek, and Robla Creek. Creeks in the Policy Area that occur south of the American River include Morrison Creek, Elder Creek, Florin Creek, Laguna Creek and Union House Creek. Many of these creeks, or portions of these creeks, have been channelized and lined with concrete through much of their reaches within the Policy Area, and are maintained such that riparian and marsh vegetation is generally cleared on an annual basis.

Freshwater Marsh

Freshwater marsh habitat is typically associated with the margins of rivers, streams or ponds, but can form anywhere where shallow, slow moving perennial water is present. In the Policy Area, freshwater marsh occurs primarily along portions of the American River, NEMDC, Arcade Creek, lower Morrison Creek, and Beach Lake. Plant species common to freshwater marsh habitats in the Policy Area include cattails (*Typha latifolia*), tule (*Scirpus californicus*), sedges and umbrella sedges, rushes, water primrose (*Ludwigia peploides*), water smartweed (*Polygonum amphibium*), parrot feather (*Myriophyllum aquaticum*), pennyroyal (*Mentha pulegium*), verbena (*Verbena litoralis*), common yellow monkey flower (*Mimulus guttatus*), and smooth cocklebur (*Xanthium strumarium*). Freshwater marshes provide important breeding and foraging habitat for a wide variety of local wildlife such as herons and egrets, muskrats, raccoon, red-winged blackbirds and a wide variety of waterfowl.

Vernal Pools and Seasonal Wetlands

Grasslands throughout much of the Policy Area historically supported vernal pools and seasonal wetlands. However, much of this habitat has been lost with development of the city. The largest remaining concentration of vernal pool and seasonal wetland habitat is in North Sacramento and Natomas, though significant areas also occur in the Airport-Meadowview and south Sacramento areas and in undeveloped, eastern portions of the Policy Area.

Ruderal Habitats

Ruderal communities within the Policy Area are characterized by plant species adapted to continued disturbance (e.g., mowing, spraying, grading) and are largely composed of non-native annuals that have displaced the more conservative, native perennial species. Ruderal assemblages of species are found throughout the Policy Area, along the boundaries of active construction zones where recent grading or stockpiling of soils had taken place, in vacant lots, and in agricultural areas that are no longer in production. Non-native species typically observed within these areas include common sow-thistle, white sweet clover, rip-gut brome, wild oat, Bermuda grass, foxtail fescue, Italian rye-grass, wild radish, bur-clover, common plantain, milk thistle, common groundsel, cudweed, filaree, spring vetch, common knotweed, prickly lettuce, red clover, shepherd's purse and bull thistle. Native species observed included fiddleneck, fireweed, horseweed, miniature lupine, and toad-rush.

Although not as ecologically diverse as other habitat types, many wildlife species use ruderal communities for all or part of their life cycle. Mammals typically found in these communities include Botta's pocket gopher, California vole, black-tailed hare, California ground squirrel, and western harvest mouse. These rodent populations provide prey for mammalian predators, such as coyote, and avian predators such as American kestrel, red-tailed hawk, barn owl, and great horned owl. Additional species found in this habitat type include killdeer, American crow, mourning dove, savannah sparrow, western meadowlark, gopher snake and striped skunk.

Ornamental

Ornamental landscaping consists of areas supporting introduced or non-native trees, shrubs, flowers, and turf grass. Ornamental landscaping occurs in green belts, parks, and horticultural plantings throughout the Policy Area. Typical species include London Plane tree, European hackberry, ginkgo, sweetgum, gum trees, pepper trees, Canary Island date palm, and Mexican fan palm. Despite their highly-manicured and intensively-maintained appearance, urban landscapes offer local wildlife populations a surprising variety of habitat types for exploiting food, nesting, and cover resources. Wildlife species observed throughout ornamental landscaped areas included, raccoon, black tailed hare, opossum, Anna's humming bird, yellow-billed magpie, northern flicker, dark-eyed junco, mallard, wood duck, great blue heron, Canada goose, American robin, and western scrub jay, red-tailed hawk, and red-shouldered hawk.

■ Special-Status Species

The following section addresses special-status species observed, reported, or having the potential to occur in the Policy Area. These resources include plant, habitat, and wildlife species that have been afforded special-status and/or recognition by federal and state resource agencies, as well as private conservation organizations and special interest groups, such as the CNPS. In general, the principal reason an individual taxon (species, subspecies, or variety) is given such recognition is the documented or expected decline or limitation of its population size or geographical extent and/or distribution that results, in most cases, from habitat loss.

For the purposes of this section, special-status species include:

- Species listed, proposed, or candidate species for listing as Threatened or Endangered by the USFWS pursuant to the Federal Endangered Species Act (FESA) of 1969, as amended;
- Species listed as Rare, Threatened, or Endangered by the CDFG pursuant to the California Endangered Species Act (CESA) of 1970, as amended;
- Species designated as Fully Protected under Sections 3511 (birds), 4700 (mammals), and 5050 (reptiles and amphibians) of the California Fish and Game Code;
- Species designated by the CDFG as California Species of Concern;
- Plant species listed as Category 1B and 2 by the CNPS; and

- Species not currently protected by statute or regulation, but considered rare, threatened or endangered under CEQA (section 15380).

The special-status species that are known to occur within the natural habitats most likely to be present within the Policy Area boundaries are listed in Table 6.3-1 and can also be found in section 6.1, pages 6.1-13 through 6.1-19 of the TBR. Figure 6.3-2 shows the locations of sensitive elements within the Policy Area. The colors and numbers in the legend correspond with the sensitive species within the Policy Area boundaries.

The San Joaquin pocket mouse was removed from the list since it has no federal or state listing. Three species descriptions that were updated are the valley elderberry longhorn beetle, the green sturgeon, and the American badger, discussed below.

Valley Elderberry Longhorn Beetle (*Desmocerus californicus dimorphus*)

The valley elderberry longhorn beetle (VELB) is small beetle less than an inch long that is dependent upon elderberry shrubs, which are found primarily along the American and Sacramento River riparian corridors, but can also be found in isolated occurrences throughout the Policy Area. The VELB is listed as a threatened species under the FESA. In September 2006, the USFWS recommended to delist the VELB based on the findings from the VELB 5-Year Review: *Summary and Evaluation prepared by the Sacramento Fish and Wildlife Office*.¹¹ Until such time the delisting becomes final, the VELB is still considered threatened and protected by the FESA. Any future development would have to comply with any requirements in accordance with the most current USFWS mitigation guidelines. A more comprehensive species description for the VELB can be found on pages 6.1-13 and 6.1-14 of the TBR.

Green Sturgeon (*Acipenser medirostris*)

The green sturgeon is a long-lived, anadromous, native fish that occurs in low numbers in the San Francisco Estuary and Sacramento River. Adults spawn in freshwater rivers from British Columbia south to the Sacramento River. In the Sacramento River spawning occurs near Red Bluff and in the Feather River. Larvae develop within these freshwater systems, migrate downstream and remain in the estuaries for between one and four years before migrating to the ocean. Mature adults move into estuaries in the spring, and spawning adults continue into natal rivers in late spring/early summer. Post spawning adults return to the estuary before migrating back to the ocean in late fall. Sub-adult fish are also thought to enter estuaries during the summer and fall months. On April 7, 2006, the National Oceanic & Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS) listed the southern distinct population segment of North American green sturgeon as threatened under the Endangered Species Act.

11 U.S. Fish and Wildlife Service, *Valley Elderberry Longhorn Beetle 5-Year Review: Summary and Evaluation*, 2006, Sacramento Fish and Wildlife Office. Sacramento, California, <www.fws.gov>, October 17, 2006.

TABLE 6.3-1

**SPECIAL-STATUS SPECIES POTENTIALLY OCCURRING IN THE
CITY OF SACRAMENTO 2030 GENERAL PLAN POLICY AREA**

Scientific Name	Common Name	Status Fed/State/ Other	Habitat
Plants			
<i>Astragalus tener</i> var. <i>tener</i>	Alkali milk-vetch	--/--/1B	Vernal pools, playas and valley grasslands on adobe clay and/or alkaline soils.
<i>Atriplex depressa</i>	Brittlescale	--/--/1B	Chenopod scrub, meadows, playas, valley grassland, vernal pools. Usually in alkali scalds or alkali clay in meadows or annual grassland.
<i>Atriplex joaquiniana</i>	San Joaquin saltbush	--/--/1B	Chenopod scrub, alkali meadow, valley and foothill grassland.
<i>Balsamorhiza macrolepis</i> var. <i>macrolepis</i>	Big-scale balsamroot	--/--/1B	Grassland
<i>Cordylanthus mollis</i> var. <i>hispidus</i>	Hispid bird's beak	--/--/1B	Grassland/ vernal pool.
<i>Cordylanthus palmatus</i>	Palmate-bracted bird's-beak	E/E/1B	Chenopod scrub, valley and foothill grassland. usually on alkaline clay, with <i>Distichlis</i> , <i>Frankenia</i> , etc.
<i>Downingia pusilla</i>	Dwarf downingia	--/--/2	Vernal pool
<i>Hibiscus lasiocarpus</i>	Rose mallow	--/--/1B	Freshwater marshes and swamps in the Central Valley.
<i>Gratiola heterosepala</i>	Boggs Lake hedge-hyssop	--/E/1B	Vernal pool
<i>Juglans hindsii</i>	Northern California black walnut	--/--/1B	Riparian forest, and woodland. Few extant native stands remain; but is widely naturalized from rootstock plants.
<i>Juncus leiospermus</i> var. <i>ahartii</i>	Ahart's dwarf rush	--/--/1B	Vernal pool
<i>Legenere limosa</i>	Legenere	--/--/1B	Vernal pool
<i>Lepidium latipes</i> var. <i>heckardii</i>	Heckard's peppergrass	--/--/1B	Valley and foothill grassland and vernal pools on alkaline soils.
<i>Navarretia myersii</i>	Pincushion navarretia	--/--/1B	Vernal pool
<i>Orcuttia tenuis</i>	Slender orcutt grass	T/E/1B	Vernal pool
<i>Sagittaria sanfordii</i>	Sanford's arrowhead	--/--/1B	Marshes and swamps (assorted shallow fresh water).
Invertebrates			
<i>Branchinecta lynchi</i>	Vernal pool fairy shrimp	T/--	Vernal pools and seasonal wetlands in grassland habitats.
<i>Desmocerus californicus dimorphus</i>	Valley elderberry longhorn beetle	T/--	Elderberry shrubs, typically in or near riparian areas.
<i>Lepidurus packardii</i>	Vernal pool tadpole shrimp	E/--	Vernal pools and seasonal wetlands in grassland habitats.
<i>Lindleriella occidentalis</i>	California linderiella	--/SA	Vernal pools and seasonal wetlands in grassland habitats.
Fish			
<i>Archoplites interruptus</i>	Sacramento Perch	--/CSC	Historically found in the sloughs, slow-moving rivers, and lakes of the central valley. Prefer warm water. Aquatic vegetation is essential for young. Tolerant of a wide range of physio-chemical water conditions.
<i>Acipenser medirostris</i>	Green Sturgeon	FT/CSC	Long-lived anadromous species that migrates through the Sacramento to spawning grounds in the Feather and upper Sacramento rivers. Thought to spawn in deep holes with fast moving water over cobble substrates.

TABLE 6.3-1			
SPECIAL-STATUS SPECIES POTENTIALLY OCCURRING IN THE CITY OF SACRAMENTO 2030 GENERAL PLAN POLICY AREA			
Scientific Name	Common Name	Status Fed/State/ Other	Habitat
<i>Oncorhynchus tshawytscha</i>	Central Valley spring run Chinook salmon	T/T	Occurs in the Pacific Ocean for most of its life. Travels to clean gravel beds in the upper Sacramento and portions of the American River for spawning.
<i>Oncorhynchus tshawytscha</i>	Central Valley Winter run Chinook salmon	E/E	Occurs in the Pacific Ocean for most of its life. Travels to clean gravel beds in the upper Sacramento and portions of the American River for spawning.
<i>Oncorhynchus mykiss</i>	Central Valley steelhead	T/--	Occurs in the Pacific Ocean for most of its life. Travels to clean gravel beds in the upper Sacramento and portions of the American River for spawning.
<i>Hypomesus transpacificus</i>	Delta smelt	T/T	Occurs in Sacramento-San Joaquin Delta most of the year. Spawns in tidally influenced freshwater wetlands and seasonally submerged uplands along the Sacramento River, downstream from its confluence with the American River.
<i>Pogonichthys macrolepidotus</i>	Sacramento splittail	--/CSC	Endemic to the lakes and rivers of the central valley, but now confined to the Delta, Suisun Bay & associated marshes. Prefers slow moving river sections, dead end sloughs. Requires flooded vegetation for spawning & foraging for young.
Amphibians			
<i>Spea hammondi</i>	Western spadefoot	--/CSC	Breeds in seasonal wetlands and large vernal pools, spends most of the year underground in adjacent upland areas.
Reptiles			
<i>Actinemys marmorata</i>	Western pond turtle	--/CSC	Ponds, streams, rivers, marshes and canals with suitable basking sites and vegetative cover. Nests and aestivates in adjacent uplands.
<i>Phrynosoma coronatum frontale</i>	California horned lizard	--/CSC/	Annual grassland, chaparral, saltbush scrub, alkali flats, oak woodland, riparian woodland, and coniferous forest; open habitats with loose fine (often sandy) soils.
<i>Thamnophis gigas</i>	Giant garter snake	T/T/--	Cattail and tule marshes, low gradient streams, rice fields and canals on the Valley floor.
Birds			
<i>Accipiter cooperii</i>	Cooper's hawk	--/CSC (Nesting)	Nests and forages in woodland habitats.
<i>Agelaius tricolor</i>	Tricolor blackbird	--/CSC	Nest in dense stands of cattails, thickets of willows, blackberries, or tall herbs adjacent to open grasslands.
<i>Accipiter striatus</i>	Sharp-shinned hawk	--/CSC (Nesting)	Nests in forests; forages in wooded habitats
<i>Aquila chrysaetos</i>	Golden eagle	--/CSC	Nests on cliffs and very large trees. Forages primarily in grasslands and chaparral, but also woodlands and other relatively open habitats.
<i>Asio otus</i>	Long-eared owl	--/CSC (Nesting)	Nests and forages in oak and riparian woodlands.
<i>Athene cunicularia</i>	Burrowing owl	--/CSC	Grassland, deserts and other open habitats. Requires ground squirrel or other small mammal burrows for nesting.
<i>Buteo regalis</i>	Ferruginous hawk	--/CSC	Forages in open grasslands and chaparral. Not known to nest in California

TABLE 6.3-1

**SPECIAL-STATUS SPECIES POTENTIALLY OCCURRING IN THE
CITY OF SACRAMENTO 2030 GENERAL PLAN POLICY AREA**

Scientific Name	Common Name	Status Fed/State/ Other	Habitat
<i>Buteo swainsoni</i>	Swainson's hawk	--/T	Nests in riparian trees; forages in open fields
<i>Circus cyaneus</i>	Northern harrier	--/CSC	Nests in freshwater marsh and agricultural fields; forages in marshes, grasslands and agricultural fields.
<i>Elanus leucurus</i>	White-tailed kite	--/FP (Nesting)	Nests colonially in large trees adjacent to open grasslands for foraging.
<i>Eremophila alpestris</i>	Horned lark	--/CSC	Forages and nests in open grasslands.
<i>Lanius ludovicianus</i>	Loggerhead shrike	--/CSC	Nests in woodlands adjacent to grassland foraging habitat.
<i>Progne subis</i>	Purple martin	--/CSC	Nest in cavities in trees, under bridges and other human-made structures.
<i>Riparia riparia</i>	Bank swallow	--/T	Nests in sandy banks or cliffs, usually over water (typically rivers and streams).
Mammals			
<i>Antrozous pallida</i>	Pallid bat	--/CSC	Roosts in crevices in caves, mines, large rock outcrops, under bridges and in abandoned buildings. Forages on or near the ground in a wide variety of open habitats.
<i>Corynorhinus townsendii townsendii</i>	Pacific western big eared bat	--/CSC	Roosts in the open in large caves, abandoned mines and buildings. Very sensitive to roost disturbance.
<i>Myotis ciliolabrum</i>	Small-footed myotis bat	--/CSC	Occurs in most of California except the coastal redwood region; roosts in buildings, trees, and crevices in cliffs.
<i>Myotis volans</i>	Long-legged myotis bat	--/CSC	Roosts in crevices in caves, mines, large rock outcrops, under bridges and in abandoned buildings. Forages in a wide variety of open habitats, frequently over water.
<i>Myotis yumanensis</i>	Yuma myotis bat	--/CSC	Common along wooded canyon bottoms throughout California; roosts in buildings, large trees with hollows, and crevices in cliffs.
<i>Taxidea taxus</i>	American Badger	--/CSC	Occupies a diversity of habitats throughout the state; principal habitat requirements include sufficient prey base, friable soils, and relatively open, uncultivated ground such as grasslands.

Notes:

Scientific names are based on the following source: California Department of Fish and Game, Special Animals, July 2000.

Status = Status of species relative to the Federal and California State Endangered Species Acts and Fish and Game Code of California.

Fed = Federal status.

E = Federally listed as endangered.

T = Federally listed as threatened.

PE = Proposed endangered.

PT = Proposed threatened.

C = Federal candidate for listing as threatened or endangered.

CA = California status.

E = Endangered; Species whose continued existence in California is jeopardized.

T = Threatened; Species that although not presently threatened in California with extinction, is likely to become endangered in the foreseeable future.

CSC = California Department of Fish and Game "Species of Special Concern". Species with declining populations in California.

FP = Fully protected against take pursuant to the Fish and Game Code Section 3503.5.

SA = Animal included on the California Department of Fish and Game's Special Animal List.

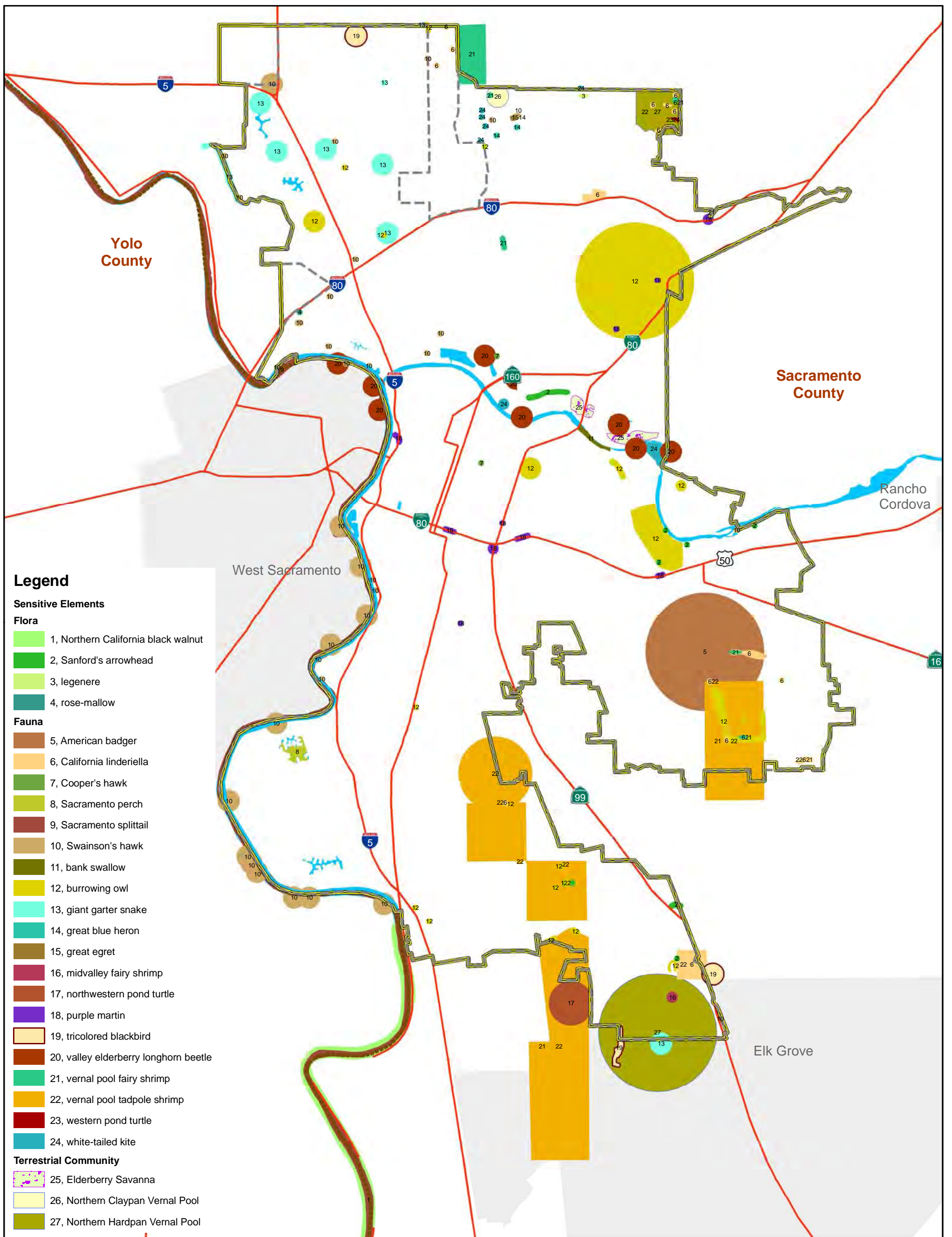
-- = No California or federal status.

CNPS – California Native Plant Society

1B - Plant species that is rare or endangered in California or elsewhere.

2 - Plant species that is rare or endangered in California, but is more common elsewhere.

Source: California Department of Fish and Game, California Natural Diversity Database, 2007.



**Figure 6.3-2
Biological Resources
Sensitive Elements**



- Legend**
- City Limit
 - Other City Boundaries
 - County Boundary
 - Policy Area
 - Water

The listing covers the sturgeon that uses the Sacramento River.¹² While green sturgeon migrate along the section of the Sacramento River adjacent to the Policy Area, the Sacramento River does not support spawning habitat for adult fish, or rearing habitat for juveniles.¹³

American Badger (Taxidea taxus)

The American badger is a California Species of Special Concern species that occupies a diversity of habitats in California. The principal habitat requirements seem to be sufficient food, friable soils, and relatively open, uncultivated ground. Grasslands, savannas, and mountain meadows near timberline are preferred. Badgers prey primarily on burrowing rodents such as gophers, ground squirrels, marmots, and kangaroo rats. They are predatory specialists on these rodents, although they will eat a variety of other animals, including mice, woodrats, reptiles, birds and their eggs, bees, and other insects. Badger populations have declined drastically in California within the last century. They survive only in low numbers in peripheral parts of the Central Valley. One recorded occurrence in the Policy Area was near Power Inn and Fruitridge roads.¹⁴

South Area Community Plan

Existing vacant and agricultural land within the South Area Community Plan boundaries could potentially support vernal pools, seasonal wetlands, and foraging habitat for Swainson's hawk, burrowing owl, and tricolored blackbirds. The description of these habitats is the same as the descriptions provided on pages 6.1-2 and 6.1-7 of the TBR.

Focused Opportunity Areas

■ River District

The boundaries of the River District Opportunity Area are in close proximity to the American and Sacramento rivers which support riverine, riparian and oak woodland habitats. The description of these habitats is the same as the description provided on pages 6.1-3 and 6.1-4 of the TBR.

■ Robla

The Robla Opportunity Area is located in North Sacramento. Due to its close proximity to agricultural land, potential biological resources that could occur include vernal pools, seasonal wetlands, ruderal and ornamental habitats and their respective special-status plant and wildlife species. Additionally, burrowing owl, white-tailed kite and western pond turtles have been reported in close proximity to this area. The description of these habitats, wildlife and plant

12 Moyle, Peter B. 2002. *Inland Fishes of California*, University of California Press.

13 Ibid.

14 California Natural Diversity Database, Biogeographic Data Branch, Department of Fish and Game September 2007. Occurrence Number 304.

species are described above and on pages 6.1-1 through 6.1-7 and 6.1-16 and 6.1-17 of the TBR.

■ Arden Arcade/Point West

Due to the urban nature of the Arden Arcade/Point West Opportunity Area, limited native natural resources can be found here. The southern portion of this area borders the American River and thus could provide suitable habitat for Swainson's hawk and other protected nesting birds. The description of Swainson's hawk and its habitat requirements are described on page 6.1-17 of the TBR.

■ 65th Street/University Village

The 65th Street/University Village Opportunity Area, although surrounded by an urban setting, supports the remnants of seasonal wetlands and vernal pools within vacant lots along Ramona Avenue. The species and habitat descriptions are the same as described on pages 6.1-7 and 6.1-13 through 6.1-14 of the TBR.

■ Florin Center/Light Rail Station

The urban setting of the Florin Center/Light Rail Station Opportunity Area, limits the potential for native natural resources to be present in this area. Nevertheless, un-developed lots within the area could provide foraging habitat for white-tailed kite, nesting and foraging habitat for burrowing owl, and support remnant seasonal wetlands which could support vernal pool fairy shrimp, vernal pool tadpole shrimp and California linderiella. The species and habitat descriptions are the same as described on pages 6.1-2, 6.1-7 and 6.1-13 through 6.1-17 of the TBR.

■ Meadowview Light Rail Station

Similar to the Florin Center Opportunity Area, the Meadowview Light Rail Station is also located in an urban setting. The remnant ruderal vacant land within the Meadowview Light Rail Station Opportunity Area could provide foraging habitat for Swainson's hawk, white tail kite, nesting and foraging habitat for burrowing owl, and could support seasonal wetlands. The seasonal wetlands would, in turn, provide habitat for fairy shrimp, vernal pool tadpole shrimp and California linderiella. The species and habitat descriptions would be the same as described above and on pages 6.1-7, 6.1-13, 6.1-14 and 6.1-17 of the TBR.

Regulatory Context

The Regulatory Context provides a brief overview of the applicable federal, state and local laws, regulations, and requirements that oversee the protection of biological resources. This section also includes updated information that was not available when the TBR was prepared. The

reader is referred to pages 6.1-19 through 6.1-24 in the TBR for an additional discussion of the regulatory requirements.

■ Federal

Federal Endangered Species Act

The purpose of the FESA of 1973 is not only to protect species, but also the ecosystems upon which they depend. It encompasses plants and invertebrates as well as vertebrates. For a complete description of the FESA, please refer to pages 6.1-19 and 6.1-20 of the TBR. In addition to that discussion, it should be noted that the NOAA National Marine Fisheries Service is the regulatory authority for federally threatened or endangered anadromous fishes.

Federal Migratory Bird Treaty Act

Pursuant to the *Migratory Bird Treaty Act* (MBTA) of 1918, as amended in 1972, federal law prohibits the taking of migratory birds or their nests or eggs (16 U.S.C. Section 703). The Act covers the taking of any nests or eggs of migratory birds, except as allowed by permit pursuant to 50 CFR, Part 21. Disturbances causing nest abandonment and/or loss of reproductive effort (i.e., killing or abandonment of eggs or young) may also be considered a “take.” This regulation seeks to protect migratory birds and active nests. In 1972, the MBTA was amended to include protection for migratory birds of prey (e.g., raptors). The MBTA protects over 800 species including geese, ducks, shorebirds, raptors, songbirds, and many relatively common species, including all species that were observed within the Policy Area (i.e., white-crowned sparrow, mourning dove, and red-wing blackbird).

Section 404 of the Clean Water Act

Section 404 CWA requires that a permit be obtained from the Corps prior to the discharge of dredged or fill materials into any “waters of the United States or wetlands. For a full description of the Section 404 of the CWA, please refer to page 6.1-20 of the TBR.

■ State

California Endangered Species Act

The CDFG administers a number of laws and programs designed to protect fish and wildlife resources. Principal among these is the California Endangered Species Act of 1984 (CESA - Fish and Game Code, Section 2050), which regulates the listing and take of state-endangered and state-threatened species. The description of the CESA can be found on pages 6.1-20 and 6.1-21 of the TBR.

California Fish and Game Code Sections 3503, 3503.5, and 3513

Fish and Game Code Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nests or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Fish and Game Code Section 3503.5 protects all birds-of-prey (raptors) and their eggs and nests. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the MBTA. These regulations could require that elements of the proposed project (particularly vegetation removal or construction near nest trees) be reduced or eliminated during critical phases of the nesting cycle unless surveys by a qualified biologist demonstrate that nests, eggs, or nesting birds will not be disturbed, subject to approval by CDFG and/or USFWS.

California Fish and Game Code Sections 3511, 4700, 5050, and 5515

Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) of the California Fish and Game Code designate certain species as “fully protected.” Fully protected species, or parts thereof, may not be taken or possessed at any time. The California Fish and Game Commission may authorize the collecting of such species for necessary scientific research. Legally imported and fully protected species or parts thereof may be possessed under a permit issued by CDFG.

California Department of Fish and Game Lake or Streambed Alteration Program

The CDFG, through provisions of the state of California Administrative Code, is empowered to issue agreements for any alteration of a river, stream, or lake where fish or wildlife resources may adversely be affected. The Lake or Streambed Alteration Program description can be found on page 6.1-21 of the TBR.

California Environmental Quality Act

Section 15380(b) of the CEQA Guidelines provides that a species not listed on the federal or State list of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria. Page 6.1-21 of the TBR contains the full description of the California Environmental Quality Act section 15380(b).

Porter-Cologne Water Quality Control Act

The *Porter-Cologne Water Quality Control Act* charges the State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCB) statewide with protecting water quality throughout California. Typically, the SWRCB and RWQCB act in concert with the Corps under Section 401 of the CWA in relation to permitting fill of federally

jurisdictional waters. A description of Section 401 of the CWA can be found on page 6.1-20 of the TBR.

California Wetlands Conservation Policy (1993)

The California Wetlands Conservation Policy (1993 - Senate Concurrent Resolution No. 28) created an interagency task force headed by the State Resources Agency and California EPA to: (1) ensure no overall net loss, and a long-term net gain in the quantity, quality, and permanence of wetlands acreage and values; (2) reduce procedural complexity in the administration of state and federal wetlands conservation programs; and (3) encourage partnerships that make restoration, landowner incentives, and cooperative planning the primary focus of wetlands conservation.

This resolution directed the CDFG to prepare and submit to the legislature a plan identifying means to protect existing wetlands and restore former wetlands. This includes identification of sufficient potential wetlands sites to increase the amount of wetlands in California by 50 percent by the year 2000, and a program for the public and private acquisition of such lands. While the resolution does not have the force and effect of law, CDFG and other California state agencies frequently point to it as an expression of state policy.

Native Plant Protection Act

The California Native Plant Protection Act (California Fish and Game Code sections 1900-1913) prohibits the taking, possession, or sale within the state of any rare, threatened, or endangered plants as defined by CDFG. Under this act, landowners with rare plants on their property must provide CDFG ten days notice to salvage (remove for transplant) the plants before destruction occurs. Project impacts to these species would be considered “significant” if the species are known to occur within the area of disturbance associated with construction of the project, or “potentially significant” if the species has a high potential to occur within the area of disturbance.

■ Local

City of Sacramento Tree Preservation Ordinance

The City of Sacramento adopted the Tree Preservation Ordinance to protect trees as they are a significant resource for the community. It is the City's policy to retain trees whenever possible regardless of their size. When circumstances will not allow for retention, permits are required to remove heritage trees that are within the City's jurisdiction. Removal of, or construction around, trees that are protected by the tree ordinance are subject to permission and inspection by City arborists. The City of Sacramento Tree Service Division reviews project plans and works with the City of Sacramento Public Works during the construction process to minimize impacts to street trees in the city.

The ordinance language is re-printed and can be found on pages 6.1-21 through 6.1-23 of the TBR.

City of Sacramento 1988 General Plan

The City's 1988 General Plan contains policies and implementation measures relevant to the preservation and protection of biological resources. The 1988 General Plan included policies focusing on habitat conservation, minimization of impacts on sensitive biological resources, and the preservation of plant and animal diversity as the most effective way to protect individual special-status species. Upon approval of the proposed 2030 General Plan, all policies and implementation measures in the 1988 General Plan would be superseded. Therefore, they are not included in this analysis.

Richards Boulevard Area Plan

The Richards Boulevard Area Plan, adopted in 1994, contains policies regarding biological resources, but direction on biological resource preservation is provided in the American River Parkway Corridor Zone section. This section states: "Throughout the American River Parkway Corridor, new development shall be designed to minimize loss of riparian habitat. A combination of avoidance and restorative strategies should be used to ensure no net loss of riparian habitat."¹⁵

American River Parkway Plan

The American River Parkway Plan, adopted in 1985, is a policy document which provides guidelines for preservation, recreational use, development and administration of the American River Parkway. Riparian habitat along the American River is designated as a Protected Area in the American River Parkway Plan. The following American River Parkway Plan policies will guide the conservation and protection of biological resources in regards to the 2030 General Plan:

RESOURCES OF THE PARKWAY

Policies

- 2.1. Any development within the Parkway, including buildings, roads, parking lots and turfed areas, shall be designed and located such that any impact upon native vegetation is minimized and appropriate mitigation measures are incorporated into the project.
- 2.2. Phased plans with short and long-term measures for the enhancement of native vegetation and the elimination of undesirable nonnative vegetation shall be developed and implemented.
 - 2.2.1. A list of trees and shrubs, and herbaceous plants native to the Parkway that are suitable for planting in the Parkway shall be approved by the Recreational and Parks

15 City of Sacramento, *Richards Boulevard Area Plan*, October 1994, p. 119.

Commission upon recommendation by the Director of the Department of Parks and Recreation, working in cooperation with the California Native Plant Society . This list shall include a designation of the appropriate plant community, habitat and exposure for each species along with a description of known pest problems and wildlife impacts. Only plants on this approved list shall be planted within the Parkway, the exception being grass in permitted locations.

- 2.2.2. Native plants shall be reintroduced in areas of their natural occurrence that have been disturbed by construction, past gravel mining and agricultural activity, except in sites of human historical value.
- 2.2.3. Nonnative trees and shrubs shall be removed in accordance with a long-range phasing plan to be approved by the Recreation and Parks Commission except as noted in the area plans, and with the exception of existing golf courses. Priority shall be given to removal of those exotics that compete with natives, such as, but not limited to, pampas grass, eucalyptus, and pyracantha.
- 2.2.4. New irrigation and planting within the dripline of existing native oaks shall be prohibited. Irrigated turfed areas shall be placed only in areas where there are no mature native trees that could be damaged by changes in the environment, such as water summering.
- 2.4. Protection of the environmental quality of the Parkway shall be the first priority management responsibility.
- 5.7.6. Structures shall be located so that neither they, nor activities associated with them, cause damage to native plants or wildlife.

LAND USE

Policy

- 6.0. Facilities and other improvements in Protected Areas shall be limited to those which are needed for the public enjoyment of the natural environment. Extensive development is not appropriate.

Sacramento River Parkway Plan

The Sacramento River Parkway Plan, adopted October 21, 1997, is a twenty year policy guide for habitat preservation and restoration and recreational development for lands adjacent to the Sacramento River. The Plan identifies current conditions, develops a vision for the future, and identifies programs and action for achieving the vision. The following Sacramento River Parkway Plan policies will guide the conservation and protection of biological resources in regards to the 2030 General Plan:

Natural and Cultural Policies

The following Natural and Cultural Resources policies have been developed to support preservation and restoration of cultural and natural resources. These policies emphasize the importance of retaining the native vegetation, wildlife, and cultural resources as integral components of the parkway.

- N1 Although the Parkway is to be developed for human use, the natural environment shall be protected, preserved, and enhanced to the fullest extent possible, especially large aggregations of riparian vegetation and wildlife.

- N2 Public access in Nature Study Areas may be limited if access negatively affects a habitat restoration project of a listed threatened or endangered species.
- N3 Development within the Parkway, including trails and roads, signs, and structures, shall be designed to minimize impact to native vegetation.
- N4 Areas designated for habitat restoration shall be planted with native or indigenous species.
- N5 Landscaping on the levee structure shall be in accordance with the requirements of the Reclamation Board.
- N6 Non-native plant species may be removed in areas designated for habitat restoration.
- N7 Non-native species of vegetation should not be planted in the Parkway.
- N8 Endangered or threatened species and their habitat shall be protected from encroachment by designating the area as Riparian Habitat Preserve or Nature Study.

Natomas Basin Habitat Conservation Plan (NBHCP)

The NBHCP, seeks "to promote biological conservation in conjunction with economic and urban development within the Permit Areas." The NBHCP is required to support federal incidental take permits under the FESA Section 10(a)(1)(B) and state permits under Section 2081(b) of the California Fish and Game Code. Figure 6.3-3 shows the location of the NBHCP area. For a complete description of the NBHCP, please refer to pages 6.1-23 and 6.1-24 of the TBR.

Non-Governmental Organization

California Native Plant Society (CNPS)

CNPS maintains an inventory of special-status plant species. CNPS maintains four species lists of varying rarity. Vascular plants listed as rare or endangered by the CNPS,¹⁶ but which have no designated status or protection under federal or state-endangered species legislation, are defined as follows:

- List 1A Plants Believed Extinct.
- List 1B Plants Rare, Threatened, or Endangered in California and elsewhere.
- List 2 Plants Rare, Threatened, or Endangered in California, but more numerous elsewhere.
- List 3 Plants About Which More Information is Needed - A Review List.
- List 4 Plants of Limited Distribution - A Watch List.

16 California Native Plant Society, California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California (sixth edition), Sacramento, CA, 2001.

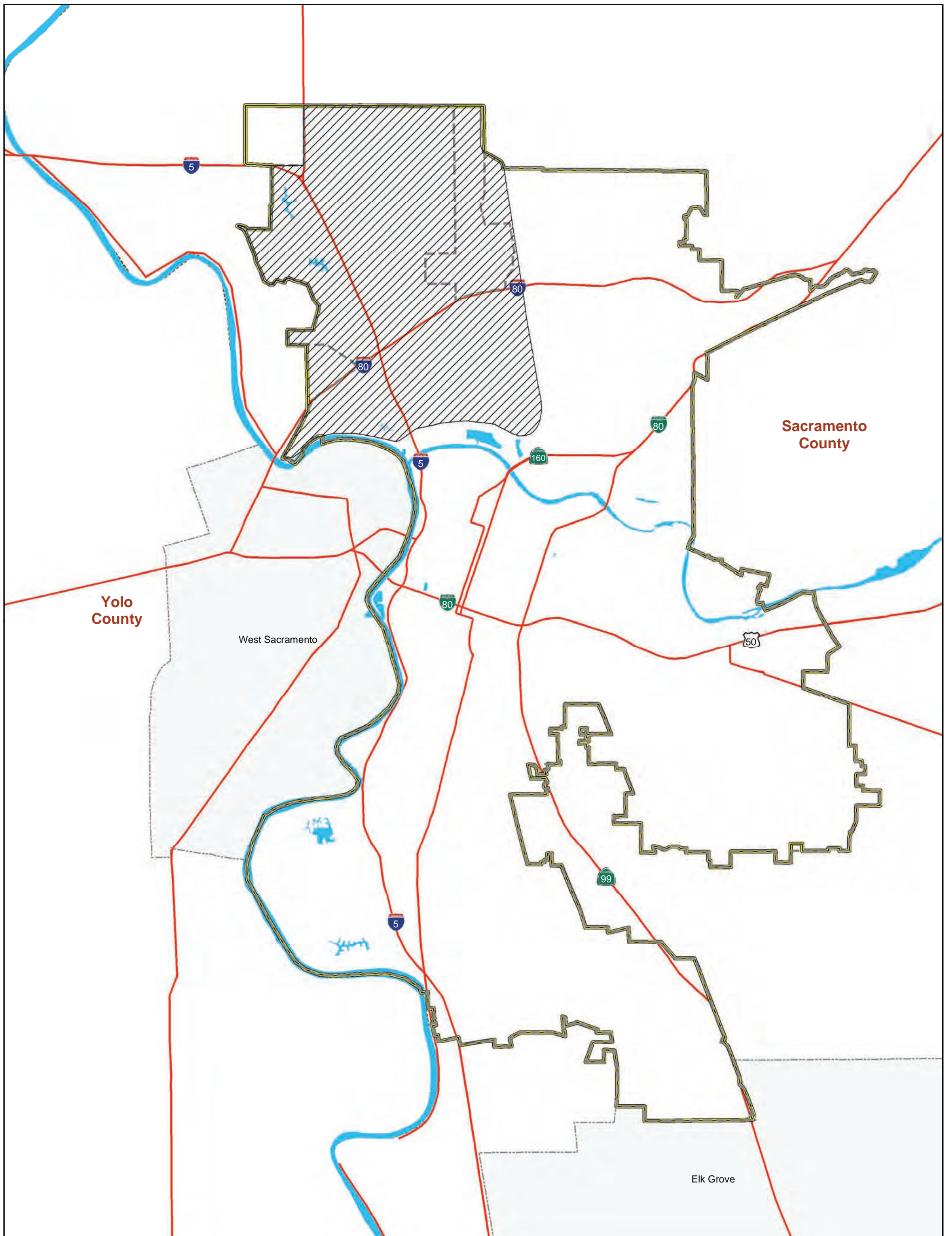








Figure 6.3-3

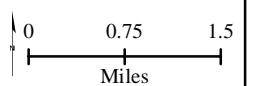
Natomas Basin HCP



Legend

-  City's Permit Area under the Natomas Basin Habitat Conservation Plan
-  Other City Boundaries
-  City Limit
-  Policy Area
-  Water
-  County Boundary

City of Sacramento -
Habitat Conservation
Plan current as of
2005



The CNPS Threat Code Extensions replaced the E (Endangerment) value from the R-E-D Code, previously used by the CNPS. The main difference is that the number coding is now reversed to reduce confusion and represent this information in parallel with the threat rankings that the CNDDDB uses. Therefore the logic is reversed so that the lower the number, the higher the corresponding threat level.

1. Species seriously endangered in California,
2. Species fairly endangered in California,
3. Species not very endangered in California.

In general, plants appearing on CNPS List 1 or 2 are considered to meet CEQA Guidelines section 15380 criteria and adverse effects to these species are considered significant in this report.

IMPACTS AND MITIGATION MEASURES

Methods of Analysis

A review of readily available information was conducted to identify the extent of the resources to be analyzed in this EIR, as well as to identify any data gaps that may exist in current records. Background research included a review of the CDFG's CNDDDB,¹⁷ a species list from the USFWS Quad Species List website,¹⁸ and a review of the CNPS's Electronic Inventory.¹⁹ Upon completion of the literature review, a list of species potentially occurring within the Policy Area was compiled (see Table 6.3-1). Digital data and aerial photographs were studied and interpreted in order to infer site conditions, habitat types, and availability of resources. Potential impacts are analyzed using occurrences of sensitive species and/or habitats within the Policy Area and evaluating how the proposed project would affect these resources, and then comparing the change in a resources status to the Thresholds of Significance identified below.

Proposed General Plan Policies

The following policies from the proposed 2030 General Plan address biological resources as well as guide the location, design, and quality of development to protect important wildlife and plants. As with water, a sustainable biological eco-system contributes to human health, as well as nurturing a viable economy.

17 California Natural Diversity Database, Biogeographic Data Branch, Department of Fish and Game September 2007.

18 USFWS. Sacramento Fish and Wildlife Office, Endangered Species Program. USFWS Quad Species List. <www.fws.gov/sacramento/es/spp_lists/auto_list_form.cfm>, accessed September 12, 2007.

19 California Native Plant Society Electronic Inventory v7-07c 7-09-07. <http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi/Html?item=checkbox_9.htm#q9>, accessed October 12, 2007.

ENVIRONMENTAL RESOURCES (ER)**Water Resources**

Goal ER 1.1 Water Quality Protection. Protect local watersheds, water bodies and groundwater resources, including creeks, reservoirs, the Sacramento and American Rivers and their shorelines.

Policies

- ER 1.1.1 **Conservation of Open Space Areas.** The City shall conserve and where feasible create or restore areas that provide important water quality benefits such as riparian corridors, buffer zones, wetlands, undeveloped open space areas, levees, and drainage canals for the purpose of protecting water resources in the City's watershed, creeks, and the Sacramento and American rivers.
- ER 1.1.2 **Regional Planning.** The City shall continue to work with local, State, and Federal agencies and private watershed organizations to improve water quality.
- ER 1.1.3 **Stormwater Quality.** The City shall control sources of pollutants and improve and maintain urban runoff water quality through storm water protection measures consistent with the City's National Pollution Discharge Elimination System (NPDES) Permit.
- ER 1.1.4 **New Development.** The City shall require new development to protect the quality of water bodies and natural drainage systems through site design, source controls, storm water treatment, runoff reduction measures, best management practices (BMPs) and Low Impact Development (LID), and hydromodification strategies consistent with the city's NPDES Permit.
- ER 1.1.5 **No Net Increase.** The City shall require all new development to contribute no net increase in stormwater runoff peak flows over existing conditions associated with a 100-year storm event.
- ER 1.1.6 **Post-Development Runoff.** The City shall impose requirements to control the volume, frequency, duration, and peak flow rates and velocities of runoff from development projects to prevent or reduce downstream erosion and protect stream habitat.
- ER 1.1.7 **Construction Site Impacts.** The City shall minimize disturbances of natural water bodies and natural drainage systems caused by development, implement measures to protect areas from erosion and sediment loss, and continue to require construction contractors to comply with the City's erosion and sediment control ordinance and stormwater management and discharge control ordinances.
- ER 1.1.8 **Watershed Education.** The City shall implement watershed awareness and water quality educational programs for City staff, community groups, the public, and other appropriate groups.

Biological Resources

Goal ER 2.1 Natural and Open Space Protection. Protect and enhance open space, natural areas, and significant wildlife and vegetation in the city as integral parts of a sustainable environment within a larger regional ecosystem.

Policies

- ER 2.1.1 **Resource Preservation.** The City shall encourage new development to preserve on-site natural elements that contribute to the community's native plant and wildlife species value and to its aesthetic character.
- ER 2.1.2 **Conservation of Open Space.** The City shall continue to preserve, protect, and provide access to, designated open space areas along the American and Sacramento Rivers, floodways, and undevelopable floodplains.
- ER 2.1.3 **Natural Lands Management.** The City shall promote the preservation and restoration of contiguous areas of natural habitat throughout the city and support their integration with existing and future regional preserves.
- ER 2.1.4 **Retain Habitat Areas.** The City shall retain plant and wildlife habitat areas where there are known sensitive resources (e.g., sensitive habitats, special-status, threatened, endangered, candidate species, and species of concern). Particular attention shall be focused on retaining habitat areas that are contiguous with other existing natural areas and/or wildlife movement corridors.
- ER 2.1.5 **Riparian Habitat Integrity.** The City shall preserve the ecological integrity of creek corridors, canals, and drainage ditches that support riparian resources by preserving native plants and, to the extent feasible, removing invasive, non-native plants. If not feasible, the mitigation of all adverse impacts on riparian habitat shall be mitigated by the preservation and/or restoration of this habitat at a 1:1 ratio, in perpetuity.
- ER 2.1.6 **Wetland Protection.** The City shall preserve and protect wetland resources including creeks, rivers, ponds, marshes, vernal pools, and other seasonal wetlands, to the extent feasible. If not feasible, the mitigation of all adverse impacts on wetland resources shall be required in compliance with State and Federal regulations protecting wetland resources, and if applicable, threatened or endangered species. Additionally, the City shall require either on- or off-site permanent preservation of an equivalent amount of wetland habitat to ensure no-net-loss of value and/or function.
- ER 2.1.7 **Annual Grasslands.** The City shall preserve and protect grasslands and vernal pools that provide habitat for rare and endangered species. If not feasible, the mitigation of all adverse impacts on annual grasslands shall comply with State and Federal regulations protecting foraging habitat for those species known to utilize this habitat.
- ER 2.1.8 **Oak Woodlands.** The City shall preserve and protect oak woodlands, and/or significant stands of oak trees in the city that provide habitat for common native, and special-status wildlife species. If not feasible, the mitigation of all adverse impacts on oak woodlands shall comply with the standards of the *Oak Woodlands Conservation Act*.
- ER 2.1.9 **Wildlife Corridors.** The City shall preserve, protect, and avoid impacts to wildlife corridors. If corridors are adversely affected, damaged habitat shall be replaced with habitat of equivalent value.
- ER 2.1.10 **Habitat Assessments.** The City shall consider the potential impact on sensitive plants for each project requiring discretionary approval and shall require pre-construction surveys and/or habitat assessments for sensitive plant and wildlife species. If the preconstruction survey and/or habitat assessment determines that suitable habitat for sensitive plant and/or wildlife species is present, then either (1) protocol-level or industry-recognized (if no protocol has been established) surveys shall be conducted; or (2) presence of the species shall be assumed to occur in

suitable habitat on the project site. Survey Reports shall be prepared and submitted to the City and the CDFG or USFWS (depending on the species) for further consultation and development of avoidance and/or mitigation measures consistent with state and federal law.

- ER 2.1.11 **Agency Coordination.** The City shall coordinate with State and Federal resource agencies (e.g., California Department of Fish and Game (CDFG), U.S. Army Corps of Engineers, and United States Fish and Wildlife Service (USFWS)) to protect areas containing rare or endangered species of plants and animals.
- ER 2.1.12 **Natomas Basin Habitat Conservation Plan.** The City shall continue to participate in and support the policies of the Natomas Basin Habitat Conservation Plan for the protection of biological resources in the Natomas Basin.
- ER 2.1.13 **Support Habitat Conservation Plan Efforts.** The City shall encourage and support other regional habitat conservation plans such as the South Sacramento Habitat Conservation Plan to conserve and manage habitat for special-status species.
- ER 2.1.14 **Public Education.** The City shall support educational programs for residents and visitors about the uniqueness and value of the natural resources, plants and wildlife in the region, and how to manage development to preserve native wildlife populations.
- ER 2.1.15 **Community Involvement.** The City shall encourage community volunteerism and stewardship to help protect and rehabilitate the area's natural resources.

Air Quality

Goal ER 6.1 Improved Air Quality. Improve the health and sustainability of the community through improved regional air quality and reduced greenhouse gas emissions that affect climate change.

Policies

- ER 6.1.1 **Maintain Ambient Air Quality Standards.** The City shall work with the California Air Resources Board and the Sacramento Metropolitan Air Quality Management District (SMAQMD) to meet State and Federal ambient air quality standards. (RDR)
- ER 6.1.2 **New Development.** The City shall review proposed development projects to ensure projects incorporate feasible measures that reduce construction and operational emissions for reactive organic gases, nitrogen oxides, and particulate matter (PM₁₀ and PM_{2.5}) through project design.
- ER 6.1.3 **Emissions Reduction.** The City shall require development projects that exceed the SMAQMD ROG and NO_x operational thresholds to incorporate design or operational features that reduce emissions equal to 15 percent from the level that would be produced by an unmitigated project.
- ER 6.1.4 **Protect all Residents Equally.** The City shall ensure that all land use decisions are made in an equitable fashion in order to protect residents, regardless of age, culture, ethnicity, gender, race, socioeconomic status, or geographic location, from the health effects of air pollution.
- ER 6.1.5 **Development near TAC Sources.** The City shall ensure that new development with sensitive uses located adjacent to toxic air contaminant sources, as identified by the California Air Resources Board (CARB), minimizes potential health risks. In its review of these new development projects, the City shall consider current guidance provided by and consult with CARB and SMAQMD.

- ER 6.1.6 **Sensitive Uses.** The City shall require new development with sensitive uses located adjacent to mobile and stationary toxic air contaminants (TAC) be designed with consideration of site and building orientation, location of trees, and incorporation of appropriate technology for improved air quality (i.e., ventilation and filtration) to lessen any potential health risks. In addition, the City shall require preparation of a health risk assessment, if recommended by Sacramento Metropolitan Air Quality Management District, to identify health issues, reduce exposure to sensitive receptors, and/or to implement alternative approached to development that reduces exposure to TAC sources.
- ER 6.1.7 **Greenhouse Gas Reduction Goal.** The City shall work with the California Air Resources Board to comply with statewide greenhouse gas reduction goals as established in the *Global Warming Solutions Act of 2006 for 2020* and any subsequent targets.
- ER 6.1.8 **Citywide Greenhouse Gas Assessment.** The City shall comply with pertinent State regulations to assess citywide greenhouse gas emissions for existing land uses and the adopted General Plan buildout.
- ER 6.1.9 **Greenhouse Gas Reduction in New Development.** The City shall reduce greenhouse gas emissions from new development by discouraging auto-dependent sprawl and dependence on the private automobile; promoting water conservation and recycling; promoting development that is compact, mixed use, pedestrian friendly, and transit oriented; promoting energy-efficient building design and site planning; improving the jobs/housing ratio in each community; and other methods of reducing emissions.
- ER 6.1.10 **Climate Change Assessment and Monitoring.** The City shall continue to assess and monitor the effects of climate change.
- ER 6.1.11 **Coordination with SMAQMD.** The City shall coordinate with SMQAMD to ensure projects incorporate feasible mitigation measures if not already provided for through project design.
- ER 6.1.12 **Reduced Emissions for City Operations.** The City shall promote reduced idling, trip reduction, routing for efficiency, and the use of public transportation, carpooling, and alternate modes of transportation for operating departments within the City.
- ER 6.1.13 **Fleet Operations.** The City shall continue to purchase low-emission vehicles for the City's fleet and to use available clean fuel sources for trucks and heavy equipment.
- ER 6.1.14 **Zero-Emission and Low-Emission Vehicle Use.** The City shall encourage the use of zero-emission vehicles, low-emission vehicles, bicycles and other non-motorized vehicles, and car-sharing programs by requiring sufficient and convenient infrastructure and parking facilities in residential developments and employment centers to accommodate these vehicles.
- ER 6.1.15 **Preference for Reduced-Emission Equipment.** The City shall give preference to contractors using reduced-emission equipment for City construction projects and contracts for services (e.g., garbage collection), as well as businesses which practice sustainable operations.
- ER 6.1.16 **Transportation Systems Management and Trip Reduction.** The City shall encourage all City employees use means other than a single occupant vehicle for their daily work commute.

- ER 6.1.17 **Wood Stove/Fireplace Replacement.** The City shall promote the replacement of non-EPA certified fireplaces and woodstoves and encourage city residents to participate in SMAQMD's Wood Stove and Wood Fireplace Change Out Incentive Program.

PUBLIC HEALTH AND SAFETY (PHS)

Goal PHS 3.1 Reduce Exposure to Hazardous Materials and Waste. Protect and maintain the safety of residents, businesses, and visitors by reducing, and where possible, eliminating exposure to hazardous materials and waste.

Policies

- PHS 3.1.1 **Investigate Sites for Contamination.** The City shall ensure buildings and sites are investigated for the presence of hazardous materials and/or waste contamination before development for which city discretionary approval is required. The City shall ensure appropriate measures are taken to protect the health and safety of all possible users and adjacent properties.
- PHS 3.1.2 **Hazardous Material Contamination Management Plan.** The City shall require that property owners of known contaminated sites work with Sacramento County, the State and/or Federal agencies to develop and implement a plan to investigate and manage sites that contain or have the potential to contain hazardous materials contamination that may present an adverse human health or environmental risk.
- PHS 3.1.3 **Household Hazardous Waste Collection Programs.** The City shall continue to provide household hazardous waste collection programs to encourage proper disposal of products containing hazardous materials or hazardous wastes.
- PHS 3.1.4 **Transportation Routes.** The City shall restrict transport of hazardous materials within Sacramento to designated routes.
- PHS 3.1.5 **Clean Industries.** The City shall strive to maintain existing clean industries in the city and discourage the expansion of businesses, with the exception of health care and related medical facilities, that require on-site treatment of hazardous industrial waste.
- PHS 3.1.6 **Compatibility with Hazardous Materials Facilities.** The City shall ensure that future development of treatment, storage, or disposal facilities is consistent with the County's Hazardous Waste Management Plan, and that land uses near these facilities, or proposed sites for the storage or use of hazardous materials, are compatible with their operation.
- PHS 3.1.7 **Education.** The City shall continue to educate residents and businesses on how to reduce or eliminate the use of hazardous materials and products, and shall encourage the use of safer, non-toxic, environmentally-friendly equivalents.

Proposed South Area Community Plan Policies

The South Area Community Plan contains two policies regarding Environmental Resources:

- SA.ER 1.1 **Delta Shores Regional Park.** The City shall integrate wildlife habitat protection into features of the new regional park in Delta Shores.
- SA.ER 1.2 **Laguna Creek Enhancement.** The City shall preserve open space, maintain recreational facilities, and enhance the natural features of Laguna Creek (e.g., riparian habitat).

Thresholds of Significance

For the purposes of this EIR, impacts on biological resources are considered significant if the proposed General Plan would:

- create a potential health hazard, or involve the use, production or disposal of materials that pose a hazard to plant or animal populations in the affected area;
- result in substantial degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of threatened or endangered species of plant or animal;
- affect other species of special concern to agencies or natural resource organizations (such as regulatory waters and wetlands); or
- violate the City's Heritage Tree Ordinance (City Code 12.64.040).

Impacts and Mitigation Measures

A summary of all Biological Resource impacts and their levels of significance is located at the end of this technical section.

Impact 6.3-1	Implementation of the proposed 2030 General Plan could create a potential health hazard, or involve the use, production or disposal of materials that pose a potential hazard to plant or animal populations in the affected area.	
Applicable Regulations	<i>Federal Clean Air Act Clean Water Act Porter-Cologne Water Quality Control Act California Fish and Game Code</i>	
Significance Before Mitigation	<i>Potentially Significant</i>	
Mitigation Included in the SGP	<i>Policies ER 1.1.1 through ER 1.1.8, ER 6.1.1 through ER 6.1.17, PHS 3.1.1 through PHS 3.1.7</i>	
Significance after Mitigation Included in the SGP	<i>Less than Significant</i>	
Additional Mitigation	None required	
Residual Significance	Less than Significant	

The majority of development within the Policy Area under the proposed 2030 General Plan would consist of infill and urban expansion of developed areas, which do not support a wide diversity of biological resources. Lands within the city boundaries are largely urbanized and contain few significant biological resources. Development within the Policy Area would likely result in a population increase which, in turn, could result in an increase in vehicle trips and associated emissions. Increase in population would also likely result in an increase in the use of fertilizers, herbicides, and pesticides used in lawn care. During irrigation or storm events, these pollutants would be washed into street drains and eventually end up in detention basins and/or the Sacramento or American rivers or their tributaries, potentially affecting plant and wildlife species that live in these areas.

The proposed 2030 General Plan has identified goals and policies that address the protection of natural resources including Policies ER 1.1.1 through ER 1.1.8 that focus on the protection of water resources and Policies ER 6.1.1 through ER 6.1.17 that address air quality, and Policies PHS 3.1.1 through PHS 3.1.7 that are designed to enforce the proper handling, use, and disposal of household hazardous materials. The 2030 General Plan identifies additional policies that would improve or reduce greenhouse gas emissions included in the Environmental Resources Element, under Air Quality (see Policies ER 6.1.1 through ER 6.1.17). Policies in the Public Health and Safety Element under Hazards and Hazardous Materials would reduce or eliminate exposure to hazardous materials and policies included in the Environmental Resources Element under Hydrology and Water Quality would reduce or eliminate the amount of contaminants in surface run-off.

An increase in air, water, and soil pollutants as result of an increase in population, could pose a hazard to plant or wildlife populations within the Policy Area. The Department of Utilities currently has programs such as the Storm Quality Improvement, Household Hazardous Waste, e-waste, Fluorescent Light & Battery Recycling, and various educational programs that educate the public on the importance of properly disposing of these commonly used items. The City's goal is to help reduce the chances of these contaminants reaching the environment. Policies contained within the General Plan are designed to prevent or help reduce greenhouse gases emissions, exposure to hazardous materials, and contaminated surface run-off from reaching plant or wildlife living within the Policy Area. Compliance with federal, state and local policies regarding emission control and use/disposal of household/lawn chemicals would help minimize the direct and indirect impacts of production and discharge of pollutants within the Policy Area. Therefore, it is anticipated that future development under the 2030 General Plan would result in a **less-than-significant impact** on plant and animal species.

Mitigation Measure

None required.

Impact 6.3-2	Implementation of the proposed 2030 General Plan could adversely affect special-status plant species due to the substantial degradation of the quality of the environment or reduction of population or habitat below self-sustaining levels.	
Applicable Regulations	<i>Federal Endangered Species Act (FESA) 1978 California Endangered Species Act (CESA) California Fish and Game Code CEQA section 15380</i>	
Significance Before Mitigation	<i>Potentially Significant</i>	
Mitigation Included in the SGP	<i>Policies ER 2.1.7, ER 2.1.10 through ER 2.1.12</i>	
Significance after Mitigation Included in the SGP	<i>Potentially Significant</i>	
Additional Mitigation	None available	
Residual Significance	Significant and Unavoidable	

Special-status plant species that have the potential to occur in the Policy Area include dwarf downingia, Boggs Lake hedge-hyssop, rose-mallow, legenere, slender Orcutt grass, Sacramento Orcutt grass and Sanford's arrowhead. These species are found in seasonal wetlands, riparian habitats, vernal pools, sloughs, and creeks. The majority of development within the Policy Area under the proposed 2030 General Plan would consist of infill and urban expansion of developed areas, which do not support a wide diversity of biological resources. Only a few special-status plant occurrences have been reported in the Policy Area; however, protocol level surveys have not been conducted throughout the entire Policy Area and species may be located in suitable habitat in areas that have not been surveyed. Areas that may provide habitat for special-status plant species are mainly located along the Sacramento and American rivers and their associated river channels, which include areas of the River District and Arden Fair/Point West Opportunity Areas that border the American and Sacramento rivers. Seasonal wetlands have also been identified from aerial photographs in the following Opportunity Areas; Robla District, Florin Center/Light Rail Station, Meadow View/Light Rail Station and the 65th Street/University Village; therefore, special-status plants could occur in these Focused Opportunity Areas.

In addition to the Focused Opportunity Areas, the General Plan designates industrial and commercial land near the Natomas Basin in the northwestern portion of the city, which may encroach into existing habitat for special-status plant species. In addition, vacant lots scattered throughout the Policy Area could support seasonal wetlands, remnant vernal pools and drainage ditches which could provide suitable habitat for special-status plants.

Within the Policy Area there are a few large areas of undeveloped land located in the north and south. These areas include Greenbriar, Panhandle, Camino Norte and Delta Shores. Development applications for the Greenbriar, Panhandle and Delta Shores projects have been submitted to the City of Sacramento. EIRs prepared for the Greenbriar and Panhandle projects identified impacts on biological resources and have included mitigation measures, as necessary. The Delta Shores EIR, currently in preparation, will address potential impacts on the loss or disturbance of any biological resources including the loss of foraging habitat and wetlands. Therefore, impacts on biological resources in these areas are not addressed in the project specific analysis below. They are considered in the cumulative analysis.

The General Plan contains policies that would help prevent or eliminate impacts on special-status plant species. General Plan Policy ER 2.1.7 would help preserve and protect grasslands and vernal pools that provide habitat for rare and endangered species to the maximum extent feasible. If compliance with this policy is not feasible, impacts on these resources would be mitigated in compliance with state and federal regulations. Policy ER 2.1.10 requires that pre-construction surveys and/or habitat assessments for sensitive species be conducted for any project requiring discretionary approval and that a protocol-level survey be performed if sensitive species are present. Policy ER 2.1.11 requires that the City coordinate closely with state and federal resource agencies to protect areas containing rare or endangered species.

Policy ER 2.1.12 requires that the City continue its participation and support of the policies in the NBHCP for the protection of sensitive species in the Natomas Basin.

Native plants are protected by the California Fish and Game Code (NPPA, Chapter 10 sections 1900-1913). In addition, CDFG generally requires a CESA section 2081 (b) permit for incidental take of listed threatened and endangered plants from development activities. CEQA protects rare and endangered plants under section 15380 and CNPS maintains a list of rare plants; CNPS list 1B and 2 plants are generally considered rare under section 15380 of the CEQA Guidelines.

According to the City's standards of significance, a significant impact would occur if a substantial degradation in the quality of the environment or reduction of habitat would occur. A substantial degradation would occur if increased mortality or reduced reproductive success that would lead to the local extirpation of, or reduction in the population below self-sustaining levels of any species identified or published as an endangered, threatened, rare, candidate, sensitive, or special-status species by CDFG or USFWS, and meets the definition of section 15380 (b), (c) or (d) of the CEQA guidelines would occur.

The special-status plant species identified above are either threatened, endangered or species of special concern. Compliance with CESA, CEQA, and NBHCP (as applicable), as well as implementation of the proposed 2030 General Plan goals and policies discussed above would partially mitigate for potential direct and indirect impacts on special-status plant species within the Policy Area. However, there is still a potential for future development to result in the loss of these species and/or their habitat in the Policy Area. Therefore, implementation of the General Plan could result in *potentially significant impacts* on special-status plant species.

Mitigation Measure

Implementation of 2030 General Plan policy ER 2.1.10 in the Environmental Resources section would allow the City to require protocol surveys for special-status plants. This policy would likely include offsite preservation of the plants and suitable habitat outside of the Policy Area. Because preservation is not likely to be feasible within the Policy Area, implementation of the General Plan would result in ***significant and unavoidable impacts*** on special-status plant species.

None available.

Impact 6.3-3	Implementation of the proposed 2030 General Plan could result in substantial degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of special-status invertebrates.	
Applicable Regulations	<i>Federal Endangered Species Act (FESA) 1978 California Endangered Species Act (CESA) California Fish and Game Code CEQA section 15380</i>	
Significance Before Mitigation	<i>Potentially Significant</i>	
Mitigation Included in the SGP	<i>Policies ER 2.1.7, ER 2.1.10 through ER 2.1.12</i>	
Significance after Mitigation Included in the SGP	<i>Potentially Significant</i>	
Additional Mitigation	None available	
Residual Significance	Significant and Unavoidable	

A variety of special-status invertebrates are present in scattered locations in the Policy Area, including vernal pool fairy shrimp, vernal pool tadpole shrimp, California linderiella, and VELB. Vernal pool fairy shrimp, vernal pool tadpole shrimp, and VELB are protected under FESA; the California linderiella is considered a species of special concern by CDFG. Other special-status invertebrate species could still occur within the Policy Area, but have not been identified since site-specific surveys have not been conducted throughout the entirety of the Policy Area. The majority of development within the city under the proposed General Plan would consist of infill and redevelopment of already developed lands which do not support a wide diversity of biological resources, specifically invertebrates. As with most urbanized environments, landscape features within the city such as trees, shrubs, herbaceous plants, and parklands, would not serve as habitat for special status invertebrates, except for elderberry shrubs (the host plant for VELB). Areas that may provide habitat for special-status invertebrate species in the city are mainly located along the Sacramento and American rivers, the northeast section of North Sacramento (including the Robla Opportunity Area), the south sections of South Sacramento including 65th Street/University Village, Florin Center/Light Rail Station, Meadowview Light Rail Station.

New development allowed under the proposed General Plan would consist of urban infill and expansion within the city. Limited natural habitat exists within the Policy Area; nevertheless, development could encroach on remnant elderberry shrubs or suitable habitat for vernal pool invertebrates.

As discussed above under Impact 6.3-2, the General Plan includes goals and policies designed to protect biological resources (i.e., special-status invertebrates) and natural habitats (i.e., elderberry shrubs, seasonal wetlands and vernal pools). As also described under Impact 6.3-2, the City of Sacramento has established standards that require analysis of project impacts on threatened, endangered or special-status species. Compliance with FESA, CESA, and CEQA would partially mitigate for potential direct and indirect impacts on special-status invertebrate species within the Policy Area. Implementation of the regulatory processes would provide and/or require measures to mitigate for impacts on special-status invertebrates. However, there

is still a potential for future development to result in the loss of individual species and their habitat in the Policy Area, thus adversely impacting these species. Therefore, implementation of the General Plan could result in *potentially significant impacts* on special-status invertebrate species.

Mitigation Measure

Implementation of 2030 General Plan policy ER 2.1.10 in the Environmental Resources section would require, when appropriate, protocol surveys or an assumption of presence of suitable habitat. However, this policy would likely include preservation of suitable habitat (elderberry shrubs and vernal pool habitat) outside of the Policy Area. Because preservation is not likely to be feasible within the Policy Area, implementation of the General Plan could result in ***significant and unavoidable impacts*** on special-status invertebrate species due to the loss of habitat within the Policy Area.

None available.

Impact 6.3-4	Implementation of the proposed 2030 General Plan could result in substantial degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of special-status birds, through the loss of both nesting and foraging habitat.	
Applicable Regulations	<i>Federal Endangered Species Act (FESA) 1978 Federal Migratory Bird Treaty Act 1918 Amended 1972 California Endangered Species Act (CESA) California Fish and Game Code CEQA section 15380</i>	
Significance Before Mitigation	<i>Potentially Significant</i>	
Mitigation Included in the SGP	<i>Policies ER 2.1.7 through ER 2.1.12</i>	
Significance after Mitigation Included in the SGP	<i>Potentially Significant</i>	
Additional Mitigation	None available	
Residual Significance	Significant and Unavoidable	

As discussed in the TBR, a variety of special-status birds are present throughout the city; some are resident species and some are migratory species that breed within the Policy Area. These special-status birds include the Swainson's hawk, white-tailed kite, burrowing owl, purple martin, tricolored blackbird, loggerhead shrike, great blue heron, great egret and bank swallow. As indicated in the TBR, these birds have different habitat requirements. The majority of the development within the city under the proposed General Plan would consist of infill and redevelopment of already developed areas, which do not support a wide diversity of biological resources. As with most urbanized environments, landscape features within the city such as trees, shrubs, herbaceous plants, and parklands, could serve as temporary habitats or foraging grounds for special-status birds. Areas within the Policy Area that contain suitable nesting and/or foraging habitat include the riparian area of the Sacramento and American rivers and their associated river channels, the Natomas basin, grasslands and agricultural lands, and

wetlands. In the case of the purple martin, they nest in weep holes of freeway overpasses; the location of these colonies can be found on Figure 6.3-2.

Implementation of the proposed General Plan would allow for new development. Most of this new development would consist of urban infill and expansion within the city. However, new development designated near the Natomas Basin in the northwestern portion of the city may encroach into existing habitat for sensitive bird species. In addition, development could also occur on existing vacant lands in the city that could, contain special-status bird foraging/nesting habitat.

Development under the proposed General Plan could also result in the removal of mature trees in both developed and undeveloped areas, which may serve as perching or nesting sites for migratory birds, including raptors. During the non-breeding season, it is anticipated that any migratory birds or raptors using mature trees as perching sites would vacate the site upon the initiation of construction activities. During the breeding season, it would be expected that significant increases in noise and activity levels could disturb breeding behavior. Nesting and special-status birds in the Policy Area are protected by a variety of regulations including the MBTA, California Fish and Game Code (sections 3503, 3503.5, and 3800), and the CESA.

As discussed above under Impact 6.3-2, the General Plan includes goals and policies designed to protect biological resources (i.e., special-status birds) and natural habitats (i.e., grasslands). Policy ER 2.1.8 would require that the City preserves and protects oak woodlands, and/or significant stands of oak trees in the city that provide habitat for common native, and special-status wildlife species. If preservation and protection are not feasible, then the mitigation of adverse impacts on oak woodlands would be required to comply with the standards of the Oak Woodlands Conservation Act.

The City of Sacramento has established standards that require analysis of project impacts on threatened, endangered or special-status species, as described above under Impact 6.3-2. The special-status bird species identified above have been classified as either threatened, endangered or species of special concern. Compliance with FESA, CESA, the MBTA and CEQA, as well as implementation of proposed 2030 General Plan goals and policies discussed above would partially mitigate for potential direct and indirect impacts on sensitive bird species within the Policy Area. Implementation of the regulatory processes would provide and/or require measures to mitigate for impacts on special-status birds. However, these processes could still allow for the loss of suitable habitat within the Policy Area. Therefore, implementation of the General Plan could result in *potentially significant impacts* on special-status bird species.

Mitigation Measure

Implementation of 2030 General Plan policy ER 2.1.10 in the Environmental Resources section would require protocol-level or industry-recognized surveys prior to site construction. If special-status bird species are using the site, project applicants would be required to assume presence

and prepare survey reports to be submitted to the City and CDFG or USFWS for development of avoidance and/or specific mitigation measures. This mitigation would likely include nesting season avoidance or passive relocation of the birds (in the case of burrowing owls) and preservation of suitable nesting and foraging habitat outside of the Policy Area. Therefore, implementation of the General Plan could result in **significant and unavoidable impacts** on special-status bird species even with implementation of 2030 General Plan policy ER 2.1.10 due to the potential for the permanent loss of habitat within the Policy Area.

None available.

Impact 6.3-5	Implementation of the proposed 2030 General Plan could result in substantial degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of special-status amphibians and reptiles.	
Applicable Regulations	<i>Federal Endangered Species Act (FESA) 1978 California Endangered Species Act (CESA) California Fish and Game Code CEQA section 15380</i>	
Significance Before Mitigation	<i>Potentially Significant</i>	
Mitigation Included in the SGP	<i>Policies ER 2.1.7, ER 2.1.10 through ER 2.1.12</i>	
Significance after Mitigation Included in the SGP	<i>Potentially Significant</i>	
Additional Mitigation	None available	
Residual Significance	Significant and Unavoidable	

A variety of special-status amphibians and reptiles could be present throughout the Policy Area, including western spadefoot, giant garter snake, California horned lizard, and the western pond turtle. The majority of development within the city under the proposed General Plan would consist of infill and urban expansion of developed areas, which do not support a wide diversity of biological resources. Areas within the Policy Area that contain suitable habitat for these species include the riparian area of the Sacramento and American rivers, their associated river channels, irrigation and drainage canals, rice fields in the Natomas basin, oak woodlands, grasslands, and wetlands.

Peripheral development may encroach into existing habitat for sensitive amphibian and reptile species. Previous urbanization within the city most likely precludes the occurrence of these species, nevertheless, development that could occur on existing vacant lands in the city could, support remnant aquatic and upland habitat for these species. As discussed above under Impact 6.3-4, the General Plan includes goals and policies designed to protect biological resources (i.e., special-status amphibians and reptiles) and natural habitats (i.e., grasslands, vernal pools and oak woodlands).

The City of Sacramento has established standards that require analysis of project impacts on threatened, endangered or special-status species, as described above under Impact 6.3-2. The special status amphibian and reptile species identified above have been classified as either

threatened, endangered or species of special concern. Compliance with FESA, CESA, and CEQA, as well as implementation of proposed 2030 General Plan goals and policies discussed above would partially mitigate for potential direct and indirect impacts on sensitive amphibian and reptile species within the Policy Area. Implementation of the regulatory processes would provide and/or require measures to mitigate for the impacts to special-status amphibian and reptiles. However, there still could be an overall loss of special status amphibian, reptiles and their habitats in the Policy Area given the planned development. Therefore, implementation of the General Plan could result in *potentially significant impacts* on special-status reptiles and amphibian species.

Mitigation Measure

Implementation of 2030 General Plan policy ER 2.1.10 in the Environmental Resources section would require protocol-level or industry-recognized surveys for special-status amphibian and reptile species. If special-status amphibian or reptile species are identified as being present, project applicants would be required to assume presence and prepare survey reports to be submitted to the City and CDFG or USFWS for development of avoidance and/or specific mitigation measures. This policy would likely include preservation of suitable habitat outside of the Policy Area. Therefore, implementation of the General Plan would result in ***significant and unavoidable impacts*** on special-status amphibian and reptile species associated with the permanent loss of habitat within the Policy Area.

None available.

Impact 6.3-6	Implementation of the proposed 2030 General Plan could result in substantial degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of special-status mammals.
Applicable Regulations	<i>Federal Endangered Species Act (FESA) 1978 California Endangered Species Act (CESA) California Fish and Game Code CEQA section 15380</i>
Significance Before Mitigation	<i>Potentially Significant</i>
Mitigation Included in the SGP	<i>Policies ER 2.1.7, ER 2.1.10 through ER 2.1.12</i>
Significance after Mitigation Included in the SGP	<i>Potentially Significant</i>
Additional Mitigation	None available
Residual Significance	Significant and Unavoidable

As indicated in the TBR, a variety of special-status mammals are present throughout the Policy Area, including but not limited to pallid bat, Pacific western big eared bat, small-footed myotis bat, long-legged myotis bat, Yuma-myotis bat, San Joaquin pocket mouse and American badger. Lands within the city boundaries are largely urbanized and contain few significant biological resources. As with most urbanized environments, landscape features within the city such as trees with hollows, palm trees, and parklands, could serve as temporary roosting and

foraging habitat for special status bat species. Those portions of the Policy Area that contain suitable roosting and foraging habitat for these species include the riparian area of the Sacramento and American rivers, abandoned buildings, bridges with crevices, the Natomas basin, oak woodlands, parks, grasslands, agricultural fields, and wetlands. The Focused Opportunity Areas including Robla, River District, Florin Light Rail Station, and the Meadowview Light Rail Station support some of the above mentioned suitable habitat. The San Joaquin pocket mouse and the American badger would most likely be found in grassland and agricultural areas within the Policy Area.

Buildout of the General Plan would consist of urban infill and expansion within the city. As mentioned before limited natural habitat exists within the Policy Area, nevertheless, development could encroach on remnant suitable habitat for special status mammal species. As discussed above under Impact 6.3-4, the General Plan includes goals and policies designed to protect biological resources (i.e., special-status mammal species) and natural habitats (i.e., grasslands, vernal pools and oak woodlands).

The City of Sacramento has adopted standards that require analysis of impacts on threatened, endangered or special status species, including mammals. The mammal species described above meet these classifications. Implementation of proposed 2030 General Plan goals and policies discussed above would partially mitigate for potential direct and indirect impacts on sensitive mammal species within the Policy Area. Implementation of existing regulatory processes would provide and/or require measures to mitigate for the impacts to special status mammals. However, there is still a potential for future development to result in an overall loss of special status mammals and their habitats in the Policy Area. Therefore, implementation of the General Plan could result in *potentially significant impacts* on special-status mammal species.

Mitigation Measure

Implementation of 2030 General Plan policy ER 2.1.10 in the Environmental Resources section would require protocol-level and/or industry-recognized surveys to determine if special-status mammal species are present in the Policy Area. If special-status mammals are using the site, then project applicants would be required to assume presence and prepare survey reports to be submitted to the City and CDFG or USFWS for development of avoidance and/or specific mitigation measures. Because this policy would likely include preservation of suitable habitat outside of the Policy Area and the permanent loss of habitat within the Policy Area this is considered a ***significant and unavoidable impact*** on special-status mammal species.

None available.

Impact 6.3-7	Implementation of the proposed 2030 General Plan could result in substantial degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of special-status fish.	
Applicable Regulations	<i>Federal Endangered Species Act (FESA) 1978 California Endangered Species Act (CESA) California Fish and Game Code CEQA section 15380</i>	
Significance Before Mitigation	<i>Potentially Significant</i>	
Mitigation Included in the SGP	<i>Policy ER 2.1.5 through ER 2.1.12</i>	
Significance after Mitigation Included in the SGP	<i>Potentially Significant</i>	
Additional Mitigation	None available	
Residual Significance	Significant and Unavoidable	

In the Policy Area, the Sacramento River, American River and creeks feeding into these rivers are known habitat for endangered Sacramento River winter-run Chinook, threatened Central Valley spring-run Chinook, threatened Central Valley steelhead (steelhead), threatened Delta smelt, and threatened green sturgeon. Designated critical habitat for Delta smelt, steelhead and the two runs of Chinook includes the Sacramento and American rivers and adjacent riparian habitat within the Policy Area.

The Sacramento River functions as a regional migratory corridor for the above-mentioned species. The portion of the Sacramento River within the Policy Area does not serve as spawning or juvenile rearing habitat for salmonids or sturgeon, however, portions of the American River do support spawning habitat for salmonids. Spawning habitat for Delta smelt is thought to consist of substrates such as cattails and tules, tree roots, and submerged branches on which the adhesive eggs are attached. This habitat is absent or scattered and of low quality within the Sacramento River in the Policy Area due to levee maintenance. Because the area lacks spawning habitat and deep holding pools within the portion of the Sacramento River adjacent to the Policy Area, adult salmonids, Delta smelt, and sturgeon residence time in this reach of the River would be expected to be transient and relatively brief.

Other sensitive species such as Sacramento perch and Sacramento splittail are also found in the Policy Area.

Construction and operation of adjacent “improvements” to the riparian corridor of the Sacramento and American rivers could result in the alteration of critical habitat (both in-water and adjacent riparian habitat). Specific impacts resulting from construction of these improvements are discussed below.

Construction

General construction activities associated within the riparian corridors would most likely result in the removal of riparian vegetation along the Sacramento and American rivers to provide/improve access to the rivers and parkways. The construction activities associated with

the improvements to the American and Sacramento River Parkways could result in any of the following impacts:

- Extended periods of localized, high suspended sediment concentrations and turbidity caused by channel disturbance could result in a reduction of feeding opportunities for sight-feeding fish, increased predation opportunities, reduced growth rates, increased levels of stress, respiratory impairment, decreased disease tolerance, and damage to gills.
- Increased sediment loading could cause the degradation of food-producing habitat downstream of the Policy Area.
- Disturbance to the banks of the Sacramento and American rivers could result in increased erosion of these banks, particularly during high flow events.
- Water temperatures could increase as a result of removal of streamside vegetation and discharge of construction-related stormwater.
- Increased pollutant concentrations could limit fish production, abundance, and distribution by reducing egg survival and causing direct mortality of fish or their prey. They could also result in altered oxygen diffusion rates, and acute and chronic toxicity to aquatic organisms, thereby reducing fish growth and survival.
- Increase in constituent loading in the Sacramento and American rivers (i.e., ammonia, mercury, total suspended particles) that could affect aquatic resources.

In addition, refueling, operation, and storage of construction equipment and materials could result in accidental spills of pollutants, such as fuel, concrete, sealants, oil, and paint, into the river. Pollutants entering the river could cause mortality to, and reduced growth of, the egg, larval, and juvenile life stages of fish. Furthermore, these pollutants could adversely affect designated critical habitat for Chinook and steelhead and the movement of special-status species if they entered the river.

Riparian vegetation adjacent to the river could be removed as a result of improvements to the Sacramento or American River Parkways. Riparian vegetation is important as it provides shaded riverine aquatic (SRA) habitat, which is an important habitat component for all salmonids and other fish species because it provides cover, shelter, shade, and contributes to food production.²⁰ SRA, as defined by the USFWS, is, “the near-shore aquatic area occurring at the interface of the river and adjacent woody riparian habitat, where the river bank is composed of eroding, earthen substrate supporting riparian vegetation which overhangs and/or protrudes into the water, and the water may contain woody debris, including logs, branches, leaves, and roots, as well as variable depths, velocities and currents.”

The removal of riparian habitat within the Policy Area could result in a local reduction in the quality of habitat, including designated critical habitat for two runs of Chinook and Central Valley

20 National Marine Fisheries Service, 2002. Old Ferry Road Bridge Seismic Retrofit Project Biological Opinion. NMFS, Southwest Region, Long Beach, California. August 2002.

steelhead, until vegetation is fully reestablished. Willows should recolonize the site within 5 years, but larger components of riparian vegetation could require between 5 and 10 years to recolonize.²¹ Despite the small amount of riparian vegetation that could be impacted, due to construction or improvements along the Sacramento or American rivers, relative to the overall Policy Area, the potential food production and shelter provided by this habitat could be lost for up to 10 years and, thus, could have a slight localized impact.

Therefore, construction and removal of riparian vegetation adjacent to the rivers could result in the take of individual Sacramento River winter-run or spring-run Chinook, Central Valley steelhead, or green sturgeon. Development within the Policy Area could also result in the removal of designated critical habitat for both Chinook and steelhead. The take of a listed species exceeds the threshold established for this project and could be considered a potentially significant impact.

Compliance with the CWA and Rivers and Harbors Act permits from the Corps would be required for installation of in-channel facilities and construction of access points to any improvements within the channel (e.g., boat launch or dock access). To achieve the goals of the CWA and the Endangered Species Act, Section 7 of the Endangered Species Act directs all federal agencies to use their existing authorities to conserve threatened and endangered species and, in consultation with the USFWS and/or NOAA Fisheries, to ensure that their actions do not jeopardize listed species or destroy or adversely modify critical habitat. Section 7 applies to management of federal lands, as well as other federal actions that may affect listed species, such as federal approval of private activities through the issuance of federal permits, licenses, or other actions. Regulations outlining the process for Section 7 consultation (or conferencing) are codified at 50 CFR part 402. As part of the CWA permitting, the Corps would be required to consult with the USFWS and/or NOAA Fisheries under Section 7 to ensure that permitted actions do not jeopardize listed species or destroy or adversely modify designated critical habitat of three salmonid species in the area of the disturbance.

The City of Sacramento has adopted standards that require analysis of impacts on threatened, endangered or special status species, including fish. The fish species described above meet these classifications. Compliance with CEQA, as well as implementation of proposed 2030 General Plan goals and policies discussed above would partially mitigate for potential direct and indirect impacts on sensitive fish species within the Policy Area. Implementation of the regulatory processes would provide and/or require measures to mitigate for the impacts to special status fish. However, there is still a potential for future development to result in an overall loss of special-status fish and their habitats in the Policy Area given the planned development. Therefore, implementation of the General Plan could result in *potentially significant impacts* on special-status fish.

21 National Marine Fisheries Service, Southwest Region, Ord Ferry Road Bridge Seismic Retrofit Project Biological Opinion. August 2002.

Mitigation Measure

State and federal regulations would require avoidance and mitigation measures of individual projects to reduce impacts on special-status fish species which could include the enhancement or preservation of suitable habitat outside of the Policy Area (due to the developed nature of the Policy Area it is anticipated mitigation would occur in less developed areas outside of the Policy Area boundaries). While individual projects would be required to comply with federal and state regulations, it is anticipated that the impacts could result in the degradation of habitat or loss of habitat within the Policy Area. Because mitigation required by federal and state regulations would occur outside of the Policy Area, there are no feasible mitigation measures that could reduce the severity of this impact. Therefore, this would be a ***significant and unavoidable impact***.

None available.

Impact 6.3-8	Implementation of the proposed 2030 General Plan could result in the loss or modification of riparian habitat, resulting in a substantial adverse effect.
Applicable Regulations	<i>CEQA CDFG Code Clean Water Act Section 404</i>
Significance Before Mitigation	<i>Potentially Significant</i>
Mitigation Included in the SGP	<i>Policy ER 2.1.1, ER 2.1.2, ER 2.1.4, ER 2.1.5, ER 2.1.10 through ER 2.1.13</i>
Significance after Mitigation Included in the SGP	<i>Potentially Significant</i>
Additional Mitigation	None available
Residual Significance	Significant and Unavoidable

Riparian habitats are known to exist throughout the Policy Area, especially along the Sacramento and American rivers and their tributaries. Indirect impacts on riparian habitat located along the American and Sacramento rivers in the River District Opportunity Area and along the bordering area between the American River Parkway and the Arden Fair/Point West Opportunity Area could result from future redevelopment and/or development of existing occupied and vacant lands in these areas or as indicated in Impact 6.3-7. The placement of developed areas adjacent to riparian habitat could disturb wildlife that rely on these areas for shelter and food and could also result in the degradation of these areas through the introduction of feral animals and contaminants that are typical of urban uses.

The CDFG regulates potential impacts on lakes, streams, and associated riparian (streamside or lakeside) vegetation through the issuance of Lake or Streambed Alteration Agreements (SAA) (per CDFG Code Section 1600). While there are no federal regulations that specifically mandate the protection of riparian vegetation, federal regulations set forth in Section 404 of the CWA address areas that potentially contain riparian-type vegetation, such as wetlands.

However, the jurisdiction of Section 404 is generally less than that of the Section 1600 SAA, covering only riparian vegetation that is within wetland habitats.

The City has adopted a standard that requires an analysis if a project has the potential to affect other species of special concern to agencies or natural resource organizations (such as regulatory waters and wetlands). Since riparian habitat is seen as a sensitive resource by the CDFG, potential impacts on this habitat type are analyzed in this document. Implementation of proposed General Plan policies, discussed above, would help to reduce impacts on riparian habitats, but would not directly prohibit development within riparian areas. The General Plan includes goals and policies designed to protect biological resources (i.e., riparian species) and natural habitats (i.e., riparian habitat). However, since federal regulations do not specifically address the protection of all riparian vegetation under the Section 404 permitting process, and the CDFG Section 1600 Streambed Alteration Agreement is a negotiated agreement, which means that some unmitigated loss of riparian resources could occur, it cannot be concluded that future development adjacent or within (e.g., marinas as mentioned in Impact 6.3-7) riparian areas would not adversely affect riparian resources. Therefore, this impact could be considered *potentially significant*.

Mitigation Measure

Compliance with federal and state regulations do not protect all riparian habitat. Implementation of 2030 General Plan policy ER 2.1.5 in the Environmental Resources section would reduce the magnitude of the impact by requiring a 1:1 replacement of riparian habitat lost to development. While implementation of this mitigation measure would help mitigate impacts on riparian habitat, large open areas of riparian habitat used by wildlife could be lost and/or degraded directly and indirectly through development under the General Plan. This policy does require the preservation and/or restoration of riparian habitat at a 1:1 ratio; however, this would more than likely occur outside of the Policy Area. Given the extent of urban development designated in the Policy Area, the permanent loss of riparian habitat within the Policy Area is considered a ***significant and unavoidable impact***.

None available.

Impact 6.3-9	Implementation of the proposed 2030 General Plan could result in a substantial adverse effect on state or federally protected wetlands and/or waters of the United States through direct removal, filling, or hydrological interruption.	
Applicable Regulations	<i>Section 404 Clean Water Act California Wetlands Conservation Policy 1993 Porter-Cologne Water Quality Control Act California Fish and Game Code</i>	
Significance Before Mitigation	<i>Potentially Significant</i>	
Mitigation Included in the SGP	<i>Policy ER 2.1.6, ER 2.1.7, ER 2.1.10 through ER 2.1.12</i>	
Significance after Mitigation Included in the SGP	<i>Potentially Significant</i>	
Additional Mitigation	None available	
Residual Significance	Significant and Unavoidable	

Section 404 of the CWA requires that a permit be obtained from the Corps prior to the discharge of dredged or fill materials into any “waters of the United States,” which includes wetlands. Section 404 permits generally require mitigation to offset losses of these habitat types, in accordance with Executive Order 11990, which, when implemented, is intended to result in no net loss of wetland values or acres. Waters of the State are defined as any surface or subsurface water and are protected by the Porter-Cologne Act.

Implementation of the proposed General Plan could allow new and infill development which could impact state or federally protected wetlands and/or waters of the United States. As mentioned in Impact 6.3-2, seasonal wetlands signatures have been identified from aerial photographs in the following Opportunity Areas: Robla, Florin Center Light Rail Station, Meadow View Light Rail Station, and the 65th Street/University Village. Due to the size of the Policy Area, additional wetlands could also exist in other areas within the Policy Area and thus could be affected by future development.

The City has adopted a standard that requires an analysis if a project has the potential to affect other species of special concern to agencies or natural resource organizations (such as regulatory waters and wetlands). Since wetlands are regulated by the Corps and CDFG, potential impacts on these resources are analyzed in this document. Existing federal and state laws and regulations, including the Corps Section 404 permitting process or the Report of Waste Discharge, required under the Porter-Cologne Act would be implemented to mitigate for development in areas with wetlands. Additionally, implementation of the above-mentioned General Plan goals and policies and strict adherence to identified state and federal laws and regulations and the “no-net wetland loss” policy currently in place, would reduce impacts on jurisdictional waters of the U.S. and wetlands. However, because there are no regulations prohibiting the development of waters of the U.S. and wetlands, this habitat would be lost, which could be considered *potentially significant*.

Mitigation Measure

Implementation of 2030 General Plan policy ER 2.1.6 in the Environmental Resources section would reduce the impact on wetlands and waters of the U.S.; however, future development within the Policy Area could result in the permanent loss of wetland habitat. At this time it is anticipated that these wetlands could be preserved off-site in areas outside of the Policy Area. Therefore, the permanent loss of wetland habitat within the Policy Area would be considered a ***significant and unavoidable impact***.

None available.

Impact 6.3-10	Implementation of the 2030 General Plan could result in the loss of CDFG defined sensitive natural communities such as elderberry savanna, northern claypan vernal pool and northern hardpan vernal pool resulting in a substantial adverse effect.
Applicable Regulations	<i>None</i>
Significance Before Mitigation	<i>Potentially Significant</i>
Mitigation Included in the SGP	<i>Policies ER 2.1.4, ER 2.1.6, ER 2.1.7, ER 2.1.10 through ER 2.1.12</i>
Significance after Mitigation Included in the SGP	<i>Potentially Significant</i>
Additional Mitigation	None available
Residual Significance	Significant and Unavoidable

Other sensitive natural communities or habitats that are known to occur in the Policy Area include elderberry savanna, northern claypan vernal pool, and northern hardpan vernal pool. The existing known locations of these habitats are shown in Figure 6.3-2. Implementation of the proposed 2030 General Plan would introduce new development on land within the Policy Area that has the potential to support these habitats. The City has adopted a standard that requires analysis of impacts if a project has the potential to affect other species of special concern to agencies or natural resource organizations (such as regulatory waters and wetlands). The CDFG and CNPS list these sensitive natural communities as “rare,” therefore, impacts on these sensitive natural communities could be considered significant under the City’s standards of significance.

Development within the Policy Area would occur and it is feasible that development adjacent to or within sensitive natural communities could adversely affect sensitive natural communities. As discussed above under Impact 6.3-4, the General Plan includes goals and policies designed to protect biological resources and natural habitats (i.e., sensitive natural communities). Policies contained within the 2030 General Plan would help reduce impacts on sensitive natural habitats, but would not directly prohibit development within these areas; therefore the loss of these natural communities is considered a *potentially significant impact*.

Mitigation Measure

Implementation of 2030 General Plan policy ER 2.1.10 in the Environmental Resources section would require measures to avoid and minimize any impacts to these sensitive habitat types identified on project sites. This policy would likely include transplantation of plants (for elderberry shrubs) and preservation of suitable habitat outside of the Policy Area. Additionally, vernal pool habitats are specific to certain soil types that cannot be recreated in new areas. Therefore, implementation of the General Plan could result in **significant and unavoidable impacts** on sensitive natural communities.

None available.

Impact 6.3-11	Implementation of the 2030 General Plan could violate the City's Heritage Tree Ordinance.
Applicable Regulations	<i>City of Sacramento Tree Preservation Ordinance American River Parkway Plan (December 1985)</i>
Significance Before Mitigation	<i>Less than Significant</i>
Mitigation Included in the SGP	<i>Policies ER 2.1.5, ER 2.1.8, ER 2.1.10 through ER 2.1.13</i>
Significance after Mitigation Included in the SGP	<i>Less than Significant</i>
Additional Mitigation	None required
Residual Significance	Less than Significant

The City of Sacramento adopted its Tree Preservation Ordinance (which includes the Heritage Tree Ordinance) as a way to protect trees, which it considers a significant resource in the city. Additionally, it has established a standard of significance that requires an analysis to determine whether a proposed project would violate the City's Heritage Tree Ordinance. It is the City's policy to retain trees, whenever possible, regardless of their size. However, when circumstances do not allow for retention, permits are required to remove heritage trees or trees that are within the City's jurisdiction. Removal of, or construction around, trees that are protected by the tree ordinance requires permission and inspection by City arborists. The City works with the developer to minimize impacts to trees during the construction process.

The American River Parkway Plan contains policies that provide guidelines for preservation, recreational use, development and administration of the American River Parkway. The riparian habitat along the American River is designated as a Protected Area in the American River Parkway Plan. The Sacramento River Parkway Plan contains policies that guide for habitat preservation, restoration and recreational development for lands adjacent to the River. The Plan identifies current conditions, develops a vision for the future, and identifies programs and actions for achieving the vision.

As discussed above under Impact 6.3-4, the General Plan includes goals and policies designed to protect biological resources (i.e., trees) and natural habitats (i.e., oak woodlands).

Implementation of the 2030 General Plan would not conflict with the City of Sacramento's Heritage Tree Ordinance since the proposed General Plan policies call for the preservation, protection, restoration and management of the natural habitats throughout the city; therefore this impact is *less than significant*.

Mitigation Measure

None required.

Cumulative Impacts and Mitigation Measures

Cumulative impacts are only addressed for those project-specific impacts that have a project-related effect, whether it is less than significant, potentially significant, or significant and unavoidable.

Unless otherwise identified below, the geographical context for the analysis of cumulative biological impacts includes the areas contained within the greater Central Valley from Oroville down to the Merced River and from the western Sierra Nevada foothills to the eastern foothills of the Coast Ranges. The primary effects of the implementation of the General Plan, when considered with other projects within the cumulative context (as defined above), would be the cumulative direct loss of open space, vegetation associations important to raptors, loss of sensitive or special-status wildlife species, and the loss of sensitive habitat such as riparian and wetlands. Specifically, present and probable future projects in the vicinity of the Policy Area are anticipated to permanently remove plant and wildlife resources which could affect: special-status species; nesting habitat for resident and migratory avian species; wetlands and riparian vegetation.

Impact 6.3-12	Implementation of the City's 2030 General Plan combined with buildout assumed in the greater Sacramento Valley could result in a regional potential health hazard, or involve the use, production or disposal of materials that pose a hazard to plant or animal populations in the affected area.	
Applicable Regulations	<i>Federal Clean Air Act Clean Water Act Porter-Cologne Water Quality Control Act California Fish and Game Code</i>	
Significance Before Mitigation	<i>Less than Significant</i>	
Mitigation Included in the SGP	<i>Policies ER 1.1.1 through ER 1.1.8, ER 2.1.7, ER 6.1.1 through ER 6.1.17, PHS 3.1.1 through PHS 3.1.7, PHS 4.1.1</i>	
Significance after Mitigation Included in the SGP	<i>Less than Significant</i>	
Additional Mitigation	None required	
Residual Significance	Less than Significant	

As mentioned in Chapter 5.0 Population, Employment and Housing, Sacramento’s population was approximately 467,000 as of January 1, 2007. Projections for population within the city for the year 2030 are estimated that it would surpass approximately 640,000 residents. This number represents the anticipated buildout of the General Plan. Please refer to page 5-11 of the Population, Employment and Housing chapter for a complete explanation.

As indicated in Impact 6.3-1, implementation of the General Plan, considering buildout within the Policy Area, would have a less-than-significant effect on plant or animal populations within the regional context from the use, production or disposal of materials that pose a potential hazard to these resources. Because of this, the project’s contribution would not be considerable.

Other existing and planned development within the County would have to abide by the same federal and state regulations and local policies regarding the use, production and disposal of these materials. The Sacramento County General Plan has policies and programs such as the Waste Management and Recycling Division’s Solid Waste Management Program which is in charge of the recyclable household hazardous waste that would help reduce the impact.

Therefore, implementation of the General Plan in combination with other existing and planned development in the region would result in a **less-than-considerable cumulative impact**.

Mitigation Measure

None required.

Impact 6.3-13	Implementation of the City’s 2030 General Plan and regional buildout assumed in the Sacramento Valley could result in a regional loss of special-status plant or wildlife species or their habitat.	
Applicable Regulations	<i>Federal Endangered Species Act (FESA) 1978 Federal Migratory Bird Treaty Act 1918 Amendment 1972 California Endangered Species Act (CESA) California Fish and Game Code CEQA Section 15380</i>	
Significance Before Mitigation	<i>Potentially Significant</i>	
Mitigation Included in the SGP	<i>Policies ER 2.1.6 through ER 2.1.13</i>	
Significance after Mitigation Included in the SGP	<i>Less than Significant</i>	
Additional Mitigation	None required	
Residual Significance	Less than Significant	

As development in the city of Sacramento and in the greater Sacramento Valley continues, sensitive plant and wildlife species native to the region and their habitat, including those species listed under CESA and FESA and those individuals identified by state and federal resources agencies as Species of Concern, Fully Protected, or Sensitive, would be lost through conversion of existing open space to urban development. Although more mobile species might be able to survive these changes in their environment by moving to new areas, less mobile species could

simply be locally extirpated. With continued conversion of natural habitat to human use, the availability and accessibility of remaining foraging and natural habitats in this ecosystem would dwindle and those remaining natural areas may not be able to support additional plant or animal populations above their current carrying capacities. Thus, the conversion of plant and wildlife habitat on a regional level as a result of cumulative development would therefore result in a regional significant cumulative impact on special-status species and their habitats.

Although there have not been field studies conducted to identify a specific amount of suitable available habitat for special-status plants or wildlife species within the Policy Area or the region, it is anticipated that buildout of the General Plan would most likely result in the removal of some of these habitat areas and thus affect these species. The SACOG Blueprint study estimates that there would be 1.7 million more people within the Sacramento Region, which includes the counties of El Dorado, Placer, Sacramento, Sutter, Yolo and Yuba and their 22 constituent cities, by 2050 than there were in 2000. As the area grows to over 3.6 million residents, the number of homes would more than double from 713,000 to over 1.5 million. While most of the growth anticipated in the Blueprint occurs in vacant land a significant amount occurs through reinvestment primarily in downtowns and along transit corridors. Growth at the current rate would have a significant impact on natural land systems. As an example, the Blueprint estimated that 43 percent of vernal pools and oak woodlands would be lost as a result of this growth.²²

Implementation of the 2030 General Plan would contribute to the loss of regional biological resources through the incremental conversion of habitat for special-status species to human use, and thus limit the availability and accessibility of remaining natural habitats to regional wildlife. It could also affect designated critical habitat and thus directly impact threatened and/or endangered species through habitat conversion or unauthorized take. However, terrestrial plant and wildlife habitat in the Policy Area has been highly modified and is of relatively low quality due to its urban nature. The remnant habitat available in the Policy Area is small from a regional perspective and, with the exception of the Sacramento and American River Parkways, is isolated from other areas of similar habitat by urban development. Although the habitat value in the Policy Area is low, future development projects would be required to participate in mitigation plans (e.g., for Swainson's hawk, burrowing owl) approved by the state resource agencies, which would replace lost habitat and preserve contiguous areas of habitat, presumably outside of the boundaries of the Policy Area within the larger regional context.

The total area for the six counties that form the SACOG Blueprint is approximately 4,047,000 acres,²³ the area of the city of Sacramento is approximately 63,490 acres, of which 7,360 acres are vacant.²⁴ Approximately 0.2% of the total open space (11.6% of the city) would be lost due

22 Sacramento Area Council of Governments, Valley Vision. Sacramento Region Blueprint Transportation and Land Use Study, <www.sacregionblueprint.org>, accessed January 2, 2008.

23 U.S. Census Bureau, State and County Quick Facts, <www.census.gov>.

24 City of Sacramento. Vacant Land within City of Sacramento Boundary August 30, 2007 GIS file. Acreage does not include parks and open space. 2007.

to the implementation of the General Plan. The quality of the remaining vacant land and its current degraded and highly modified state make it relatively poor quality habitat for plant and wildlife species. Future development within the Policy Area would be required to comply with the goals and policies contained in the 2030 General Plan, in combination with compliance with, CESA, FESA, CWA Regulations, NPDES permit requirements, and the Fish and Game Code of California. However, because future development within the Policy Area could result in the permanent loss of special-status and sensitive plant and wildlife the General Plan's contribution to regional reductions of natural habitat is cumulatively considerable, resulting in a *potentially significant cumulative impact*.

Compliance with the above mentioned policies and regulations would reduce the Policy Area's cumulative contribution to the regional loss of special-status and sensitive plant and wildlife and their habitat to ***less-than-significant levels***.

Mitigation Measure

None required.

Impact 6.3-14	Implementation of the City's 2030 General Plan and regional buildout assumed in the Central Valley could contribute to the cumulative loss of sensitive natural communities including wetlands and riparian habitat in the region.	
Applicable Regulations	CEQA CDFG Code CWA Section 404	
Significance Before Mitigation	<i>Potentially Significant</i>	
Mitigation Included in the SGP	<i>Policies ER 2.1.4 through ER 2.1.13</i>	
Significance after Mitigation Included in the SGP	<i>Less than Significant</i>	
Additional Mitigation	None required	
Residual Significance	Less than Significant	

Estimates of wetlands that historically existed in California range from 3 to 5 million acres. The current estimate of wetland acreage in California is approximately 450,000 acres, an 85 to 90 percent reduction in total amount of wetlands within California. Within the Central Valley (the cumulative context for this analysis) which once had vast wetlands extending over some 4 million acres, a mere 300,000 acres remain.²⁵

The Policy Area lies within the historic range of the Sacramento Valley riparian forests. Since the 1850s, the riparian forests along the Sacramento and American rivers and their tributaries have been reduced from approximately 800,000 to less than 20,000 acres.²⁶ Historical descriptions of the Sacramento riparian forests in the 1800s characterized the riparian forests

25 California Wetlands Information System. <<http://ceres.ca.gov/wetlands/introduction/values.html>>, accessed June 29, 2006.

26 Griggs, F.T., and Golet, G.H. 2002. *USDA Forest Service Gen. Tech. Rep, PSW-GTR-184.*

as non-uniform in width, ranging from 300 yards to 5 miles. According to these historical accounts, the forests formed continuous stands flanking the Sacramento River in some areas; however, large dense clumps of tree stands were more common. As a result of human settlement in the Sacramento Valley, the riparian woodlands were cleared for farming, lumber, flood control, and riparian development. Currently, along the Sacramento River, continuous stands of riparian forests remain, but continued development and modifications along the river have greatly diminished this resource.

Wetland and riparian habitats within the Central Valley have been reduced substantially from their native range, and probable future development within the region would continue to affect these resources. Continued development within the region would be considered to have a significant cumulatively loss of wetland and riparian vegetation within the Central Valley.

Although the currently-available data for the General Plan does not provide sufficient detail to identify exact acreage amounts, it is likely that implementation of the General Plan would, in the short-term, remove an undetermined amount of wetland and riparian vegetation within the Policy Area. The loss of wetlands and riparian vegetation would be fully mitigated at a minimum of a 1:1 replacement ratio that would be subject to approval by the CDFG through section 1600 of the Fish and Game Code of California, and the Corps through the 404 permit process. Compliance with these regulations would include preparation of a mitigation plan that provides for no net loss of riparian vegetation identified in the Policy Area through the restoration or creation of riparian habitat to mitigate the permanent loss of the habitat or its functions. Additionally, NPDES Regulations, local water quality, and runoff standards would protect the hydrology and ecology of the Sacramento and American rivers and their associated wetland and riparian complexes. In addition, the General Plan contains policies specifically designed to avoid, reduce, or mitigate impacts on riparian vegetation.

However, because future development within the Policy Area could result in the permanent loss of wetland resources and riparian vegetation the project would result in a cumulatively considerable contribution resulting in a *significant cumulative impact*. Because future development projects would be required to mitigate in full at a minimum ratio of 1:1, there would be no net loss of sensitive habitats within the region and the project's contribution would be mitigated to a ***less-than-significant level***.

Mitigation Measure

None required.

South Area Community Plan

The South Area Community Plan is bounded on the north by 35th Avenue and Fruitridge Road, on the south by the city limits and Sheldon Road, on the east by SR 99, and on the west by Freeport Boulevard. Within the South Area Community Plan is the proposed 780-acre Delta

Shores Project. An EIR is currently being prepared for development of this area and will address potential impacts on the loss or disturbance of any biological resources including the loss of foraging habitat and wetlands. The South Area Community Plan includes two policies that address biological resources.

The developed nature of the South Area limits the availability of habitat. There are some pockets of un-developed lots within the South Area that could still support some remnant habitats. Figure 6.3-2 depicts the location of sensitive elements that have been reported to the CNDDDB within the area. These elements include northern hardpan vernal pool, vernal pool tadpole shrimp, California linderiella, midvalley fairy shrimp, Sanford's arrowhead, burrowing owl, tricolored blackbird and giant garter snake.

Morrison Creek, Laguna Creek, Beacon Creek, Florin Creek and Elder Creek drain southwest through the South Area towards Stone Lakes and eventually to the Sacramento River, these creeks represent remnant natural drainages. Vegetation (tules, cat tails, willows) within these creeks could support habitats for sensitive species, such as the tricolored blackbird and giant garter snake.

Any future development in this area, including infill development, it is assumed would comply with the proposed General Plan policies described above (i.e., preparing site specific biological studies, etc.), which would ensure that impacts on biological resources specific to the South Area Community Plan Area would be mitigated, similar to the remainder of the Policy Area. Therefore, it is assumed that impacts resulting from projects in the South Area Community Plan Area would be the same as they would be in the rest of the Policy Area.

Focused Opportunity Areas

The CNDDDB contains recorded occurrences that either fall or are adjacent to some of the Focused Opportunity Areas. Site-specific analysis for individual development projects within each Opportunity Area would determine whether individual project sites would require additional mitigation beyond compliance with mandated state and local requirements.

■ River District

The River District is bordered to the north by the American River Parkway and eventually the American River and by the Sacramento River to the west. Vacant lots within the district could support sensitive species or habitat. Species that could potentially occur would be the valley elderberry longhorn beetle, Swainson's hawk and other protected raptors (i.e. white-tailed kite, red-shouldered hawk, etc.). Agricultural areas that might still be found within the district could support seasonal wetlands that could provide suitable habitat for vernal pool brachiopods. Additionally within the Sacramento and American rivers, Sacramento split tail, Sacramento perch, green sturgeon steelhead and Chinook salmon could also occur.

Future development within the River District would have to abide by federal and state regulations. Goals, policies and mitigation measures within the General Plan would help mitigate for impacts to biological resources on a project by project basis.

■ Robla

The Robla Opportunity Area is located in the northeastern portion of the city. The rural nature of this area could provide habitat for sensitive species. Sensitive elements reported to the CNDDDB that are within or in close proximity to this area include; northern hardpan vernal pool, northern claypan vernal pool, legenera, California linderiella, vernal pool fairy shrimp, burrowing owl, Swainson's hawk, white-tailed kite, great egret, and western pond turtle. Magpie creek and another unnamed creek run in a southwestern direction and eventually drain into the Natomas East Main Drainage Canal which in turn drains into the Sacramento River. These creeks could provide suitable habitat for western pond turtles, fish and their vegetation could provide suitable foraging and nesting habitat for tri-colored blackbird and other sensitive bird species. Site specific surveys would determined if additional mitigation would be needed in addition to federal, state or General Plan goals, policies and mitigation to reduce impacts to biological resources in this Opportunity Area from future development.

■ Arden Fair/Point West

The Arden Fair/Point West (AF/PW) Opportunity Area is located just northeast of the River District. The AF/PW area is bordered on the south by the American River Parkway, this is the only area where sensitive biological resources are most likely to occur since this area is highly developed. The CNDDDB recorded occurrences in this area, as shown in Figure 6.3-2, are valley elderberry longhorn beetle, white-tailed kite, elderberry savanna. Specific site surveys would require habitat assessment for the presence of these sensitive elements or others not recorded previously reported to the CNDDDB. Any future development in this area, including infill development, it is anticipated would comply with the proposed General Plan policies described above (i.e., preparation of site specific biological studies, etc.), which would ensure that impacts on biological resources specific to the AF/PW area would be mitigated, similar to the remainder of the Policy Area. Therefore, it is assumed that impacts resulting from projects in the AF/PW Opportunity Area would be the same as they would be in the rest of the Policy Area and no additional mitigation is proposed for this area.

■ 65th Street

The 65th Street Opportunity Area is located in a highly urbanized and industrial area. Remnant habitats within this area include; non-native grassland, seasonal wetlands and a purple martin colony. Due to the seasonal wetlands, vernal pool brachiopods and special-status plants that are dependent on this habitat could also be found here. Federal, state and the proposed General Plan policies described in the city wide analysis area would have to be complied with to ensure that impacts on biological resources are mitigated.

■ Florin Center/Light Rail Station

The Florin Center/Light Rail Station Opportunity Area is located within the South Area Community Plan, which as mentioned previously is highly developed. Potential sensitive elements that could still occur in the undeveloped lots in this area include; California linderiella, vernal pool tadpole shrimp and burrowing owl, as reported in the CNDDDB. Nevertheless, specific site surveys as required under the General Plan proposed policies would determined if additional mitigation measures would be required. Compliance with federal, state and General Plan policies and mitigation measures would ensure that impacts on biological resources are mitigated.

■ Meadowview Light Rail Station

The Meadowview Light Rail Station (MLRS) Opportunity Area is also located within the South Area Community Plan. The area is currently under development and has been graded, except for an area that could support some grassland and seasonal wetland habitat. Compliance with federal, state regulations, and proposed policies and mitigation measures in the General Plan would mitigate any impacts to biological resources.

Insufficient Information to Support a Complete Analysis of the Potential Impacts

Section 15176(c) of the CEQA Guidelines acknowledges that all the information necessary to analyze potential impacts associated with anticipated future development may not be available. It is anticipated that future development within the Focused Opportunity Areas, as well as in the SACP and future development within the Policy Area could include potential impacts on biological resources. At this time specific project information is not available (i.e., individual project site characteristics, site-specific location, etc.) and specific site resources (wetlands, vernal pools, habitat, etc.) are not known to a level of detail to be able to evaluate potential impacts associated with biological resources. Once specific development proposals are prepared and submitted to the City, a project-specific environmental analysis would be prepared to analyze potential impacts on biological resources.

SUMMARY OF BIOLOGICAL RESOURCES IMPACTS

LEVEL OF SIGNIFICANCE

6.3-1 Implementation of the proposed 2030 General Plan could create a potential health hazard, or involve the use, production or disposal of materials that pose a potential hazard to plant or animal populations in the affected area.
6.3-2 Implementation of the proposed 2030 General Plan could adversely affect special-status plant species due to the substantial degradation of the quality of the environment or reduction of population or habitat below self-sustaining levels.
6.3-3 Implementation of the proposed 2030 General Plan could result in substantial degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of special-status invertebrates.
6.3-4 Implementation of the proposed 2030 General Plan could result in substantial degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of special status birds, through the loss of both nesting and foraging habitat.
6.3-5 Implementation of the proposed 2030 General Plan could result in substantial degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of special-status amphibians and reptiles.
6.3-6 Implementation of the proposed 2030 General Plan could result in substantial degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of special-status mammals.
6.3-7 Implementation of the proposed 2030 General Plan could result in substantial degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of special-status fish.
6.3-8 Implementation of the proposed 2030 General Plan could result in the loss or modification of riparian habitat, resulting in a substantial adverse effect.
6.3-9 Implementation of the proposed 2030 General Plan could result in a substantial adverse effect on state or federally protected wetlands and/or waters of the United States through direct removal, filling, or hydrological interruption.
6.3-10 Implementation of the 2030 General Plan could result in the loss of CDFG defined sensitive natural communities such as elderberry savanna, northern claypan vernal pool and northern hardpan vernal pool resulting in a substantial adverse effect.
6.3-11 Implementation of the 2030 General Plan could violate the City's Heritage Tree Ordinance.
6.3-12 Implementation of the City's 2030 General Plan combined with buildout assumed in the greater Sacramento Valley could result in a regional potential health hazard, or involve the use, production or disposal of materials that pose a hazard to plant or animal populations in the affected area.
6.3-13 Implementation of the City's 2030 General Plan and regional buildout assumed in the Sacramento Valley could result in a regional loss of special-status plant or wildlife species or their habitat.
6.3-14 Implementation of the City's 2030 General Plan and regional buildout assumed in the Central Valley could contribute to the cumulative loss of sensitive natural communities including wetlands and riparian habitat in the region.

Community Plan Areas	6.3-1	6.3-2	6.3-3	6.3-4	6.3-5	6.3-6	6.3-7	6.3-8	6.3-9	6.3-10	6.3-11	6.3-12	6.3-13	6.3-14
Arden-Arcade	○	○	○	●	●	●	●	●	●	●	○	○	○	○
Central City	○	○	○	●	○	○	○	○	○	○	○	○	○	○
East Broadway	○	○	○	●	○	○	○	○	○	○	○	○	○	○
East Sacramento	○	○	○	●	○	○	○	○	○	○	○	○	○	○
Land Park	○	○	○	●	○	○	○	○	○	○	○	○	○	○
North Natomas	○	○	○	●	○	○	○	○	○	○	○	○	○	○
North Sacramento	○	○	○	●	○	○	○	○	○	○	○	○	○	○
Pocket	○	○	○	●	○	○	○	○	○	○	○	○	○	○
South Area	○	○	○	●	○	○	○	○	○	○	○	○	○	○
South Natomas	○	○	○	●	○	○	○	○	○	○	○	○	○	○

○ = less than significant
 ● = less than significant with mitigation incorporated
 ● = significant and unavoidable

6.4 Cultural Resources



INTRODUCTION

This section describes and evaluates potential effects on the prehistoric and historic resources present or potentially present in the 2030 Sacramento General Plan Policy Area. Cultural and historical resources are defined as properties that are listed or have been determined eligible for listing on the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), or the City of Sacramento's Sacramento Register of Historic and Cultural Resources (Sacramento Register). The CRHR includes properties listed or determined eligible for listing under the NRHP and/or CRHR. A discussion of paleontological resources is included in section 6.5, Geology, Soils, and Mineral Resources.

The goals and policies of the Historic and Cultural Resources Element of the 2030 General Plan promote the identification, protection, and maintenance of historic and cultural resources, including consultation with appropriate organizations and individuals early in the planning and development process to identify opportunities and minimize potential impacts to historic and cultural resources.

Letters received in response to the NOP (see Appendices A and B) included a number of concerns associated with historic resources. Comments expressed concern about effects including the following: potential building height impacts on the Tower Historic District; impacts of new development adjacent to historic resources; the need for additional surveys to identify historic resources; the impact of increasing the allowed density in historic neighborhoods; the need for a transition zone between the Central Business District and historic neighborhoods; the need for policies to protect historic resources; the need for a historic preservation overlay zone or policy to restrict building heights to the existing building height; height and massing limits; setbacks for new construction adjacent to historic buildings; preservation of the tree canopy; and the need to update the City's 1997 historic building survey and adopt the findings. One of the major underlying themes is the concern that increasing allowable densities and heights in historic neighborhoods would increase the development pressure in these areas and lead to the loss of more historic buildings primarily due to demolition by neglect. Since circulation of the NOP, staff has recommended that the Traditional Neighborhood High Density designation in the Central City/Midtown area be replaced with a Traditional Neighborhood Medium Density designation. This change was approved by City Council in March 2008. Changing the land use designation in this area has addressed many of the concerns raised by the public.

Prehistoric and historic archaeological resource information for this section is based on the Technical Background Report (TBR) as well as the *Sacramento Register of Historic & Cultural Resources* (2007). The TBR prepared for the project is available electronically on the City's website (<http://www.sacgp.org/documents.html#tbr>) and on CD at the back of this document.

ENVIRONMENTAL SETTING

Prehistoric and Historic Archaeological Background

The Sacramento Delta was one of the first regions in California to attract intensive archaeological fieldwork. The first settlements in the Sacramento Valley likely occurred during the late Pleistocene and early Holocene (14,000 to 8,000 B.P.) period. Sacramento's location within a great valley and at the confluence of two rivers, the Sacramento River and the American River, shaped its early and modern settlements. It is highly likely that Paleo-Indian populations occupied the area with villages located near watercourses. However, the archaeological record of such use is sparse, probably due to recurring natural flood events. Additional detail on the development of the archaeological record and the prehistoric and historic archaeological background of the area is provided in the TBR starting on page 6.3-1.

■ Ethnological Background

Nisenan

The major portion of the Policy Area lies in the territory attributed to the Nisenan tribe, a branch of the Maidu group of the Penutian language family. Tribes of this language family dominated the Central Valley, San Francisco Bay area, and western Sierra Nevada foothills when European immigrants first arrived. The Nisenan controlled the drainages of the Yuba, Bear, and American rivers, along with the lower portion of the Feather River. The tribes of this whole region referred to themselves as Nisenan, meaning "people," in contrast to the surrounding tribes, in spite of close linguistic and cultural similarities. For this reason, they are usually named by this term rather than the more technical "Southern Maidu." In any event, the local main village was of more importance to the people than the tribal designation, and groups identified themselves by the name of the central village.

The Nisenan tribes' northern boundary has not been clearly established due to similarity in language to neighboring groups. The eastern boundary was the crest of the Sierra Nevada. The confluence of the American and Sacramento rivers on the valley floor was their southern boundary. The western boundary extended from this point upstream to the mouth of the Feather River. Additional information on the tribes' settlement patterns and culture is provided in the TBR starting on page 6.3-2.

Plains Miwok

The southern portion of the Policy Area was controlled at the time of contact by the Plains Miwok. The most southerly Nisenan village was Sama, located near the point at which Riverside Boulevard parallels the Sacramento River. The Eastern Miwok represent one of the two main divisions of the Miwokan subgroup of the Utian language family (Levy 1978:398). The Plains Miwok, one of five separate cultural and linguistic groups of the Eastern Miwok, occupied

the lower reaches of the Mokelumne, Cosumnes, and Sacramento rivers, including the area of south Sacramento County surrounding the Policy Area. Linguistic studies and the application of a lexicostatistic model for language divergence suggest that the Plains Miwok was a distinct linguistic entity for the last 2,000 years (Levy 1970). This result led researchers such as Richard Levy (1978:398) to conclude that the Plains Miwok inhabited the Sacramento Delta for a considerable period of time. Additional information on the tribes' political organization, settlement patterns, and culture is provided in the TBR starting on page 6.3-4.

■ Prehistoric and Historic Archaeology Sensitivity Areas

Previous surveys since 1930 have recorded approximately 80 archaeological sites within the Policy Area. The types of archaeological resources discovered include village sites, smaller occupation or special use sites, and lithic scatters. Native American use of the Policy Area focused on higher spots along the rivers, creeks and sloughs that provided water and sources of food. For the purposes of this study, the Policy Area was classified as one of three categories for analysis based on existing research: 1) areas of high sensitivity for archaeological resources, 2) areas of moderate sensitivity, and 3) areas of low sensitivity. These areas are shown on an Archaeological Sensitivity Map (see Figure 6.4-1).

A problem inherent with the development of a sensitivity map is that the North Central Information Center (NCIC) maps document locations where cultural resources have been identified, but do not reflect the current status of the resources. Sites may be entirely destroyed or subjected to data recovery, but their location remains on the NCIC maps. These zones are shown as high sensitivity areas, but this classification does not always reflect the current condition of each site. Archaeological surveys, testing, and construction monitoring would still be required for all high sensitivity areas, except in the specific area where previous excavation has already occurred to the level proposed for the current project.

High Sensitivity

High sensitivity areas are those known to have recorded prehistoric period archaeological resources present. To obscure the precise location and to protect sites from theft and vandalism, these zones have been enlarged, and the areas in between sites have also been included within the zone. The types of prehistoric sites recorded in the Policy Area include large village mounds, small villages, and campsites. Many of the larger Nisenan villages are located adjacent to major waterways. Recent excavations of prehistoric village sites in Sacramento include the City Hall Annex and the Sutter General Hospital expansion. The sites contain midden (cultural deposit), Native American inhumations, artifacts [chipped stone (projectile points, scrapers) ground stone (bowl mortars, pestles, metates, manos, charmstones, beads, pipes), bone artifacts (awls, ornaments, needles, hairpins, whistles, pendants), antler artifacts (flakers), baked clay, and shell artifacts (ornaments and beads)], and other materials from occupation including shell, animal bone, and charcoal.

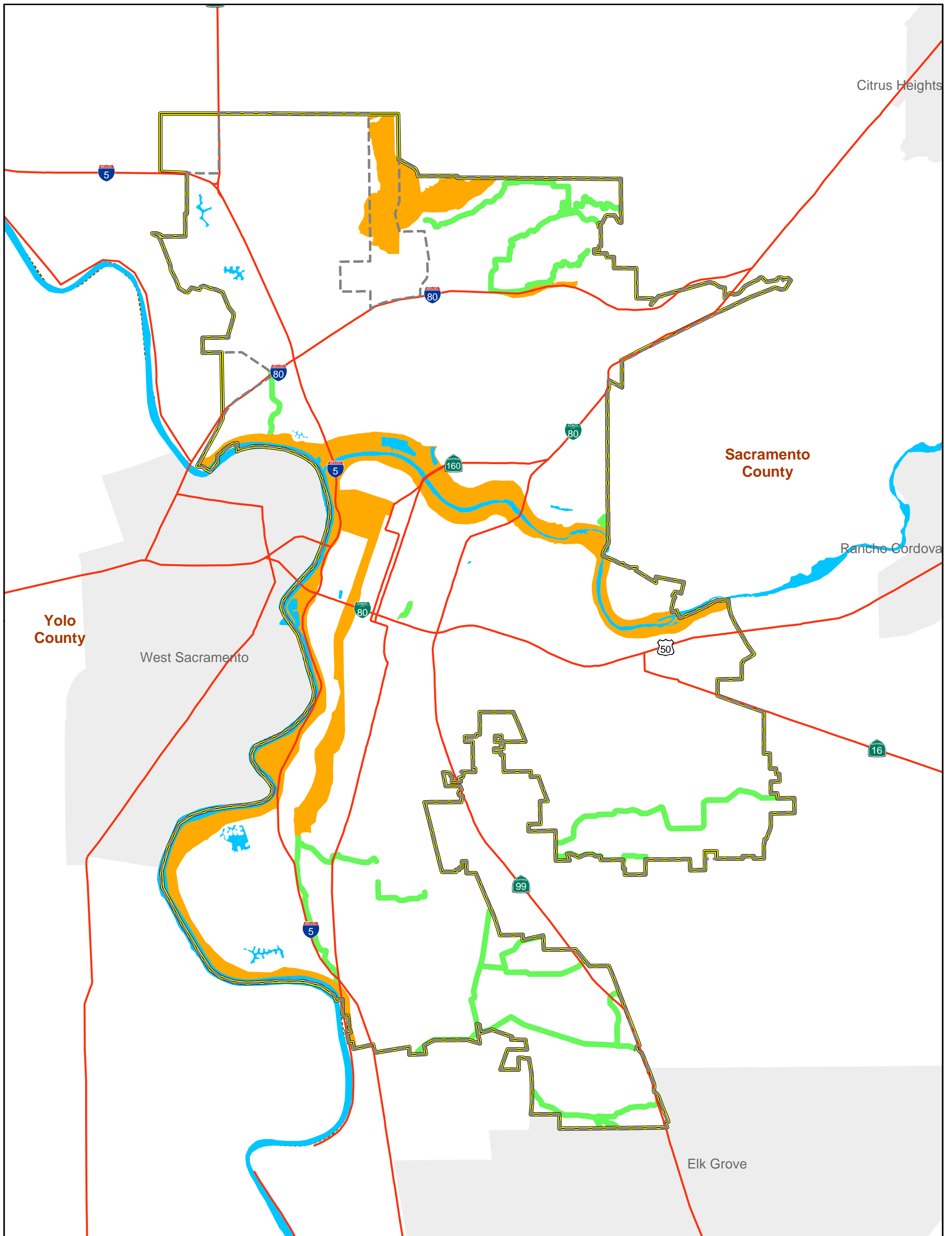
Some of the sites were occupied relatively recently, with the name of the village known and relationships with the Indians discussed in Sutter's diaries in the 1840s. Other sites may have been occupied hundreds of years ago, and later abandoned. Some of these sites were recorded as early as the 1930s, and the locations remain on the base maps of archaeological sites. Other sites were recorded in the 1950s and 1960s by archaeologists working on research projects. With the advent of CEQA in the 1970s, additional sites were identified during project specific surveys. Recent archaeological digs, such as at the City Hall site and elsewhere, have helped advance our understanding of the settlement pattern for the earliest inhabitants of the area. In addition, our understanding of the prehistoric life and dates of occupancy and use has also improved. Many of the sites had been affected even prior to their recordation by development, farming, and other activities. Since their identification, some of the sites have been completely destroyed or substantially affected by land-leveling, development, and other urban activities.

Moderate Sensitivity

Creeks, other watercourses, and early high spots near waterways that seem likely to have been used for prehistoric occupation are areas of moderate sensitivity. Even sites where waterways may have existed in the past but have now been developed could be considered an archaeological resource due to the presence of "significant historic activities." However, the chance of discovering artifacts on such sites is substantially lower. Sites could still exist along these waterways but may be obscured by siltation or later historic activities. While it is less likely that a large primary village, usually located near more substantial waterways, would be found in a moderate sensitivity area, there is the potential for smaller satellite villages, seasonal campsites, or task-specific sites related to food procurement and other activities, to be discovered along riparian corridors and wetlands.

Low Sensitivity

Low sensitivity indicates that previous research suggests it is unlikely that sites occur in these areas, or may reflect an area where no previous archaeological work has been conducted. It does not rule out the possibility that a site could exist and be obscured through historic use and development or through natural processes, such as siltation. While it is unlikely that a village would be found, it is possible a small resource such as a temporary campsite or special use site could exist.



Legend

Archaeological Sensitivity Level

High

Moderate

City Limit

County Boundary

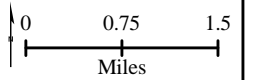
Other City Boundaries

Policy Area

Water

**Figure 6.4-1
Archaeological
Sensitivity**

Source: City of Sacramento 2007



Historic Period Archaeological Sites

The urbanized portions of the Policy Area are highly sensitive for the potential to find historic period archaeological sites, and any new construction needs to consider the possibility for the presence of subsurface materials. Several recent projects in Sacramento have been the subject of extensive excavations of historic period sites, including City Hall, Sutter General Hospital, Embassy Suites, Federal Courthouse, and the Plaza Lofts (Philadelphia House). The City Hall and Sutter General Hospital sites contained both historic and prehistoric resources. These sites have provided additional insight on the history of development of the city of Sacramento, providing detail on the early residents and their ways of life. Each site excavated provides information on the occupants of the specific site, and the history of the use and occupation of that lot or city block. One example of an excavated block is the Federal Courthouse site on the block bound by H, I, 5th, and 6th streets with excavations conducted in 1994. This block was the last surviving portion of Sacramento's mid-nineteenth century Chinese district. The excavations yielded extensive brick building foundations and infrastructure, and caches of domestic and commercial refuse associated with Chinese District Association boardinghouses that housed Chinese workers in the mid-1850s. The resulting analyses of the artifacts and historical research associated with the study provided information on the everyday lives of working-class Chinese pioneers.

With any project within the urban area of the city, archival research must be undertaken to determine the use of the site through time, and test excavations or construction monitoring should occur. Outside of the urbanized areas, historic archaeological materials may be present at any location formerly used or occupied over the past 150 years since the founding of the City of Sacramento. These areas may or may not coincide with locations of prehistoric sites. Historic maps are the key to discovering potential locations, while research and field surveys should be required as appropriate.

Historical Background

The history of Sacramento has been shaped by its location near two rivers. The rivers provided transportation, irrigation, and food supply for early settlers. The presence of the rivers helped shape the development of Sacramento to this day by providing plant and animal habitats, and helping to identify boundaries for the region. Many of the area creeks were filled or diverted in the late 19th century. In the mid-19th century Burn's Slough passed by Sutter Fort (located in the Central City) on the north side, flowing southwest. Another small creek or slough may have passed on the south side of the fort which would have crossed the Policy Area, according to Sutter Fort's historian and archivist, Stephen Beck. Exploration into the Sacramento Valley began in the early 1800s via colonization and the establishment of missions. One of the early explorers, a Spaniard name Gabriel Moraga, is responsible for naming the valley region "Sacramento," which means "the Holy Sacrament." Latin influence in the region continued in the early 1800s as Mexico gained independence from Spain and began sending explorers to

Sacramento in 1822. While the area was technically under Mexican rule by 1824, the area was still inhabited by numerous Native Americans.

While the Mexican Government occupied the region in the 1820s, the formal founder of the City of Sacramento is John Sutter, Jr. John Sutter arrived at the confluence of the Sacramento and American Rivers in 1839, settling in what was at the time Nisenan territory. The knoll on which Sutter placed his fort was an Indian mound. Beginning in 1824, under Mexican rule, land in California was divided into large parcels referred to as ranchos or Mexican land grants. In 1839 the first settlement in the Sacramento area, New Helvetia, was granted to John Sutter. By 1846, eight land grants were claimed in the region.

In 1848, Sutter hired William Warner to conduct a survey, which imposed a grid pattern on the land east of the riverfront with north-south streets designated by numbers and east-west streets by letters of the alphabet. This original grid, which survives today, extended east from the Sacramento River (Front Street) to just beyond the Fort and south from Sutter's Slough (at approximately 6th and I streets) to where Broadway is today. After the discovery of gold in 1849, Sacramento became the "gateway" to the gold fields, mining and the business of supplying miners served as the basis for the city's early economy. The City was founded in 1849 and is the oldest incorporated city in California. Following the conclusion of the Mexican-American war of 1848, California was annexed by the United States on September 9, 1850. The City's location along the river ports and later the railroad played a prominent role in making Sacramento the principal mining, commercial, agricultural processing, and transportation center for the Central Valley and drew people to the area. In 1854, Sacramento became the State capitol.

During the mid 1800s, the City faced severe flooding issues, with the majority of flooding coming from the American River. During heavy rains, the portion of the American River north of I Street would experience severe flooding. To resolve this problem, the City dug a new mouth for the American River and elevated city streets approximately four to fifteen feet between I Street and L Street, from Front Street to 12th Street. This vast undertaking was completed in 1873 and has shaped the current downtown grid.

The city of Sacramento is also known as the birthplace of the California railroad system. The State's first railroad, Theodore Judah's Sacramento Valley Railroad, served as a link between Folsom gold fields and the city of Sacramento. Leland Stanford, Collis Huntington, Mark Hopkins, and Charles Crocker, who came to be known as the Big Four, established the Central Pacific Railroad in 1861 as the western extension of the transcontinental railroad, which was completed in 1869. The transcontinental line helped establish Sacramento and the state as a primary distributor of agricultural goods to the rest of the country. Sacramento also became known as the largest railroad manufacturer and repair center west of the Mississippi.

Nonetheless, in 1895, Sacramento still remained sparsely populated with the area dominated by agricultural uses. Battery-operated streetcars were introduced in 1891, which helped with short

range transportation. The city's first recognized suburb, Oak Park, was originally a farm that was sold in 1885 and subdivided in 1887. Establishment of a streetcar line connecting the community to the city center helped establish the suburban growth trend of the 1900s.

A number of institutional and religious buildings were constructed between 1900 and 1930 including Sacramento City College (1916), City Hall (1911), the City Library (1918), the Masonic Temple (1920), the Public Market (1923), the Elks Club Building (1926), and the Memorial Auditorium (1927). During the same period, the City established many parks, hospitals, and commercial industries. The 1930s and 1940s saw the development of the Tower Bridge (1935) and the establishment of a strong military presence in the region. During World War II Mather Air Force Base (1918) and the Sacramento Air Depot (1935, renamed McClellan in 1939) provided a huge job base which triggered growth throughout the region. This rapid growth triggered a housing demand which resulted in increased suburban development in the 1950s. This development was made easier due to the establishment of the automobile as the primary form of transportation. Use of automobiles drastically impacted the development of the city of Sacramento via the establishment of Interstate 5 between 2nd and 3rd streets and the reduced importance of the transcontinental railroad. Establishment of the Sacramento Redevelopment Agency in the 1950s and its' attempts at urban renewal projects such as the K Street mall resulted in the destruction of many historic structures, interruptions to the city's historic street grid pattern, as well as likely destruction of prehistoric resources.

As the city grew, many of the city's historic structures were destroyed during construction. Other historic structures have lost aesthetic character due to lack of maintenance, redevelopment, and growth. Starting in the 1960s and 1970s, concerted efforts were begun by the State of California and the City of Sacramento to establish programs that would identify, protect, and assist in the preservation and rehabilitation of historic and cultural resources. As of fall 2004 (the most recent data available), approximately 56 sites had been included in the National Register and approximately 99 sites had been included in the State Register (see Figure 6.4-2), and over 800 sites have been individually listed in the Sacramento Register.

■ Historic Districts

Over the years the City of Sacramento has undertaken several historic building surveys in an effort to establish specific Historic Districts. As of the date of this document's publication, the City of Sacramento has designated 29 Historic Districts, 10 historic district surveys in progress, one adopted survey, and two Special Planning Districts. The City Code provides for the compilation of Landmarks, Contributing Resources, and Historic Districts into the Sacramento Register of Historic and Cultural Resources (Sacramento Register). The Sacramento Register includes all listed or surveyed historic resources in the city of Sacramento. The Sacramento Register also includes listings or maps of the properties within two of the city's Special Planning Districts that have been afforded preservation protection by ordinance, but are not designated as a Historic District. Appendix E includes a list and a brief description of each of the designated districts.

Regulatory Context

Federal, state, and local governments have developed laws and regulations designed to protect significant cultural resources that may be affected by actions they undertake or regulate. The National Historic Preservation Act (NHPA) and CEQA are the basic federal and state laws governing the preservation of historic and archaeological resources of national, regional, state, and/or local significance.

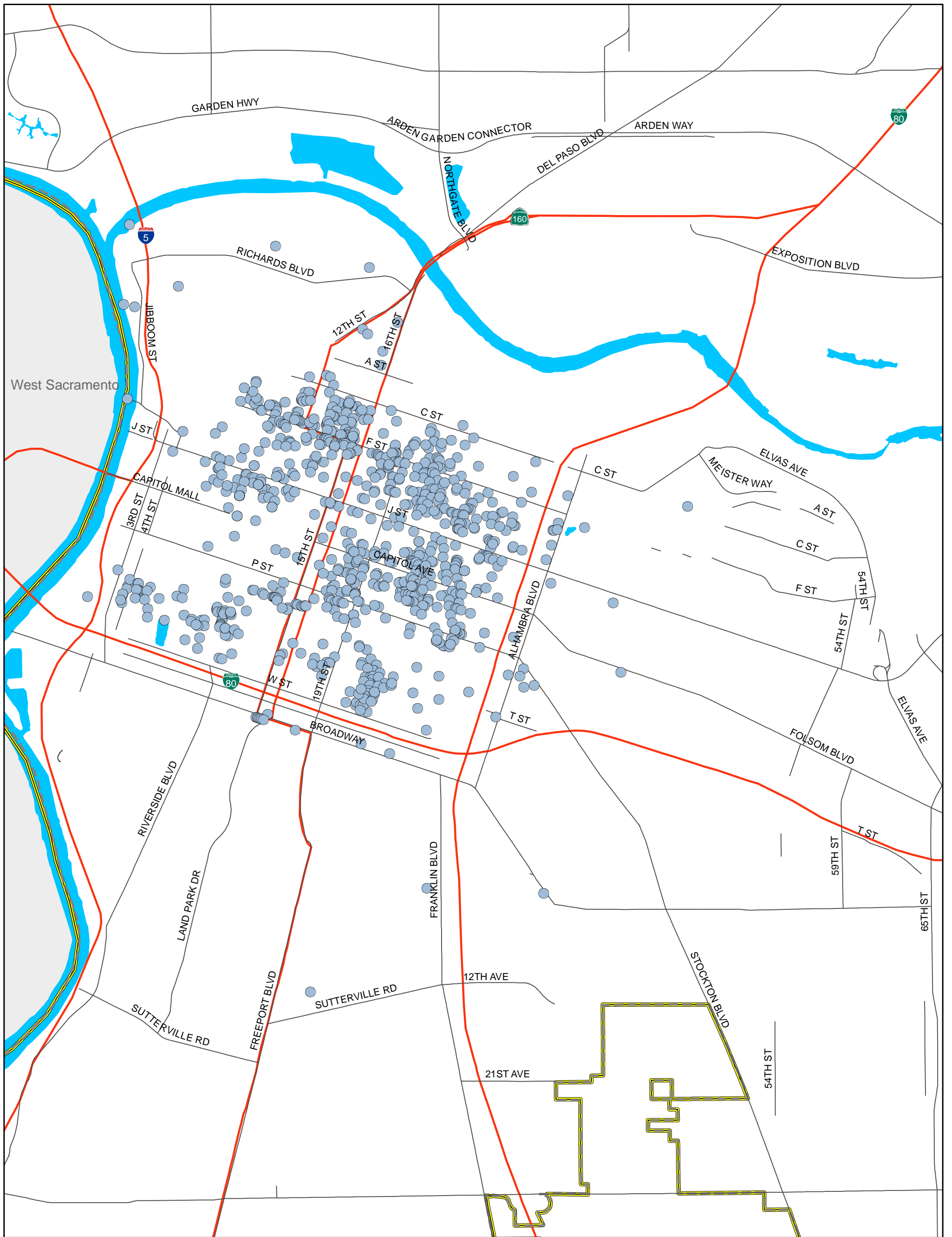
■ Federal

National Historic Preservation Act

The National Historic Preservation Act established the NRHP to recognize resources associated with local, state, and national history and heritage. Structures and features must usually be at least 50 years old to be considered for listing on the NRHP, barring exceptional circumstances. However, the Office of Historic Preservation has established criteria that call for the recordation of resources 45 years or older to account for the time lag in listing the resource. Criteria for listing on the NRHP, which are set forth in Title 26, Part 63 of the Code of Federal Regulations (36 CFR Part 63), are significance in American history, architecture, archaeology, engineering, and culture as present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and that are (A) associated with events that have made a significant contribution to the broad patterns of our history; (B) associated with the lives of persons significant in our past; (C) embody the distinctive characteristics of a type, period, or method of construction; represent the work of a master; possess high artistic values, represent a significant and distinguishable entity whose components may lack individual distinction; or (D) have yielded, or may be likely to yield, information important in prehistory or history. Criterion D is usually reserved for archaeological and paleontological resources.

Section 106

Federal regulations for cultural resources are primarily governed by Section 106 of the NHPA of 1966, which applies to actions taken by federal agencies. The goal of the Section 106 review process is to offer a measure of protection to sites that are determined eligible for listing on the NRHP. The criteria for determining NRHP eligibility are found in 36 Code of Federal Regulations (CFR) Part 60. Section 106 requires that prior to the approval of the expenditure of any federal funds or the issuance of any license, the head of any federal agency having direct or indirect jurisdiction over a proposed federal or federally assisted undertaking and the head of any federal department or independent agency having authority to license any undertaking shall take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register. The head of any such federal agency shall afford the Advisory Council on Historic Preservation established under Title II of



Legend

- Adopted or Protected City Landmarks
- - - City Limit
- - - County Boundary
- Other City Boundaries
- Policy Area
- Water

**Figure 6.4-2
Historic
Structures**

this Act a reasonable opportunity to comment with regard to such undertaking. Historic structures in Sacramento would be subject such review. As a Certified Local Government, the City of Sacramento is also afforded review and comment opportunities on federal undertakings.

The Council's implementing regulations, "Protection of Historic Properties," are found in 36 CFR Part 800. The NRHP criteria (contained in 36 CFR 60.4), used to evaluate resources when complying with NHPA Section 106, state that eligible resources comprise districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, association, and:

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

Archaeological site evaluation assesses the potential of each site to meet one or more of the criteria for NRHP eligibility based upon visual surface and subsurface evidence (if available) at each site location, information gathered during the literature and records searches, and the researcher's knowledge of and familiarity with the historic or prehistoric context associated with each site.

The American Indian Religious Freedom Act, Title 42 United States Code, Section 1996, protects Native American religious practices, ethnic heritage sites, and land uses.

Department of Transportation Section 4f

Section 4(f) is national policy established as a part of the U.S. Department of Transportation Act of 1966 that stipulates that the Federal Highway Administration (FHWA) will not approve any program or project that requires the "use" of any publicly owned public park, recreation area, wildlife refuge or historic sites unless:

- There is "no feasible and prudent alternative to the project;"
- The project includes "all possible planning to minimize harm to the project;"
- Section 4(f) applies to all transportation agencies within the U.S. Department of Transportation, which include;
- Federal Highway Administration (FHWA) – Funds Highway and bridge projects;
- Federal Transit Administration; or
- Coast Guard – Owns and protects many historic lighthouses and has regulatory authority affecting bridges.

Section 4(f) does not apply to private institutions and individuals, even if the said areas are open to the public. However, if a governmental body has a proprietary interest in the land for instance fee ownership, drainage easements or wetland easement, it can be considered “publicly owned” and thus Section 4(f) applies.

Historic Rehabilitation Tax Credits Program

The National Park Service and the Internal Revenue Service, in partnership with State Historic Preservation Office, administers the Historic Rehabilitation Tax Credits program which rewards private investment in rehabilitating historic buildings listed in the National Register of Historic Places. Properties must be income-producing and must be rehabilitated according to rehabilitation standards set by the Secretary of the Interior for historic properties.

Americans with Disabilities Act

The ADA requires that new buildings and facilities and altered portions of existing buildings and facilities be readily accessible for persons with disabilities. In the case of historic properties, the ADA provides for the following: if making a "qualified historic building" accessible would threaten or destroy the historic significance of that building or facility, certain alternative minimum accessibility standards may be applied. If the alteration is part of a federal undertaking, the responsible federal agency should contact both the Department of Historic Resources and the Advisory Council on Historic Preservation. If the alterations to the historic property are not federally sponsored, and the responsible party believes that full compliance with the ADA would threaten or destroy the building's or facility's historic significance, he should consult with the Department of Historic Resources. If the department agrees, the alternative minimum standards may be used.

Preservation/Conservation Easement Charitable Contribution Deduction

For purposes listed in the National Register of Historic Places, the value of a preservation/conservation easement, donated in perpetuity to a qualified easement holder, non-profit or governmental entity, may be deducted as a charitable contribution deduction for federal income tax purposes.

■ The Secretary of the Interior’s Standard for the Treatment of Historic Properties

The U.S. Secretary of the Interior has established standards for the treatment of historic properties. The 1995 Secretary of the Interior’s Standard for the Treatment of Historic Properties document outlines specific standards and guidelines for the preservation, rehabilitation, restoration, and reconstruction of historic properties. Preservation standards and guidelines apply to those buildings that require ongoing maintenance to sustain their historical

authenticity. Rehabilitation standards and guidelines involve the reuse of a historic structure or property while retaining features that maintain historic value. Restoration standards and guidelines are applicable to projects that remove portions of a building from another historic period in order to restore a property to its period of significance. Reconstruction standards and guidelines apply to new developments that replicate a historic period or setting based on documented evidence. Each set of standards provides specific recommendations for the proper treatment of specific building materials, as well as parts of building development. The City of Sacramento has adopted these Standards pursuant to the Historic Preservation Chapter of the City Code, Title 15, Chapter 15.124. The California Environmental Quality Act also references these Standards relative to consideration of the significance of project impacts, or lack thereof, on historic resources.

■ State

The CRHR was created to identify resources deemed worthy of preservation on a state level and was modeled closely after the NRHP. The criteria are nearly identical to those of the NRHP which includes resources of local, state, and region or national levels of significance. The CRHR automatically includes resources listed on the NRHP. Table 6.3-1 provided in the TBR provides a list of CRHR and NRHP listed buildings within the city. This table is not provided here because the information gathered in 2004-2005 for the TBR is outdated. These listings are updated as resources are determined eligible and/or are officially listed; therefore, providing such a list in this document would be counter productive because the information is constantly changing. The most up-to-date listings can be found in a variety of sources including the Sacramento Register of Historic & Cultural Resources, the National Register Information System maintained by the National Park Service (<http://www.nps.gov/history/nr/research/nris.htm>), and the North Central Information Center at the California State University, Sacramento.

California Historical Building Code

The purpose of the CHBC (California Code of Regulations, Title 24 Part 8) is to provide regulations for the preservation, restoration, rehabilitation, relocation, or reconstruction of buildings or structures designated as qualified historical buildings or properties by a local, state or federal jurisdiction. The CHBC intends to provide alternative solutions for the preservation of qualified historical buildings or properties, to provide access for persons with disabilities, to provide a cost-effective approach to preservation, and to provide for the reasonable safety of the occupants or users.

The CHBC defines “qualified historical building” as “any building, site, structure, object, district or collection of structures, and their associated sites, deemed of importance to the history, architecture or culture of an area by an appropriate local, state or federal governmental jurisdiction. This includes designated buildings or properties on, or determined eligible for, official national, state or local historical registers or official inventories, such as the National

Register of Historic Places, California Register of Historical Resources, State Historical Landmarks, State Points of Historical Interest, and officially adopted city or county registers, inventories, or surveys of historical or architecturally significant sites, places or landmarks.”

California Environmental Quality Act

Under CEQA, public agencies must consider the effects of their actions on both “historical resources” and “unique archaeological resources.” Pursuant to Public Resources Code, section 21084.1, a “project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.”

“Historical resource” is a term with a defined statutory meaning (see Public Resources Code, section 21084.1 and CEQA Guidelines section 15064.5 (a) and (b)). The term embraces any resource listed in or determined to be eligible for listing in the California Register of Historical Resources (CRHR). The CRHR includes resources listed in or formally determined eligible for listing in the NRHP, as well as some California State Landmarks and Points of Historical Interest.

Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts) or that have been identified in a local historical resources inventory may be eligible for listing in the CRHR and are presumed to be “historical resources” for the purposes of CEQA unless a preponderance of evidence indicates otherwise (Public Resources Code, section 5024.1; California Code of Regulations, Title 14, section 4850). Unless a resource listed in a survey has been demolished, lost substantial integrity, or there is a preponderance of evidence indicating that it is otherwise not eligible for listing, a lead agency should consider the resource to be potentially eligible for the CRHR.

In addition to assessing whether historical resources potentially affected by a proposed project are listed or have been identified in a survey process, lead agencies have a responsibility to evaluate them against the CRHR criteria prior to making a finding as to a proposed project’s impacts on historical resources (Public Resources Code, section 21084.1; CEQA Guidelines, section 15064.5(a)(3)). In general, an historical resource, under this approach, is defined as any object, building, structure, site, area, place, record, or manuscript that:

- a) Is historically or archaeologically significant; or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political or cultural annals of California; and
- b) Meets any of the following criteria:
 1. is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
 2. is associated with the lives of persons important in our past;

3. 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
4. has yielded, or may be likely to yield, information important in prehistory or history.

For historic structures, CEQA Guidelines section 15064.5(b)(3) indicates that that following 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 the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (1995), mitigates impacts to a less than significant level. Potential eligibility also rests upon the integrity of the resource. Integrity is defined as the retention of the resource's physical identity that existed during its period of significance. Integrity is determined through considering the setting, design, workmanship, materials, location, feeling, and association of the resource.

As noted above, CEQA also requires lead agencies to consider whether projects will affect "unique archaeological resources." Public Resources Code, section 21083.2(g) states that "unique archaeological resource" means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type.
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person" (Public Resources Code, Section 21083.2 (g)).

Treatment options under section 21083.2 of the Public Resources Code include activities that preserve such resources in place in an undisturbed state. Other acceptable methods of mitigation under section 21083.2 include excavation and curation or study in place without excavation and curation (if the study finds that the artifacts would not meet one or more of the criteria for defining a "unique archaeological resource").

Advice on procedures to identify cultural resources, evaluate their importance, and estimate potential effects is given in several agency publications, such as the series produced by the Governor's Office of Planning and Research (OPR). The technical advice series produced by OPR strongly recommends that Native American concerns and the concerns of other interested persons and corporate entities, including but not limited to, museums, historical commissions, associations and societies, be solicited as part of the process of cultural resources inventory. In addition, California law protects Native American burials, skeletal remains, and associated grave goods regardless of their antiquity and provides for the sensitive treatment and disposition of those remains.

Section 7050.5(b) of the California Health and Safety code specifies protocol when human remains are discovered. The code states:

In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27492 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code.

CEQA Guidelines section 15064.5(e) requires that excavation activities be stopped whenever human remains are uncovered and that the county coroner be called in to assess the remains. If the county coroner determines that the remains are those of Native Americans, the NAHC must be contacted within 24 hours. At that time, the lead agency is required to consult with the appropriate Native Americans as identified by the NAHC and directs the lead agency (or applicant), under certain circumstances, to develop an agreement with the Native Americans for the treatment and disposition of the remains.

Mills Act

State law provides local jurisdictions with the opportunity to develop a Mills Program that offers owners of historic properties the potential for property valuation reductions in return for proscribed rehabilitation, preservation work on their properties. The City of Sacramento is currently pursuing development of a Mills Act Program.

■ Local

Sacramento City Code

Sacramento City Code Chapter 17.134, Historic Preservation, establishes the city's program, procedures, criteria, and standards for identifying, protecting, and assisting in the preservation of historic and cultural resources.

Historic Preservation Ordinance

The City of Sacramento's historic preservation program began in 1975 with the enactment of the City's first Historic Preservation Ordinance. The current Historic Preservation Ordinance (No. 2006-063) was enacted in October 2006. The purpose of the Historic Preservation Ordinance is to identify, protect, and encourage the preservation of significant resources; maintain an inventory and ensure the preservation of these resources; encourage maintenance and rehabilitation of the resources; encourage retention, preservation, and re-use of the resources;

safeguard city resources; provide consistency with state and federal regulations; protect and enhance the city's attraction to tourists; foster civic pride in the city's resources; and encourage new development to be aesthetically compatible.

Article VIII of the Historic Preservation Ordinance

The proposed project is subject to the following requirements under Article VIII of the Historic Preservation Ordinance.

17.134.430 Proposed demolition or relocation of buildings or structures that are at least fifty years old: review for nomination for placement on Sacramento register.

- A. If a permit is sought to demolish or relocate a building or structure that was constructed at least fifty (50) years prior to the date of application for demolition or relocation, and that building or structure is not currently on the official register, is not the subject of a pending nomination, has not been nominated for placement on the official register or reviewed pursuant to this section within the past three years, the permit application shall be referred to the preservation director to allow the director to make a preliminary determination whether the structure should be nominated for placement on the official register. For purposes of this Section, a building or structure for which a building permit issued and construction commenced not less than fifty (50) years prior to the date of application for a demolition or relocation permit shall be considered to have been constructed not less than fifty (50) years ago, regardless of when the construction was completed, and regardless of whether the building or structure was thereafter expanded, modified or otherwise altered. Absent sufficient evidence to the contrary, the date of issuance of the building permit shall be considered to be the date on which construction commenced.

1. Exceptions:

- a. Buildings and Structures within the Richards Boulevard Special Planning District. The requirements of this section shall apply only to applications to demolish or relocate buildings or structures within the Richards Boulevard special planning district which are identified in the "Richards Boulevard area architectural and historical property survey" (hereinafter "survey"), as either potential essential structures, priority structures, or contributing structures within the potential North 16th Street preservation area. Applications to demolish or relocate buildings or structures which are not so identified in the survey shall not be subject to the requirements of this section.

Preservation Commission

The Historic Preservation Ordinance establishes a Preservation Commission. The Preservation Commission's primary responsibility is to develop and recommend to the City Council preservation policies appropriate for inclusion in the General Plan and other regulatory plans and programs of the City and to provide oversight relative to the maintenance and integrity of the Sacramento Register of Historical and Cultural Resources. The Preservation Commission reviews, nominates, and makes recommendations to the City Council on properties eligible for listing in the Sacramento Register as landmarks, historic districts, and contributing resources as set forth in City Code Chapter 17.134, Historic Preservation. In addition, the Preservation

Commission has project review authority to make recommendations to the Planning Commission on specific development projects.

City of Sacramento 1988 General Plan

The City's 1988 General Plan contains policies and implementation measures relevant to cultural resources. Specifically, the 1988 General Plan includes policies that identify, protect, and enhance cultural resources that are unique to the area. Upon approval of the proposed 2030 General Plan, all policies and implementation measures in the 1988 General Plan would be superseded. Therefore, they are not included in this analysis.

City of Sacramento Historic Resources

All properties that are listed on the NRHP or CRHR are included in the City of Sacramento Historic Resources document (February 2007) which can be obtained from the City's Development Services Department. Included in the City of Sacramento Historic Resources document are the current listings in the Sacramento Register, the National Register of Historic Places, the California Register of Historical Resources, and the State of California's Historic Properties Directory for Sacramento.

Sacramento Register

The City Code provides for the compilation of Landmarks, Contributing Resources, and Historic Districts into the Sacramento Register of Historic and Cultural Resources (Sacramento Register). The Sacramento Register includes all City-designated Landmarks, Historic Districts, and Contributing Resources in Historic Districts. The Sacramento Register also includes listings or maps of the properties within the City's Special Planning Districts that have been afforded preservation protection by ordinance. For example, the current Richards Boulevard Special Planning District (soon to be amended as the River District SPD) provides for demolition review of properties identified as potentially eligible in a City Council adopted Historic Resources Survey. A new Sacramento Railyards SPD was adopted by the City Council in December 2007 as part of multiple actions involving the Railyards, including designating the Southern Pacific Railroad (SPRR) Central Shops complex as an official City-designated historic district. The recently adopted R Street SPD affords historic properties certain zoning protections not otherwise afforded historic properties.

There are five factors to be considered in determining whether to place a nominated resource on the Sacramento Register as a landmark. These factors, as stated in the Historic Preservation code (17.134.170 A.2), are:

- a) A structure removed from its original location is eligible if it is significant primarily for its architectural value or it is the most important surviving structure associated with a historic person or event.

- b) A birthplace or grave is eligible if it is that of a historical figure of outstanding importance and there is no other appropriate site or structure directly associated with his or her productive life.
- c) A reconstructed building is eligible if the reconstruction is historically accurate, if the structure is presented in a dignified manner as part of a restoration master plan; and if no other original structure survives that has the same association.
- d) Properties that are primarily commemorative in intent are eligible if design, age, tradition or symbolic value invests such properties with their own historical significance.
- e) Properties achieving significance within the past fifty (50) years are eligible if such properties are of exceptional importance.

Resources that can be listed in Sacramento's Register include buildings, structures, sites, areas, places, features, characteristics, appurtenances, landscapes, landscape plans, or improvements. The City has established the following criteria in order to determine whether or not a building is historic:

- (1) It is associated with events that have made a significant contribution to the broad patterns of Sacramento's, the region's, the State's, or the nation's history.
- (2) It is associated with the lives of persons significant in Sacramento's, the region's, the State's, or the nation's history.
- (3) It embodies the distinctive characteristics of a type, period, or method of construction.
- (4) It represents the work of a master.
- (5) It possesses high artistic values.
- (6) It represents a significant and distinguishable entity whose components may lack individual distinction.
- (7) It has yielded, or may be likely to yield, information important in Sacramento's, the region's, the state's, or the nation's prehistory or history.

Approximately 864 sites have been designated as historic sites according to the Sacramento Register. The City is in the process of compiling a complete survey of the area's historic resources which will lead to further recommendations regarding preservation. The listing of historic sites was last updated March 2008, when the Oak Park Historic District was added. The following properties are recognized:

- Adopted Landmarks
- Adopted Historic Districts (See Appendix E)
- Special Planning Districts, Survey Areas, and Individual Resource
- Sacramento Register Nominations Pending

IMPACTS AND MITIGATION MEASURES

Methods of Analysis

Prehistoric and historic archaeological resource Information for this section is based on research performed by Peak & Associates. Peak & Associates staff conducted research at the North Central Information Center (NCIC) of the California Historical Resources Information System to collect information on locations of recorded prehistoric sites in the Policy Area. Staff also consulted a set of base maps copied in the mid-1970s from original maps held by the early archaeologists from UC Berkeley who worked to locate sites in the Sacramento area in the 1930s. The analysis is also informed by the provisions and requirements of federal, state, and local laws and regulations that apply to cultural resources.

Sites recorded in the region include village sites, smaller occupation or special use sites, and lithic scatters. Native American use of the project area focused higher spots along the rivers, creeks and sloughs that provided water and sources of food. Recent findings in the city, such as at the City Hall site and elsewhere have helped further our understanding of the settlement pattern for the earliest inhabitants of the area, as well as detail regarding the dates of occupancy and use and additional understanding of the prehistoric life.

Information on above surface historic resources for this section is based on data obtained from the City of Sacramento's Sacramento Register, the City of Sacramento Preservation Element, the Secretary of the Interior's Standards for the Treatment of Historic Properties, California State Historical Building Code, the NCIC records search, the City of Sacramento's Preservation staff, and previous environmental documentation prepared for the City.

Proposed General Plan Policies

The following goals and policies from the proposed 2030 General Plan are relevant to cultural resources within the entire Policy Area. The proposed General Plan does not include any policies regarding cultural resources that are unique to any of the Focused Opportunity Areas. Applicable policies from the South Area Community Plan are listed below.

HISTORIC AND CULTURAL RESOURCES (HCR)

Goal HCR 1.1 Comprehensive City Preservation Program. Maintain a comprehensive, citywide preservation program to identify, protect and assist in the preservation of Sacramento's historic and cultural resources.

Policies

HCR 1.1.1 Certified Local Government. The City shall maintain its status as a Certified Local Government (CLG) and use CLG practices as the key components of the City's preservation program.

HCR 1.1.2 **Preservation Office, Commission, and Program.** The City shall maintain a Preservation Office, Commission, and program to administer the City's preservation functions and programs.

Goal HCR 2.1 Identification and Preservation of Historic and Cultural Resources. Identify and preserve the city's historic and cultural resources to enrich our sense of place and our understanding of the city's prehistory and history.

Policies

HCR 2.1.1 **Identification.** The City shall identify historic and cultural resources including individual properties, districts, and sites (e.g., archaeological sites) to provide adequate protection of these resources.

HCR 2.1.2 **Applicable Laws and Regulations.** The City shall ensure that City, State, and Federal historic preservation laws, regulations, and codes are implemented, including the California Historical Building Code and State laws related to archaeological resources, to ensure the adequate protection of these resources.

HCR 2.1.3 **Consultation.** The City shall consult with the appropriate organizations and individuals (e.g., Information Centers of the California Historical Resources Information System (CHRIS), the Native American Heritage Commission (NAHC), and Native American groups and individuals) to minimize potential impacts to historic and cultural resources.

HCR 2.1.4 **Incentives and Enforcement.** The City shall develop and support regulatory (e.g., appropriate development and zoning standards), technical, and financial incentives (e.g., City, State, and federal, and private grants, loans, easements, and tax credits) and enforcement programs to promote the maintenance, rehabilitation, preservation and interpretation of the city's historic and cultural resources.

HCR 2.1.5 **National, California, and Sacramento Registers.** The City shall pursue eligibility and listing for qualified resources including historic districts and individual resources under the appropriate register(s).

HCR 2.1.6 **Planning.** The City shall take historical and cultural resources into consideration in the development of planning studies and documents.

HCR 2.1.7 **Historic Resource Property Maintenance.** The City shall actively pursue maintenance and upkeep of historic resources to avoid the need for major rehabilitation and to reduce the risks of demolition, loss through fire or neglect, or impacts from natural disasters.

HCR 2.1.8 **Historic Preservation Enforcement.** The City shall ensure that City enforcement procedures and activities comply with local, State, and Federal historic and cultural preservation requirements.

HCR 2.1.9 **City-Owned Resources.** The City shall maintain all City-owned historic and cultural resources in a manner that is consistent with the U.S. Secretary of the Interior's Standards for the Treatment of Historic Properties.

HCR 2.1.10 **Early Consultation.** The City shall minimize potential impacts to historic and cultural resources by consulting with property owners, land developers, and the building industry early in the development review process.

HCR 2.1.11 **Compatibility with Historic Context.** The City shall review proposed new development, alterations, and rehabilitation/remodels for compatibility with the surrounding historic context. The City shall pay special attention to the scale,

massing, and relationship of proposed new development to surrounding historic resources.

- HCR 2.1.12 **Contextual Elements.** The City shall promote the preservation, rehabilitation, restoration, and/or reconstruction, as appropriate, of contextual elements (e.g., structures, landscapes, street lamps, signs) related to the historic resource.
- HCR 2.1.13 **Adaptive Reuse.** The City shall encourage the adaptive reuse of historic resources when the original use of the resource is no longer feasible.
- HCR 2.1.14 **Demolition.** The City shall consider demolition of historic resources as a last resort, to be permitted only if the rehabilitation of the resource is not feasible, demolition is necessary to protect the health, safety, and welfare of its residents, or the public benefits outweigh the loss of the historic resource.
- HCR 2.2.15 **Archeological Resources.** The City shall develop or ensure compliance with protocols that protect or mitigate impacts to archaeological, historic, and cultural resources including prehistoric resources.
- HCR 2.1.16 **Preservation Project Review.** The City shall review and evaluate proposed preservation projects and development projects involving Landmark parcels and parcels within Historic Districts based on adopted criteria and standards.

Goal HCR 3.1 Public Awareness and Appreciation. Foster public awareness and appreciation of Sacramento's historic and cultural resources.

Policies

- HCR 3.1.1 **Heritage Tourism.** The City shall work with agencies, organizations, property owners and business interests to develop and promote Heritage Tourism opportunities, in part as an economic development tool.
- HCR 3.1.2 **Coordination with Other Entities.** The City shall coordinate with and support public (e.g., SHRA), quasi-public, and private entities in their preservation programs and efforts.
- HCR 3.1.3 **Public/Private Partnerships.** The City shall explore public/private partnerships in its preservation program efforts, including partnerships with business and education interests, and expansion of shared missions with Sacramento Heritage, Inc.
- HCR 3.1.4 **Education.** The City shall act as a conduit and provide information to the public on Sacramento's historic and cultural resources and preservation programs through the region's cultural resources survey repository at the North Central Information Center, educational institutions, and the City's website in order to promote the appreciation, maintenance, rehabilitation and preservation of Sacramento's historic and cultural resources.

LAND USE (LU)

Policies

- LU 1.1.4 **Leading Infill Growth.** The City shall facilitate infill development through active leadership and the strategic provision of infrastructure and services and supporting land uses.
- LU 1.1.5 **Infill Development.** The City shall promote and provide incentives (e.g., focused infill planning, zoning/rezoning, revised regulations, provision of infrastructure) for infill development, redevelopment, mining reuse, and growth in existing urbanized areas to

enhance community character, optimize City investments in infrastructure and community facilities, support increased transit use, promote pedestrian- and bicycle-friendly neighborhoods, increase housing diversity, ensure integrity of historic districts, and enhance retail viability.

- LU 1.1.6 **Infill below Minimum Standards.** The City shall allow renovations and expansions of existing development that fall below the allowed minimum density and floor area ratio (FAR) provided that the existing structure is not demolished.
- LU 2.4.2 **Responsiveness to Context.** The City shall require building design that respects and responds to the local context, including use of local materials where feasible, responsiveness to Sacramento's climate, and consideration of cultural and historic context of Sacramento's neighborhoods and centers.

Proposed South Sacramento Community Plan Policies

The following policies from the South Area Community Plan apply to the proposed project:

SA.HCR 1.1 **Town of Freeport Historic Preservation.** The City shall preserve and protect the "delta river town" identity and unique historical characteristics of the town of Freeport to minimize adverse impacts of adjacent development on the Town.

SA.HCR 1.2 **Victory Trees Preservation.** The City shall preserve and protect the historically significant Victory trees on Freeport Boulevard.

Thresholds of Significance

For the purposes of this EIR, impacts on cultural resources are considered significant if the proposed General Plan would:

- cause a substantial change in the significance of historical or archaeological resource as defined in CEQA Guidelines section 15064.5.

Impacts and Mitigation Measures

A summary of all Cultural Resources impacts and their levels of significance is located at the end of this technical section.

Impact 6.4-1	Implementation of the 2030 General Plan could cause a substantial change in the significance of a historical resource as defined in CEQA Guidelines section 15064.5.	
Applicable Regulations	<i>National Historic Preservation Act, U.S. Department of Transportation Act of 1966, California Historical Building Code, Public Resources Code Section 21084.1, Sacramento City Code Title 17.134, Historic Preservation Ordinance (No. 2006-063).</i>	
Significance Before Mitigation	<i>Potentially Significant</i>	
Mitigation Included in the SGP	<i>Policies HCR.1.1.1, 1.1.2, 2.1.1 – 2.1.14, 2.1.16, 3.1.1 – 3.1.5, and LU 1.1.5 and 2.4.2.</i>	
Significance after Mitigation Included in the SGP	<i>Potentially Significant</i>	
Additional Mitigation	None available	
Residual Significance	Significant and Unavoidable	

The city of Sacramento is the site of a variety of historic resources, including federal, state, and locally recognized resources. Known historic resources are located primarily in the Central City (see Figure 6.4-2) because this is where the development of the city began in the mid-1800s and this is where the most intensive surveys have been focused. These resources meet the definition of historic resource under section 15064.5(a) of the CEQA Guidelines. The February 2007 publication of historic resources with the Sacramento Register notes that there are 302 resources listed on the National Register of Historic Places, including National Historic Landmarks and State Historic Landmarks. In addition to the City-designated Landmarks and Historic Districts, the City's publication on historic and cultural resources within the city references areas with surveys in progress. Many historic areas of the city have had no survey work, except on a project-by-project basis. As a result only a fraction of the resources in the Policy Area are known.

Many other unstudied areas contain historic resources such as: the Land Park and Curtis Park neighborhoods developed primarily in the 1920s-30s which include excellent, modest examples of that period of architecture; and the neighborhood in East Sacramento known as the "Fabulous 40s," which includes many examples of some of the finest homes of that era on a palatial scale. The Oak Park neighborhood southeast of downtown, which was the city's first suburb and developed along the streetcar line around 1900, had an historic architectural resources survey completed and, in 2007, the first of six potentially eligible historic districts identified in that survey – the Oak Park Historic District – was officially designated and added to the Sacramento Register by the City Council in March 2008.

The growth projected to occur within the Policy Area would occur both through infill development and build out of currently undeveloped areas. Increased maximum density allowances in the urban area could lead to the demolition of historic or potentially historic buildings and structures and/or damage to subsurface historic-period resources. Additionally, infrastructure or other public works improvements could result in damage to or demolition of other prehistoric resources or historic resources.

As detailed in the Regulatory Context there are a number of federal, state, and local regulations in place to protect historical resources in the city. The City's Historic Preservation Ordinance (No. 2006-063) is in place to identify, protect, and encourage the preservation of significant resources; maintain an inventory and ensure the preservation of these resources; encourage maintenance and rehabilitation of the resources; encourage retention, preservation, and re-use of the resources; safeguard city resources; provide consistency with state and federal regulations; protect and enhance the city's attraction to tourists; foster civic pride in the city's resources; and encourage new development to be aesthetically compatible.

The policies proposed in the Historic and Cultural Resources element of the 2030 General Plan include a variety of regulations and incentives aimed at preserving both publicly and privately owned historic and cultural resources. Proposed General Plan policies would protect historic resources by requiring the maintenance of the City's preservation program, identifying resources and updating the City's Inventory, enforcing applicable laws and regulations, encouraging preservation through technical and financial assistance, and increasing public awareness. For example Goal HCR 1.1 and the associated policies speak to the City's responsibilities with regards to staff and programs within the city. Goal HCR 2.1 and the associated policies provide the means for preservation including policies that discuss such things as applicable laws and regulations, consultation, incentives, and maintenance and treatment of resources. The Implementation Programs of any General Plan are the means by which the policies are executed. Implementation Programs for the Sacramento 2030 General Plan would include such things as develop a process and schedule for updating and completing historic surveys, updating the existing historic context statement, and directing the City to maintain existing programs and establish criteria for research and evaluation.

With the policy framework discussed above, the probability of demolition of historic buildings and structures would be greatly reduced. Specifically, Policy HCR 2.1.14 directly reduces the probability of demolition. This policy requires that the City shall consider demolition of historic resources as a last resort to be permitted only if the rehabilitation of the resource is not feasible and demolition is necessary to protect the health, safety, and welfare of its residents, or the benefits outweigh the loss of the historic resource. Compliance with this policy would ensure that historic buildings be preserved, if feasible. However, the policies would not ultimately prevent the demolition of a historic building or structure. Additionally, some structures that are not currently considered for historical value (as they must generally be at least 50 years or older) could become eligible as historic resources during the life of the 2030 General Plan. As stated previously, the proposed 2030 General Plan contains policies that would work to identify and protect historic resources along with other federal and state regulations, which would result in the preservation of historically significant buildings. However, because the 2030 General Plan does not propose policies that would prevent the demolition of any historic building that could eventually be eligible (when it meets the 50-year mark) for state or federal listing, this impact is considered *potentially significant*.

Mitigation Measure

In some instances due to public health or safety reasons it may be infeasible to protect a historic structure and it may be demolished. As discussed above, Policy HCR 2.1.14 indicates that the City would consider building demolition as a last resort and to be permitted only if rehabilitation is not feasible. It would be up to the discretion of the City to make this determination. However, assuming compliance with this policy the City could still approve the demolition of a historic structure. There are no feasible or practical mitigation measures available to ensure that the City does not approve the demolition of a historic building or structure this impact is **significant and unavoidable**.

None available.

Impact 6.4-2	Implementation of the 2030 General Plan could cause a substantial change in the significance of an archaeological resource as defined in CEQA Guidelines section 15064.5.	
Applicable Regulations	<i>National Historic Preservation Act, U.S. Department of Transportation Act of 1966, California Historical Building Code, Public Resources Code Section 21084.1, Sacramento City Code Title 17.134, Historic Preservation Ordinance (No. 2006-063).</i>	
Significance Before Mitigation	<i>Potentially Significant</i>	
Mitigation Included in the SGP	<i>Policies HCR.1.1.1, 1.1.2, 2.1.1 – 2.1.5, 2.1.10, 2.1.15, 3.1.1 – 3.1.4.</i>	
Significance after Mitigation Included in the SGP	<i>Potentially Significant</i>	
Additional Mitigation	None available	
Residual Significance	Significant and Unavoidable	

The city of Sacramento and the surrounding area have had a long cultural history and are known to have been occupied by Native American groups for thousands of years prior to settlement by non-Native peoples. Archaeological materials, including human burials, have been found throughout the city. Human burials outside of formal cemeteries often occur in prehistoric contexts. Areas of high sensitivity for archaeological resources, as identified in the TBR, are located within close proximity to the Sacramento and American rivers and other watercourses. The proposed land use diagram designates a wide swath of land along the American River as Parks, which limits development and, therefore, impacts on sensitive prehistoric resources. However, recent discoveries during infill construction in downtown Sacramento have shown that the entire downtown area is highly sensitive for both historic- and prehistoric-period archaeological resources. Native American burials and artifacts were found at the New City Hall site and historic period archaeological resources are abundant downtown due to the raising of the surface street level in the late 1800s, which created basements out of the first floors of many buildings.

The growth projected to occur within the Policy Area would occur both through infill development and build out of currently undeveloped areas. Increased maximum density allowances in the urban area could result in development that damages prehistoric- and historic-period archaeological resources located at or near ground surface. Additionally, infrastructure or other public works improvements which require ground-disturbance could result in damage to or destruction of archaeological resources buried below ground surface. Archaeological sites have the potential to contain intact deposits of artifacts, associated features, and dietary remains that could contribute to the regional prehistoric or historic record. Of particular concern are archaeological sites that date prior to 3,000 B.C., however, very few sites of this age have been discovered in the region.

Historical resources, as defined in section 15064.5(a)(3)(D) of the CEQA Guidelines include resources which “[h]as yielded, or may be likely to yield, information important in history or prehistory.” In addition to the status of archaeological resources as historical resources, an archaeological site may also be a “unique archaeological resource,” as defined in section 21083.2(g)(1)-(3) of the Public Resources Code (PRC). Further, archaeological resources are often of cultural or religious importance to Native American groups, particularly if the resource includes human and/or animal burials. Human burials, in addition to being potential archaeological resources, have specific provisions for treatment in section 5097 of the California PRC. Disturbing human remains would destroy the resources and could potentially violate the health code. The California Health and Safety Code (sections 7050.5, 7051, and 7054) has specific provisions for the protection of human burial remains. Existing regulations address the illegality of interfering with human burial remains, protect them from disturbance, vandalism, or destruction, and establish procedures to be implemented if Native American skeletal remains are discovered. PRC section 5097.98 also addresses the disposition of Native American burials, protects such remains, and establishes the Native American Heritage Commission to resolve any related disputes.

Policies HCR 2.1.2 and HCR 2.1.15 in the proposed 2030 General Plan are in place to protect archaeological resources by requiring surveys, research and testing prior to excavation in high-sensitivity areas and the proper handling of discovered resources and enforcement of applicable laws and regulations.

Ground-disturbing activities could affect the integrity of an archaeological site, thereby causing a substantial change in the significance of the resource. Implementation of the proposed 2030 General Plan contains policies that would work to identify and protect archaeological resources along with other federal and state regulations, which could result in the preservation of historic and prehistoric archaeological resources. Even though in discretionary projects all efforts will be made to identify and mitigate impacts to potential archaeological resources prior to ground disturbance, many projects undertaken under the 2030 General Plan will be as-of-right, and in those projects no review relative to archaeological resources is required by the City prior to issuance of demolition or excavation permits. Because there is no way to know if significant

archaeological resources occur below ground surface, any disturbance could result in an impact. Therefore, the impact would be considered *potentially significant*.

Mitigation Measure

No feasible mitigation measures beyond what the proposed 2030 General Plan policies require are available to ensure that no archaeological resources are damaged or destroyed. Therefore the impact would remain ***significant and unavoidable***.

None available.

Cumulative Impacts and Mitigation Measures

The geographic context for the analysis of cumulative impacts on historic resources is future development in the County of Sacramento, which includes all cumulative growth within the city as well as the unincorporated areas in the county. Archaeological resources are generally understood based on a much wider geographical context. Therefore the cumulative context for archaeological resources would be the known territory of the local Native American population, which includes portions of seven counties. This cumulative impact analysis considers implementation of the proposed 2030 General Plan.

Impact 6.4-3	Implementation of the 2030 General Plan, in conjunction with other development within the county, could cause a substantial change in the significance of a historical resource as defined in CEQA Guidelines section 15064.5.	
Applicable Regulations	<i>National Historic Preservation Act, U.S. Department of Transportation Act of 1966, California Historical Building Code, Public Resources Code Section 21084.1, Sacramento City Code Title 17.134, Historic Preservation Ordinance (No. 2006-063).</i>	
Significance Before Mitigation	<i>Potentially Significant</i>	
Mitigation Included in the SGP	<i>Policies HCR 1.1.1, 1.1.2, 2.1.1 – 2.1.14, 2.1.16, 3.1.1 – 3.1.5, and LU 1.1.5 and 2.4.2.</i>	
Significance after Mitigation Included in the SGP	<i>Potentially Significant</i>	
Additional Mitigation	None available	
Residual Significance	Significant and Unavoidable	

The unincorporated areas of Sacramento County are much more sparsely populated and less developed than areas within the city boundary. The types of resources that are found within the Policy Area differ from those in the more rural, unincorporated county. Historic resources within the Policy Area generally include buildings ranging from large civic and commercial or industrial buildings, such as the State Capitol and the buildings in the Union Pacific Railyards, to residential buildings in the city's many historic districts. Historic resources in the unincorporated County would more likely consist of ranching or agricultural complexes and buildings and

features associated with mining or river activities. Many of the resources within the city limits are linked thematically with those in the unincorporated county. For example, an old gold mine or related features can be linked to the Sutter's Fort or buildings in the Old Sacramento Historic District. Historic buildings are fairly self contained resources, unlike archaeological resources; however that does not mean that these types of resources are not linked and that a better understanding of the significance of the resource cannot be obtained from retaining more of these thematically linked resources. Potential future development in the Policy Area as well as the County as a whole could include the demolition or destruction of historic resources. This is a significant cumulative effect.

While historic buildings are more concentrated within the city limits, the majority of the city has not been surveyed for historic and cultural resources. The cumulative effect of this future development could be the continued loss of these resources. Though historic resources may be listed on the NRHP or CRHR, or otherwise listed as historic or potentially historic in the California Historical Resources Information System (CHRIS) maintained by the OHP, the listing itself does not guarantee protection. Future development in the Policy Area would be subject to the requirements of CEQA; however, even with these requirements, full mitigation of impacts on every historical resource in the city would be considered infeasible. The city's contribution to this cumulative impact would be considerable resulting in a *significant cumulative impact*.

Mitigation Measure

As discussed under Impact 6.4-1, in some instances due to public health or safety reasons it may be infeasible to protect a historic structure and it may be demolished. It would be up to the discretion of the City to make this determination. Because there are no feasible or practical mitigation measures available to ensure that the City does not approve the demolition of a historic building or structure this cumulative impact is considered ***significant and unavoidable***.

None available.

Impact 6.4-4	Implementation of the 2030 General Plan, in conjunction with other development within the Central Valley, could cause a substantial change in the significance of an archaeological resource as defined in CEQA Guidelines section 15064.5.	
Applicable Regulations	<i>National Historic Preservation Act, U.S. Department of Transportation Act of 1966, California State Historic Building Code, Public Resources Code Section 21084.1, Mills Act, Sacramento City Code Title 15.124, Historic Preservation Ordinance (No. 2006-063).</i>	
Significance Before Mitigation	<i>Potentially Significant</i>	
Mitigation Included in the SGP	<i>Policies HCR.1.1.1, 1.1.2, 2.1.1 – 2.1.5, 2.1.10, 2.1.15, 3.1.1 – 3.1.5.</i>	
Significance after Mitigation Included in the SGP	<i>Potentially Significant</i>	
Additional Mitigation	None available	
Residual Significance	Significant and Unavoidable	

Future development in the Policy Area under the 2030 General Plan as well as within the larger region could include excavation and grading that could potentially impact the archaeological resources and human remains that may be present. The cumulative effect of this future development is the continued loss of prehistoric cultural remains. Excavations in the city have uncovered evidence of Native American culture dating back to 3,000 B.C. The data derived from these studies have provided archaeologists the opportunity to reconstruct a framework of indigenous subsistence and settlement patterns from 6,000 B.C. to the time of contact with Euro-American settlers. Although other parts of California have yielded evidence of earlier occupations, the current regional archaeological records lacks sites that can be attributed to the region's earliest inhabitants. Potential future development increases the likelihood that archaeological sites that date prior to 6,000 B.C. could be uncovered. It is therefore possible that cumulative development could result in the demolition or destruction of unique archaeological resources, which could contribute to the erosion of the prehistoric record of the city. The loss of these resources would result in a cumulatively considerable impact.

Though archeological resources can sometimes be preserved when discovered during excavation, there is no guarantee that these resources can be protected and preserved. The potential loss of archaeological resources associated with the project would result in the project contributing to the loss of these irreplaceable resources. The cumulative impact of development under the proposed 2030 General Plan would, therefore, be considerable resulting in a ***significant cumulative impact***.

Mitigation Measure

No mitigation is available beyond what is included in the 2030 General Plan, resulting in a ***significant and unavoidable impact***.

None available.

South Area Community Plan

The analysis of cultural resources is primarily based on settlement patterns and previous discoveries. While the Sacramento Valley is sensitive for a wide range of resources, as described above, some areas within the Policy Area may be more or less likely to contain these resources. The South Area Community Plan (SACP) area is located in a portion of the city that has not been surveyed for historic or cultural resources, except on a project-by-project basis. Impacts to historic resources would be expected to be less severe in the SACP area because it is one of the newer areas of the city and buildings in this area are just starting to meet the age threshold. However, impacts on archaeological resources in this area could generally be predicted based on the sensitivity of the area due to proximity to water sources and/or information from other cultural surveys, as they would for the rest of the city. Specific impacts

for individual discretionary development projects would be determined by the required cultural resource surveys and investigations mandated by City policy.

Focused Opportunity Areas

Impacts on historic resources would be expected to be less severe in the Focused Opportunity Areas such as the Robla, Arden Fair/Point West, 65th Street/University Village, Florin LRT/Subregional Center, and Meadowview LRT Areas because these are newer areas of the city and buildings in this area are just starting to meet the age threshold, compared to older areas of the city such as the Central City. The River District Area is located in the downtown area primarily along the American River and would be the most sensitive of the Focused Opportunity Areas for both historic and archaeological resources. In 2001, an historical architectural survey was conducted in the River District and potentially eligible historic resources identified in that survey were afforded certain demolition review protections by the City Council. Portions of the Robla Area are shown as having a moderate sensitivity to archaeological resources according to the TBR. However, impacts on archaeological resources in the Arden Fair/Point West, 65th Street/University Village, Florin LRT/Subregional Center, and Meadowview LRT Areas are not noted as either moderately or highly sensitive for archaeological resources. The sensitivity map gives very general information and it cannot be assumed that if any area is not within a moderate or high sensitive area that the site would not contain archaeological resources. Site-specific analysis for individual development projects within each Opportunity Area would determine whether individual project sites would impact such resources and require additional mitigation beyond compliance with mandated state and local requirements.

Insufficient Information to Support a Complete Analysis of the Potential Impacts

Section 15176(c) of the CEQA Guidelines acknowledges that all the information necessary to analyze potential impacts associated with anticipated future development may not be available. It is anticipated that future development within the Focused Opportunity Areas, specifically the River District, as well as in the South Area Community Plan and future development within the Policy Area could include potential impacts on prehistoric or historic resources. At this time specific project information is not available to evaluate potential impacts on any prehistoric or historic resources associated with any potential new development project. The City has identified specific goals and policies that address concerns associated with preserving and protecting cultural resources. Once specific, discretionary development proposals are prepared and submitted to the city a project-specific environmental analysis would be prepared to analyze potential impacts on cultural resources associated with either building removal, ground disturbance or building renovation.

SUMMARY OF CULTURAL RESOURCES IMPACTS				
LEVEL OF SIGNIFICANCE				
	6.4-1 Implementation of the 2030 General Plan could cause a substantial change in the significance of historical resources as defined in CEQA Guidelines section 15064.5.	6.4-2 Implementation of the 2030 General Plan could cause a substantial change in the significance of an archaeological resource as defined in CEQA Guidelines section 15064.5.	6.4-3 Implementation of the 2030 General Plan, in conjunction with other development within the county, could cause a substantial change in the significance of a historical resource as defined in CEQA Guidelines section 15064.5	6.4-4 Implementation of the 2030 General Plan, in conjunction with other development within the Central Valley, could cause a substantial change in the significance of an archaeological resource as defined in CEQA Guidelines section 15064.5.
Community Plan Areas				
Arden-Arcade	●	●	●	●
Central City	●	●	●	●
East Broadway	●	●	●	●
East Sacramento	●	●	●	●
Land Park	●	●	●	●
North Natomas	●	●	●	●
North Sacramento	●	●	●	●
Pocket	●	●	●	●
South Area	●	●	●	●
South Natomas	●	●	●	●
Focused Opportunity Areas				
65 th Street/University Village	●	●	●	●
Arden Fair/Point West	●	●	●	●
Florin LRT/Subregional Center	●	●	●	●
Meadowview LRT	●	●	●	●
River District	●	●	●	●
Robla	●	●	●	●
○ = less than significant ● = less than significant with mitigation incorporated ● = significant and unavoidable				

6.5 Geology, Soils, and Mineral Resources



GEOLOGY, SOILS, AND MINERAL RESOURCES

INTRODUCTION

This section of the EIR evaluates the potential physical environmental effects related to seismic hazards, underlying soil characteristics, slope stability, erosion, existing mineral resources, and paleontological resources in the Policy Area of the Sacramento 2030 General Plan (proposed project).

The 2030 General Plan includes policies in the Environmental Constraints Element that protect the public from hazards by requiring enforcement of safety standards, state-of-the art site design and construction methods, and mitigation to minimize the impacts of new development.

In addition, the Environmental Resources Element includes policies that provide for the protection of mineral resource zones, require that ongoing mineral resource extraction activities are compatible with and minimize impacts on adjoining uses, and support mineral extraction activities within the city until these resources are depleted or extraction is no longer economically viable.

There were no comments received in response to the NOP that were relevant to geology, soils, mineral resources, or paleontology.

Information for the geology and soils portion of this section is based upon the City of Sacramento Emergency Plan, the Technical Background Report (TBR) prepared for the 2030 General Plan in 2005, the current General Plan for overall background information, information published by the Department of Conservation, California Geology Survey (CGS, formerly Division of Mines and Geology), and information from the Natural Resources Conservation Service (NRCS). Information for the mineral resources portion of this section is based upon data provided by the City, data maintained by Sacramento County, and publications by the CGS and the Department of Conservation's Division of Oil, Gas, and Geothermal Resources. The CGS provides information and advice on how to protect life and property from natural hazards and to promote a better understanding of California's diverse geologic environment.

The TBR prepared for the project is available electronically on the City's website (<http://www.sacgp.org/documents.html#tbr>) and on CD at the back of this document.

ENVIRONMENTAL SETTING

The discussion of geology, seismicity, soils, mineral resources, and paleontology included below is presented on a city wide basis. There are no unique issues present in any of the six Focused Opportunity Areas or the South Area Community Plan area; therefore, these areas of the city are not specifically addressed in the environmental setting.

Geology and Topography

The city of Sacramento and Policy Area are located in the Great Valley of California. The Great Valley is a flat alluvial plain approximately 50 miles wide and 400 miles long in the central portion of California. Its northern part is the Sacramento Valley drained by the Sacramento River, and its southern part is the San Joaquin Valley drained by the San Joaquin River. It is surrounded by the Sierra Nevada to the east, the Tehachapi Mountains to the south, Coastal Range to the west, and Cascade Range to the north.

The topography of the Policy Area is relatively flat. There is a gradual slope rising from elevations as low as sea level in the southwestern portion of the Policy Area up to approximately 75 feet above sea level in the northeastern portion.

■ Faults

There are no known faults within the greater Sacramento region and Policy Area. Faults located closest to the city are the Bear Mountain and New Melones faults to the east, and the Midland Fault to the west. The Bear Mountains fault is the westerly-most fault within the Foothills fault zone, which consists of numerous northwesterly trending faults along the western edge of the Sierra Nevada. The Foothills fault zone is generally bounded by the Bear Mountains and New Melones fault zones. The Sacramento region has experienced groundshaking originating from faults in the Foothills fault zone.¹ In addition, another possible fault lies northwest of Sacramento called the Dunnigan Hills fault. See Figure 6.5-1 for known fault locations. Table 6.5-1 shows faults located within 50 miles of the city that have the potential for producing earthquakes with greater than Magnitude 6.5 magnitude.

Fault Name	Maximum Magnitude	Distance from City (approximate miles)
Foothills Fault System	6.5	23
Great Valley Fault (segment 3)	6.5	26
Great Valley Fault (segment 4)	6.8	27
Concord-Green Valley Fault	6.9	38
Hunting Creek-Berryessa Fault	6.9	38
Greenville Fault	6.9	48
West Napa Fault	6.5	48

Note:
All faults listed within this table are estimated to be capable of producing 6.5 Mw earthquakes.
Source: Peterson, M.D. et al, Probabilistic Seismic Hazard Assessment for the State of California, 1996 via City of Sacramento, General Plan Technical Background Report Chapter 7, Public Health and Safety, June 2005, page 7.1-2, Table 7.1-1.

1 City of Sacramento, *General Plan Technical Background Report*, Chapter 7, Public Health and Safety, June 2005, pp. 7.1-1 through 7.1-2.

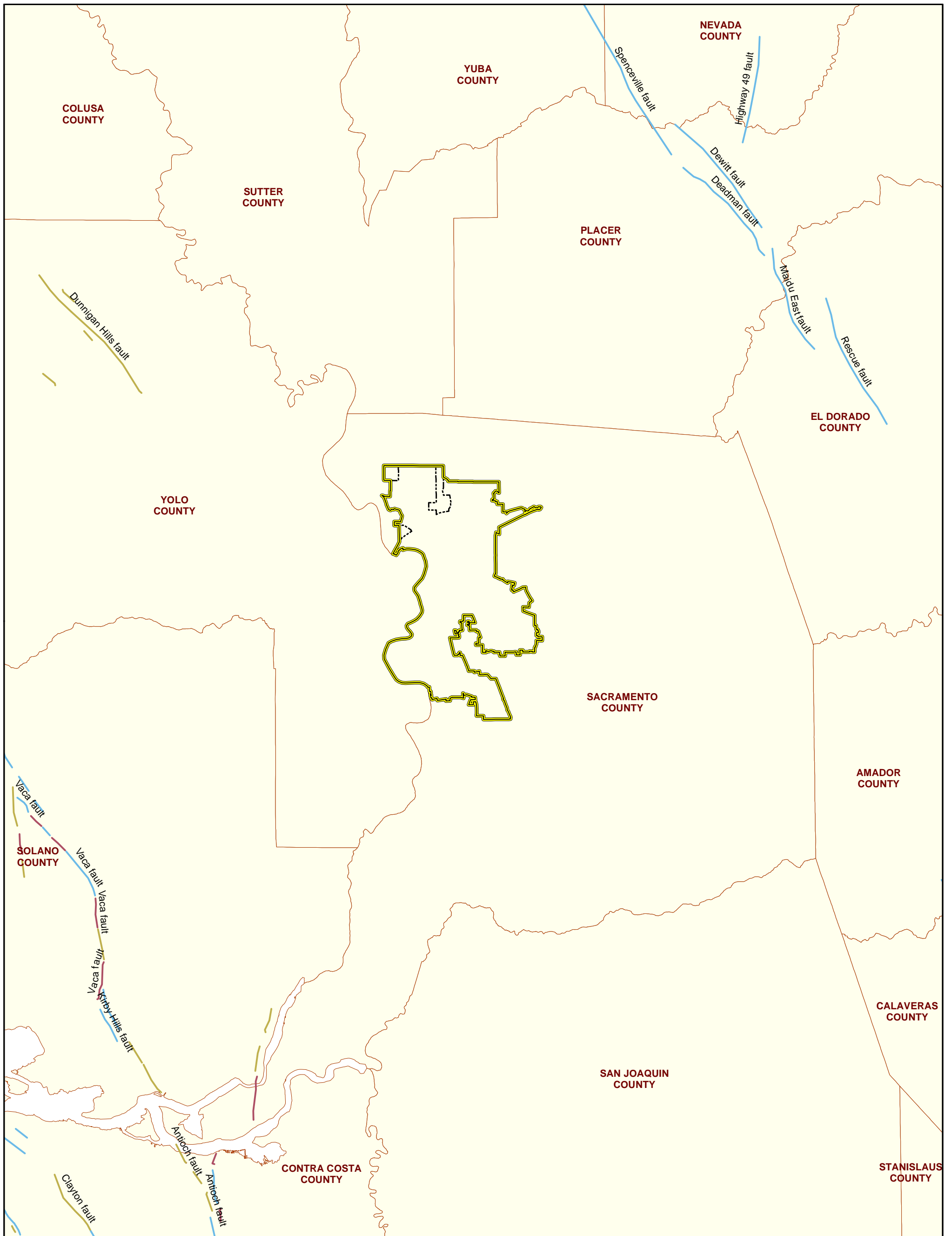


Figure 6.5-1
Fault Locations



Legend

- | | |
|-----------------------|-----------------|
| Faults | |
| Well Located | City Limit |
| Approximately Located | County Boundary |
| Concealed | Policy Area |

Other faults located further than 50 miles from the city that are considered to be “active” as defined by the Alquist-Priolo Earthquake Fault Zoning Act include the Green Valley, Concord, and Hayward faults. All have experienced seismic activity within the last 11,000 years and are considered capable of producing significant earthquake events. The Hayward fault, along with the San Andreas and Calaveras faults, are considered to pose the greatest earthquake threat to the city and Policy Area. Significant earthquakes affecting the Sacramento area have also occurred on previously unknown faults in the region. A Richter magnitude 6.2-6.4 earthquake in 1892 (Vacaville-Winters earthquake) on the west side of the Sacramento Valley has been attributed to a previously unknown complex fault zone where rocks of the Coast Ranges are being compressed against rocks that underlie the Great Valley (Sierran block). Although more severe damage occurred near the epicenter, some damage occurred in Sacramento. This fault system was the probable source of an earthquake in 1983 that caused substantial damage in the Coalinga area several hundred miles south of Sacramento.

■ Seismicity

Generally defined, an earthquake is an abrupt release of accumulated energy in the form of seismic waves created when movement occurs along a fault plane. The severity of an earthquake generally is expressed in two ways—magnitude and intensity. Magnitude quantitatively measures the strength of an earthquake and the amount of energy released by it. Magnitude is measured on several different scales. Although the most commonly known scale measures Richter Magnitude, the most commonly used scale measures Moment Magnitude, which is related to the physical size of fault rupture and the movement or displacement across the fault, and as such is more uniform measure of the strength of an earthquake. For more information on the different magnitude scales, please refer to Chapter 7 of the TBR, Public Safety.

Unlike magnitude, intensity qualitatively measures the effects a given earthquake has on people, structures, loose objects, and the ground at a specific location. Earthquake intensity in a given locality is typically measured using the Modified Mercalli Intensity (MMI) scale with values of this scale ranging from I to XII. Table 6.5-2 (Modified Mercalli Intensity Scale) identifies the level of intensity according to the MMI scale and describes that intensity with respect to how it would be received or sensed by its receptors. While an earthquake has only one magnitude, it can have many intensities which typically decrease with distance from the epicenter.

According to the *Probabilistic Seismic Hazard Assessment Maps (2002)* prepared by the CGS, Sacramento is in an area of relatively low severity, characterized by peak ground accelerations between 10 and 20 percent of the acceleration of gravity. This is primarily due the lack of known major faults and low historical seismicity in the region. The maximum earthquake

Modified Mercalli Intensity	Description
I	Detected by only sensitive instruments
II	Felt by a few people at rest
III	Felt noticeably indoors, but not always recognized as a quake; vibration like a passing truck
IV	Felt indoors by many and outdoors by few
V	Felt by most people. Some breakage of windows, dishes, and plaster
VI	Felt by all; falling plaster and chimneys; damage small
VII	Damage to buildings varies; depends on quality of construction
VIII	Walls, monuments, chimneys fall; panel walls thrown out of frames
IX	Buildings shift off foundations; foundations crack; ground cracks; underground pipes break
X	Most masonry and frame structures destroyed; ground cracks; landslides
XI	Ground fissures; pipes break; landslides; rails bent; new structures remain standing
XII	Damage total; waves seen on ground surface; objects thrown into the air

Source: Atomic Energy Commission, *Nuclear Reactors and Earthquakes*, TID7024.

intensity expected from this amount of groundshaking would be between VII and VIII on the MMI, see Table 6.5-2.²

■ Seismic Hazards

Although all of California is typically regarded as seismically active, the Central Valley region does not commonly experience strong groundshaking resulting from earthquakes along known and previously unknown active faults. There are, however, isolated areas within the city that have soils and other conditions which could result in structural damage induced by seismic activity. Seismic hazards that may affect portions of the Policy Area during or in the aftermath of a major seismic event may include minor groundshaking and liquefaction. Flooding resulting from seismic-induced dam failure may also be a concern in the Sacramento area; the risk of dam failure is evaluated in section 6.7, Hydrology and Water Quality. Please refer to Chapter 7 of the TBR for a detailed description of seismic hazards.

Some common seismic hazards such as fault rupture, tsunamis and seiches, and seismic-induced landslides are not considered to be major threats to any areas within the Policy Area, due to its location far from known faults and large bodies of water, and the region's flat topography. The Sacramento area is not near any areas of volcanic activity, so there are no mudflow hazards.

Although groundshaking may occur within the Policy Area, the CGS probabilistic seismic hazards map shows that the seismic ground-shaking hazard for the city and county of Sacramento is relatively low, ranking among the lowest in the state. Due to the low probability

² A 12-point scale of earthquake intensity based on local effects experienced by people, structures, and earth materials. Each succeeding step on the scale describes a progressively greater amount of damage at a given point of observation. Effects range from those that are detectable only by seismicity recording instruments (I) to total destruction (XII). See Table 6.4-2 for a description of the intensity levels.

of groundshaking affecting the policy area, the possibility of seismic-induced ground failure is remote.

Liquefaction occurs where surface soils, generally alluvial soils, become saturated with water and become mobile during groundshaking caused by a seismic event. When these soils move, the foundations of structures move as well which can cause structural damage. Liquefaction generally occurs below the water table, but can move upward through soils after it has developed. Soils subject to liquefaction are found within the Policy Area, primarily within the Central City, Pocket, and North and South Natomas Community Plan areas.³ Geotechnical studies prepared as part of a development project approval process are necessary to identify site-specific conditions.

The most susceptible structures to these types of hazards are unreinforced masonry buildings or buildings constructed on unreinforced brick foundations. As stated in section 7.1 of the TBR, these are likely to be the only structures damaged during a seismic event due to the low probability of groundshaking in the Policy Area. The proposed General Plan includes a new policy to begin a city wide program to update and retrofit existing structures that do not currently meet building code standards. The City has identified critical facilities such as hospitals, schools, police stations, fire stations, and other important public facilities as structures with the greatest need for these types of updates in order to prevent structural damage during any future seismic event.

Soils

The Natural Resources Conservation Service (NRCS, formerly the Soil Conservation Service) has mapped over 30 individual soil units in the city (see Figure 6.5-2). The mapped units represent soils in their native, undisturbed state and reflect conditions in 1993, when the soil survey was published. Since then, some areas may have been developed and could contain artificial fill materials.

The predominant soil units in the Policy Area are the San Joaquin, Clear Lake, Galt, Cosumnes, and Sailboat soils, which account for over 60 percent of the total land area. The remaining soil units each account for only a few percent or less of the total. The San Joaquin soils are generally present in the eastern and southeastern part of the city. The Clear Lake and Cosumnes soils occur in the northern part of the city. Galt soils are in the southwestern part of the city, in an area generally bounded by Interstate 5 (I-5) and State Route 99. The Sailboat soils occur along the American and Sacramento rivers. Soil descriptions of each of the major soil units found within the Policy Area are provided in Chapter 7 of the TBR.

Portions of the Policy Area may be susceptible to some soil hazards, such as erosion, shrink/swell potential (expansive soils), and subsidence. Erosion refers to the removal of soil

3 City of Sacramento, *General Plan, Health and Safety Element*, 1988, p. 8-7, Map 3.

from exposed bedrock surfaces by water or wind. Although erosion occurs naturally, it is often accelerated by human activities that disturb soil and vegetation. Erosion potential is generally identified on a case-by-case basis, depending on factors such as climate, soil cover, slope conditions, and inherent soil properties.

Shrink/swell potential refers to soils that expand when wet and shrink when dry. This hazard occurs primarily in soils with high clay content and can cause structural damage to foundations and roads that do not have proper structural engineering and are generally less suitable or desirable for development than non-expansive soils. Many of the soil units present within the Policy Area, exhibit high shrink-swell potential. Areas within the Policy Area which may be particularly susceptible to high shrink/swell potential include the Natomas and Valley Hi areas. As with seismic hazards, site-specific geotechnical studies are necessary to identify where such hazards could occur.

Subsidence is the sinking of land, usually occurring over broad areas, which can be either natural or induced by human activities such as the over-withdrawal of groundwater, oil, and natural gas and by peat oxidation. This hazard can produce cracks in pavements and buildings, and may dislocate wells, pipelines, and water drains. Sacramento has experienced land subsidence in the past, with one notable example of construction of I-5 in downtown Sacramento where the withdrawal of water from the alluvial soils caused the area adjacent to the freeway to subside.⁴

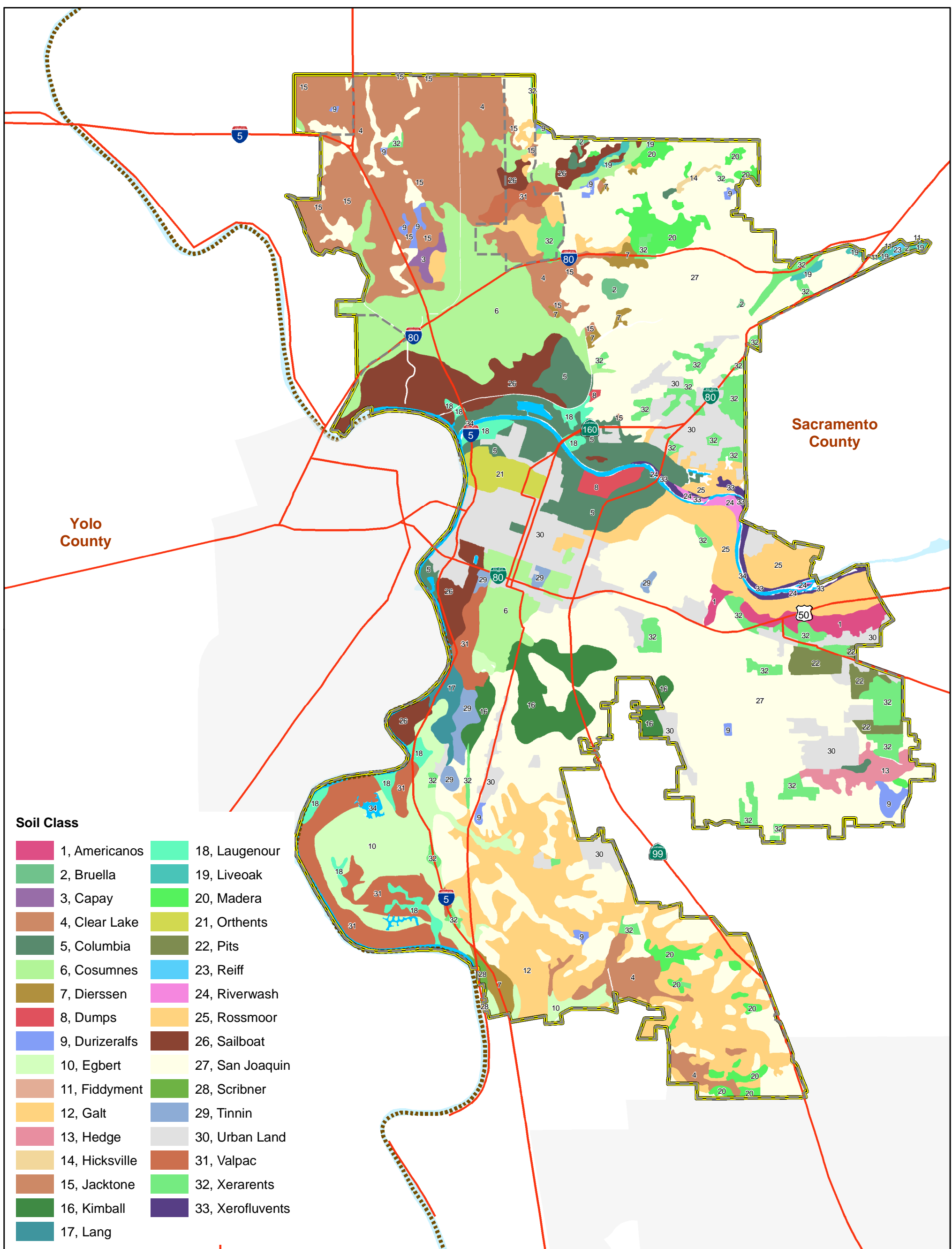
Mineral Resources

Historic mineral production in the region has included construction aggregate, kaolin clay, common clay, pumice, and gold. Construction aggregate consists of sand, gravel, and crushed stone. Existing mineral extraction activities in and around Sacramento primarily consist of fine (sand) and coarse (gravel) construction aggregates, as well as clay. Additional mineral resources include gold. Construction aggregates come from two different sources, hardbed rock sources and river channel (alluvial) sources. Generally, sand, gravel, and clay are used as fill and for construction of highways and roads, streets, urban and suburban developments, canals, aqueducts, and pond linings.

The city of Sacramento had one permitted mining operation in the southeast portion of the Policy Area; however, active mining has ceased at this location, which was formerly owned and operated by Granite Land Company. The site has been redeveloped with an office/business park and a City park with recreation amenities. There is another mining operation (construction sand) located adjacent to the American River in the South Natomas Community Plan area. This site has not been issued a permit by the state, and the owner/operator has received several cease and desist letters from the City and state.⁵

4 Ibid., p. 8-9.

5 City of Sacramento, *General Plan Technical Background Report*, June 2005, p. 6.4-1.



- Legend**
- City Limit
 - County Boundary
 - Policy Area
 - Water

**Figure 6.5-2
Soils**

Source: City of Sacramento 2008

Under the State Mining and Reclamation Act (SMARA), areas containing economically significant mineral deposits are classified and mapped. These Mineral Resource Zones (MRZs) are used in land use planning to show the likelihood of the occurrence of mineral resources in a particular area. Areas classified as MRZ-2 are considered to have the likelihood of significant mineral deposits that could be economically beneficial to society. Areas classified MRZ-2 have been mapped by the CGS within the Policy Area, as shown in Figure 6.5-3. The MRZ-2 area begins just east of Sacramento Executive Airport as a relatively narrow band extending northwest toward the American River. In the approximate vicinity of Power Inn Road, the MRZ-2 area broadens substantially towards Bradshaw and beyond. In general, the area classified MRZ-2 west of the Union Pacific Railroad is urbanized, so access to any deposits would be limited. Portions of the MRZ-2 area east of the railroad are less urbanized, and most of the former and current mining operations are located in that area. The remaining portions of the city are classified MRZ-1 or MRZ-3. These areas are not considered to contain significant mineral deposits.

As shown in Figure 6.5-3, the MRZ-2 area described above is partially located within the eastern portion of the Policy Area. According to CGS and Sacramento County records, the Sacramento Flood Control Agency (SAFCA) has a borrow pit (fill material) in the northern part of the Policy Area, and Teichert Aggregates has sand and gravel sites in the Policy Area as well.

■ Oil and Natural Gas Production

Oil and natural gas resources underlie the Sacramento Valley, although only one abandoned gas field is located within the boundaries of the Policy Area. There are no oil production areas within the Policy Area. A portion of the Florin Gas Field is within the city limits, in the vicinity of Power Inn Road/Florin Road, but there is no active drilling, and all of the wells have been plugged and abandoned.

Paleontological Background

Paleontological resources include fossil remains, as well as fossil localities and rock or soil formations that have produced fossil material. Fossils are the remains or traces of prehistoric animals and plants. Fossils are important scientific and educational resources because of their use in: (1) documenting the presence and evolutionary history of particular groups of now extinct organisms, (2) reconstructing the environments in which these organisms lived, and (3) determining the relative ages of the strata in which they occur and of the geologic events that resulted in the deposition of the sediments that formed these strata and in their subsequent deformation. The California Environmental Quality Act (CEQA) requires that these resources be addressed during the EIR process.

Paleontological resources are classified as non-renewable scientific resources and are protected by federal and state statutes, most notably by the 1906 Federal Antiquities Act.

Professional standards for assessment and mitigation of adverse impacts on paleontological resources have been established by the Society of Vertebrate Paleontology (SVP) (1995, 1996).

The Policy Area is located in what is known as the Great Valley, which consists of Quaternary sedimentary deposits. Quaternary sediments are defined as:

Most Quaternary sediments are gravels laid down by large river systems throughout the state. Both of these types of deposits contain well-preserved vertebrate and plant fossils, similar to the flora and fauna we see today. Glaciers developed in the Sierra Nevada during colder climate intervals, and large lakes formed in the Great Valley, Owens Valley, and the Salton Sea.

Regulatory Context

■ Federal

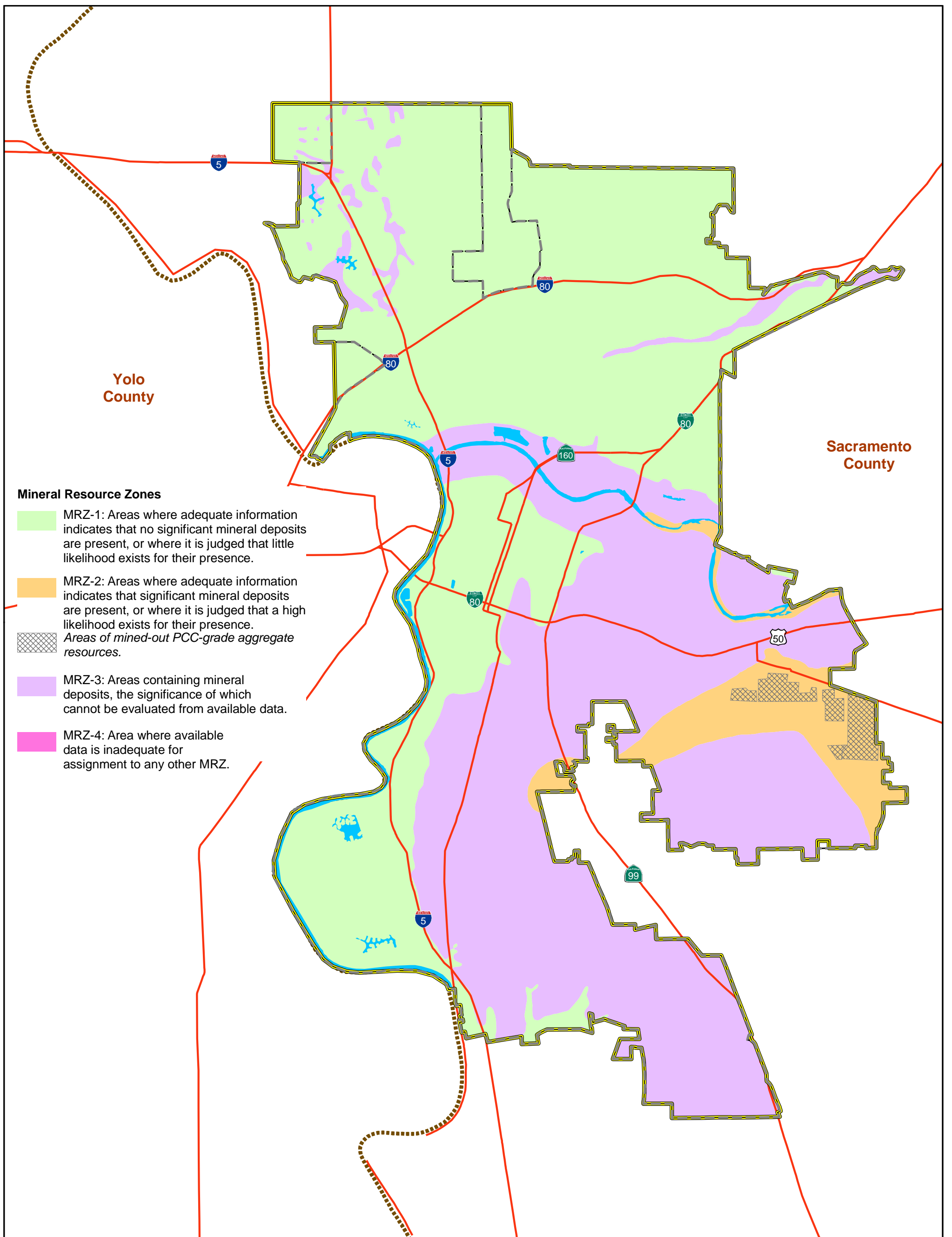
The Uniform Building Code (UBC) provides minimum requirements for grading, building siting, development, and seismic design. The UBC is often adopted by local jurisdictions, along with more stringent standards for development specific to that region.

Please see section 7.1, Geologic and Seismic Hazards, starting on page 7.1-12 of the TBR for descriptions of federal regulations pertaining to geology and soils resources that apply to the proposed project. As shown on page 6.4-2 of the TBR in the Mineral Resources section, there are no federal regulations for mineral resources that apply to the proposed project.

■ State

Hazards associated with seismic and geologic hazards are primarily regulated at the state level. In California, seismic hazards are regulated by the Alquist-Priolo Earthquake Fault Zone Act and Seismic Hazards Mapping Act. The Alquist-Priolo Earthquake Fault Zone Act prohibits locating human-occupied structures atop active faults and requires that Earthquake Fault Zones are delineated to prevent development in such areas. The Seismic Hazards Mapping Act also requires that areas subject to seismic hazards are mapped to assist local governments in land use planning. There are no regulated Earthquake Fault Zones or mapped seismic hazard zones in the Policy Area.

In addition to these regulations, all development in California is subject to the requirements of the California Building Code (CBC). The CBC contains more stringent building standards than the UBC, specific to conditions in California. In addition, the CBC defines four building regions ranging from 1 (areas subject to the least seismic potential) to 4 (areas subject to the highest seismic potential), and provides specific standards for each zone. Sacramento is located in Seismic Zone 3, so all development within the city must comply with all standards applicable to Seismic Zone 3. Further information regarding these regulations can be found on pages 7.1-12 and 7.1-13 in section 7.1, Geologic and Seismic Hazards, of the TBR.



Yolo County

Sacramento County

Mineral Resource Zones

- MRZ-1: Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
- MRZ-2: Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence.
- Areas of mined-out PCC-grade aggregate resources.
- MRZ-3: Areas containing mineral deposits, the significance of which cannot be evaluated from available data.
- MRZ-4: Area where available data is inadequate for assignment to any other MRZ.

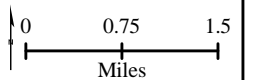
Legend

- City Limit
- County Boundary
- Policy Area
- Water

**Figure 6.5-3
Mineral
Resource
Zones**



CA Dept. of Conservation,
Division of Mines and
Geology 1999. Digitized by
City of Sacramento



Mining activities in California are regulated by SMARA, which has the purpose of creating and maintaining an effective and comprehensive surface mining and reclamation policy to help minimize environmental effects from mining, encourage production and conservation of mineral resources, and eliminate residual hazards to public health. SMARA also classifies mineral resource areas to demonstrate the presence or likely presence of mineral resources in an area. More on SMARA can be found starting on pages 6.4-5 and 6.4-6 in section 6.4, Mineral Resources, of the TBR.

■ Local

City of Sacramento Multi-Hazard Emergency Plan

The Multi-Hazard Emergency Plan addresses the City of Sacramento's planned response to extraordinary emergency situations associated with natural disasters, including flood events, seismic events, technological incidents, and nuclear defense operations. It provides operational concepts related to various emergency situations, identifies components of the local emergency management organization, and describes the City's overall responsibilities for protecting life and property during an emergency. The plan also identifies possible sources of outside support (through mutual aid and specific statutory authorities) from other jurisdictions, and the private sector.

Sacramento County Multi-Hazard Mitigation Plan

The Sacramento County Multi-Hazard Mitigation Plan aims to reduce or eliminate long term risk to people or property from natural disasters, including flood and seismic events. The plan covers areas located outside of the city boundary but within the Policy Area. Specific goals and objectives that are applicable to the Sacramento 2030 General Plan are discussed in section 7.6, Emergency Response, of the TBR.

Sacramento City Code

Chapter 15.20 (Uniform Building Code)

This chapter of the Municipal Code adopts the UBC, 1988 Edition, and amends particular sections where appropriate to suit the specific conditions within the city of Sacramento. This chapter mandates compliance with the UBC and all of its amendments adopted by the Code. All new construction and modifications to existing structures within the city are subject to the requirements of the Code.

Chapter 15.88 (Grading and Erosion and Sediment Control)

The City's grading ordinance is enacted for the purpose of regulating grading on property within the city to safeguard life, limb, health, property and the public welfare; to avoid pollution of watercourses with nutrients, sediments, or other materials generated or caused by surface

water runoff from construction sites; to comply with the City's National Pollution Discharge Elimination System (NPDES) Permit issued by the California Regional Water Quality Control Board; and to ensure that the graded site within the city limits complies with all applicable City ordinances and regulations. The grading ordinance is intended to control all aspects of grading operations within the city.

Chapter 17.194 (Surface Mining and Reclamation)

This chapter provides effective and comprehensive surface mining and reclamation policies and regulations to properly carry out the requirements of SMARA, and other applicable regulations to ensure that: adverse environmental and other effects of surface mining operations will be prevented or minimized and that the reclamation of mined lands will provide for the beneficial, sustainable, long-term productive use of the mined and reclaimed lands; and the production and conservation of minerals will be encouraged, while eliminating hazards to public health and safety and avoiding or minimizing adverse effects on the environment.

City of Sacramento 1988 General Plan

The City's 1988 General Plan contains policies and implementation measures relevant to geology, soils and mineral resources. Specifically, the 1988 General Plan includes policies that address the need to prepare geotechnical reports for new construction as well compliance with the UBC. Upon approval of the proposed 2030 General Plan, all policies and implementation measures in the 1988 General Plan would be superseded. Therefore, they are not included in this analysis.

Department of Utilities

The City of Sacramento Department of Utilities maintains policies and guidelines regarding grading, erosion control, stormwater drainage design, inspection, and permitting with responsibility for several types of permits, including:

- Grading permits; and
- Construction permits.

Site-Specific Geotechnical Investigation

If a site-specific geotechnical investigation is required prior to construction, it must include soil borings to collect samples and laboratory testing to determine the appropriate design parameters for use for structural fill, roadbed fill, and landscaping fill, along with the fill placement requirements. The various soils may be tested for corrosivity to allow for proper infrastructure and foundation design.

The geotechnical evaluation must provide grading and design recommendations to address slope, channel-wall, and foundation instability; groundwater level and need for dewatering;

erosion control; expansive soils; and differential settlement. The investigation must evaluate the soil types, test for shrink-swell potential, and determine preliminary load-bearing and strength characteristics. The geotechnical evaluation must be provided to the City as part of the city's building permit process. The City must review the geotechnical report along with project design to confirm that the recommendations in the geotechnical report are reflected in project design.

The City requires design of engineered fills to be addressed in the geotechnical investigation by assessing the structural properties of any soils in the project site proposed for use as backfill. Such investigations would address specific portions of the project site to be developed. The designs would be required to account for various structures and roadway proposals. In addition to evaluation for engineered fills, specific geotechnical evaluation of engineered slopes (for foundation drainage, landscaping, channel walls, etc.) must be included in the geotechnical evaluation. All proposed cut and/or fill slopes, including temporary slopes and excavations, must be evaluated for proper design to reduce the hazard of over-steeping and/or removal of lateral support, both of which could lead to slope instability, soil creep, and/or structural failure. If necessary, slopes must be designed with additional lateral support, such as buttressing or shoring, and fill slopes must be keyed properly into competent formation-support materials. Slopes along the proposed channel must be designed with proper protection to prevent soil erosion and channel-bank undercutting. Excavation, grading, and fill placement must be monitored and compaction testing performed to ensure proper placement of all fill types (structural, non-structural, and roadbed). Soils with low strength and/or high shrink-swell potential must be controlled using such techniques as over-excavation and replacement, wet compaction, or by covering with a sufficient amount of granular soils (as determined by the geotechnical investigation). Untreated expansive soils must not be used for structural fill.

IMPACTS AND MITIGATION MEASURES

Methods of Analysis

This qualitative analysis is based on a review of available information regarding geology, soils, and mineral resources within the region and Policy Area, along with the information compiled in the TBR. This information was used to determine whether implementation of the proposed 2030 General Plan would result in impacts within the Policy Area.

The Policy Area is not within an area subject to seiche, tsunami, or mudflows. No further analysis of these types of hazards is necessary.

Proposed General Plan Policies

The following goals and policies from the proposed 2030 General Plan are relevant to geologic, seismic, soils, and mineral resources within the entire Policy Area. The proposed General Plan does not include any policies regarding geologic, seismic, soils, or mineral resources that are unique to any of the City's Community Plans or Focused Opportunity Areas.

ENVIRONMENTAL CONSTRAINTS (EC)

Goal EC 1.1 Hazards Risk Reduction. Protect lives and property from seismic and geologic hazards and adverse soil conditions.

Policies

- EC 1.1.1 **Review Standards.** The City shall regularly review and enforce all seismic and geologic safety standards and require the use of best management practices (BMPs) in site design and building construction methods.
- EC 1.1.2 **Geotechnical Investigations.** The City shall require geotechnical investigations to determine the potential for ground rupture, earth shaking, and liquefaction due to seismic events, as well as expansive soils and subsidence problems on sites where these hazards are potentially present.
- EC 1.1.3 **Retrofit Critical Facilities.** The City shall promote the upgrade, retrofitting, and/or relocation of all existing critical facilities (e.g., hospitals, schools, police stations, and fire stations) and other important public facilities that do not meet current building code standards and are within areas susceptible to seismic or geologic hazards.

ENVIRONMENTAL RESOURCES (ER)

Water Resources

Goal ER 1.1 Water Quality Protection. Protect local watersheds, water bodies and groundwater resources, including creeks, reservoirs, the Sacramento and American Rivers and their shorelines.

Policies

- ER 1.1.7 **Construction Site Impacts.** The City shall minimize disturbances of natural water bodies and natural drainage systems caused by development, implement measures to protect areas from erosion and sediment loss, and continue to require construction contractors to comply with the City's erosion and sediment control ordinance and stormwater management and discharge control ordinances.

Mineral Resources

Goal ER 5.1 Conservation and Compatibility. Conserve existing and newly-discovered aggregate deposits for environmentally- and community-sensitive extraction and reclamation, while ensuring compatibility between extraction activity and surrounding uses.

Policies

- ER 5.1.1 **Mineral Resource Zones.** The City shall protect lands designated MRZ-2, as mapped by the California Geological Survey, and continue to regulate activities consistent with the Surface Mining and Reclamation Act, mineral land classification information, and the California Environmental Quality Act.
- ER 5.1.2 **Compatible Operations.** The City shall require current and future mineral extraction operations in designated MRZ-2 be compatible with and minimize impacts on adjoining uses.

ER 5.1.3 **Ongoing Extraction Activities.** The City shall continue to support ongoing environmentally-sensitive mineral extraction activities within the city until these resources are depleted or extraction is no longer economically viable.

HISTORIC AND CULTURAL RESOURCES (HCR)

HCR 2.1.15 **Archaeological Resources.** The City shall develop or ensure compliance with protocols that protect or mitigate impacts to archaeological, historic, and cultural resources including prehistoric resources.

Thresholds of Significance

For the purposes of this EIR, impacts resulting from geologic or soil conditions are considered significant if the proposed General Plan would:

- introduce either geologic or seismic hazards by allowing the construction of the project on a site without protection against those hazards; or
- directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

In addition to the City of Sacramento standards of significance, Appendix G of the CEQA Guidelines also suggests lead agencies consider whether a project would result in significant impacts on mineral resources. For purposes of the EIR, an impact would be significant if the proposed General Plan would:

- result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state; or
- result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

Impacts and Mitigation Measures

A summary of all Geology, Soils, and Mineral Resources impacts and their levels of significance is located at the end of this technical section.

Impact 6.5-1	Implementation of the proposed 2030 General Plan may allow development in areas that could be affected by seismic hazards, such as ground rupture, groundshaking, and liquefaction, potentially exposing people to risk from these hazards.
Applicable Regulations	<i>Uniform Building Code (updated 1997); California Building Code (updated 2007).</i>
Significance Before Mitigation	<i>Less than Significant</i>
Mitigation Included in the SGP	<i>Policies EC 1.1.1 through EC 1.1.3</i>
Significance after Mitigation Included in the SGP	<i>Less than Significant</i>
Additional Mitigation	None required
Residual Significance	Less than Significant

The Policy Area is located approximately 15 miles southeast of the nearest known fault and approximately 38 miles northeast of the nearest active fault. The Policy Area is not within an Alquist-Priolo Earthquake Fault Zone. Therefore, the chance of fault rupture within the Policy Area would be highly unlikely. Consequently, implementation of the proposed General Plan would not expose people or structures to the possibility of fault rupture.

Despite its relatively distant location from known faults and fault zones, people and structures within the Policy Area could be subject to the effects of groundshaking caused by a seismic event located miles away. The resulting vibration could cause damage to buildings, roads, and infrastructure (primary effects), and could cause ground failures such as liquefaction or settlement in loose alluvium and/or poorly compacted fill (secondary effects). The highest intensity of groundshaking experienced in the Policy Area (MMI VI to VII) would be caused by a M_w 7.9 earthquake on the San Andreas Fault or a M_w 6.6 earthquake on the Dunnigan Hills fault, which are the closest active faults to the Policy Area.

Portions of the Policy Area are underlain by artificial fill and alluvial deposits that, in their present states, could become unstable during seismic ground motion. To reduce the primary and secondary risks associated with seismically induced groundshaking, it is necessary to take the location and type of subsurface materials into consideration when designing foundations and structures in the Policy Area. In Sacramento, commercial, institutional, and large residential buildings and all associated infrastructure are required to reduce the exposure to potentially damaging seismic vibrations through seismic resistant design, in conformance with Chapter 16, *Structural Design Requirements*, Division IV, *Earthquake Design*, of the CBC. In addition, requirements specific to liquefaction hazards can be mitigated through adherence to the Seismic Zone 3 soil and foundation support parameters in Chapters 16 and 18 of the Building Code and the grading requirements in Chapters 18, 33, and the appendix to Chapter 33 of the Building Code.

Similarly, the design of roads and bridges (vehicular and pedestrian overcrossings) would be required to comply with Caltrans design criteria listed previously for any Caltrans facilities, City Department of Transportation design standards, and/or other accepted non-building structure standards to reduce the primary and secondary risks associated with seismically induced groundshaking. Proposed General Plan Policies EC 1.1.1 through EC 1.1.3 ensure that the City keeps up-to-date records of seismic conditions, implements and enforces the most current building standards, and continues to require site-specific geotechnical analyses be prepared for projects within the city and implement report recommendations. These policies protect city residents and structures from seismic hazards.

Based on an existing regulatory framework that addresses earthquake safety issues and requires adherence to requirements of the CBC and various design standards, seismically induced groundshaking and secondary effects would not be a substantial hazard in the Policy

Area. In view of the above, the proposed project would have a ***less-than-significant impact*** regarding exposing people or structures to damage resulting from strong seismic groundshaking.

Mitigation Measure

None required.

Impact 6.5-2	Implementation of the proposed 2030 General Plan may allow development in areas that could be affected by geologic hazards associated with unstable soil conditions, including expansive soils and subsidence, potentially exposing people to risk from these hazards.	
Applicable Regulations	<i>Uniform Building Code (updated 1997); California Building Code (updated 2007)</i>	
Significance Before Mitigation	<i>Less than Significant</i>	
Mitigation Included in the SGP	<i>Policies EC 1.1.1 and EC 1.1.2</i>	
Significance after Mitigation Included in the SGP	<i>Less than Significant</i>	
Additional Mitigation	None required	
Residual Significance	Less than Significant	

Development under the proposed 2030 General Plan would result in the addition of new structures and infrastructure throughout the city and Policy Area to accommodate new population growth. These structures and facilities could potentially be exposed to the effects of geological hazards associated with unstable soil conditions such as expansive soils and subsidence. Without protection from these effects, people and structures could be at risk from hazards resulting from unstable geologic conditions, specifically expansive soils and subsidence.

As stated in the Environmental Setting, several of the soil units found within the Policy Area exhibit moderate to high shrink/swell potential, making them highly expansive. The TBR identified the Natomas area, within the South Natomas Community Plan Area and North Natomas Community Plan Area, and the Valley High area, within the South Area Community Plan area, as containing large areas underlain by soil units with high shrink/swell potential, making these areas the most susceptible to the effects of development atop expansive soils. Structures built on these soils could be subject to structural damage resulting from these soils' tendency to contract and expand. Other areas within the Policy Area contain smaller areas underlain by soil units exhibiting moderate to high shrink/swell potential as well.

In addition to structural damage caused by expansive soils, another soil instability that could potentially affect implementation of the proposed General Plan would be subsidence. Subsidence occurs over large areas with significant withdrawal of oil, natural gas, or groundwater. There are no active oil or natural gas production operations within or in the vicinity of the Policy Area so subsidence resulting from such activities within the Policy Area

would not occur. There are, however, groundwater withdrawal activities located within the Policy Area and subsidence has been observed within the city, specifically in downtown Sacramento near I-5. Subsidence or settlement may also occur over smaller areas near dewatering activities. Because of the shallow water table, dewatering would likely be necessary at excavation sites in the Policy Area. Often, groundwater provides partial support for the near-surface soil materials and, when withdrawn, allows the soils to slough into the excavation. If the dewatering system draws down the water table adjacent to the excavation, there is the possibility of undermining foundations on the adjacent site, causing cracking or collapse. To avoid these conditions, dewatering system design and excavation-wall support need to be designed appropriate to the soil conditions. The required site-specific evaluation of soil conditions must contain recommendations for these systems specific to the site, and be incorporated into the construction design.

As part of the construction permitting process, the City requires completed reports of soil conditions at the specific construction sites to identify potentially unsuitable soil conditions including liquefaction, settlement, subsidence, lateral spreading, and collapse. The City requires that these evaluations be conducted by registered soil professionals, and measures to eliminate inappropriate soil conditions must be applied, depending on the soil conditions. The design of foundation and excavation-wall support must conform to the analysis and implementation criteria described in the CBC, Chapters 16, 18, 33, and the appendix to Chapter 33. Adherence to the CBC and City policies contained in the 2030 General Plan would ensure the maximum practicable protection available for users of buildings and infrastructure and their associated trenches, slopes, and foundations. In addition, implementation of Policies EC 1.1.1 and EC 1.1.2 would further ensure that the City review and enforce all applicable building codes and require site-specific geotechnical reports for all development projects, thereby mitigating impacts on structures and people resulting from unstable geologic or soil conditions in the Policy Area, making this a *less-than-significant impact*.

Mitigation Measure

None required.

Impact 6.5-3	Implementation of the proposed 2030 General Plan may allow development that could result in substantial soil erosion.
Applicable Regulations	<i>National Pollutant Discharge Evaluation System (NPDES) Permitting Program (introduced 1972); Chapter 15.88 of the Sacramento City Municipal Code (Grading Ordinance); Stormwater Discharge Control Ordinance</i>
Significance Before Mitigation	<i>Less than Significant</i>
Mitigation Included in the SGP	<i>Policies EC 1.1.2 and ER 1.1.7</i>
Significance after Mitigation Included in the SGP	<i>Less than Significant</i>
Additional Mitigation	None required
Residual Significance	Less than Significant

Natural forces, both chemical and physical, are continually at work breaking down soils. Erosion poses two hazards: (1) it removes soils, thereby undermining roads and buildings and producing unstable slopes, and (2) it deposits eroded soil in reservoirs, lakes, drainage structures, and on roads as mudslides. Natural erosion is frequently accelerated by human activities such as site preparation for construction and alteration of topographic features. The following analysis focuses on the potential geotechnical effects of erosion related to project development. For a discussion of potential effects on water quality due to erosion and sedimentation caused by construction activities or urban runoff, please see section 6.7, Hydrology and Water Quality.

Development of the proposed 2030 General Plan would result in site preparation activities, such as grading and trenching, at future project sites located throughout the Policy Area. The development of any onsite or offsite storm drainage facilities (e.g., new or expanded channels or peak attenuation facilities such as swales or basins) would permanently alter existing topography. Side slopes of channels or excavations during construction can be eroded by natural forces if proper slope angles are not maintained. Future projects would also result in the addition of impervious surfaces in many areas of the city and, depending on the location of the project, could possibly result in the alteration of topographic features at the project site. The alteration of topographic features can lead to increased erosion by creating unstable rock or soil surfaces, by changing the permeability or runoff characteristics of the soil, or by modifying or creating new pathways for drainage. Because much of the Policy Area is relatively flat and the locations of projects that would substantially alter topography are limited, there would be minimal geotechnical effects related to erosion. However, since the specific geotechnical characteristics of each project site can vary considerably, each project within the Policy Area would require the preparation of a site-specific geotechnical investigation that would evaluate each site and recommend measures to prevent erosion as appropriate.

Compliance with Chapter 15.88 of the Sacramento Municipal Code, also known as the Grading Ordinance, requires that an Erosion and Sediment Control Plan must be prepared for each project within the Policy Area prior to the commencement of grading. An erosion control professional, landscape architect, or civil engineer specializing in erosion control must design the Erosion and Sediment Control Plan and be on the project site during the installation of erosion and sediment control measures, and supervise implementation of the installation and maintenance of such facilities throughout the site clearing, grading and construction periods. In addition, proposed Policy EC 1.1.2 requires that each project within the city prepare a geotechnical investigation to determine site-specific seismic and soil characteristics and recommend appropriate mitigation measures to mitigation any potential impacts. Proposed Policy ER 1.1.7 requires that necessary erosion control measures are used during site development activities for all projects in the city. Thus, erosion during the construction and operational periods in the Policy Area would be controlled. With implementation of all required regulations and preparation of Erosion and Sediment Control Plans, and geotechnical

investigations, projects developed under the proposed General Plan would have a ***less-than-significant impact***.

Mitigation Measure

None required.

Impact 6.5-4	Implementation of the proposed 2030 General Plan may result in the loss of the availability of known mineral resources of State, regional, or local importance.
Applicable Regulations	<i>Surface Mining and Reclamation Act (SMARA, 1975)</i>
Significance Before Mitigation	<i>Less than Significant</i>
Mitigation Included in the SGP	<i>Policies ER 5.1.1, ER 5.1.2, ER 5.1.3</i>
Significance after Mitigation Included in the SGP	<i>Less than Significant</i>
Additional Mitigation	None required
Residual Significance	Less than Significant

Based on guidelines adopted by the CGS, areas known as MRZs are classified according to the presence or absence of significant deposits, as defined below. The City is required to respond to mineral resource recovery areas that have been designated by the state as MRZ-2 (significant existing or likely mineral deposits). These classifications indicate the potential for a specific area to contain significant mineral resources. As previously stated according to the CGS, the Policy Area contains some areas classified by the CGS as MRZ-2, including a strip along the American River and a larger area in the southeast portion of the city, primarily within the Fruitridge/Broadway Community Plan area. A strip of MRZ-2 classified land extends west from this area across the Fruitridge/Florin area into the South Area Community Plan area (see Figure 6.5-3). The remainder of the Policy Area is classified as MRZ-1 and MRZ-3.

Much of the areas classified as MRZ-2 are already developed. Because much of the land classified MRZ-2 is already developed, implementation of the proposed General Plan would not develop large tracts of land or create projects that would interfere with existing or new mineral production activities. However, the proposed 2030 General Plan does provide for infill development, which could occur in areas within or nearby MRZ-2 areas. The proposed General Plan includes policies intended to protect existing and future mineral production activities within the city. Proposed Policies ER 5.1.1 and ER 5.1.3 protect mineral extraction activities within the city from surrounding uses. For areas where future development could occur, proposed General Plan Policy ER 5.1.2 requires that future projects near mining activities are compatible with such activities and require buffer and setbacks from areas classified as MRZ-2. These policies would ensure compatibility with surrounding land uses for both future and existing mineral production activities and prevent development that would limit these activities. As a result, implementation of the proposed General Plan would not result in the loss of the availability of known mineral resources that would be of value to the state, region, or city. This would be a ***less-than-significant impact***.

As stated above in the Environmental Setting, there are no active oil or natural gas production activities within the Policy Area; therefore, implementation of the proposed General Plan would not interfere with such activities.

Mitigation Measure

None required.

Impact 6.5-5	Implementation of the 2030 General Plan could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
Applicable Regulations	<i>National Historic Preservation Act, U.S. Department of Transportation Act of 1966, California State Historic Building Code, Public Resources Code Section 21084.1, Mills Act, Sacramento City Code Title 15.124, Historic Preservation Ordinance (No. 2006-063)</i>
Significance Before Mitigation	<i>Potentially Significant</i>
Mitigation Included in the SGP	<i>Policy HCR 2.1.15</i>
Significance after Mitigation Included in the SGP	<i>Less than Significant</i>
Additional Mitigation	None required
Residual Significance	Less than Significant

Paleontological resources may be present in fossil-bearing soils and rock formations below the ground surface. Proposed General Plan Policy HCR 2.1.15 requires that if paleontological resources are discovered during excavation or construction, proper protocols shall be adhered to. The city of Sacramento and surrounding area is not highly sensitive for these types of resources although some discoveries have been made in the past. Ground-disturbing activities in fossil-bearing soils and rock formations have the potential to damage or destroy paleontological resources that may be present below the ground surface. Therefore, any earth-disturbing activities resulting from implementation of the proposed General Plan could damage or destroy fossils in these rock units. However, the Policy Area is not considered sensitive for paleontological resources and the likelihood of finding something would be very low. As with archaeological resources, paleontological resources are generally considered to be historical resources, as defined in section 15064.5(a)(3)(D) of the CEQA Guidelines.

Ground-disturbing activities could affect the integrity of a paleontological site, thereby causing a substantial change in the significance of the resource. Implementation of the proposed 2030 General Plan contains Policy HCR 2.1.15 that the City interprets to also address paleontological resources. Compliance with this policy would require the City to identify and protect paleontological resources in compliance with accepted protocols. Therefore, the impact would be considered ***less than significant***.

Mitigation Measure

None required.

Cumulative Impacts and Mitigation Measures

Soil and geologic conditions are site-specific and there is little, if any, cumulative relationship between implementation of the proposed General Plan and cumulative actions in other jurisdictions throughout the region. Furthermore, adherence to all relevant plans, codes, and regulations with respect to project design and construction would reduce project-specific and cumulative geologic impacts to a less-than-significant level. Therefore, since geologic hazards are site-specific, this project, in combination with other past, present, and reasonably foreseeable future projects, would not create a potentially significant cumulative impact on geological resources.

Generally, cumulative impacts for erosion can be analyzed for erosion within a watershed. However, as stated above under Impact 6.5-3, this analysis focuses on the geotechnical effects of erosion related to project development; in this case, these are generally site-specific effects and would not combine with similar effects within the Policy Area, similar to geologic impacts. For this reason, cumulative geotechnical erosion impacts are not evaluated in this section. For a cumulative analysis on erosion impacts that focus on water quality effects rather geotechnical effects, please refer to section 6.7, Hydrology and Water Quality.

The geographic context for cumulative mineral resource impacts that would occur under the proposed General Plan is proposed future development in Sacramento County combined with buildout of the 2030 General Plan. The cumulative context for paleontological resources would be future development within the larger Central Valley.

Impact 6.5-6	Implementation of the proposed 2030 General Plan, in combination with other development in Sacramento County, would not result in the loss of the availability of known mineral resources of State, regional, or local importance.
Applicable Regulations	<i>Surface Mining and Reclamation Act (SMARA, 1975)</i>
Significance Before Mitigation	<i>Less than Significant</i>
Mitigation Included in the SGP	<i>Policies ER 5.1.1, ER 5.1.2, ER 5.1.3</i>
Significance after Mitigation Included in the SGP	<i>Less than Significant</i>
Additional Mitigation	None required
Residual Significance	Less than Significant

This cumulative impact analysis considered implementation of the proposed 2030 General Plan, in combination with other development within the county. Development under the proposed General Plan, in combination with all other development in the county, could limit the availability of a known mineral resource potentially resulting in a significant cumulative impact. However, because proposed General Plan policies do not prohibit existing mineral production and encourage that existing operations be protected and buffered from incompatible surrounding land uses, contributions to adverse impacts on mineral resources as a result of the proposed General Plan would not be cumulatively considerable. Therefore, implementation of the proposed General Plan impact would result in a ***less-than-significant cumulative impact***.

Mitigation Measure

None required.

Impact 6.5-7	Implementation of the 2030 General Plan, in conjunction with other development within the Central Valley, could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	
Applicable Regulations	<i>National Historic Preservation Act, U.S. Department of Transportation Act of 1966, California State Historic Building Code, Public Resources Code Section 21084.1, Mills Act, Sacramento City Code Title 15.124, Historic Preservation Ordinance (No. 2006-063)</i>	
Significance Before Mitigation	<i>Potentially Significant</i>	
Mitigation Included in the SGP	<i>Policy HCR 2.1.15</i>	
Significance after Mitigation Included in the SGP	<i>Less than Significant</i>	
Additional Mitigation	None required	
Residual Significance	Less than Significant	

Future development in the Policy Area under the 2030 General Plan as well as within the larger Central Valley could include excavation and grading that could potentially impact prehistoric and paleontological resources and human remains that may be present. The cumulative effect of this future development is the continued loss of prehistoric and paleontological resources. Excavations in the city have uncovered evidence of Native American culture dating back to 6,000 B.C. The data derived from these studies have provided archaeologists the opportunity to reconstruct a framework of indigenous subsistence and settlement patterns from the time of contact with Euro-American settlers to 6,000 B.C. In addition, other parts of California harbor evidence of earlier occupations, the current regional archaeological record lacks sites that can be attributed to the region's earliest inhabitants. Potential future development increases the likelihood that paleontological sites could be uncovered. It is therefore possible that cumulative development could result in the demolition or destruction of unique paleontological resources, which could contribute to the erosion of the prehistoric record of the city. The loss of these resources would result in a potentially significant cumulative impact.

Paleontological resources can sometimes be preserved when discovered during excavation, associated with new development. Policy HCR 2.1.15, which the City interprets as also covering paleontological resources requires specific action and protocols are followed in the event of finding a prehistoric or paleontological resource. Generally, the Policy Area is not considered sensitive for paleontological resources and the likelihood of finding something would be very low. Therefore, assuming compliance with Policy HCR 2.1.15 and federal, state and local regulations protecting these resources, the project's contribution to the cumulative impact would not be considerable resulting in a ***less than significant cumulative impact***.

Mitigation Measure

None required.

South Area Community Plan

As stated above under the Cumulative Context, the analysis of seismic and geologic hazards is primarily based on site-specific geotechnical and soil characteristics of each individual site. However, it is possible that some areas within the Policy Area may be more or less susceptible to these hazards than the Policy Area in general. The South Area Community Plan (SACP) area is located in a portion of the city that is no more susceptible to seismic hazards than the remainder of the Policy Area, due to the distance to the nearest faults and absence of known faults within the city. Similarly, impacts related to soil hazards and erosion would generally be no more severe than the rest of the Policy Area. Specific impacts for individual development projects would be determined by the required geotechnical investigations mandated by city policy. In addition, the SACP Area was not identified as an area that would be more susceptible to these hazards.

For mineral resources, there is a small area within the SACP Area that is classified as MRZ-2. However, as stated above, this area is largely developed. Any future development in this area, including infill development, would comply with the proposed General Plan policies described above, which would ensure that impacts on mineral resources specific to the SACP Area would be mitigated, similar to the remainder of the Policy Area. Therefore, it is assumed that impacts resulting from projects in the SACP Area would be the same as they would be in the rest of the Policy Area.

While the Sacramento Valley is sensitive for a wide range of resources including paleontological resources, some areas within the Policy Area may be more or less likely to contain these resources. The SACP area is located in a portion of the city that has not been extensively surveyed for cultural resources, with the exception on a project-by-project basis. However, impacts on paleontological resources in this area could be predicted based on the sensitivity of the area, as they would for the rest of the city. Impacts to paleontological resources could be minimized by following established protocol following the discovery of a paleontological resource. No additional mitigation would be necessary.

Focused Opportunity Areas

All of the Focused Opportunity Areas are not located in an area of the city that would be any more or less susceptible to potential seismic or geologic hazards than the remainder of the Policy Area. Site-specific analysis for individual development projects within each Opportunity Area would determine whether individual project sites would require additional mitigation beyond compliance with mandated state and local requirements. There are no areas containing

known mineral resources in the River District, Robla, Arden Fair/Point West, Florin Center/Light Rail Station, and Meadowview Light Rail Station Focused Opportunity Areas.

■ 65th Street/University Village

The 65th Street/University Village Focused Opportunity Area is not located in an area of the city that would be any more or less susceptible to potential seismic or geologic hazards than the remainder of the Policy Area. Site-specific analyses for projects within this area would determine whether individual project sites would require additional mitigation beyond mandated state and local requirements. A portion of this area is classified as MRZ-2, so significant mineral resources may be present. However, implementation of the applicable mining regulations and proposed General Plan policies would ensure that mineral resource extraction activities in this area are protected and no loss of the resources would occur.

Insufficient Information to Support a Complete Analysis of the Potential Impacts

Section 15176(c) of the CEQA Guidelines acknowledges that all the information necessary to analyze potential impacts associated with anticipated future development may not be available. It is anticipated that future development within the Focused Opportunity Areas, as well as in the South Area Community Plan and future development within the Policy Area could include potential impacts related to geologic issues, seismic safety, soils, paleontological resources, and mineral resources. At this time specific project information is not available (i.e., individual building design, site-specific location, types of soils, etc.) to evaluate potential impacts associated with geology, soils and mineral resources. Once specific development proposals are prepared and submitted to the city a project-specific environmental analysis would be prepared to analyze any potential impacts on geology, paleontological, soils, and mineral resources.

SUMMARY OF GEOLOGY, SOILS, AND MINERALS IMPACTS							
LEVEL OF SIGNIFICANCE							
	6.5-1 Implementation of the proposed 2030 General Plan may allow development in areas that could be affected by seismic hazards, such as ground rupture, groundshaking, and liquefaction, potentially exposing people to risk from these hazards.	6.5-2 Implementation of the proposed 2030 General Plan may allow development in areas that could be affected by geologic hazards associated with unstable soil conditions, including expansive soils and subsidence, potentially exposing people to risk from these hazards.	6.5-3 Implementation of the proposed 2030 General Plan may allow development that could result in substantial soil erosion.	6.5-4 Implementation of the proposed 2030 General Plan may result in the loss of the availability of known mineral resources of State, regional, or local importance.	6.5-5 Implementation of the 2030 General Plan could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	6.5-6 Implementation of the proposed 2030 General Plan, in combination with other development in Sacramento County, would not result in the loss of the availability of known mineral resources of State, regional, or local importance.	6.5-7 Implementation of the 2030 General Plan, in conjunction with other development within the Central Valley, could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
Community Plan Areas							
Arden-Arcade	○	○	○	○	○	○	○
Central City	○	○	○	○	○	○	○
East Broadway	○	○	○	○	○	○	○
East Sacramento	○	○	○	○	○	○	○
Land Park	○	○	○	○	○	○	○
North Natomas	○	○	○	○	○	○	○
North Sacramento	○	○	○	○	○	○	○
Pocket	○	○	○	○	○	○	○
South Area	○	○	○	○	○	○	○
South Natomas	○	○	○	○	○	○	○
Focused Opportunity Areas							
65 th Street/University Village	○	○	○	○	○	○	○
Arden Fair/Point West	○	○	○	○	○	○	○
Florin LRT/Subregional Center	○	○	○	○	○	○	○
Meadowview LRT	○	○	○	○	○	○	○
River District	○	○	○	○	○	○	○
Robla	○	○	○	○	○	○	○
○ = less than significant ● = less than significant with mitigation incorporated ● = significant and unavoidable							

6.6 Hazards and Hazardous Materials



HAZARDS AND HAZARDOUS MATERIALS

INTRODUCTION

This section evaluates the effects of the proposed 2030 General Plan on hazardous materials, emergency response, and the potential for aircraft crash hazards in the Policy Area.

The 2030 General Plan includes policies in the Public Health and Safety Element to continue practices for the documentation, monitoring, clean up, and re-use of hazardous materials and sites. These policies are also important to the reduction of surface and groundwater pollution, air pollution, and greenhouse gases.

There were no comments received in response to the NOP that were relevant to hazardous materials, airport hazards, or emergency response.

Information to prepare this section is based on the City of Sacramento 2030 General Plan Technical Background Report (TBR), City of Sacramento Multi-Hazard Emergency Plan, County of Sacramento Multi-Hazard Mitigation Plan, applicable Airport Land Use Compatibility Plans (ALUCPs), City of Sacramento Fire Department, and data from federal, state, and local agency databases containing information regarding hazardous materials use, wastes, and environmental contamination.

The TBR prepared for the project is available electronically on the City's website (<http://www.sacgp.org/documents.html#tbr>) and on CD at the back of this document.

ENVIRONMENTAL SETTING

The discussion of hazardous materials, emergency response, and aviation hazards included below is presented on a city wide basis. The River District Focused Opportunity Area contains some unique hazardous materials issues which are specifically evaluated below under a separate discussion of issues unique to the Focused Opportunity Areas. The remainder of the Focused Opportunity Areas and the South Area Community Plan (SACP) area do not contain any unique issues that should be addressed separately in the analysis.

Hazardous Materials

■ Definitions

The State of California defines hazardous materials as substances that are toxic, ignitable or flammable, reactive, and/or corrosive. The state also defines an extremely hazardous material as a substance that shows high acute or chronic toxicity, is carcinogenic (causes cancer), has bioaccumulative properties (accumulates in the body's tissues), is persistent in the environment,

or is water reactive (California Code of Regulations [CCR], Title 22; California Health and Safety Code, Division 20, Chapter 6.5).

A material may also be classified as a hazardous material if it contains defined amounts of toxic chemicals. The U.S. Environmental Protection Agency (EPA) has developed a list of specific hazardous wastes that are in the form of solids, semi-solids, liquids, and gases. Producers of such wastes include private businesses, and federal, state, and local government agencies. The EPA regulates the production and distribution of commercial and industrial chemicals to protect human health and the environment. The EPA also prepares and distributes information to further the public's knowledge about these chemicals and their effects, and provides guidance to manufacturers in pollution prevention measures, such as more efficient manufacturing processes and recycling used materials.

The EPA defines a hazardous waste as a substance that 1) may cause or significantly contribute to an increase in mortality or an increase in serious, irreversible, or incapacitating reversible illness; and 2) that poses a substantial present or potential future hazard to human health or the environment when it is improperly treated, stored, transported, disposed of or otherwise managed. Hazardous waste is also defined as ignitable, corrosive, explosive, or reactive (Federal Code of Regulations—CFR-Title 40: Protection of the Environment, Part 261).

■ Hazardous Materials Use

Hazardous materials are routinely used, stored, and transported in the Policy Area and are associated with industrial and commercial/retail businesses, as well as in educational facilities, hospitals, and households. Hazardous waste generators in the Policy Area include industries, businesses, public and private institutions, and households. Federal, state, and local agencies maintain comprehensive databases that identify the location of facilities using large quantities of hazardous materials, as well as facilities generating hazardous waste. Some of these facilities use certain classes of hazardous materials that require accidental release scenario modeling and risk management plans to protect surrounding land uses.

The Sacramento County Environmental Management Department (SCEMD) maintains a database of all businesses in the City of Sacramento using hazardous materials in excess of the threshold quantities (55 gallons for a liquid, 200 cubic feet for a compressed gas, and 500 pounds for a solid). The "Master List of Facilities within Sacramento County with Potentially Hazardous Materials" is downloadable from the County's website (www.emd.saccounty.net/Documents/lists/mstr.pdf) and is readily available to the public. Businesses in the Policy Area that use and store hazardous materials in quantities subject to federal and state regulations that require community notification are required to prepare and submit a Hazardous Materials Management Plans (or "Business Plan") and/or Risk Management Plans (RMPs), as appropriate, to the SCEMD.

Hazardous Waste

Sacramento County has prepared a *Hazardous Waste Management Plan (HWMP)* in accordance with California Health and Safety Code section 25135 et seq. The Sacramento County HWMP, developed in 1992, identifies hazardous waste generators within the County (which includes the Policy Area), the amounts and types of waste produced, and projected waste generation. The major goal of the HWMP is to reduce the need for new hazardous waste facilities by reducing waste at its source through recycling, reduced use of hazardous materials, and public education.

There are existing hazardous waste treatment, storage, and disposal (TSD) facilities in the Policy Area. The HWMP identifies the need for any potential future locations of TSD facilities and includes policies and potential impacts for the management of hazardous waste within the County. Activities at such facilities could include transfer and storage, aqueous treatment, organics recycling, solidification and stabilization, incinerators, or residuals repositories. The Sacramento County HWMP identifies one location within the Policy Area as potentially suitable for certain types of TSD facilities. The site is within the city limits in an area generally bounded by Jackson Highway on the north, Elk Grove-Florin Road on the east, and Florin Road on the south. Additional comprehensive evaluation would be necessary to determine whether this location could be developed with TSD facilities.

In addition to major hazardous waste generators, it should also be noted that hazardous materials (household hazardous materials) such as cleaning products, paints, solvents, motor oil, and gasoline, are used in small quantities by households and businesses every day. Although the quantities of hazardous materials used in these cases are small, hazardous wastes may be generated by these uses. For this reason, the City of Sacramento operates programs to collect and properly dispose of household hazardous waste.

■ Sites with Known Contamination

Business practices and the laws that regulate hazardous materials use and disposal have changed dramatically over the years. Many businesses through intentional action, lack of awareness or accidental occurrences, or those that pre-date current requirements, have caused contamination on and around their properties. The Policy Area contains properties that were once contaminated and are now clean, as well as some properties that are contaminated with a clean-up process underway. Federal and state agencies responsible for hazardous materials management, along with the County of Sacramento, maintain databases of such sites. Appendix I contains a compilation of information from the databases listed below, including an updated version of Appendix F from the TBR.

The information regarding sites included in the following discussion and in Appendix H is based on section 7.5, Hazardous Materials, of the TBR (June 2005) and databases current as of August 2007. The listed sites are those that are being actively investigated and/or remediated

under the oversight of one or more agencies. Below is a brief description of five of the databases that provide information about hazardous materials sites within the Policy Area. The following information is from the TBR and has been updated, as appropriate. Additional information may also be found in section 7.5, Hazardous Materials, of the TBR.

Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)

The Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), is a regulatory or statute law developed to protect the water, air, and land resources from the risks created by past chemical disposal practices. Under CERCLA, the United States EPA maintains a list of all contaminated sites in the nation that are currently, or have in the past, undergoing clean-up activities. This list is known as the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS). CERCLIS contains information on hazardous waste sites, potential hazardous waste sites, and remedial activities, including sites that are on the National Priorities List (NPL) or being considered for the NPL (“Superfund”). The CERCLIS database lists 11 sites within the city; however, only one site – Sacramento Army Depot – is on the NPL located within the Fruitridge/Broadway Community Plan area. A review of the database in August 2007 showed that since the release of the TBR in June 2005, cleanup actions at the Army Depot have been completed, and this site has been designated as a “Final” NPL site.¹

DTSC EnviroStor Database

The California Department of Toxic Substances Control (DTSC) maintains a database that contains information on properties in California where hazardous substances have been released, or where the potential for a release exists. This database is known as EnviroStor (formerly CalSites) and is one of a number of lists that comprise the “Cortese List” (a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5). EnviroStor provides a brief history of cleanup activities, contaminants of concern, and scheduled future cleanup activities. The EnviroStor database also includes properties that have been remediated and certified by DTSC.

The TBR listed 11 sites that were identified on the CalSites list in 2005. A review of the EnviroStor database in August 2007 identified a total of 48 sites in the Policy Area, 22 of which are currently listed as Active sites. The remaining sites have achieved Certified, No Further Action, or Inactive status. Certified sites are considered to be remediated to the satisfaction of the DTSC; some sites listed as Certified may have land use restrictions in place to protect public health. Sites listed as No Further Action have been investigated and determined not to pose a risk to public health by the DTSC. One site within the Policy Area is designated Inactive, meaning this site requires no additional investigation.

1 U.S. Environmental Protection Agency, Superfund Information Systems, Superfund Site Progress Profile, Sacramento Army Depot, <www.epa.ca.gov>, accessed August 16, 2007.

Nine of the Active sites are located within the Sacramento Railyards (Railyards) property immediately north of the Central City; the entire Railyards site is currently undergoing remediation as part of two separate clean-up actions, one for groundwater and the other for soil. Another site listed in the database is the Sacramento Army Depot site, which is also listed in the NPL database, as described above. As stated above, clean-up actions at this site have been completed. These sites, all of which are within the city limits, are undergoing remediation with DTSC in a lead or support agency role.

Regional Water Quality Control Board (RWQCB) Spills, Leaks, Investigations and Cleanup (SLIC) Program

The Spills, Leaks, Investigation and Cleanup (SLIC) Program was established by the State Water Resources Control Board (SWRCB) so that RWQCB(s) could oversee cleanup of illegal discharges, contaminated properties, and other unregulated releases adversely impacting the state's waters but not covered by another program. The TBR identified 25 sites on the SLIC list in June 2005. As of August 2007, there were 22 sites listed as active sites, currently being investigated and/or remediated under the oversight of the applicable RWQCB. The sites are industrial facilities including warehouse distribution centers, food processing and packaging plants, truck terminals, and commercial and vacant sites. Appendix I lists the active sites identified in the SLIC database within the city, and the substances that have been released at each facility. Some of the sites are also included on lists developed by DTSC and Sacramento County.

Leaking Underground Storage Tanks

Leaking underground storage tanks (LUSTs) are one of the greatest environmental concerns of the past several decades. Extensive federal and state legislation addresses LUSTs, including replacement and cleanup. The State of California requires that older tanks be replaced with new double-walled tanks with flexible connections and monitoring systems. Detailed information regarding the regulatory history of LUST programs in the U.S. and in California can be found in section 7.5, Hazardous Materials, of the TBR. The SWRCB has been designated the lead regulatory agency in the development of LUST regulations and policy. The RWQCB, in cooperation with the Office of Emergency Services (OES), maintains an inventory of LUSTs in a statewide database.

There are hundreds of LUST sites located throughout the City and unincorporated areas of Sacramento that are under active evaluation and/or remediation under the oversight of the RWQCB and SCEMD. Appendix I contains a listing of the sites within Sacramento, although some of the sites listed may be located in unincorporated areas that are not within the Policy Area. Most of the sites are gasoline stations, but some are also industrial or commercial facilities with underground fuel tanks that have leaked hydrocarbons. Some of the sites listed by the RWQCB are also included on the RWQCB SLIC list, and most are also on the county's Toxic Sites list (see below).

County of Sacramento Toxic Sites

Appendix I contains the list of all the sites listed on the County of Sacramento's Department of Environmental Management's toxic site database as being actively investigated and/or in the process of being cleaned up. Similar to the LUST database described above, the county's list contains hundreds of sites within the city and unincorporated areas of Sacramento, many of which are also included in that database.

Leaking underground storage tanks comprise the majority of the sites, which include a range of commercial, industrial, office, public, residential, and vacant sites. In general, contaminated commercial uses are primarily auto-related uses such as gas stations, repair shops, car washes, service stations, and car sales lots. Industrial uses generally consist of building materials, distribution and warehouses, food processing and packing facilities, fabrication, processing, and construction facilities.

■ Hazardous Materials Incidents Emergency Response

The release of a hazardous material to the environment could cause a multitude of problems to the environment, property, or human health, the significance of which is dependent on the type, location, and quantity of the material released. Although hazardous material incidents can happen almost anywhere, certain areas of the state are at higher risk. In the event of such an incident, emergency response measures must be implemented to protect the public and the environment from risk.

The City of Sacramento is a developed urban area containing several major transportation routes, such as U.S. Highway 50; Interstates 5 and 80, and Capital City Freeway; and State Routes 99, 16, and 160; and Union Pacific Railroads. In addition, facilities located outside the Policy Area, but located in close enough proximity to affect residents of the Policy Area in the event of a hazardous material incident include the Sacramento International and Mather Field airports, McClellan Airfield, and the Port of Sacramento in Yolo County. These facilities, along with the transportation routes listed above, each transport hundreds of thousands of tons of hazardous materials through and into the city each year. Due to the urban nature of the Policy Area and its location among several routes that regularly transport hazardous materials through and around the Policy Area, the area faces risks associated with the potential for hazardous materials emergencies. The Special Operations Division of the City of Sacramento Fire Department contains the Hazardous Materials Program (HAZMAT), which is a partnership with the Sacramento Metropolitan Fire District and Sacramento County Environmental Division responsible for responding to hazardous materials emergencies.

The City's Fire Department has approximately 110 firefighters trained to respond to hazardous materials incidents, in addition to regular firefighting training. The Fire Department has two Hazardous Materials Response Teams (HMRTs) and two Decontamination Teams (De-con)

that serve in dual roles as first-responding fire companies. Each team is staffed with four Specialists. HMRTs and the Decon Team are located in the following stations:²

- Truck 7 (HMRT): Wyndham & Valley Hi Streets (Valley Hi Area)
- Engine 7 (Decon): Wyndham & Valley Hi Streets (Valley Hi Area)
- Truck 30 (HMRT): 1901 Club Center Drive (Natomas Area)
- Engine 30 (Decon): 1901 Club Center Drive (Natomas Area)

Further information regarding emergency response to hazardous materials incidents and the HAZMAT Program can be found in section 7.5, Hazardous Materials, of the TBR.

Emergency Response

In addition to emergency response to hazardous materials incidents, both the City of Sacramento and the County of Sacramento implement programs to facilitate emergency preparedness for other types of incidents within the Policy Area. Specifically, the City of Sacramento has a Multi-Hazard Emergency Plan that addresses the City's planned response to extraordinary emergency situations associated with natural disasters, technological incidents, and nuclear defense operations for areas within the city's jurisdictional boundaries. It provides operational concepts related to various emergency situations, identifies components of the local emergency management organization, and describes the City's overall responsibilities for protecting life and property during an emergency. The plan also identifies possible sources of outside support (through mutual aid and specific statutory authorities) from other jurisdictions, and the private sector.

The County of Sacramento has a Multi-Hazard Mitigation Plan, which is a multi-jurisdictional plan that aims to reduce or eliminate long-term risk to people or property from natural disasters and their effects that is applicable to the city and areas outside of the city but within the Policy Area. Both plans provide an overview of operational concepts, identify components of the County's and City's Emergency Management Organization within the Standardized Emergency Management System (SEMS), and describe the overall responsibilities of the federal, state, and local agencies for protecting life and property and assuring the overall well-being of the population. For detailed descriptions of both plans, please refer to section 7.6, Emergency Response, of the TBR.

■ Standardized Emergency Management System

In addition to the City Multi-Hazard Mitigation Emergency Plan and the County Multi-Hazard Mitigation Plan, the SEMS is the system required by Government Code Section 8607 (a) for managing response to multi-agency and multi-jurisdiction emergencies in California. SEMS

2 City of Sacramento Fire Department, Hazardous Materials, <www.sacfire.org>, accessed August 24, 2007.

consists of five organizational levels which are activated as necessary: field response, local government, operational area, OES Mutual Aid Regions, State OES. Section 7.6 of the TBR describes the functions of the SEMS in detail.

■ Emergency Operations Center (EOC)

Day-to-day operations are conducted from departments and offices that are widely dispersed throughout the City of Sacramento. When a major emergency or disaster strikes, centralized emergency management is needed. This facilitates a coordinated response by staff, and representatives from departments which are assigned emergency management responsibilities in the city.

An EOC provides a central location of authority and information, and allows for face-to-face coordination among personnel who must make policy level emergency decisions. Please refer to section 7.6, Emergency Response, of the TBR for a detailed account of the functions of the EOC and the conditions under which the EOC will become operative.

■ Mutual Aid

Statewide, California's mutual aid system is designed to ensure that adequate resources, facilities, and other support is provided to jurisdictions whenever their own resources prove to be inadequate to cope with a given situation. Each jurisdiction retains control of its own personnel and facilities, but can give and receive help whenever it is needed. State government, on the other hand, is obligated to provide available resources to assist local jurisdictions in emergencies. More information about the state's mutual aid system is provided in section 7.6, Emergency Response, of the TBR.

Locally, the City of Sacramento maintains an Automatic Aid agreement with Sacramento County and the City of West Sacramento. Under the automatic aid agreement, all calls are routed through a central dispatch center and the nearest resource responds to the call.

■ Emergency Response Routes

The City Department of Transportation works with the Sacramento Fire Department to ensure that emergency response routes provide the fastest possible route throughout the Policy Area. Records of emergency response routes located throughout the city are maintained by the Sacramento Fire Department. Development activities that could potentially interfere with emergency response routes are required to notify the City to minimize impacts that could occur due to interference with the route. The City does not maintain formal evacuation routes, as the most appropriate routes away from an area that may have been affected by a major disaster would be determined by the location and type of incident. Plans for such incidents would also be heavily subject to change. In these cases, the SFD focuses on disaster education to help the public prepare for such an incident. In the event that evacuation within the Policy Area

becomes necessary, the public should listen to information paths available (i.e., television, radio, etc.) for instructions from the City.³

It may be necessary to restrict travel on certain roadways within the Policy Area to facilitate construction activities such as demolition, material hauling, construction, staging, and modifications to existing infrastructure. Such restrictions could include lane closures, lane narrowing, and detours, which would be temporary but could continue for extended periods of time. Lane restrictions, closures, and/or detours could cause an increase in traffic volumes on adjacent roadways, which could affect emergency response routes. Sections 12.20.020 and 12.20.030 of the Sacramento Municipal Code require every development project within the Policy Area to prepare a Traffic Management Plan, which would demonstrate where construction activities could interfere with emergency response routes and other traffic. With this information, the City is able to adequately plan around potential blocks in emergency right-of-way and would have the right to deny or halt construction activities if they would result in an adverse impact on public safety.

Aviation Hazards

The only airport located within the Policy Area is Executive Airport, located in the southern portion of the city within the SACP area. However, portions of the Policy Area are located within the air safety zones of several other airports, including Sacramento International Airport, Mather Airport, McClellan Airfield, and Rio Linda Airport (see Figure 6.6-1).

Sacramento International Airport is located outside the Policy Area, west of the Greenbriar and Metro Air Park development areas. Sacramento International Airport serves millions of passengers each year, and passenger air traffic is anticipated to increase by 3.5 percent per year in the future. In 2004, Sacramento International Airport had approximately 326 aircraft operations occur per day (118,990 flights per year) with 60 percent for commercial purposes, 21 percent for local general aviation, 16 percent for air taxi, and two percent for military purposes.

McClellan Airfield, formerly McClellan Air Force Base, is also located outside of the city but is adjacent to the northeast corner of the Policy Area. According to the TBR, McClellan Airfield has approximately 27 aircraft operations per day. Rio Linda Airport, a small local airport located just north of the Robla Focused Opportunity Area in North Sacramento, serves approximately 137 aircraft operations per day. Mather Airport, located approximately three miles east of the Policy Area, handles approximately 277 aircraft operations per day.

Executive Airport, the only airport in the region located within the Policy Area, is located within the SCAP area, and has approximately 370 aircraft operations per day. Other air traffic may occur within the Policy Area, such as news, law enforcement, and medical transport helicopters,

3 Jay Bowdler, Assistant Chief of Operations, Sacramento Fire Department, personal communication, September 17, 2007.

as well as private aircraft. For detailed information regarding each of these airports, please refer to Chapter 3, Mobility, starting on page 3.5-1, of the TBR.

■ Aircraft Crash Hazards

Sacramento International Airport poses the greatest risk for aircraft crash hazards within the Policy Area, due to its 24-hour operation and large number of flights and passengers. Parts of the Policy Area fall within the airport's designated flight paths, but only high altitude aircraft flies over these locations. Therefore, the risk of an aircraft crash incident in the region causing a hazard to large populations is reduced.

The City of Sacramento Fire Department has mutual aid agreements with other agencies that could provide assistance in the event of an aircraft accident. Sacramento International Airport, Mather Airport, and McClellan Airfield all have airport crash vehicles which could assist in the event of an accident in the Policy Area. The City's Multi-Hazard Emergency Plan contains strategies to help plan for disaster events, including a major transportation incident, such as an aircraft crash, within the City.

Regulatory Context

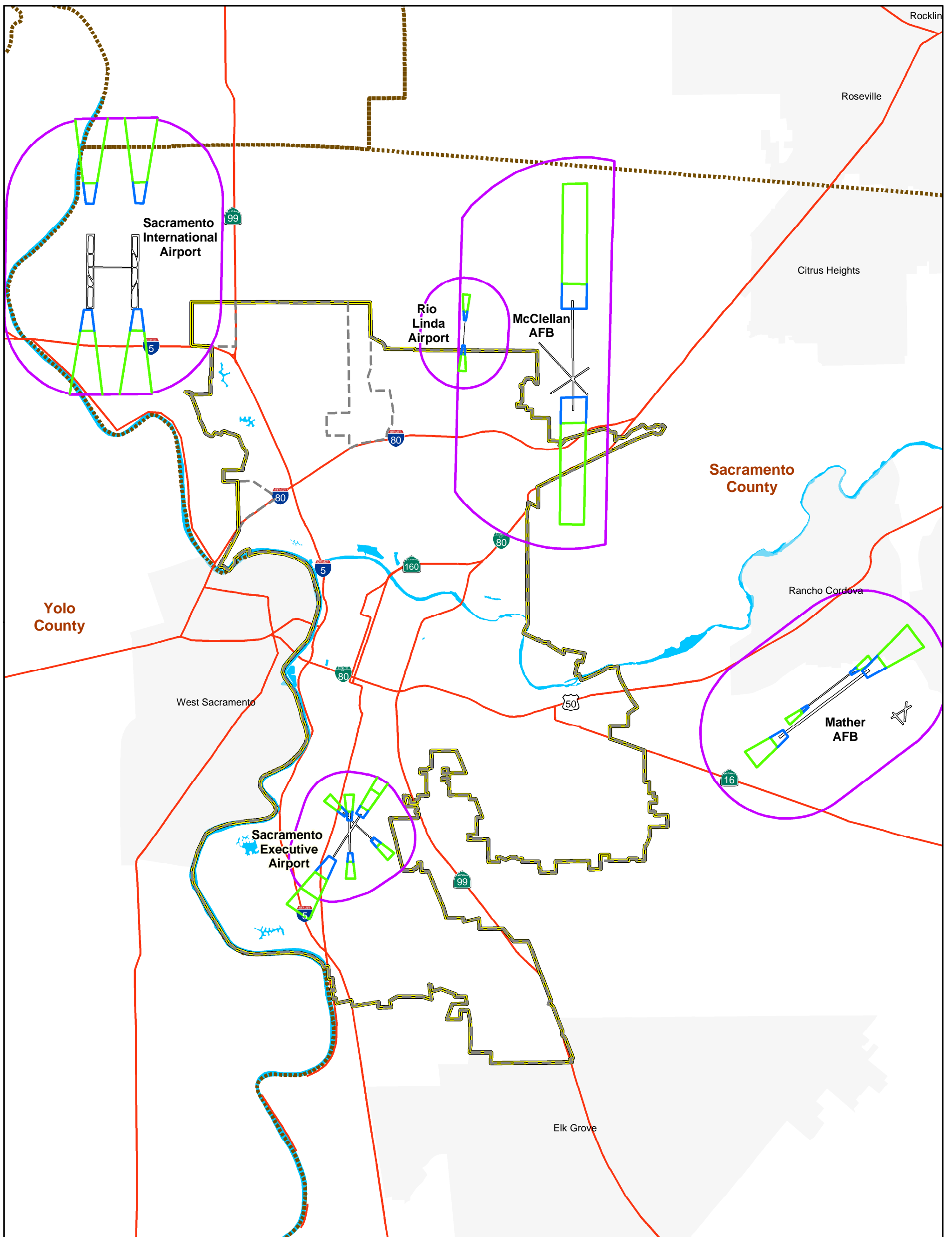
A number of federal, state, and local laws and regulations have been enacted to regulate the management of hazardous materials, emergency response, and aviation hazards. An overview of key laws and regulations related to these hazards is provided below. For purposes of this report, the term "hazardous materials" refers to both hazardous substances and hazardous wastes.⁴ Implementation of these laws and the management of hazardous materials are regulated independently of the CEQA process through programs administered by various agencies at the federal, state, and local levels. A more detailed description of these regulations can be found in sections 7.5, Hazardous Materials, and 7.6, Emergency Response, of the TBR.

■ Federal

Hazardous Materials

Several federal agencies regulate hazardous materials. These include the EPA, the Occupational Safety and Health Administration (OSHA), and the Department of Transportation (DOT). Applicable federal regulations are contained primarily in Titles 10, 29, 40, and 49 of the Code of Federal Regulations (CFR). Lead exposure guidelines are provided by the U.S.

4 This report uses the definition stated in the California Health and Safety Code (CHSC) § 25501: "A hazardous material is any material that, because of its quantity, concentration, or physical, chemical characteristics poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. 'Hazardous materials' include, but are not limited to, hazardous substances, hazardous waste, and any material which a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment."



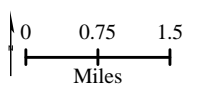
Legend

- Clear Zone
- Approach-Departure Zone
- Overflight Zone
- Airports
- City Limit
- County Boundary
- Policy Area
- Water

Figure 6.6-1

Airports

Sacramento Area Council of Governments, 2007



Department of Housing and Urban Development (HUD). In addition, the U.S. Postal Service has developed regulations for the transport of hazardous materials via mail.

Several federal agencies regulate hazardous substances. These include the EPA, OSHA, and the DOT. Applicable federal regulations and guidelines are contained primarily in Titles 10, 29, 40, and 49 of the CFR, and lead exposure guidelines provided by HUD.

Federal EPA laws governing the use, storage, and disposal of hazardous substances at the proposed project include the following:

- Resources Conservation and Recovery Act (RCRA) - hazardous waste management;
- Hazardous and Solid Waste Amendments Act (HSWA) - hazardous waste management;
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) - cleanup of contamination;
- Superfund Amendments and Reauthorization Act (SARA) - cleanup of contamination;
- Emergency Planning and Community Right-to-Know (SARA Title III) – business inventories and emergency response planning;
- Toxic Substances Control Act (TSCA) – tracks and screens industrial chemicals; and
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) – controls pesticide distribution, sale, and use.

Specific requirements for implementation of these statutes are codified in Title 40 of the CFR.

The U.S. EPA has authorized the DTSC to enforce hazardous waste laws and regulations in California. Requirements place “cradle-to-grave” responsibility for hazardous waste disposal on the shoulders of hazardous waste generators. Generators must ensure that their wastes are disposed of properly, and legal requirements dictate the disposal requirements for many waste streams (e.g., banning many types of hazardous wastes from landfills).

Title 29, Part 1910 of the CFR describes the Hazard Communication Standard, which requires that workers be informed of the hazards associated with the materials they handle. Training in chemical work practices must include methods in the safe handling of hazardous substances, use of emergency response equipment, and an explanation of the building emergency response plan and procedures. Material Safety Data Sheets (MSDS) must be available in the workplace, and containers must be appropriately labeled.

The U.S. DOT has developed regulations in Titles 10 and 49 of the CFR pertaining to the transport of hazardous substances and hazardous wastes by all modes of transportation. The U.S. Postal Service (USPS) has developed additional regulations for the transport of hazardous substances by mail. DOT regulations specify packaging requirements for different types of materials. The U.S. EPA has also promulgated regulations for the transport of hazardous

wastes. These more stringent requirements include tracking shipments with manifests to ensure that wastes are delivered to their intended destinations.

In a typical year, 1.7 to 1.8 million rail freight carloads of hazardous substances are transported by rail throughout the U.S.⁵ In June 2007, in his address to the 2007 Chemical Sector Security Summit, Homeland Security Secretary Michael Chertoff noted that the federal DOT's hazardous materials transportation safety program "provides for a high degree of safety with respect to incidents involving unintentional releases of hazardous materials occurring during transportation." Many, if not most, of the requirements designed to enhance hazardous materials transportation safety, such as strong containers and clear hazard communication, enhance the security of hazardous materials shipments as well. Congress recognized this synergy and legislated its intent that hazmat safety [was] to include hazmat security when it enacted the Homeland Security Act of 2002 authorizing the Secretary of Transportation to prescribe regulations for the safe transportation, including security, of hazardous material in intrastate, interstate, and foreign commerce."

Federal Aviation Administration

FAR 77

Federal Aviation Regulation (FAR) Part 77 establishes standards for determining obstructions in navigable airspace and requires that the Federal Aviation Administration (FAA) Administrator receive notice of proposed construction or alteration at an airport. The standards established in FAR Part 77 apply to alteration of any permanent or temporary existing structure by a change in its height (including appurtenances), or lateral dimensions, including equipment or materials used for construction. Subsections 77.23, Standards for Determining Obstructions, and 77.25, Civil Airport Imaginary Surfaces, are applicable to the proposed project.

Emergency Response

Emergency response at the federal level is managed by the Federal Emergency Management Agency (FEMA), which became part of the Department of Homeland Security in 2003. FEMA's continuing mission within the new department is to lead the effort to prepare the nation for all hazards and effectively manage federal response and recovery efforts following any national incident. FEMA also initiates proactive mitigation activities, trains first responders, and manages the National Flood Insurance Program and the U.S. Fire Administration.

In 2000, the Disaster Mitigation Act was signed into law to amend the Robert T. Stafford Disaster Relief Act of 1988. Among other things, this new legislation reinforces the importance of pre-disaster infrastructure mitigation planning to reduce disaster losses nationwide, and is aimed primarily at the control and streamlining of the administration of federal disaster relief and

5 Association of American Railroads, "Hazmat Transport by Rail," February 2007.

programs to promote mitigation activities. Some of the major provisions of the Disaster Mitigation Act of 2000 include: funding for pre-disaster mitigation activities, developing experimental multi-hazard maps, and establishing state and local government infrastructure mitigation planning requirements.

Aircraft Hazards

The Federal Aviation Administration (FAA) is the federal agency tasked with regulating civil aviation to promote safety, provide an air traffic control system for both military and civil aircraft, and respond to aircraft crash incidents. FAA regulations are mandated to ensure aircraft are suitable for flight to reduce the risk of crash hazards and that airports are sited and operated in a manner to pose the least possible risk to the public.

■ State

Hazardous Materials

Primary state agencies with jurisdiction over hazardous chemical materials management are the DTSC and the RWQCB. Other State agencies involved in hazardous materials management are the Department of Industrial Relations (State OSHA implementation), OES (California Accidental Release Prevention implementation), Department of Fish and Game (DFG), Air Resources Board (ARB), Caltrans, State Office of Environmental Health Hazard Assessment (OEHHA—Proposition 65 implementation) and California Integrated Waste Management Board (CIWMB). The enforcement agencies for hazardous materials transportation regulations are the CHP and Caltrans. Hazardous materials and waste transporters are responsible for complying with all applicable packaging, labeling, and shipping regulations.

Hazardous chemical and biohazardous materials management laws in California include, but are not limited to, the following statutes (and regulations promulgated thereunder): the Hazardous Materials Management Act; Hazardous Waste Control Act; Safe Drinking Water and Toxic Enforcement Act of 1986; Hazardous Substances Act; Hazardous Waste Management Planning and Facility Siting (Tanner Act); Hazardous Materials Storage and Emergency Response; and the California Medical Waste Management Act.

Additional state regulations and agencies pertaining to hazardous materials management and worker safety which are applicable to the city and proposed 2030 General Plan include the California Environmental Protection Agency (Cal EPA), California Accidental Release Prevention Program (Cal ARP), and California Division of Occupational Safety and Health (Cal OSHA). State regulations applicable to hazardous materials are contained in the CCR. Title 22 and 26 of the CCR pertain to hazardous materials and the management of hazardous materials. Title 8 contains Construction Safety Orders pertaining to hazardous materials, including, but not limited to, lead.

Several regulations and guidelines pertain to abatement of and protection from exposure to lead-based paint. These include Construction Safety Order 1532.1 from Title 8 of the CCR and lead-based paint exposure guidelines provided by HUD. In California, lead-based paint abatement must be performed and monitored by contractors with appropriate certification from the California Department of Health Services.

Within Cal EPA, the DTSC has primary regulatory responsibility for hazardous waste management and cleanup. DTSC also regulates hazardous waste under the authority of the federal Resource Conservation and Recovery Act (RCRA) of 1972 and the California Health and Safety Code, as well as implements the Hazardous Waste Control Law of 1972. Cal EPA is also responsible for implementing the “Unified Hazardous Waste and Hazardous Materials Management Regulatory Program” (Unified Program), which includes six program elements (hazardous waste generators and hazardous waste on-site treatment, USTs, above-ground storage tanks, hazardous material release response plans and inventories, risk management and prevention program, and Uniform Fire Code hazardous materials management plans and inventories), which are implemented at a local level by a local agency known as the Certified Unified Program Agency (CUPA). The SCEMD is the CUPA with jurisdiction over the city and Policy Area.

Under the Cal ARP, certain businesses handling larger quantities of certain regulation substances are required to meet certain regulations under the program to prevent accidental releases of the substances that might harm the surrounding environment and community. The Cal ARP requires that these businesses prepare an RMP to decrease the risk of on- or off-site release of the regulated substance in question.

Cal OSHA is responsible for developing and enforcing workplace standards and assuring worker safety in the handling and use of hazardous materials. Under Cal OSHA, some businesses may be required to prepare Injury and Illness Prevention Plans or Chemical Hygiene Plans to meet standards and prevent potential worker incidents with hazardous materials and/or situations.

The California Education Code section 17210 et seq. also provides regulations for siting of school near known or suspected hazardous materials sites, or near facilities that emit or handle hazardous materials or waste. All of the agencies and regulations above are described in more detail starting on page 7.5-6 in section 7.5, Hazardous Materials, of the TBR.

Emergency Response

The OES serves as the lead state agency for emergency management in California. OES coordinates the state response to major emergencies in support of local government. The primary responsibility for emergency management resides with local government. Local jurisdictions first use their own resources and, as they are exhausted, obtain more from neighboring cities and special districts, the county in which they are located, and other counties

throughout the state through the Statewide Mutual Aid System (SEMS). In California, SEMS provides the mechanism by which local government requests assistance. OES serves as the lead agency for mobilizing the state's resources and obtaining federal resources; it also maintains oversight of the state's mutual aid system.

Aircraft Hazards

The California Department of Transportation (Caltrans) Division of Aeronautics performs many functions to promote aviation safety in California. The division uses the State Aeronautics Act, Public Utilities Code (PUC) sections 21001 et seq. to provide policies that promote safety in aeronautics. Functions of the division include the issuance of permits, regulations for airport inspection and design, planning to ensure consistency with federal regulations, and providing grants to airports to improve safety.

Caltrans Division of Aeronautics

FAA regulations are administered at the state level by the Caltrans Division of Aeronautics. The California Department of Transportation's mission in aviation is to foster and promote the development of a safe, efficient, dependable, and environmentally compatible air transportation system. The Division issues permits for and annually inspects hospital heliports and public-use airports; makes recommendations regarding proposed school sites within two miles of an airport runway; and authorizes helicopter landing sites at/near schools. Aviation system planning provides for the integration of aviation into transportation system planning on a regional, statewide, and national basis. The Division of Aeronautics administers noise regulation and land use planning laws that foster compatible land use around airports and encourages environmental mitigation measures to lessen noise, air pollution, and other impacts caused by aviation. The Division of Aeronautics also provides grants and loans for safety, maintenance and capital improvement projects at airports.⁶

■ Local

City of Sacramento 1988 General Plan

The City's 1988 General Plan contains policies and implementation measures relevant to hazardous materials and public safety. Specifically, the 1988 General Plan includes policies that address clean-up of any contaminated sites including any necessary site remediation. Upon approval of the proposed 2030 General Plan, all policies and implementation measures in the 1988 General Plan would be superseded. Therefore, they are not included in this analysis.

6 Caltrans Division of Aeronautics, <www.dot.ca.gov/hq/planning/aeronaut/index.html>, accessed September 12, 2008.

Hazardous Materials

The SCEMD is responsible for promoting a safe and healthy environment in the County and enforcing hazardous waste laws and regulations at a local level. As the local CUPA, the SCEMD monitors the proper use, storage and clean up of hazardous materials, monitoring wells, removal of leaky underground storage tanks, and permits for the collection, transport, use or disposal of refuse. The SCEMD developed the Area Plan for Emergency Response to Hazardous Materials Incidents in Sacramento County (Area Plan). The Area Plan provides information for agencies involved in hazardous materials response within Sacramento County, including, but not limited to, the Sacramento County Sheriff's Department, Sacramento City Fire Department, State OES, Sacramento County Health Department, Public Works, and the CHP, if needed to respond to a hazardous materials incident. As stated above, under Emergency Response for Hazardous Materials, the SCEMD works with the Sacramento City Fire Department to form the HAZMAT Program to locally respond to hazardous materials incidents.

Other local regulations or regulating agency that are relevant to hazardous materials in the Policy Area include the City Department of Utilities, which monitors all groundwater discharges to ensure they are free of contamination through enforcement of the Department of Utilities Engineering Services Policy No. 0001 (adopted as Resolution No. 92-439 by the Sacramento City Council) and Sacramento Metropolitan Air Quality Management District (SMAQMD) Rule 902 also protects the public from exposure to asbestos, in the event of a release.

Emergency Response

Local emergency response in Sacramento is regulated by both the City of Sacramento Multi Hazard Emergency Plan and the Sacramento County Multi Hazard Mitigation Plan, both of which are described above under Emergency Response in the Environmental Setting. Please see section 7.6, Emergency Response, of the TBR for a more detailed description of the plans.

Airport Land Use Compatibility Plans (ALUCPs)

Airport Land Use Compatibility Plans (ALUCPs) are prepared to provide guidance to ensure compatible land uses within the vicinity of airports. Public safety and the reduction of aviation hazards are concerns in the airport planning process. The Sacramento Area Council of Governments (SACOG) serves as the Airport Land Use Commission (ALUC) for Sacramento County. The ALUC has two primary functions: (1) the protection of public health, safety, and welfare through the adoption of land use standards that minimize the public's exposure to safety hazards and excessive noise from nearby airports, and; (2) to prevent the intrusion of incompatible land uses around airports to preserve the utility of the County's airports in the future.

IMPACTS AND MITIGATION MEASURES

Methods of Analysis

The analysis of impacts associated with hazards and hazardous materials is based on available information on potential hazards that exist or may exist within the Policy Area along with a review of databases and hazardous materials lists containing information on hazardous materials sites. The analysis assumes that all future and existing development within the Policy Area complies with all applicable laws, regulations, design standards, and plans. The City monitors and enforces such compliance.

Proposed General Plan Policies

The following goals and policies from the proposed General Plan are relevant to hazards and hazardous materials within the entire Policy Area. The proposed General Plan does not include any policies regarding hazards or hazardous materials that are unique to any of the City's Focused Opportunity Areas.

PUBLIC HEALTH AND SAFETY (PHS)

Goal PHS 3.1 Reduce Exposure to Hazardous Materials and Waste. Protect and maintain the safety of residents, businesses, and visitors by reducing, and where possible, eliminating exposure to hazardous materials and waste.

Policies

- PHS 3.1.1 **Investigate Sites for Contamination.** The City shall ensure buildings and sites are investigated for the presence of hazardous materials and/or waste contamination before development for which discretionary approval is required. The City shall ensure appropriate measures are taken to protect the health and safety of all possible users and adjacent properties.
- PHS 3.1.2 **Hazardous Material Contamination Management Plan.** The City shall require that property owners of known contaminated sites work with Sacramento County, the State, and/or Federal agencies to develop and implement a plan to investigate and manage sites that contain or have the potential to contain hazardous materials contamination that may present an adverse human health or environmental risk.
- PHS 3.1.3 **Household Hazardous Waste Collection Programs.** The City shall continue to provide household hazardous waste collection programs to encourage proper disposal of products containing hazardous materials or hazardous wastes.
- PHS 3.1.4 **Transportation Routes.** The City shall restrict transport of hazardous materials within Sacramento to designated routes.
- PHS 3.1.5 **Clean Industries.** The City shall strive to maintain existing clean industries in the city and discourage the expansion of businesses, with the exception of health care and related medical facilities, that require on-site treatment of hazardous industrial waste.
- PHS 3.1.6 **Compatibility with Hazardous Materials Facilities.** The City shall ensure that future development of treatment, storage, or disposal facilities is consistent with the

County's Hazardous Waste Management Plan, and that land uses near these facilities, or proposed sites for the storage or use of hazardous materials, are compatible with their operation.

PHS 3.1.7 **Education.** The City shall continue to educate residents and businesses on how to reduce or eliminate the use of hazardous materials and products, and shall encourage the use of safer, non-toxic, environmentally-friendly equivalents.

Goal PHS 4.1 Response to Natural and Human-Made Disasters. Promote public safety through planning, preparedness, and emergency response to natural and human-made disasters.

Policies

PHS 4.1.1 **Multi-Hazard Emergency Plan.** The City shall maintain and implement the Multi-Hazard Emergency Plan to address disasters such as earthquakes, flooding, dam or levee failure, hazardous material spills, epidemics, fires, extreme weather, major transportation accidents, and terrorism.

PHS 4.1.2 **Post-Disaster Response.** The City shall plan for the continued function of critical facilities following a major seismic or geologic disaster to help prevent major problems during post-disaster response such as evacuations, rescues, large numbers of injuries, and major clean up operations.

PHS 4.1.3 **Emergency Operations Center.** The City, in conjunction with other local, State, and Federal agencies, shall ensure operational readiness of the Emergency Operations Center (EOC), conduct annual training for staff, and maintain, test, and update equipment to meet current standards.

PHS 4.1.4 **Emergency and Disaster Preparedness Exercises.** The City shall coordinate with local and regional jurisdictions to conduct emergency and disaster preparedness exercises to test operational and emergency plans.

PHS 4.1.5 **Mutual Aid Agreements.** The City shall continue to participate in mutual aid agreements to ensure adequate resources, facilities, and other support for emergency response.

PHS 4.1.6 **Education Programs.** The City shall sponsor and support educational programs regarding emergency response, disaster preparedness protocols and procedures, and disaster risk reduction.

ENVIRONMENTAL CONSTRAINTS (EC)

Goal EC 1.1 Hazards Risk Reduction. Protect lives and property from seismic and geologic hazards and adverse soil conditions.

Proposed South Area Community Plan Policies

The South Area Community Plan contains two policies regarding public health and safety:

SA.PHS 1.1 **Emergency Service Coverage.** The City shall improve city police, fire, and ambulance service in the Valley Hi/North Laguna area.

SA.PHS 1.2 **Public Service Coordination.** The City shall coordinate among the various agencies in the South Area in order to better provide public services across Sacramento County and city borders.

Thresholds of Significance

For the purposes of this EIR, impacts related to hazards and hazardous materials are considered significant if the proposed General Plan would:

- expose people (e.g., residents, pedestrians, construction workers) to existing contaminated soil during construction activities;
- expose people (e.g., residents, pedestrians, construction workers) to asbestos-containing materials, or other hazardous materials or situations; or
- expose people (e.g., residents, pedestrians, construction workers) to existing contaminated groundwater during construction or dewatering activities.

Impacts and Mitigation Measures

A summary of all Hazards and Hazardous Materials impacts and their levels of significance is located at the end of this technical section.

Impact 6.6-1	Implementation of the 2030 General Plan may result in the exposure of people to hazards and hazardous materials during construction activities.
Applicable Regulations	<i>Comprehensive Environmental Response , Compensation, and Liability Act (CERCLA); Resource Conservation and Recovery Act (RCRA); Part 61, Subpart M of the CFR; Occupational Safety and Health Administration (OSHA) Hazard Communication Standard; CCR Title 8; Section 25401.05 (a)(1) of the California Health and Safety Code; Section 17210 et seq. of the California Education Code; SMAQMD Rule 902 (amended 1998); Department of Utilities Engineering Services Policy No. 0001 (adopted as Resolution No. 92-439 by the Sacramento City Council); Sacramento Municipal Code sections 12.20.020 and 12.20.030</i>
Significance Before Mitigation	<i>Less than Significant</i>
Mitigation Included in the SGP	<i>Policies PHS 3.1.1, PHS 3.1.2, PHS 4.1.1</i>
Significance after Mitigation Included in the SGP	<i>Less than Significant</i>
Additional Mitigation	None required
Residual Significance	Less than Significant

Future implementation of the proposed 2030 General Plan would result in urban infill and redevelopment, along with the intensification of development within the city requiring that existing structures may need to be demolished prior to the construction of new buildings. Demolition of existing structures in the city could result in exposure of construction personnel and the public to hazardous substances such as asbestos or lead-based paints. Exposure pathways by which receptors could be exposed to hazardous materials include any of the following:

- Direct dermal contact with hazardous materials;
- Incidental ingestion of hazardous materials (usually due to improper hygiene, when workers fail to wash their hands before eating, drinking, or smoking);
- Inhalation of airborne dust released from dried hazardous materials.

Various regulations and guidelines pertaining to abatement of, and protection from, exposure to asbestos and lead have been adopted for demolition activities. These requirements include: SMAQMD Rule 902 pertaining to asbestos abatement, Construction Safety Orders 1529 (pertaining to asbestos) and 1532.1 (pertaining to lead) from Title 8 of the CCR, Part 61, Subpart M of the CFR (pertaining to asbestos), and lead exposure guidelines provided by HUD. In California, asbestos and lead abatement must be performed and monitored by contractors with appropriate certifications from the State Department of Health Services. In addition, the California Occupational Safety and Health Administration (Cal/OSHA) has regulations concerning the use of hazardous materials, including requirements for safety training, availability of safety equipment, hazardous materials exposure warnings, and emergency action and fire prevention plan preparation. Cal/OSHA enforces the hazard communication program regulations, which include provisions for identifying and labeling hazardous materials, describing the hazards of chemicals, and documenting employee-training programs. All demolition that could result in the release of lead and/or asbestos must be conducted according to Cal/OSHA standards.

Aside from demolition, the grading, excavation, and dewatering of sites for new development in the city resulting from implementation of the proposed General Plan may also expose construction workers and the public to known or potentially unknown hazardous substances present in the soil or groundwater. As stated above under the Environmental Setting and in section 7.5 (Hazardous Materials) in the TBR, there are identified sites within the city that are listed in the CERCLIS database, EnviroStor database, the SLIC list, LUST database, and Sacramento County Department of Environmental Management's toxic site list. These sites represent potential health hazards, and have experienced contamination from the release of hazardous substances into the soil. However, any new development proposed within these documented hazardous materials sites would first be required to undergo remediation and cleanup under the supervision of DTSC, SCEMD, and/or RWQCB, depending on the particular characteristics of each site, before construction activities could begin. As discussed in the Environmental Setting and section 7.5 (Hazardous Materials) of the TBR, existing land uses that may potentially contain contaminated sites in the city include former military facilities, industrial and commercial properties, gas stations, etc. Potential soil contamination in these areas must be properly identified and cleaned up prior to any development activities on any of these sites to prevent exposure of people and the environment to these hazards. Additionally, it is also possible that old underground storage tanks (USTs) that were in use prior to permitting and record keeping requirements may be present throughout the city. If an unidentified underground storage tank were uncovered or disturbed during construction activities, it would be sealed and abandoned in place or removed. Removal activities could pose both health and safety risks,

such as the exposure of workers, tank handling personnel, and the public to tank contents or vapors. Potential risks, if any, posed by underground storage tanks would be minimized by managing the tank according to Sacramento County standards as enforced and monitored by the Department of Environmental Management. The extent to which groundwater may have been affected, if at all, depends on the type of contaminant, the amount released, and depth to groundwater at the time of the release, if any, occurred. If groundwater contamination has been identified, remediation activities would be required by the RWQCB, DTSC, SCEMD, or other appropriate agency prior to the commencement of any new construction activities. All dewatering activities for projects within the policy area would be subject to the requirements of the City's Department of Utilities Engineering Services Policy No. 0001 (adopted as Resolution No. 92-439 by the Sacramento City Council), which protects water quality by monitoring dewatering activities and ensuring that all groundwater discharges are free of contamination.

In the event undiscovered hazardous material contamination is found in the soil or groundwater during construction activities for new development in the city, such contamination could cause various short-term or long-term adverse health effects in persons exposed to the hazardous substances. In addition, exposure to contaminants could occur if the contaminants migrated from the contaminated zone to surrounding areas either before or after the surrounding areas were developed, or if contaminated zones were disturbed by future development at the contaminated location. To prevent potential health hazards to construction workers and the public from exposure to previously unknown contamination, Policy PHS 3.1.1 of the Public Health and Safety Element of the proposed 2030 General Plan would require that buildings and sites under consideration for new development or redevelopment are investigated for the presence of hazardous materials prior to development activities. Similarly, Policy PHS 3.1.2 requires that property owners of contaminated sites develop plans to investigate and manage hazardous material contamination to prevent risk to human health or the environment. In addition, upon identification of the contamination, a remediation plan pursuant to section 25401.05 (a)(1) of the California Health and Safety Code and approved by the appropriate agency or authority must be implemented at the site.

In addition to construction impacts associated with hazardous materials, during construction of projects, it may be necessary to restrict travel on certain roadways within the Policy Area to facilitate construction activities such as demolition, material hauling, construction, staging, and modifications to existing infrastructure. Such restrictions could include lane closures, lane narrowing, and detours, which would be temporary but could continue for extended periods of time. Lane restrictions, closures, and/or detours could cause an increase in traffic volumes on adjacent roadways. In the event of an emergency, emergency response access or response times could be adversely affected. To prevent interference with emergency response, the City requires all development projects to prepare Traffic Management Plans for construction activities, as required by sections 12.20.020 and 12.20.030 of the Sacramento Municipal Code. Compliance would ensure that construction impacts interfering with emergency response are minimized.

Compliance with all applicable rules and regulations, along with implementation of the proposed General Plan policies would ensure that construction workers and the general public would not be exposed to any unusual or excessive risks related to hazardous materials or interference with emergency response during demolition or construction activities. This would minimize these impacts associated with demolition and construction activities to a ***less-than-significant level***.

Mitigation Measure

None required.

Impact 6.6-2	Implementation of the 2030 General Plan may result in the exposure of people to hazards and hazardous materials during the life of the General Plan.
Applicable Regulations	<i>Hazardous Waste Control Law (1972); Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program, 1996); Occupational Safety and Health Administration (OSHA); City of Sacramento Multi-Hazard Emergency Plan; Unified Hazardous Materials Release Response Plans and Inventory Law (Business Plan Act, 1986); California Accidental Release Prevention Program (CalARP, 1997)</i>
Significance Before Mitigation	<i>Less than Significant</i>
Mitigation Included in the SGP	<i>Policies PHS 3.1.4, PHS 3.1.5, PHS 3.1.6</i>
Significance after Mitigation Included in the SGP	<i>Less than Significant</i>
Additional Mitigation	None required
Residual Significance	Less than Significant

Development associated with the proposed 2030 General Plan would add new buildings, structures, infrastructure, and population to the Policy Area, all of which would be subject to impacts associated with hazards and hazardous materials. Such potential incidents may include accidental spills or releases, intentional releases, such as from a terrorist attack, and/or the release of hazardous materials during or following a natural disaster such as an earthquake or flood. Throughout the 25-year life of the proposed General Plan, hazardous materials would be used, transported, and stored throughout the Policy Area. Most household and general commercial uses of hazardous materials would be very minor and would not result in a substantial increase in the risk of a hazardous materials incident. As stated in the Environmental Setting, there are existing TSD facilities in the Policy Area, and the City has determined that the area bounded by Jackson Highway, Elk Grove-Florin Road, and Florin Road, located within the Fruitridge/Broadway Community Plan Area, would be a suitable location for future TSD facilities, if developed in the future. If developed, these future facilities would be subject to additional evaluation if they are developed within the Policy Area. Furthermore, proposed General Plan policies PHS 3.1.5 encourages clean industries within the city, while discouraging businesses that require on-site treatment of solid waste and Policy PHS

3.1.6 ensures that future development of TSD facilities are consistent with the County's HWMP and compatible with nearby land uses.

The Policy Area also contains transportation corridors used to transport hazardous materials, including U.S. Highway 50; Interstates 5 and 80, and Capital City Freeway; and State Routes 99, 16, and 160; and the Union Pacific Railroad. In addition to highways there are also major arterial roads throughout the city as well as nearby airports that may be used to transport hazardous materials either into or out of the city. The transportation of hazardous materials is subject to applicable local, state, and federal regulations, the intent of which is to minimize the risk of upset during routine operations. In addition, proposed General Plan Policy PHS 3.1.4 restricts transportation of hazardous materials to designated routes within the city to protect public safety. However, it is possible that small quantities of hazardous materials could be transported along roads throughout the city on an every day basis.

Implementation of the proposed General Plan would also result in development that could expose people to the hazards associated with aircraft crashes, especially in areas containing or adjacent to airports, such as the North Natomas Community Plan Area and SACP area. As discussed in the Environmental Setting, the only airport located within the Policy Area is Executive Airport, located within the SACP area. However, portions of the Policy Area are located within the air safety zones of several other airports, including Sacramento International Airport, Mather Airport, McClellan Airfield, and Rio Linda Airport.

All air traffic within the city, including that associated with other air traffic, such as law enforcement helicopters and medical air transport helicopters, are subject to many stringent regulations to protect the public from potential aircraft hazards or other safety concerns, such as FAA regulations and Caltrans regulations. However, all development surrounding any airport is required to comply with that airport's ALUCP, which ensures that airport operations do not interfere with public safety and that development within air safety zone is appropriate. In the unlikely event of an aircraft crash, the City of Sacramento Multi-Hazard Emergency Plan contains strategies to help plan for disaster events, including a major transportation incident, such as an aircraft crash, within the city. Compliance with each airport's ALUCP and the City's Multi-Hazard Emergency Plan would reduce the risk of impacts associated with aircraft hazards as well as incompatible land uses.

The primary focus of an ALUCP is to address noise and safety concerns. Each airport has an Airport Land Use Commission (ALUC) that makes compatibility determinations for compliance of all proposed development around an airport. To minimize compatibility issues the ALUCP limits the height, type, and intensity of land uses surrounding airports to reduce safety concerns associated with aircraft crashes as well as uses that are sensitive to noise. A local jurisdiction may override an ALUC compatibility determination for any proposed incompatible land use by a two-thirds majority vote; however, they must notify the Division of Aeronautics and the ALUC of this intent. Any potential noise or safety incompatibility concern with locating a specific land use in close proximity to an airport is thoroughly reviewed with specific recommendations set forth

by the ALUC. As mentioned above, compliance with each airport's ALUCP would ensure there would be no exposure of people to aircraft-related hazards.

For all impacts associated with hazards and hazardous materials, compliance with all applicable regulations, hazardous waste management plans, land use plans, and emergency plans, along with implementation of the proposed General Plan policies would ensure that all operational impacts associated with the proposed General Plan would be ***less than significant***.

Mitigation Measure

None required.

Cumulative Impacts and Mitigation Measures

The cumulative context for the analysis of potential hazardous materials impacts is generally site-specific, rather than cumulative in nature. Because the proposed General Plan takes into account all projected future growth and development within the Policy Area, the impacts that are discussed in this section pertaining to hazardous materials also analyzes all cumulative effects as well. Compliance with all applicable federal, state, and local regulations related to hazards and hazardous materials on a project-by-project basis would be required for all projects within the region, including the Policy Area. Additionally, site-specific investigations would be conducted at all future development sites within the Policy Area to determine impacts and need for mitigation. Based on this information, this analysis does not include a separate evaluation of cumulative impacts pertaining to hazardous materials during either construction or operation of future projects within the Policy Area.

However, impacts associated with emergency response and airport hazards may be analyzed in a cumulative context. For emergency response, the cumulative context includes all projects within the Policy Area, since the City would provide emergency response services to these areas. Cumulative impacts associated with airport hazards are analyzed in the context of the areas within each airport's ALUCP. In this case, the Policy Area contains areas that are also within the ALUCPs for the Sacramento International Airport, Executive Airport, Rio Linda Airport, and McClellan Airfield.

Impact 6.6-3	Implementation of the 2030 General Plan combined with each airport's ALUCP within and adjacent to the Policy Area may result in the exposure of people to hazards associated with interference to emergency response and airport hazards during the life of the General Plan.
Applicable Regulations	<i>City of Sacramento Multi-Hazard Emergency Plan; Sacramento Municipal Code sections 12.20.020 and 12.20.030</i>
Significance Before Mitigation	<i>Less than Significant</i>
Mitigation Included in the SGP	<i>Policy PHS 4.1.1.</i>
Significance after Mitigation Included in the SGP	<i>Less than Significant</i>
Additional Mitigation	None required
Residual Significance	Less than Significant

Demolition and construction activities and development within the Policy Area that alter, close, or in other ways affect traffic in the area could interfere with emergency and evacuation routes could potentially affect emergency response times and access. If traffic restrictions resulting from a project occurred simultaneously with similar traffic restrictions resulting from other projects occurring within the Policy Area, specifically for projects in close proximity to one another, emergency response access, response times, and evacuation routes could be adversely affected throughout the area. Implementation of Sacramento Municipal Code sections 12.20.020 and 12.20.030 requires the preparation of construction Traffic Management Plans for each project within the Policy Area, which would help to reduce impacts to emergency response on a project-level basis. However, if the traffic management plans for individual projects interfere with each other or would contribute to a cumulative impact, the City may deny the plans and/or suggest changes that would ensure that each plan is compatible with others and would not contribute to a cumulative effect.

In addition, as stated above under Impact 6.6-2, implementation of the proposed General Plan would increase population within the Policy Area and allow the development of projects in areas near airports, potentially increasing the number of people who may be at risk in the event of an aircraft crash. However, as also stated under the impact discussion, air traffic is subject to stringent regulations monitored and enforced by the FAA and Caltrans aimed at protecting public safety. This combined with compliance with the ALUCP for each airport would ensure that development within the areas near airports is compatible with airport activities. For example, tall buildings or structures would be prohibited in areas where aircraft could fly at low altitudes. In addition, the City of Sacramento Multi-Hazard Emergency Plan would ensure that the City is ready to respond in the unlikely event that an aircraft crash occurs within the Policy Area.

Therefore, compliance with all applicable regulations, codes, and plans would ensure that cumulative impacts resulting from potential hazards due to interference with emergency response and aircraft crash hazards would not be considerable resulting in a ***less than significant cumulative impact***.

Mitigation Measure

None required.

South Area Community Plan

As stated above under the Cumulative Context, the analysis of hazards and hazardous materials is primarily based on site-specific characteristics of each individual site. Site-specific hazardous materials analyses would determine the specific individual hazards and hazardous materials issues at each individual project site throughout SACP area. The SACP area does not contain any particular hazardous materials issues areas, and therefore is no more susceptible to hazards or the effects of hazardous materials than the remainder of the Policy Area. Therefore, it is assumed that impacts resulting from projects in the SACP Area would be the same as they would be in the rest of the Policy Area. No additional mitigation would be necessary.

Focused Opportunity Areas

All of the proposed Focused Opportunity Areas are not located in areas of the city that would be any more or less susceptible to potential impacts resulting from hazards and/or hazardous materials than the remainder of the Policy Area. Site-specific analyses for projects within these areas would be required prior to development activities to determine whether individual project sites would require additional mitigation beyond mandated federal, state, and local requirements.

Insufficient Information to Support a Complete Analysis of the Potential Impacts

Section 15176(c) of the CEQA Guidelines acknowledges that all the information necessary to analyze potential impacts associated with anticipated future development may not be available. It is anticipated that future development within the Focused Opportunity Areas, specifically the River District, as well as in the SACP and future development within the Policy Area could include potential impacts associated with hazards, hazardous materials, and public safety. At this time specific project information is not available (i.e., individual building design, site-specific location, etc.) to evaluate potential impacts associated with hazards, hazardous materials, and public safety. The City has identified specific goals and policies that address concerns associated with the use, disposal, transport, and handling of hazardous materials as well as public education and emergency response concerns. Once specific development proposals are prepared and submitted to the City, a project-specific environmental analysis would be prepared to analyze potential impacts on hazards, hazardous materials and public safety.

SUMMARY OF HAZARDS AND HAZARDOUS MATERIALS IMPACTS			
LEVEL OF SIGNIFICANCE			
	6.6-1 Implementation of the 2030 General Plan may result in the exposure of people to hazards and hazardous materials during construction activities.	6.6-2 Implementation of the 2030 General Plan may result in the exposure of people to hazards and hazardous materials during the life of the General Plan.	6.6-3 Implementation of the 2030 General Plan combined with each airport's ALUCP within and adjacent to the Policy Area may result in the exposure of people to hazards associated with interference to emergency response and airport hazards during the life of the General Plan.
Community Plan Areas			
Arden-Arcade	○	○	○
Central City	○	○	○
East Broadway	○	○	○
East Sacramento	○	○	○
Land Park	○	○	○
North Natomas	○	○	○
North Sacramento	○	○	○
Pocket	○	○	○
South Area	○	○	○
South Natomas	○	○	○
Focused Opportunity Areas			
65 th Street/University Village	○	○	○
Arden Fair/Point West	○	○	○
Florin LRT/Subregional Center	○	○	○
Meadowview LRT	○	○	○
River District	○	○	○
Robla	○	○	○
○ = less than significant ● = less than significant with mitigation incorporated ● = significant and unavoidable			

6.7 Hydrology and Water Quality



HYDROLOGY AND WATER QUALITY

INTRODUCTION

This section of the EIR evaluates the potential environmental effects related to hydrology and water quality associated with implementation of the proposed 2030 General Plan (proposed project). The analysis includes a review of surface water, groundwater, flooding, stormwater, and water quality.

The 2030 General Plan includes policies in the Environmental Resources Element that guide development and infrastructure practices to protect surface water and groundwater from the degradation of runoff and pollution.

In response to the NOP, one comment relevant to hydrology and water quality was received from the Central Valley Flood Protection Board (see Appendix B). The comment was focused on encroachment into the State Plan of Flood Control. However, the proposed General Plan is not located within an area designated on the State Plan of Flood Control maps; therefore, this issue is not further discussed in this section.¹

Information for this section is based on numerous references, including the City of Sacramento General Plan Technical Background Report (2005) (TBR), Multi-Hazard Emergency Plan (May 2002), Floodplain Management Plan (February 6, 1996), and other publicly available documents. The TBR prepared for the project is available electronically on the City's website (<http://www.sacgp.org/documents.html#tbr>) and on CD at the back of this document.

ENVIRONMENTAL SETTING

Unless otherwise stated, the following information is a summary of more detailed information included in section 6.2, Water Resources of the TBR.

Precipitation

Precipitation in the Policy Area occurs mostly as rain during the months of November through March. Climate data collected from 1941 through 2003 shows that annual rainfall averaged 17.22 inches, but is variable. Recorded annual rainfall has ranged from a low of 6.25 inches in 1976 to a high of 33.44 inches in 1983.

¹ California Department of Water Resources, State Reclamation Board, <www.recbd.ca.gov/maps/index.cfm>, accessed January 4, 2008.

Surface Water Resources

■ Sacramento River

The city of Sacramento is located at the confluence of the Sacramento and American rivers in the Sacramento River Basin (see Figure 6.7-1). The Sacramento River Basin encompasses about 27,000 square miles and is bounded by the Sierra Nevada to the east, the Coast Ranges to the west, the Cascade Range and Trinity Mountains to the north, and the Sacramento – San Joaquin Rivers Delta to the southeast. The Sacramento River Basin is the largest river basin in California, capturing, on average, approximately 22 million acre-feet of annual precipitation. The Sacramento Valley portion of the basin contains the largest population, concentrated in the cities of Sacramento, West Sacramento, Chico, Red Bluff, and Redding. The river is regulated by dams, for power generation, flood control, water supply, recreation, fisheries, and wildlife management.

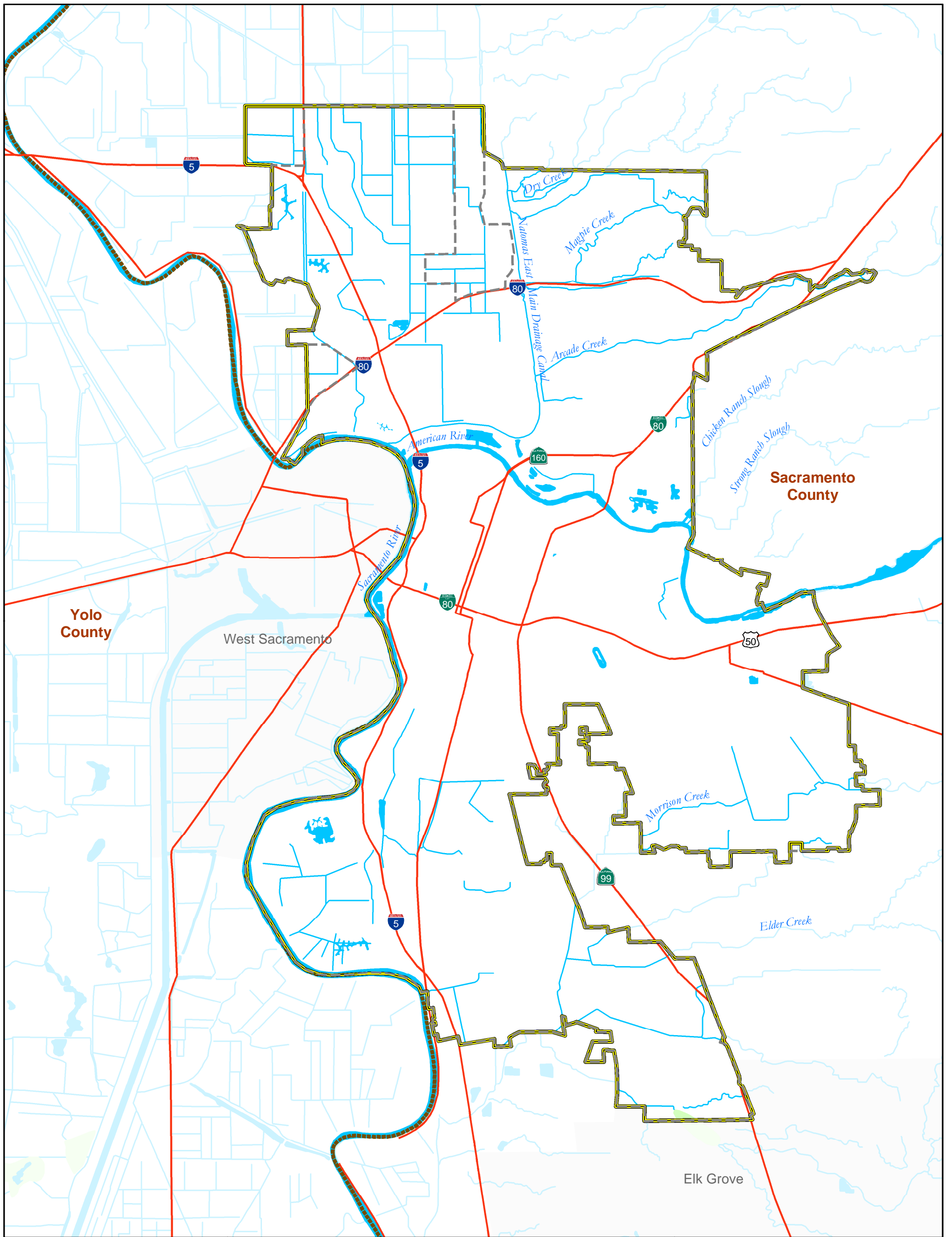
Six small tributaries of the Sacramento River pass through and provide drainage for the city of Sacramento. These tributaries are Dry Creek, Magpie Creek, and Arcade Creek in the northern portion of the city (north of the American River), and Morrison Creek, Elder Creek, and Laguna Creek in the southern portion of the city (south of the American River). Forty miles south of the Sacramento area, the Sacramento River joins the San Joaquin River, which drains into the San Francisco Bay.

■ American River







The American River watershed encompasses approximately 1,900 square miles and is a tributary to the Sacramento River. The American River watershed is situated on the western slope of the Sierra Nevada mountain range, extending from the spine of the Sierra Nevada westward to the city of Sacramento. The American River watershed climate is temperate and is characterized by wet winters and dry summers; 95 percent of the annual precipitation occurs between November and April as both rain and snow. The river is regulated by dams, canals, and pipelines for power generation, flood control, water supply, recreation, fisheries, and wildlife management. Folsom Dam, located on the American River, is owned and operated by the U.S. Bureau of Reclamation. Folsom Lake and its afterbay, Lake Natoma, release water to the lower American River and to the Folsom South Canal. The operation of Folsom Dam directly affects most of the water utilities on the American River system.

■ Other Surface Water Bodies

The Policy Area contains many natural and man-made drainage features that ultimately drain into the Sacramento River. In addition to those listed above, local surface water drainages or creeks such as Chicken Ranch and Strong Ranch sloughs, Florin Creek, and Rio Linda Creek are additional major natural drainages within the Policy Area. Man-made drainage canals, such as the Natomas East Main Drain Canal and the East, West, and Main Drainage Canals provide

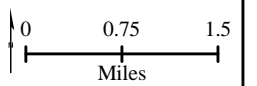


Legend

-  Rivers, Streams, and Creeks
-  Water
-  City Limit
-  Other City Boundaries
-  County Boundary
-  Policy Area

**Figure 6.7-1
Natural
Waterways**

USGS 2000



drainage for a large portion of the urbanized areas within the Policy Area that are not served by the City's combined sewer system (CSS) or the City's storm drainage collection system.

Surface Water Quality

The Sacramento and American rivers have been classified by the Central Valley Regional Water Quality Control Board (CVRWQCB) as having numerous beneficial uses, including providing municipal, agricultural, and recreational water supply. Other beneficial uses include freshwater habitat, spawning grounds, wildlife habitat, navigation on the Sacramento River, and industrial uses on the American River. Ambient water quality in the Sacramento and American rivers is influenced by numerous natural and artificial sources, including soil erosion, discharges from industrial and residential wastewater plants, stormwater runoff, agriculture, recreation activities, mining, timber harvesting, and flora and fauna. The reaches of the Sacramento and American rivers that flow through the Sacramento urban area are considered impaired for certain fish consumption and aquatic habitat and are listed on the EPA approved 2006 section 303(d) list of water quality limited segments. The Sacramento River is listed as impaired under the 303(d) list for mercury and unknown toxicity and the American River is listed for mercury and unknown toxicity. Other major creeks, drainage canals, and sloughs in the city boundaries are also listed for pesticides and copper. The Natomas East Main Drainage Canal is listed for the pesticide diazinon and polychlorinated biphenyls (PCBs). Table 6.7-1 shows waterbodies in the urbanized Sacramento area that are considered impaired based on identified exceedances of water quality standards.

Based on current water quality reports, the American and Sacramento rivers are both excellent supplies for drinking water. These rivers can be treated to meet all Title 22 drinking water standards using conventional and direct filtration processes, as well as newer membrane technologies. There are no persistent constituents in the raw waters that require additional treatment processes.²

■ Urban Runoff

Constituents found in urban runoff vary as a result of differences in rainfall intensity and occurrence, geographic features, the land use of a site, as well as vehicle traffic and percent of impervious surface. In the Sacramento area, there is a natural weather pattern of a long dry period from May to October. During this seasonal dry period, pollutants contributed by vehicle exhaust, vehicle and tire wear, crankcase drippings, spills, and atmospheric fallout accumulate within the urban watershed. Precipitation during the early portion of the wet season (November to April) washes these pollutants into the stormwater runoff, which can result in elevated pollutant concentrations in the initial wet weather runoff.

2 Archibald & Wallberg Consultants and MWH, Americas, *American River Watershed Sanitary Survey 2003 Update*, December 2003.

TABLE 6.7-1			
WATERBODIES EXCEEDING WATER QUALITY STANDARDS			
Waterbody	Reach	Estimated Size Affected	Pollutant/Stressor(s)
Sacramento San Joaquin Delta		41,746 acres	Chlordane DDT Dieldrin Dioxin Compounds (including 2,3,7,8-TCDD) Exotic Species Furan Compounds Mercury Nickel PCBs (Polychlorinated biphenyls) PCBs (Polychlorinated biphenyls (dioxin-like) Selenium
American River (Nimbus Dam to confluence with Sacramento River)	Lower	27 miles	Mercury
Arcade Creek		9.9 miles	Chlorpyrifos Diazinon Copper
Morrison Creek	Morrison Creek from Elk Grove-Florin Rd to Beach Lake	26 miles	Chlorpyrifos Diazinon
Elder Creek		11 miles	Chlorpyrifos Diazinon
Elk Grove Creek		6.9 miles	Chlorpyrifos Diazinon
Strong Ranch Slough		6.4 miles	Chlorpyrifos Diazinon
Chicken Ranch Slough		8 miles	Chlorpyrifos Diazinon
Natoma, Lake		485 acres	Mercury
Natomas East Main Drainage Canal	(aka Steelhead Creek, downstream of confluence with Arcade Creek)	3.5 miles	Diazinon PCBs (Polychlorinated biphenyls)
Natomas East Main Drainage Canal	(aka Steelhead Creek, upstream of confluence with Arcade Creek)	12 miles	PCBs (Polychlorinated biphenyls)
Sacramento River	Knights Landing to the Delta	16 miles	Mercury Diazinon Unknown Toxicity
Source: Central Valley Regional Water Quality Control Board, Waste Discharge Requirements Order No. R5-2002-0206, NPDES NO. CAS082597 for County of Sacramento and Cities of Citrus Heights, Elk Grove, Folsom, Galt, and Sacramento Storm Water Discharges from Municipal Separate Storm Sewer Systems (MS4), December 2002, Tentative Order, < www.waterboards.ca.gov/centralvalley/board_decisions/tentative_orders/0809/sacto_ms4/sacto_ms4_wdr.pdf >, accessed September 11, 2008.			

In general, stormwater runoff within the city of Sacramento flows into either the City's CSS or into individual drainage pump stations located throughout the Policy Area which discharge to creeks and rivers. The CSS is considered at or near capacity and requires all additional inflow into the system to be mitigated. During dry weather, approximately 32 million gallons per day (mgd) are transported to the Sacramento Regional County Sanitation District's (SRCSD) Sacramento Regional Wastewater Treatment Plant (SRWTP). For smaller storms, the city sends up to 60 mgd of wastewater to the SRWTP, which treats stormwater and sanitary sewage prior to discharge into the Sacramento River. When the flows in the CSS exceed 60 mgd, flows are routed to Pioneer Reservoir, a 22 million-gallon storage and primary treatment facility adjacent to the Sacramento River just north of the Pioneer Bridge (U.S. Highway 50). Once capacity of Pioneer Reservoir has been met, additional volume of up to 250 mgd receives primary treatment with disinfection and is discharged into the Sacramento River.

The City also operates its Combined Wastewater Treatment Plant (CWTP), where an additional 130 mgd of combined wastewater receives primary treatment with disinfection prior to discharging to the Sacramento River. The system may also store water in the CWTP basins. Under extreme high flow conditions, discharge of untreated combined wastewater from the CSS may occur. The National Pollutant Discharge Elimination System (NPDES) Permit regulates waste discharge requirements from the CSS (NPDES No. CA0079111), as well as operation of the CSS. All piping, drains, basins and pumps connected to the CSS are maintained and operated by the City of Sacramento Utilities Department. See section 6.11, Public Utilities, of this MEIR for more information on the City's sewage and stormwater drainage facilities.

Groundwater Resources

■ Groundwater Basins

The Policy Area is located within the North and South American Groundwater Subbasins, within the larger Sacramento Valley Groundwater Basin, as delineated in the California Department of Water Resources (DWR) Bulletin 118 (2003 Update). Together, the North and South American Groundwater subbasins encompass an area of 936 square miles bounded on the west by the Feather and Sacramento rivers, on the north by the Bear River, on the south by the Cosumnes and Mokelumne rivers, and on the east by the Sierra Nevada.³

■ Hydrogeologic Information

The Policy Area is underlain by various geologic formations that constitute the water-bearing deposits. These formations include an upper, unconfined aquifer system consisting of the Modesto, Riverbank, Turlock Lake, Victor, Fair Oaks, and Laguna Formations, and Arroyo Seco and South Fork Gravels, and a lower, semi-confined aquifer system consisting primarily of the

3 California Department of Water Resources, *California's Groundwater Bulletin 118*, October 2003, pp. 156 and 157.

Mehrten Formation. These deposits form a wedge that generally thickens from east to west to a maximum thickness of about 2,500 feet along the western margin of the subbasins.

Groundwater occurs in unconfined to semi-confined states throughout the subbasins. Semi-confined conditions occur in localized areas; the degree of confinement typically increases with depth below the ground surface. Groundwater in the upper aquifer formations is typically unconfined. However, due to the mixed nature of the alluvial deposits, semi-confined conditions can be encountered at shallow depths in the upper aquifer.⁴

■ Groundwater Levels

In general, groundwater levels in the region are reported to be stable, between 20 feet above and 35 below mean sea level, and have fluctuated less than five feet since 1997.⁵ In the northeastern portion of the Policy Area and vicinity, groundwater levels declined about 200 feet as a result of groundwater use in the past 30 years.⁶ Although groundwater levels are slightly higher in the Policy Area and adjacent areas within the surrounding counties and cities, the region is still within a cone of depression centered near the Policy Area. The reader is referred to section 6.2, page 6.2-10 in the TBR for more information.

■ Recharge

In general, groundwater moves from sources of recharge (i.e., rivers and lakes) to areas of discharge (i.e., groundwater well pumping). Recharge to the local aquifer system occurs along active river and stream channels where extensive sand and gravel deposits exist, particularly in the American River and Sacramento River channels. Other sources of recharge within the Policy Area include inflow of groundwater generally from the northeast; subsurface recharge from fractured geologic formations to the east; and deep percolation from applied surface water and precipitation on open space areas, and small streams.⁷

■ Groundwater Quality

Groundwater quality in the Policy Area is generally within the secondary drinking water standards for municipal use, including levels of iron, manganese, arsenic, chromium, and nitrates. The groundwater in the Policy Areas is described as a calcium magnesium bicarbonate, with minor fractions of sodium magnesium bicarbonate.^{8,9} The water quality in the upper aquifer system is regarded as superior to that of the lower aquifer system. The upper

4 California Department of Water Resources, *California's Groundwater Bulletin 118, Sacramento Valley Groundwater Basin, North American Subbasin*, February 27, 2004.

5 Sacramento Groundwater Authority, *Basin Management Report 2004 - 2005*, May 2006, pp. 14 and 15.

6 Sacramento Groundwater Authority, *Groundwater Management Plan*, December 2003, p. 15.

7 Ibid., pp. 12 and 13.

8 California Department of Water Resources, *California's Groundwater Bulletin 118, Sacramento Valley Groundwater Basin, North American Subbasin*, February 27, 2004.

9 Ibid.

aquifer is preferred over the lower aquifer principally because the lower aquifer system (specifically the Mehrten formation) contains higher concentrations of iron and manganese. Water from the upper aquifer generally does not require treatment (other than disinfection).¹⁰

Known Groundwater Contamination Locations

Groundwater containing elevated levels of contaminants are present within or near the Policy Area. Contaminant plumes emanating from source areas at the former Southern Pacific and Union Pacific Railyards (UP Railyards) east of the Capitol Building along the American River (downtown Sacramento), former McClellan Air Force Base (AFB) north of the Policy Area, former Mather AFB east of the Policy Area, and the Aerojet site along the American River in Rancho Cordova east of the Policy Area. In addition to these major groundwater contaminant plumes, there are currently over 200 active Leaking Underground Storage Tank (LUST) locations within the Policy Area. Please see section 6.6, Hazards and Hazardous Materials, for more information regarding areas of groundwater contamination.

Flooding

■ Background

The watersheds of the Sacramento and American rivers drain most of northern California and part of southern Oregon, reaches to over 10,000 feet in elevation, and encompasses an area that is 27,000 square miles. Spring snow melt combined with rains can result in large peak flows carried by both the American and Sacramento rivers. The historic peak flow on record for the gauge located at the I Street Bridge is 108,800 cubic feet per second (cfs) during the 1986 flood. While areas in the city as well as surrounding communities did experience flooding, the Sacramento River at I Street remained four inches below flood stage. However, significant growth in the Sacramento area and the watershed has occurred within the last 20 years which may result in increased flows during a similar storm event.

All surface water originating in or passing through Sacramento County discharges to the ocean via the Sacramento and San Joaquin rivers, which join at the Sacramento/San Joaquin Delta and continue through the San Francisco Bay. High water levels along the Sacramento and American rivers are a common occurrence in the winter and early spring months due to increased flow from storm runoff and snowmelt. An extensive system of dams, levees, overflow weirs, drainage pumping plants, and flood control bypass channels strategically located on the Sacramento and American rivers has been established to protect the area from regional flooding.

The amount of water flowing through the levee system can be controlled by Folsom Dam on the American River and the reserve overflow area of the Yolo Bypass on the Sacramento River.

10 Sacramento Groundwater Authority, *Groundwater Management Plan*, December 2003, p. 9.

However, flood zones in the city are still extensive. Several areas of the city are still vulnerable to localized flooding by the overtopping of rivers and creeks, levee failures, and the surcharge of urban drainage systems that cannot accommodate large volumes of water during severe rainstorms.¹¹

During major flood events, high flows can occur throughout the Sacramento and American rivers system. The relative timing of these flows can accentuate the flood risk, because high water levels in a primary stream can result in a "backwater" effect which reduces the effective capacity of the tributary or incoming stream. This is true both externally (i.e., rivers and streams) and internally (i.e., collection systems).

The term 'flash flood' describes localized floods of high volume and short duration, generally in less than four hours. This type of flood usually results from a heavy rainfall on a relatively small drainage area. Precipitation of this sort usually occurs in the spring and summer. Dam failures also often result in flash flooding.

Riverine flooding occurs when a watercourse exceeds its 'bank-full' capacity and is the most common type of flood event. Riverine flooding occurs as a result of prolonged rainfall that is combined with saturated soils from previous rain events, or combined with snowmelt, and is characterized by high peak flows of moderate duration and by a large volume of runoff. Riverine flooding occurs in river systems whose tributaries drain large geographic areas and can include many watersheds and sub-watersheds. The duration of riverine floods varies from a few hours to many days. Factors that directly affect the amount of flood runoff include precipitation amount, intensity and distribution, soil moisture content, channel capacity, seasonal variation in vegetation, snow depth and water-resistance of the surface due to urbanization. In Sacramento County, riverine flooding can occur anytime from November through April. Flooding is more severe when previous rainfall events result in saturated ground conditions. Urbanization may increase peak flow runoff as well as the total volume of stormwater runoff from a site. The increase is dependent upon the type of soil and its topography compared to the proposed land uses. The Natural Resources Conservation Service, a division of the U.S. Department of Agriculture, has surveyed the soil types in the city/county. Much of the county is characterized by soils with low permeability and high runoff rates.

■ Floodplain Management

The FEMA administers the National Flood Insurance Program (NFIP) and delineates areas subject to flood hazard on Flood Insurance Rate Maps (FIRMs) for each community participating in the NFIP. The FIRMs show the area subject to inundation by a flood that has a one percent chance or greater of being equaled or exceeded in any given year. As discussed above, this type of flood is referred to as the 100-year or base flood. The hydrologic and

11 Sacramento County, *Sacramento County, California, Multi-Hazard Mitigation Plan*, November 2004, pp. 4-37 through 4-46.

hydraulic models that are used to predict the boundaries of the 100-year floodplain and the estimated water surface elevations within the floodplain reflect a worst-case scenario of rate and volume of flow. A history of the city's floodplains is included in section 7.2, Flood Hazards on pages 7.2-2 and 7.2-3 of the TBR up to 2005.

In addition to FEMA, the Sacramento Area Flood Control Agency (SAFCA) was formed to address the Sacramento area's vulnerability to catastrophic flooding. This vulnerability was exposed during the record flood of 1986 when Folsom Dam exceeded its normal flood control storage capacity and several area levees nearly collapsed under the strain of the storm. In response, the City of Sacramento, the County of Sacramento, Sutter County, the American River Flood Control District, and Reclamation District 1000 created SAFCA through a Joint Exercise of Powers Agreement to provide the Sacramento region with increased flood protection along the American and Sacramento rivers. Further, the City has implemented a Capital Improvement Program that includes improvement of stormwater drainage facilities within the city to improve localized flooding.

Floodplain Designations and Maps

In general, the area adjacent to a stream, river, or other water channel is called the floodplain. The floodplain is the area that is inundated during a flood event and is often physically discernible as a broad, flat area created by historical floods. Floodplains are illustrated on FIRMs produced by FEMA, which show areas of potential flooding. In its most common representation, the floodplain is most often referred to as the area that is inundated by a 100-year flood event. A 100-year flood event has a one percent chance in any given year of being equaled or exceeded. The 100-year flood is the national federal minimum standard to which communities regulate their floodplains through the NFIP. These floodplains have been updated since the TBR due to improvements in the levees along the Sacramento and American rivers, and to creeks and other drainages in the city. These updates are described in greater detail below.

On February 18, 2005, FEMA issued a Letter of Map Revisions (LOMR) to reflect the completion and certification of the American and Sacramento River Levees, completion of the construction of Folsom Dam, and resumption of operation of Folsom Reservoir. The LOMR redesignated the following areas from Zone A99 to Zone X: downtown Sacramento, East Sacramento, Woodlake, Oak Park, and unincorporated areas of Sacramento County. Zone X areas are defined as "areas protected from the 100-year flood by levee, dike, or other structures subject to possible failure or overtopping during larger floods". Other areas in the Policy Area remain designated Zone A99. These areas are located in the South Sacramento Streams Group floodplain, which encompass the Meadowview and Pocket communities. Construction activities by SAFCA to improve the levees that protect these areas are anticipated to be complete by 2011. Further, SAFCA and DWR have recognized that future flood damage reduction planning will require greater than the current 100-year flood protection.

Within the region approximately 11,500 acres are outside the 500-year floodplain, 30,000 acres are protected from the 100-year flood by levees, and 18,000 acres are within the 100-year floodplain. On February 21, 2007, FEMA revised two FIRMs that cover areas of the city directly adjacent to the Sacramento River and downstream of the confluence of the American and Sacramento rivers. The changes to the FIRMs reflect that areas formerly in Zone A99 have been changed to a shaded Zone X. The shaded Zone X reflects those areas protected from the 100-year flood event by levees or other flood control structures that are subject to possible failure or overtopping during larger flood events.

In contrast, the SAFCA *Final Engineer's Report* (April 2007) identified several areas within the Policy Area that require additional assessments to complete future required levee system and flood control projects to maintain protection from a 100-year flood. One of these areas is the South Sacramento Streams Group, mentioned previously, where construction projects over the next several years will result in upgrading the FEMA flood zone designation to Zone X. The other area is the Natomas Basin, which was identified as unprotected from the 100-year flood event this year in SAFCA's *Final Environmental Impact Report on the Natomas Levee Improvement Program Landside Improvements* (NLIP-FEIR) (November 2007). The NLIP-FEIR identifies a significant amount of levee construction work to be done within the next few years to improve the flood protection within the Natomas Basin. However, until all the improvements listed in SAFCA's *Draft Environmental Impact Report on Local Funding Mechanisms for Comprehensive Flood Control Improvements for the Sacramento Area* (November 2006) are complete, the Natomas Basin will be susceptible to flooding during the 100-year flood event. As of December 2008, the Natomas Basin will be mapped in an AE zone, not meeting the FEMA requirements for protection from the 100 year flood event and requiring flood insurance. The Natomas Basin includes the North and South Natomas community areas within the Policy Area analyzed in this MEIR.

In February 1996, the City prepared the Comprehensive Flood Management Plan to better protect citizens and property from major flood events. The Comprehensive Flood Management Plan was conceived as an implementation tool for the City Council to use in planning for future modifications to policies and ordinances to enhance the level of flood protection in the city. Further, SAFCA has outlined a plan to provide a 200-year level of flood protection to the Sacramento area. This plan has only been partially funded as of 2007 and is in the process of being revised. Other floodplain planning efforts have been implemented by SAFCA and Reclamation District No. 1000 through a variety of joint agreements with federal, state, and local agencies. These agreements have resulted in the planning of improvements to flood protection structures (i.e., levees, canals, etc.), ecosystem protection and restoration, and the sharing and updating of floodplain management information with all involved parties to the agreements, including the City.

REGULATORY CONTEXT

Federal, state, and local regulations that are applicable to hydrology and water quality are generally described below with more detailed information provided in section 6.2, Water Resources of the TBR.

Federal

■ Surface Water Quality

Water quality objectives for all waters of the United States (including the Sacramento River) are established under applicable provisions of section 303 of the federal Clean Water Act (CWA). The CWA prohibits the discharge of pollutants to navigable waters from a point source unless authorized by a NPDES permit. Additional information regarding this permit is discussed under the “State” subheading, below. Standards for a total of 81 individual constituents have been established under the Safe Drinking Water Act, as amended in 1996. The U.S. EPA may add additional constituents in the future. Please see section 6.11, Public Utilities in this MEIR for an analysis of potable water supply.

National Pollutant Discharge Elimination System Permits

The NPDES permit system was established in the CWA to regulate municipal and industrial point discharges to surface waters of the U.S. Each NPDES permit for point discharges contains limits on allowable concentrations and mass emissions of pollutants contained in discharges. Sections 401 and 402 of the CWA contain general requirements regarding NPDES permits. Section 307 of the CWA describes the factors that EPA must consider in setting effluent limits for priority pollutants.

The CWA was amended in 1987 to require NPDES permits for non-point sources (i.e., stormwater) pollutants in discharges. Stormwater sources are diffuse and originate over a wide area rather than from a definable point. The goal of NPDES stormwater regulations is to improve the quality of stormwater discharged to receiving waters to the “maximum extent practicable” through the use of structural and non-structural Best Management Practices (BMPs). BMPs can include the development and implementation of various practices including educational measures (workshops informing public of what impacts results when household chemicals are dumped into storm drains), regulatory measures (local authority of drainage facility design), public policy measures, and structural measures (filter strips, grass swales and detention ponds).

■ Floodplain Regulations

FEMA does not have building restrictions for development in areas designated Zone A-99. Since the Army Corps of Engineers (Corps) approved the levee improvements along the

American River, the central and southern portions of the Policy Area are no longer designated A-99; instead they were designated as Zone X. FEMA does not have building regulations for development in areas designated Zone X and would not require mandatory flood insurance for structures in Zone X. However, FEMA has denied the City's request for unrestricted development in the portion of the Policy Area in the Natomas Basin because the levees protecting the basin do not meet FEMA accreditation standards.

State

■ Surface Water Quality

The State Water Resources Control Board (SWRCB) and CVRWQCB have established water quality standards that are required by section 303 of the CWA and the Porter-Cologne Water Quality Control Act. The Porter-Cologne Act states that basin plans consist of beneficial uses, water quality objectives, and a program of implementation for achieving water quality objectives. The Water Quality Control Plan, or Basin Plan, prepared by the CVRWQCB, has established water quality numerical and narrative standards and objectives for rivers and their tributaries within its jurisdiction. In cases where the Basin Plan does not contain a standard for a particular pollutant, other criteria, such as EPA water quality criteria developed under section 304(a) of the CWA apply.

Water quality objectives for the Sacramento River are specified in the Water Quality Control Plan for the Sacramento River Basin and San Joaquin River Basin (Basin Plan) prepared by the CVRWQCB in compliance with the federal CWA and the California Water Code (section 13240). The Basin Plan establishes water quality objectives, and implementation programs to meet stated objectives and to protect the beneficial uses of water in the Sacramento-San Joaquin River Basin. Because the city of Sacramento and the Policy Area are located within the CVRWQCB's jurisdiction, all discharges to surface water or groundwater are subject to the Basin Plan requirements.

■ Construction Dewatering

Dewatering during construction is sometimes necessary to keep trenches or excavations free of standing water when improvements or foundations/footings are installed where groundwater levels tend to be shallow. Clean or relatively pollutant-free wastewater that poses little or no threat to water quality may be discharged directly to surface water under certain conditions. The CVRWQCB has adopted a general NPDES permit for short-term discharges of small volumes of wastewater from certain construction-related activities. Permit conditions for the discharge of these types of wastewaters to surface water are specified in "General Order for Dewatering and Other Low-Threat Discharges to Surface Waters" (Order No. 5-00-175, NPDES No. CAG995001). Discharges may be covered by the permit provided they are (1) either four months or less in duration, or (2) the average dry weather discharge does not exceed 0.25 million gallons per day. Construction dewatering, well development water, pump/well

testing, and miscellaneous dewatering/low-threat discharges are among the types of discharges that may be covered by the permit. The general permit also specifies standards for testing, monitoring, and reporting, receiving water limitations, and discharge prohibitions.

■ Construction Site Runoff Management

In accordance with NPDES regulations, to minimize the potential effects of construction runoff on receiving water quality, the state requires that any construction activity affecting one acre or more must obtain a General Construction Activity Stormwater Permit (General Permit). The first General Permit was issued in 1992. The SWRCB adopted a revised General Permit in August 1999. Performance standards for obtaining and complying with the General Permit are described in NPDES General Permit No. CAS000002, Waste Discharge Requirements, Order No. 99-08-DWQ. Under the 1999 General Permit, all construction activity over one acre must obtain a General Permit. The General Permit was modified in April 2001 (SWRCB Resolution No. 2001-046) to require permittees to implement specific sampling and analytical procedures to determine whether the BMPs used at permitted construction sites are effective.

General Permit applicants are required to prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) which includes implementing BMPs to reduce construction effects on receiving water quality by implementing erosion and sediment control measures and reducing or eliminating non-stormwater discharges. Examples of typical construction BMPs included in SWPPPs include, but are not limited to: using temporary mulching, seeding, or other suitable stabilization measures to protect uncovered soils; storing materials and equipment to ensure that spills or leaks cannot enter the storm drain system or surface water; developing and implementing a spill prevention and cleanup plan; and installing sediment control devices such as gravel bags, inlet filters, fiber rolls, or silt fences to reduce or eliminate sediment and other pollutants from discharging to the City's drainage system or receiving waters.

■ Wastewater Treatment Plant NPDES Permit

As mentioned before, effluent from the CSS drains into the CWTP. The SRCSD holds a NPDES permit for discharges from the SRWTP into the Sacramento River. The original permit for the WTP was issued in October of 1974. The permit issued (No. CA 0077682) is a NPDES Self-Monitoring Permit that outlines performance standards for the effluent discharged into the Sacramento River. The permit has been renewed and amended several times since 1974 to reflect updated and changing water quality requirements and specific discharge limits. The most current permit was adopted in August 2000 by the CVRWQCB.

■ State of California Uniform Building Code

The State of California Building Code (CBC) contains requirements for constructing structures in flood hazard zones as described below. These requirements are consistent with FEMA requirements for non-residential development in a 100-year flood plain.

Section 3106 of the CBC outlines the requirements of new or replacement mechanical and electrical systems proposed within flood hazard zones. This section only allows the placement of mechanical and electrical systems below the base flood elevation if properly protected to prevent water from entering or accumulating within the system components.

Section 3107 of the CBC outlines the building requirements of structures within the FEMA designated A Zones. Such requirements are that all floors below the base flood elevation must be constructed and engineered to be flood-resistant, or the floor must only be used for storage, parking, access or foyers.

■ California Department of Water Resources (DWR)

On February 24, 2006, Governor Arnold Schwarzenegger declared a state of emergency for California's levee system. Soon after, he signed Executive Order S-01-06 directing DWR, with the assistance of the Corps, to develop a State Levees Team that would identify and repair eroded levee sites on the state-federal project levee system to prevent catastrophic flooding and loss of life. A total of 33 critical erosion sites were identified on the levee systems in the northern Central Valley. The 29 identified critical erosion sites were located in six counties: Colusa, Sacramento, Solano, Sutter, Yolo, and Yuba. These critical erosion sites were repaired in 2007 to achieve regional flood damage reduction levels. As part of its mission, DWR has responded to requests from various local agencies to survey and document erosion damage at a number of additional proposed sites. DWR has committed to assisting local agencies in determining the best way to accomplish any needed repairs, the funding mechanisms available, and the responsible agency to take the lead.

Local

■ City of Sacramento 1988 General Plan

The City's 1988 General Plan contains policies and implementation measures relevant to hydrology and water quality. Specifically, the 1988 General Plan includes policies that require all drainage facilities be sized appropriately to accommodate new development. Upon approval of the proposed 2030 General Plan, all policies and implementation measures in the 1988 General Plan would be superseded. Therefore, they are not included in this analysis.

■ Combined System Development Fee

The City of Sacramento adopted a sewer ordinance in March 2005 to include a development fee amendment to replace the Mitigation Agreement previously required for developers of projects within the CSS service boundary. The CSS development fee is discussed further in section 6.11, Public Utilities of this MEIR.

■ Stormwater Quality/Urban Runoff Management

The County of Sacramento and the cities of Sacramento, Folsom, Citrus Heights, Elk Grove, Rancho Cordova, and Galt have a joint NPDES permit (No. CAS082597) that was granted in December 2002. The permittees listed under the joint permit have the authority to develop, administer, implement, and enforce storm water management programs within their own jurisdiction. The permit is intended to implement the Basin Plan through the effective implementation of BMPs to reduce pollutants in stormwater discharges to the maximum extent practicable (MEP). The SWRCB will consider adoption of an updated NPDES permit late in 2008. The new permit may include more monitoring and reporting requirements than in the current permit.

Urban storm water runoff is defined in the permit as including stormwater and dry weather flows from a drainage area that reaches a receiving water body or subsurface. The permit regulates the discharge of all wet and dry weather urban storm water runoff within the city of Sacramento and requires the City to implement a stormwater management program to reduce pollutants in stormwater to the MEP. The City of Sacramento created the Stormwater Quality Improvement Plan (SQIP) to reduce the pollution carried by stormwater into local creeks and rivers to the MEP. The comprehensive plan includes pollution reduction activities for construction sites, industrial sites, illegal discharges and illicit connections, new development, and municipal operations. The program also includes an extensive public education effort, target pollutant reduction strategy and monitoring program. The SQIP outlines the priorities, key elements, strategies, and evaluation methods of the City's SQIP program for 2003-2008. In addition, the County of Sacramento and the cities of Sacramento, Folsom, Citrus Heights, Elk Grove, Rancho Cordova, Galt, and Roseville have collaborated and published the Stormwater Quality Design Manual for Sacramento and South Placer Regions (May 2007) to meet the regulatory requirements of their respective municipal stormwater NPDES permits. The Manual provides locally-adapted information for design and selection of three categories of stormwater quality control measures: source control, runoff reduction, and treatment control. The following are required items for each of the local permitting agencies:

- the types of projects subject to the development standards and thresholds for determining what types of control measures apply to the project;
- maintenance agreements or covenants are required for selected control measures; and
- sizing methodology for water quality flow (WQF) -based measures (e.g., vegetated swale) and water quality volume WQV-based measures (e.g., water quality detention basin).

■ Dewatering

All new groundwater discharges to the CSS or separated sewer system are regulated and monitored by the City's Utilities Department pursuant to Department of Utilities Engineering

Services Policy No. 0001, adopted as Resolution No. 92-439 by the Sacramento City Council. Groundwater discharges to the City's sewer system are defined as construction dewatering discharges, foundation or basement dewatering discharges, treated or untreated contaminated groundwater cleanup, discharges, and uncontaminated groundwater discharges.

The City requires that any short-term discharge be permitted, or an approved Memorandum of Understanding (MOU) for long-term discharges be established, between the discharger and the City. Short-term limited discharges of seven days duration or less must be approved through the City Department of Utilities by acceptance letter. Long-term discharges of greater duration than seven days must be approved through the City Department of Utilities and the Director of the Department of Utilities through a MOU process. The MOU must specify the type of groundwater discharge, flow rates, discharge system design, a City-approved contaminant assessment of the proposed groundwater discharge indicating tested levels of constituents, and a City-approved effluent monitoring plan to ensure contaminant levels remain in compliance with State standards or SRCSD- and CVRWQCB-approved levels. All groundwater discharges to the sewer must be granted a SRCSD discharge permit. If the discharge is part of a groundwater cleanup or contains excessive contaminants, CVRWQCB or Sacramento County approval is also required.

Discharges in the CSD-1 service area do not require a MOU with the City. Permission to discharge must be obtained from CSD-1.

■ Wastewater Discharges

Section 13.080.030 of the Sacramento City Code prohibits the discharge of any substances, materials, waters, or waste if the discharge would violate any sewer use ordinance enacted by the SRCSD. Section 13.08.040 of the Sacramento City Code identifies specific waters, wastes, and substances that may not be discharged to the sewer.

Any discharge into the CSS must have a Sewer Use Questionnaire on file with the SRCSD, which would apply to the Specific Plan project. The SRCSD has adopted a Sewer Use Ordinance that regulates the use of public sewers connected to the SRWTP. The wastewater discharged from the SRWTP to Sacramento River is regulated under a NPDES permit issued by the RWQCB. Discharge limitations are specified in the permit to limit water quality impacts in the Sacramento River. Categorical Pretreatment Standards have also been established for the pretreatment of certain classes of industrial wastes discharged to publicly owned treatment works, such as the SRWTP. The purpose of these standards is to protect the SRWTP and the environment by regulating potentially harmful discharges to the sewer from industrial and commercial businesses.

■ City of Sacramento Construction Site Stormwater Controls

The City's Land Grading and Erosion Control Ordinance requires project applicants to prepare erosion, sediment and pollution control plans for both during and after construction of a project, and grading plans. The Ordinance applies to projects where 350 cubic yards or more of soil is excavated and/or disposed and requires BMPs that must be approved of by the City's Department of Utilities. In addition, the City's Stormwater Management and Discharge Control Ordinance minimizes or eliminates sediment and pollutants in construction site stormwater discharges.

■ Sacramento Flood Control Agency

As described previously, SAFCA was formed as a Joint Exercise of Powers Agreement to address the Sacramento area's vulnerability to catastrophic flooding. SAFCA's mission is to provide the region with at least a 100-year level of flood protection as quickly as possible while seeking a 200-year or greater level of protection over time. Under the Sacramento Area Flood Control Agency Act of 1990, the California Legislature has given SAFCA broad authority to finance flood control projects and has directed the Agency to carry out its flood control responsibilities in ways that provide optimum protection to the natural environment.

IMPACTS AND MITIGATION MEASURES

Methods of Analysis

The following analyses of project-specific impacts on hydrology and water quality is qualitative and based on available hydrologic and water quality information for the Policy Area along with review of regional information. The analysis assumes that all future and existing development within the Policy Area complies with all applicable laws, regulations, design standards, and plans. An analysis of cumulative impacts uses qualitative information on the Policy Area and the Sacramento River watershed. Issues related to water supply and stormwater and sewer infrastructure are analyzed in section 6.11, Public Utilities in this MEIR.

The regional flooding analysis was based on a review of the potential increase in population and structures in the flood zones.

Proposed General Plan Policies

The following goals and policies from the proposed 2030 General Plan are relevant to hydrology and water quality within the entire Policy Area. The proposed General Plan does not include any policies regarding hydrology and water quality that are unique to any of the City's Focused Opportunity Areas.

ENVIRONMENTAL RESOURCES (ER)

Goal ER 1.1 Water Quality Protection. Protect local watersheds, water bodies and groundwater resources, including creeks, reservoirs, the Sacramento and American rivers, and their shorelines.

Policies

- ER 1.1.1 **Conservation of Open Space Areas.** The City shall conserve and where feasible create or restore areas that provide important water quality benefits such as riparian corridors, buffer zones, wetlands, undeveloped open space areas, levees, and drainage canals for the purpose of protecting water resources in the City's watershed, creeks, and the Sacramento and American rivers.
- ER 1.1.2 **Regional Planning.** The City shall continue to work with local, State, and Federal agencies and private watershed organizations to improve water quality.
- ER 1.1.3 **Stormwater Quality.** The City shall control sources of pollutants and improve and maintain urban runoff water quality through stormwater protection measures consistent with the city's National Pollution Discharge Elimination System (NPDES) Permit.
- ER 1.1.4 **New Development.** The City shall require new development to protect the quality of water bodies and natural drainage systems through site design, source controls, storm water treatment, runoff reduction measures, best management practices (BMPs) and Low Impact Development (LID), and hydromodification strategies consistent with the city's NPDES Permit.
- ER 1.1.5 **No Net Increase.** The City shall require all new development to contribute no net increase in stormwater runoff peak flows over existing conditions associated with a 100-year storm event.
- ER 1.1.6 **Post-Development Runoff.** The City shall impose requirements to control the volume, frequency, duration, and peak flow rates and velocities of runoff from development projects to prevent or reduce downstream erosion and protect stream habitat.
- ER 1.1.7 **Construction Site Impacts.** The City shall minimize disturbances of natural water bodies and natural drainage systems caused by development, implement measures to protect areas from erosion and sediment loss, and continue to require construction contractors to comply with the City's erosion and sediment control ordinance and stormwater management and discharge control ordinance.
- ER 1.1.8 **Watershed Education.** The City shall implement watershed awareness and water quality educational programs for City staff, community planning groups, the public, and other appropriate groups.

ENVIRONMENTAL CONSTRAINTS (EC)

Goal EC 2.1 Flood Protection. Protect life and property from flooding.

Policies

- EC 2.1.1 **Interagency Flood Management.** The City shall work with local, regional, State, and Federal agencies to maintain an adequate information base, prepare risk assessments, and identify strategies to mitigate flooding impacts.

- EC 2.1.2 **Interagency Levee Management.** The City shall work with local, regional, State, and Federal agencies to ensure new and existing levees are adequate in providing flood protection.
- EC 2.1.3 **Funding for 200-year Flood Protection.** The City shall continue to cooperate with local, regional, State, and Federal agencies in securing funding to obtain the maximum level of flood protection that is practical, with a minimum goal of achieving at least 200-year flood protection as quickly as possible.
- EC 2.1.4 **Floodplain Storage Maintenance.** The City shall encourage the preservation of urban creeks and rivers to maintain existing floodplain storage.
- EC 2.1.5 **Floodplain Requirements.** The City shall regulate development within floodplains in accordance with State and Federal requirements and maintain the City's eligibility under the National Flood Insurance Program.
- EC 2.1.6 **New Development.** The City shall require evaluation of potential flood hazards prior to approval of development projects.
- EC 2.1.7 **Levee Setbacks for New Development.** The City shall prohibit new development within a minimum distance of 50 feet from the landside toe of levees. Development may encroach within this 50-foot area provided that "oversized" levee improvements are made to the standard levee section consistent with local, regional, State and Federal standards.
- EC 2.1.8 **Dedication of Levee Footprint.** The City shall require new development adjacent to a levee to dedicate the levee footprint in fee to the appropriate public flood control agency.
- EC 2.1.9 **Oversized Levees for Infill Development.** The City shall support the construction of "oversized" levees that can increase levee stability and improve site characteristics, recreation, and river access where infill development and redevelopment occurs next to a levee.
- EC 2.1.10 **Siting and Design of Critical Facilities.** The City shall require that critical facilities and large public assembly facilities be located and designed to mitigate potential flood risk to ensure long term operation.
- EC 2.1.11 **Levees Used to Access Developments.** The City shall prohibit new development from using levees for primary access.
- EC 2.1.12 **Roadway Systems as Escape Routes.** The City shall require that roadway systems for areas protected from flooding by levees be designed to provide multiple escape routes for residents in the event of a levee failure.
- EC 2.1.13 **Unobstructed Access to Levees.** The City shall provide unobstructed access, whenever feasible, on City-owned land to levees for maintenance and emergencies and require setbacks and easements for access to levees from private property.
- EC 2.1.14 **Comprehensive Flood Management Plan.** The City shall maintain, implement, update, and make available to the public the Local Comprehensive Flood Management Plan.
- EC 2.1.15 **Flooding Evacuation and Rescue Maps.** The City shall maintain, update, and make available to the public current flood evacuation and rescue maps.
- EC 2.1.16 **Flood Risk Notification.** The City shall annually notify owners of residential development protected from flooding by a levee and/or subject to inundation in the event of levee failure of the risk.

- EC 2.1.17 **Deed Notification.** The City shall require, for areas protected by levees, all new developments to include a notice within the deed that the property is protected by flooding from a levee and that the property can be subject to flooding if the levee fails or is overwhelmed.
- EC 2.1.18 **Flood Insurance.** The City shall encourage all residents protected by levees to purchase flood insurance.
- EC 2.1.19 **Dam Failure.** The City shall plan for the evacuation of people from areas subject to inundation from Folsom, Nimbus, or an Oroville dam failure.

UTILITIES (U)

Goal U 4.1 Adequate Stormwater Drainage. Provide adequate stormwater drainage facilities and services that are environmentally-sensitive, accommodate growth, and protect residents and property.

Policies

- U 4.1.1 **Adequate Drainage Facilities.** The City shall ensure that all new drainage facilities are adequately sized and constructed to accommodate stormwater runoff in urbanized areas.
- U 4.1.2 **Master Planning.** The City shall implement master planning programs to:
- Identify facilities needed to prevent 10-year event street flooding and 100-year event structure flooding,
 - Ensure that public facilities and infrastructure are designed pursuant to approved basin master plans, and
 - Ensure that adequate land area and any other elements are provided for facilities subject to incremental sizing (e.g., detention basins and pump stations).
- U 4.1.3 **Regional Stormwater Facilities.** The City shall coordinate efforts with Sacramento County and other agencies in the development of regional stormwater facilities.
- U 4.1.4 **Watershed Drainage Plans.** The City shall require developers to prepare watershed drainage plans for proposed developments that define needed drainage improvements per City standards, estimate construction costs for these improvements, and comply with the City's National Pollutant Discharge Elimination System (NPDES) permit.
- U 4.1.5 **New Development.** The City shall require proponents of new development to submit drainage studies that adhere to City stormwater design requirements and incorporate measures to prevent on- or off-site flooding.

Proposed South Area Community Plan Policies

The South Area Community Plan contains two policies regarding flooding:

- SA.EC 1.1 **Flood Control Improvements.** The City shall support the Sacramento Area Flood Control Agency's (SAFCA) levee improvement projects (including constructing floodwalls along portions of Florin, Morrison, Elder, and Unionhouse Creeks) that will provide 100-year flood protection from the Sacramento River to the Union Pacific railroad tracks.

SA.EC 1.2 **Laguna Floodplain Improvement Guidelines.** The City shall require floodplain improvements within Laguna's floodplain areas that include natural vegetation of the interior, planting of trees along the floodway or just inside or outside the berm, locating a park node adjacent to the floodway, maintaining suitable habitat for the giant garter snake, and planting an unlined low-flow channel with emergent vegetation.

Thresholds of Significance

For the purposes of this EIR, impacts related to hydrology and water quality are considered significant if the proposed General Plan would:

- substantially degrade water quality and violate any water quality objectives set by the State Water Resources Control Board, due to increases in sediments and other contaminants generated by consumption and/or operational activities; or
- substantially increase exposure of people and/or property to the risk of injury and damage in the event of a 100-year flood.

Issues not Addressed in the Impact Analysis include exposure of people and property to significant risk of loss, injury or death involving flooding as a result of the failure of a levee or dam, and creating or contributing runoff water that could exceed the capacity of existing or planned stormwater drainage systems or increase the rate or amount of surface runoff in a manner that could result in on- or off-site flooding because the City does not include thresholds for these issues in hydrology and water quality. Section 6.11, Utilities, addresses issues associated with storm drainage in the sewer and storm drain analysis.

Impacts and Mitigation Measures

A summary of all Hydrology and Water Quality impacts and their levels of significance is located at the end of this technical section.

Impact 6.7-1	Implementation of the 2030 General Plan could result in construction activities that could degrade water quality and violate state water quality objectives by increasing sedimentation and other contaminants entering streams and rivers.	
Applicable Regulations	<i>Clean Water Act of 1972 (as amended), State NPDES General Permit for Discharges of Storm Water Associated with Construction Activity – Water Quality Order No. 99-08-DWQ (1999 as amended), Stormwater Quality Improvement Program (July 2004), Stormwater Quality Design Manual for the Sacramento and South Placer Regions (May 2007), City Code 13.08 Sewer Service System, City Code 13.16 Stormwater Management and Discharge Control Code (2004), and City Code 15.88 Grading, Erosion, and Sediment Control</i>	
Significance Before Mitigation	<i>Significant</i>	
Mitigation Included in the SGP	<i>Policies ER 1.1.3, ER 1.1.4, ER 1.1.7, U 4.1.4</i>	
Significance after Mitigation Included in the SGP	<i>Less than Significant</i>	
Additional Mitigation	None required	
Residual Significance	Less than Significant	

The proposed 2030 General Plan would designate currently undeveloped areas within the Policy Area for new development, including proposed development in the Greenbriar, Camino Norte, Panhandle, and Delta Shores areas. The City is currently reviewing development applications for many of these areas and separate environmental review has either been prepared or is underway. In addition, the general plan includes changes to land uses in other areas of the city that would result in redevelopment, infill development, or more dense urban development. Further, the general plan would result in maintaining and upgrading utilities and city facilities and infrastructure that would result in construction activities within the Policy Area.

Construction activities associated with implementation of the 2030 General Plan would result in land-disturbing activities such as grading, excavation, and trenching. When portions of the Policy Area are excavated or otherwise disturbed by construction activities, the potential for soil erosion and sedimentation in runoff would substantially increase during a rainstorm. In addition, construction equipment would have the potential to leak polluting materials, including oil and gasoline. Improper use of fuels, oils, and other construction-related hazardous construction materials may also pose a threat to surface or groundwater quality. Sediment and contaminants may be transported to local creeks, the Sacramento or American rivers, and its downstream drainages and water bodies.

Although earth-disturbing activities associated with construction in the Policy Area would be temporary, on- or off-site soil erosion, siltation, discharges of construction-related hazardous materials could degrade downstream surface waters or groundwater. The following regulatory mechanisms would control construction activities and minimize, to the maximum extent practicable, the degradation of water quality.

■ Compliance with NPDES Requirements

To reduce or eliminate construction-related water quality effects, the City of Sacramento would require future public or private contractors to comply with the requirements of the City's SQIP. In addition, before the onset of any construction activities, where the disturbed area is one acre or more in size, the City would require any public or private contractors to obtain coverage under the NPDES General Construction Permit and include erosion and sediment control plans. Issues related to groundwater or soil contamination are covered in section 6.5, Hazards and Hazardous Materials. BMPs may consist of a wide variety of measures taken to reduce pollutants in stormwater and other non-point source runoff.

Measures which reduce or eliminate post-construction related water quality problems range from source controls, such as reduced surface disturbance, to treatment of polluted runoff, such as detention or retention basins. The City's SQIP and the *Stormwater Quality Design Manual for the Sacramento and South Placer Regions* (May 2007) include BMPs to be implemented as part of the SQIP and General Construction Permit may include, but are not limited to the following measures:

- Prior to issuance of a construction permit, the City would require public and/or private contractors to provide an erosion and sediment control plan. The City would verify that a state general permit was obtained including verification that a Notice of Intent (NOI) has been filed with the CVRWQCB and a SWPPP has been developed before allowing construction to begin. The City would perform inspections of the construction area to verify that the BMPs specified in the erosion and sediment control plan are properly implemented and maintained. The City would notify contractors immediately if there is a noncompliance issue and would require compliance. Control of erosion and sediment transport during the construction phase would effectively mitigate potential sediment impairment of receiving waters.

■ Implementation of a Spill Prevention and Control Program (SPCP)

The City would also require contractors' erosion and sediment control plans to include BMPs to minimize the potential for, and effects from, spills of hazardous, toxic, or petroleum substances during construction activities for all contractors. Implementation of this measure would comply with state and federal water quality regulations and reduce the impact to a less-than-significant level. The City would routinely inspect the construction area to verify that the measures specified in the erosion and sediment control plan are properly implemented and maintained. The City would notify contractors immediately if there is a noncompliance issue and would require compliance.

The federal reportable spill quantity for petroleum products, as defined in 40 CFR 110, is any oil spill that:

- violates applicable water quality standards;
- causes a film or sheen on, or discoloration of, the water surface or adjoining shoreline; or
- causes a sludge or emulsion to be deposited beneath the surface of the water or adjoining shorelines.

If a spill occurs, the contractor's superintendent would notify the City, and the contractor would take action to contact the appropriate safety and clean-up crews to ensure that the SPCP is followed. In addition, as part of the proposed project, the City would respond and investigate any spills reported at construction sites. A written description of reportable releases would be submitted to the CVRWQCB and the Department of Toxic Substances Control (DTSC) by the contractor or owner. If an appreciable spill occurs and results determine that construction activities have adversely affected surface water or groundwater quality, a detailed analysis would be performed to the specifications of DTSC to identify the likely cause of contamination. This analysis would include recommendations for reducing or eliminating the source or mechanisms of contamination. Based on this analysis, contractors would select and implement measures to control contamination, with a performance standard that surface and/or groundwater quality must be returned to baseline conditions. These measures would be subject to approval by the City and/or the RWQCB.

Adherence to the regulations described above, and implementation of the proposed General Plan Policies ER 1.1.3, ER 1.1.7, and U 4.1.4 would reduce the potential for projects to substantially degrade water quality or violate water quality orders. In order, these proposed General Plan policies would require: the City to meet water quality requirements of the Phase 1 NPDES Permit; construction contractors to comply with erosion and sediment control and stormwater discharge regulations; watershed education to City staff; and preparation of watershed drainage plans. Therefore, impacts would be ***less than significant***.

Mitigation Measure

None required.

Impact 6.7-2	Implementation of the 2030 General Plan could generate new sources of polluted runoff that could violate water quality standards.
Applicable Regulations	<i>Clean Water Act of 1972 (as amended), Stormwater Quality Improvement Program (July 2004), Stormwater Quality Design Manual for the Sacramento and South Placer Regions (May 2007), City Code 13.16 Stormwater Management and Discharge Control Code (2004), and City Code 13.08 Sewer Service System</i>
Significance Before Mitigation	<i>Potentially Significant</i>
Mitigation Included in the SGP	<i>Policies ER 1.1.3 through ER 1.1.8, and U 4.1.4</i>
Significance after Mitigation Included in the SGP	<i>Less than Significant</i>
Additional Mitigation	None required
Residual Significance	Less than Significant

Development under the 2030 General Plan would result in new residential, commercial, recreation, and landscaping practices that would increase impervious surfaces within the Policy Area. New development would increase stormwater and non-stormwater runoff entering local streams, the Sacramento and American rivers, and the CSS compared to existing conditions, which could affect water quality by potentially increasing sediment and contaminant loads.

Currently, vacant land considered to be developable accounts for approximately 14 percent of the Policy Area's total acreage. Due to the limited amount of vacant land, much of the city's future growth would be in the form of infill and redevelopment. The proposed General Plan calls for future growth to be focused within the city's developed areas, specifically within the six Focused Opportunity Areas and the South Area Community Plan (SACP), as described in Chapter 3.0, Project Description. The proposed 2030 General Plan would also guide the development of remaining vacant land.

Future development could have impacts on existing absorption rates, drainage patterns, or the rate of surface runoff. As future development occurs, projects would be evaluated based on their conformance with the proposed General Plan, the appropriate community plan and established development regulations. If the density of an area is intensified, natural vegetated pervious ground-cover could be converted to impervious surfaces such as paved streets, rooftops, and parking lots that increase runoff rates. The introduction of new or expanded impermeable surface areas would affect absorption rates, drainage patterns, and/or the rate of surface runoff.

Water quality impacts that could occur from future development activities in the Policy Area are as follows:

- Residential – Residential activities often involve conventional maintenance of landscaping (e.g., using fertilizers, herbicides, pesticides, fungicides, and other chemicals) that can enter stormwater runoff. In addition, motor vehicle operation and maintenance introduces oil and other petroleum-based products, heavy metals such as copper from brake linings, and surfactants from cleaners and waxes into residential runoff. Pet and animal waste from yards, trails, and stream corridors can enter storm water runoff or flow directly into stream channels.
- Commercial – Commercial businesses often perform conventional maintenance of landscaped areas and use fertilizers, herbicides, pesticides, and other chemicals, which can enter stormwater runoff. Motor vehicle operation and maintenance also contribute oil and other petroleum-based products, heavy metals such as copper from brake linings, and surfactants into storm water runoff. Auto mechanic shops, nurseries and hardware supply stores, salvage yards, dry cleaners, graphic and photographic processing shops, recycling businesses, mining and aggregate operations, as well as other commercial and industrial businesses can potentially contribute concentrated quantities of hazardous substances directly or indirectly into stormwater runoff, as well as groundwater, if not

properly contained and monitored. Commercial businesses that store, use, or handle hazardous materials above certain amounts (55 gallons for liquids, 500 pounds for solids, and 200 cubic feet for compressed gases) are required to file a Hazardous Materials Business Plan.

- Industrial – Industries often use or store greater quantities of urban pollutants that can degrade stormwater runoff. Industries are required to comply with NPDES permits specifically designed to monitor and reduce pollutants in stormwater runoff. Proper maintenance, use of structural BMPs, and good housekeeping practices are used to ensure pollutants like petroleum products, trash, cleaning fluids, and silt do not degrade stormwater quality.
- Recreation – Parks and golf courses often practice conventional landscaping methods and maintain recreation areas using fertilizers, herbicides, pesticides, and algacides, which can enter stormwater runoff or flow directly into stream channels.
- Infrastructure – In addition to the above mentioned operational surface water quality pollutants from urban land use conditions, construction and operation of roadways and drainage improvements (e.g., culverts, discharge points and alteration of natural drainage flow conditions) can alter normal and stormwater drainage flows in waterways that could alter natural erosion and siltation conditions resulting in higher sedimentation rates.

In summary, runoff from urban development typically contains oils, grease, fuel, antifreeze, byproducts of combustion (such as lead, cadmium, nickel, and other metals), as well as nutrients from fertilizers and animal waste, sediment, pesticides, herbicides, and other pollutants. Also, sizable quantities of animal waste from pets (e.g., dogs, cats, and horses) contribute bacterial pollutants into surface waters. Precipitation during the early portion of the wet season conveys a majority of these pollutants in the stormwater runoff, resulting in short-term high pollutant concentrations in the initial wet weather runoff. This initial runoff, containing peak pollutant levels, is referred to as the “first flush” of storm events.

As previously noted, the City operates under a Phase I NPDES permit for stormwater municipal discharges to surface waters (NPDES No. CAS082597). The permit requires that the City impose water quality and watershed protection measures for all development projects. The intent of the waste discharge requirements in the permit is to attain water quality standards and protection of beneficial uses consistent with the CVRWQCB’s Basin Plan. The NPDES permit prohibits discharges from causing violations of applicable water quality standards or result in conditions that create a nuisance or water quality impairment in receiving waters. A key component of the NPDES permit is the implementation of the SQIP, which consists of six Minimum Control elements 1) public education and outreach, 2) commercial/industrial control, 3) detection and elimination of illicit discharges, 4) construction stormwater control, 5) post-construction stormwater control for new development and redevelopment 6) pollution prevention/good housekeeping for municipal operations). In addition, the City’s Land Grading and Erosion Control Ordinance and Stormwater Management and Discharge Control Code provide additional regulation and guidance to prevent degradation of water quality.

The City has identified a range of BMPs and measurable goals to address the stormwater discharges in the city. A key component of this compliance is implementation of the SQIP new development element that requires stormwater quality treatment and/or BMPs in project design for both construction and operation. Post-construction stormwater quality controls for new development require use of source control runoff reduction and treatment control measures set forth in the Stormwater Quality Design Manual for Sacramento and South Placer Regions. This includes use of regional water quality control features (e.g., detention basins) for large developments (over 20 acres), use of treatment-control measures (swales, filter strips, media filters and infiltration), and housekeeping practices (e.g., spill prevention, proper storage measures and clean-up procedures).

Further, proposed General Plan Policies ER 1.1.3 through ER 1.1.8 would implement measures to reduce post-construction increases in runoff rates, maintain agreements for selected on-site stormwater quality facilities through the development permit process, reduce use of chemicals applied for landscape use, provide recycling programs and facilities to prevent unauthorized dumping, and provide watershed education to City staff. In addition, meeting these policies and the previous mentioned requirements would minimize the infiltration of urban pollutants in stormwater runoff from percolating into the soil and degrading groundwater.

Implementation of development proposed under the 2030 General Plan would improve and maintain stormwater protection measures through maintenance of existing stormwater facilities, and implementation of new development requirements in the Policy Area to meet the City's water quality design criteria. Therefore, including all the requirements would help reduce the potential for sediments and pollutants from entering receiving waters and reduce impacts on water quality to *less-than-significant levels*.

Mitigation Measure

None required.

Impact 6.7-3	Implementation of the proposed 2030 General Plan could increase exposure of people and/or property to risk of injury and damage from a localized 100-year flood.
Applicable Regulations	<i>none</i>
Significance Before Mitigation	<i>Less than Significant</i>
Mitigation Included in the SGP	<i>Policy U 4.1.1 through U 4.1.5, EC 2.1.4, EC 2.1.6, EC 2.1.14, ER 1.1.4 and ER 1.1.5</i>
Significance after Mitigation Included in the SGP	<i>Less than Significant</i>
Additional Mitigation	None required
Residual Significance	Less than Significant

Localized flooding refers to flooding caused by failure of the storm drainage system, which typically results in street flooding. Regional flooding, on the other hand, refers to flooding caused by a river system and typically affects much larger areas.

The runoff limitations associated with each growth area that would experience an increase in impervious area under the proposed general plan are shown in Table 6.7-2. The Greenbriar, Panhandle, and Camino Norte growth areas are located in RD-1000; all storm water runoff generated in these areas passes through RD-1000 facilities, which are limited to a capacity of 0.1 cfs/acre.¹² As a result, Greenbriar, Panhandle, and Camino Norte growth areas are required to construct detention basins to limit out-flow from the basin to 0.1 cfs/acre. The Delta Shores growth area, in the southern portion of the Policy Area is served by an existing pump station, Sump #89, which is limited to 0.18 cfs/acre.¹³ Consequently, the Delta Shores growth area is required to construct detention basins to limit flow to 0.18 cfs/acre.

GENERAL PLAN AREAS WITH INCREASES IN IMPERVIOUS COVER		
Growth Area	Acres	Design Runoff Rates (cfs/ac)
Greenbriar	577	0.1
Panhandle (greenfield)	595	0.1
Camino Norte	284	0.1
Delta Shores	800	0.18
TOTAL	2,256	-
<small>Source: PBS&J, 2007.</small>		

Pre-development runoff for a 100-year storm in Sacramento is on the order of 0.5 cfs/acre.¹⁴ As such, post-development discharge to the receiving channel would be less than or equal to pre-development runoff rates (see Table 6.7-2).

Proposed General Plan policy EC 2.1.6 would require new development to evaluate potential peak flow flood hazards and prevent on- or off-site post-project flooding; policy EC 2.1.4 encourages the preservation of urban creeks and rivers to maintain existing natural channel flows and floodplain storage. Policy ER 1.1.5 would require that there be no net increase in stormwater runoff peak flows over existing conditions associated with a 100-year storm event. Policy U 4.1.5 would require new development proponents to submit drainage studies that adhere to City stormwater design requirements and incorporate measures to prevent on- or off-site flooding.

As a result of the net decrease in stormwater runoff rates from the 2030 General Plan, impacts to localized flooding as a result of the 2030 General Plan are considered **less than significant**.

12 City of Sacramento. *North Natomas Drainage Design and Procedures Manual*. July 1998. p. 5.2.

13 City of Sacramento, Department of Utilities, Section 11 Storm Drainage Design Standards, February 15, 2005.

14 Sacramento City/County Drainage Manual, Volume 2, Hydrology Standards, December 1996.

Mitigation Measure

None required.

Impact 6.7-4	Implementation of the proposed 2030 General Plan could increase exposure of people and/or property to risk of injury and damage from a regional 100-year flood.
Applicable Regulations	45 CFR 60.3, California Water Code 13000
Significance Before Mitigation	Significant
Mitigation Included in the SGP	Policy U 4.1.1 through U 4.1.5, EC 2.1.2 through EC 2.1.16
Significance after Mitigation Included in the SGP	Less than Significant
Additional Mitigation	None required
Residual Significance	Less than Significant

The 2030 General Plan would designate land for future development both in undeveloped areas as well as in developed areas that would increase the number of residents exposed to potential hazards. Regional flooding, as opposed to localized flooding, refers to flooding from the river system and not from the local storm drainage system. The proposed General Plan, however, includes Policy EC 2.1.3 that ensures funding to meet a minimum level of 200-year regional flood protection is obtained as quickly as possible. In addition, future development would be required to comply with Policies EC 2.1.2, EC 2.1.3, EC 2.1.7, EC 2.1.13, EC 2.1.14 which requires the City to maintain eligibility under the NFIP and cooperate with regional flood planning efforts, limit new development within a 50-foot distance from the landside toe of levees, and update the City's Floodplain Management Plan.

The North and South Natomas portions of the Policy Area are not protected from the 100-year flood event by the existing levee system. The U.S. Army Corps of Engineers has concluded that the levees protecting the Natomas area do not meet the requirements for an AR flood zone designation (which would permit development provided structures are elevated three feet above existing grade level or commercial structures are flood-proofed to three feet above existing grade level) and FEMA is remapping the area to an AE designation.^{15,16} The AE designation allows development to continue providing it is constructed above the base flood elevation (BFE). In the case of Natomas the BFE is 33 feet resulting in a *de facto* building moratorium in the Natomas Basin, because new construction would require elevation of the finished floor to be approximately 13 to 18 feet above existing ground levels.

15 U.S. Army Corps of Engineers, Sacramento District, Memorandum for Record, Subject: Summary of the Natomas Basin 3% Event Screening Level Levee Certification Analysis (including enclosures), January 11, 2008.

16 According to the Corps, no new building permits will be processed after December 2008 until the levees are fixed. A legislative override is currently being pursued to address this concern. Sacramento Business Journal, *Flood-control Agency Ups Ante for Developers in Natomas*, March 21, 2008, <<http://sacramento.bizjournals.com/sacramento/stories/2008/03/24/story3.html>>, accessed March 21, 2008.

Planning and construction for improving the levees protecting the Natomas Basin area is ongoing and 100-year protection could be achieved as early as 2010.¹⁷ The proposed 2030 General Plan includes Policy U 4.1.2 which addresses preventing street flooding for a 10-year event and structure flooding for a 100-year event. This policy results in the creation of drainage facilities designed to convey stormwater flows directly to the river system and ultimately increasing the storm water discharge to the river(s) risking an increase in regional flooding. However, Policy U 4.1.3 calls for the coordination with other agencies to develop regional stormwater facilities, which may mitigate regional flooding issues. Other policies would require new development to evaluate potential peak flow flood hazards and prevent on- or off-site post-project flooding using detention basins, encouraging preservation of urban creeks and rivers to maintain existing natural channel flows and floodplain storage, providing better flood evacuation and risk notification in case of flooding as a result of levee or dam failure, and designing stormwater facilities to prevent on- and off-site flooding. These policies further reduce the risk of flooding and impacts associated with regional flooding to a ***less-than-significant level***.

Mitigation Measure

None required.

Cumulative Impacts and Mitigation Measures

Potential impacts on water quality and hydrology can be contributed to by development within the watershed area that exists not only within the city limits, but also outside of the city limits. The cumulative setting for water quality and hydrology considers development within the larger Sacramento River watershed and the Sacramento – San Joaquin Delta.

Impact 6.7-5	Implementation of the proposed 2030 General Plan, in addition to other projects in the watershed, could result in the generation of polluted runoff that could violate water quality standards or waste discharge requirements for receiving waters.	
Applicable Regulations	<i>Clean Water Act of 1972 (as amended), Stormwater Quality Improvement Program (July 2004), Stormwater Quality Design Manual for the Sacramento and South Placer Regions (May 2007), City Code 13.16 Stormwater Management and Discharge Control Code (2004), and City Code 13.08 Sewer Service System</i>	
Significance Before Mitigation	<i>Less than Significant</i>	
Mitigation Included in the SGP	<i>Policies ER 1.1.3 through ER 1.1.8, and U 4.1.4</i>	
Significance after Mitigation Included in the SGP	<i>Less than Significant</i>	
Additional Mitigation	None required	
Residual Significance	Less than Significant	

17 Sacramento Area Flood Control Agency, Natomas Levee Improvement Program Update. December 18, 2007.

Cumulative development in the city of Sacramento, in addition to other development in the Sacramento River watershed, could result in development of currently undeveloped land, thereby increasing the amount of impervious surfaces and resulting in the potential for an increase in runoff from urbanized land uses. Runoff could carry increased levels of sediment (as a result of construction activities) and urban contaminants (post-construction) that could affect receiving water quality in the Sacramento River watershed and the Delta. This is considered a significant cumulative impact.

The City of Sacramento currently implements the SQIP, which is designed to reduce stormwater pollution to the MEP and eliminate prohibited non-stormwater discharges through a NPDES municipal stormwater discharge permit. The City of Sacramento also provides direction on post-construction BMPs in the *Stormwater Quality Design Manual for the Sacramento and South Placer Regions* (Manual).

Implementation of the proposed General Plan policies, along with the City's ordinances, the Manual, and SQIP would meet the state water quality discharge criteria and improve the quality of water entering local rivers, creeks, and the CSS to the MEP. Future development within the Policy Area would require compliance with the following permits and plans which would reduce the city's contribution of urban pollutants to receiving waters:

- Sacramento-area Phase I NPDES Municipal Separate Storm Sewer System Permit CAS082597,
- Stormwater Quality Design Manual for the Sacramento and South Placer Regions (Design Manual) BMPs, and LID measures to reduce pollutants in storm water and non-stormwater discharges to the Maximum Extent Practicable (MEP),
- City of Sacramento Stormwater Management and Discharge Control Code,
- City of Sacramento General Plan policies related to hydrology and water quality, and the protection and preservation of natural resources,
- State NPDES General Permit for Stormwater Discharges Associated with Construction and associated SWPPP,
- Erosion and Sediment Control Plan.

Therefore, the project's contribution would not be considerable resulting in a ***less-than-significant impact*** to cumulative water quality degradation in the Sacramento River and Delta.

Mitigation Measure

None required.

Impact 6.7-6	Implementation of the 2030 General Plan, in addition to other projects in the watershed, could result in increased numbers of residents and structures exposed to a localized 100-year flood event.
Applicable Regulations	<i>45 CFR 60.3, California Water Code 13000</i>
Significance Before Mitigation	<i>Less than Significant</i>
Mitigation Included in the SGP	<i>Policy U 4.1.1 through U 4.1.5, EC 2.1.14, ER 1.1.4 and ER 1.1.5</i>
Significance after Mitigation Included in the SGP	<i>Less than Significant</i>
Additional Mitigation	None required
Residual Significance	Less than Significant

The cumulative context used to analyze impacts related to increased exposure to localized flooding events includes the Policy Area designated by the 2030 General Plan in addition to areas upstream of the Policy Area boundaries that, if developed, would flow into local drainage facilities. Future growth upstream of the Policy Area boundaries has the potential to increase the amount of impervious area, and thereby increase flows to local drainage facilities. Any increase in flow to local drainage facilities could increase the number of residents and structures exposed to a localized 100-year flood event. This is a potentially significant cumulative impact.

However, as discussed under Impact 6.7-3, there would be no net increase in stormwater within the General Plan boundaries. Growth areas designated by the General Plan are required to construct detention basins to limit flow to the capacity of the local drainage facilities. As such, development assumed to occur under the 2030 General Plan would not produce any increase in the cumulative stormwater runoff. Therefore, the project's contribution is not cumulatively considerable and cumulative impacts from the proposed 2030 General Plan would be ***less than cumulatively significant***.

In addition, the 2030 General Plan provides policies to protect residents and property from localized flooding events. Policy U 4.1.1 requires the City to ensure all new drainage facilities are adequately sized to accommodate stormwater runoff in urbanized areas. Policy U 4.1.2 requires the City to implement master planning programs which are designed to identify facilities needed to prevent 10-year event street flooding and 100-year event structure flooding. Policy ER 1.1.5 requires that there be no net increase in stormwater runoff peak flows over existing conditions associated with a 100-year storm event.

Mitigation Measures

None required.

Impact 6.7-7	Implementation of the 2030 General Plan, in addition to other projects in the watershed, could result in increased numbers of residents and structures exposed to a regional 100-year flood event.
Applicable Regulations	<i>None</i>
Significance Before Mitigation	<i>Less than Significant</i>
Mitigation Included in the SGP	<i>Policy U 4.1.1 through U 4.1.5, EC 2.1.1 through EC 2.1.10</i>
Significance after Mitigation Included in the SGP	<i>Less than Significant</i>
Additional Mitigation	None required
Residual Significance	Less than Significant

The cumulative context for the following analysis is the lower Sacramento River watershed. Development of new structures and dwelling units in the city as whole, in addition to other development within the lower Sacramento River watershed would increase the population and property exposed to potential flood hazards, especially residential developments protected by levees (i.e., West Sacramento, Yuba City, etc.). This is considered a potentially significant cumulative impact.

The lower Sacramento watershed is anticipating to include an additional 1.36 million people in the next 30 years, as shown in Table 6.7-3. Based on 2000 population data and 2000 municipal boundaries within the lower Sacramento Watershed (included in Appendix J), the urban density averages 6.7 people per net developed acre.¹⁸ Accommodating the additional 1.36 million people at that density would require an additional 306 square miles of development, or increasing the urbanized area by over 40 percent. Increasing the urbanized area would likely increase exposure to a regional 100-year flood event that could result in a cumulative significant impact to the risk of regional flooding from a 100-year storm event.

The cumulative increase in stormwater runoff results in additional risks to the Policy Area. Although most of the city is designated by FEMA to be protected from the 100-year flood, the North and South Natomas portions of the Policy Area are not currently protected from the 100-year flood event by the existing levee system. Until the levees that protect the Natomas Basin are improved to the current Corps standards and accredited by FEMA, occupants and property in that portion of the Policy Area are designated by FEMA as at risk of damage associated with flooding from the 100-year flood.

Agencies such as SAFCA and the Corps are examining levee stability, funding (i.e., proposed SAFCA development fees), and planning to enhance flood protection to protect the area from a 200-year flood event. Implementation of future development anticipated under the 2030 General Plan would not produce any increase in the cumulative stormwater runoff (see Impact 6.7-3). However, planned development under the 2030 General Plan would increase the number of

¹⁸ Assumes total municipal boundaries in the lower Sacramento Watershed and a net to gross developed area ratio of 80 percent.

TABLE 6.7-3

LOWER SACRAMENTO WATERSHED POPULATION PROJECTIONS

County	2010	2040	Increase 2010 to 2040
Butte	230,116	387,743	157,627
Colusa	23,787	38,131	14,344
Glenn	30,880	54,000	23,120
Placer	347,543	625,964	278,421
Sacramento ¹	1,451,866	1,790,495	338,629
El Dorado	189,308	280,720	91,412
Shasta	191,722	295,281	103,559
Sutter	102,326	229,620	127,294
Tehama	65,593	108,345	42,752
Yolo	206,100	301,934	95,834
Yuba	80,411	168,040	87,629
TOTAL	2,919,652	4,280,273	1,360,621

Notes:

- Does not include population increase of 198,726 under 2030 General Plan due to net decrease in runoff associated with that population (see p. 6.7-4).

Source: California Department of Finance, Population Projections by Race/Ethnicity for California and Its Counties 2000–2050, <www.dof.ca.gov/html/DEMOGRAP/ReportsPapers/Projections/P1/P1.php>, July 2007; PBS&J, 2008.

residents in the Natomas Basin, increasing the number of people and homes exposed to the risk of flooding until the levee system upgrades are completed. The net increase in residents and structures that would be exposed to a risk of increased flooding as a result of the proposed General Plan is a small portion of the lower Sacramento River watershed. Proposed General Plan Policy EC 2.1.3 proposes to work towards a 200-year flood protection standard for the entire city. Under the cumulative context the growth that could occur within the Policy Area prior to completion of the 100-year flood protection for the Natomas basin is not cumulatively considerable. As a result the cumulative impacts would be considered ***less than significant***.

Mitigation Measures

None required.

South Area Community Plan

As stated above under the Cumulative Context, the analysis of hydrology and water quality is based on the entire Sacramento River watershed. However, it is possible that some areas within the Policy Area may be more or less susceptible to flooding hazards than the entire Policy Area in general. The SACP area is located in a portion of the city that is no more susceptible to water quality impacts than the remainder of the Policy Area, due to similar urbanization characteristics. Further, impacts related to flooding would generally be similar in the SACP as the rest of the Policy Area, except for the North and South Natomas areas. Portions of the SACP in the South Sacramento Streams Group floodplain remain designated Zone A-99. Specific impacts for individual development projects would be determined by the required drainage studies mandated by proposed General Plan policies EC 2.1.6, and U 4.1.2 through U 4.1.5 and City design standards.

Focused Opportunity Areas

All of the six Focused Opportunity Areas are located in areas of the city that would not be any different with regards to hydrology and water quality than the remainder of the Policy Area. Further, impacts related to flooding would generally be similar in the Focused Opportunity Areas as the rest of the Policy Area, except for the North and South Natomas areas. Site-specific analysis for individual development projects within each Focused Opportunity Area would determine whether individual project sites would require additional mitigation beyond compliance with mandated state and city requirements.

Insufficient Information to Support a Complete Analysis of the Potential Impacts

Section 15176(c) of the CEQA Guidelines acknowledges that all the information necessary to analyze potential impacts associated with implementation of the proposed 2030 General Plan may not be available. It is anticipated that future development within the Focused Opportunity Areas, as well as in the SACP and future development within the Policy Area could include potential impacts associated with hydrology and water quality. At this time specific project information is not available (i.e., individual project site drainage characteristics, site-specific location, etc.) and standards differ based on the type of development (i.e., commercial, industrial, residential, etc.) to evaluate potential impacts associated with hydrology and water quality. Once specific development proposals are prepared and submitted to the City a project-specific environmental analysis would be prepared to analyze potential impacts related to hydrology and water quality.

SUMMARY OF HYDROLOGY AND WATER QUALITY IMPACTS							
LEVEL OF SIGNIFICANCE							
	6.7-1 Implementation of the 2030 General Plan could result in construction activities that could degrade water quality and violate state water quality objectives by increasing sedimentation and other contaminants entering streams and rivers.	6.7-2 Implementation of the 2030 General Plan could generate new sources of polluted runoff that could violate water quality standards.	6.7-3 Implementation of the proposed 2030 General Plan could increase exposure of people and/or property to risk of injury and damage from a localized 100-year flood.	6.7-4 Implementation of the proposed 2030 General Plan could increase exposure of people and/or property to risk of injury and damage from a regional 100-year flood.	6.7-5 Implementation of the proposed 2030 General Plan, in addition to other projects in the watershed, could result in the generation of polluted runoff that could violate water quality standards or waste discharge requirements for receiving waters.	6.7-6 Implementation of the 2030 General Plan, in addition to other projects in the watershed, could result in increased numbers of residents and structures exposed to a localized 100-year flood event.	6.7-7 Implementation of the 2030 General Plan, in addition to other projects in the watershed, could result in increased numbers of residents and structures exposed to a regional 100-year flood event.
Community Plan Areas							
Arden-Arcade	○	○	○	○	○	○	○
Central City	○	○	○	○	○	○	○
East Broadway	○	○	○	○	○	○	○
East Sacramento	○	○	○	○	○	○	○
Land Park	○	○	○	○	○	○	○
North Natomas	○	○	○	○	○	○	○
North Sacramento	○	○	○	○	○	○	○
Pocket	○	○	○	○	○	○	○
South Area	○	○	○	○	○	○	○
South Natomas	○	○	○	○	○	○	○
Focused Opportunity Areas							
65 th Street/University Village	○	○	○	○	○	○	○
Arden Fair/Point West	○	○	○	○	○	○	○
Florin LRT/Subregional Center	○	○	○	○	○	○	○
Meadowview LRT	○	○	○	○	○	○	○
River District	○	○	○	○	○	○	○
Robla	○	○	○	○	○	○	○
○ = less than significant ● = less than significant with mitigation incorporated ● = significant and unavoidable							

6.8 Noise and Vibration



INTRODUCTION

This section evaluates the potential for the proposed 2030 General Plan (proposed project) to increase noise levels due to implementation either through increased population and new development within the Policy Area, or other policy changes. This section considers effects related to a variety of noise sources in the Policy Area, including vehicular traffic on road, freeways and highways, aircraft, railways, light rail, and stationary sources.

Policies in the Environmental Constraints Element in the 2030 General Plan are intended to protect residents, businesses, and visitors from potential noise hazards by establishing exterior and interior noise standards. The policies also require mitigation of construction noise impacts and require the reduction of noise from vehicles and aircraft.

No comments pertaining to noise were received during circulation of the NOP.

The analysis included in this section was developed based on data on ambient noise levels in various locations throughout the Policy Area, and modeled changes in those levels based on predicted increases in vehicular and other activities over the life of the 2030 General Plan. Information to prepare this section is based on the City of Sacramento 2030 General Plan Technical Background Report (TBR), reviewing noise standards included in the City's Municipal Code, the Federal Highway Administration (FHWA) Highway Traffic Noise Model (TNM), and the Federal Transit Administration's *Transit Noise and Impact Assessment* document. Traffic inputs for the noise prediction model were provided by the transportation consultant.

The TBR prepared for the project is available electronically on the City's website (<http://www.sacgp.org/documents.html#tbr>) and on CD at the back of this document.

ENVIRONMENTAL SETTING

City Wide

■ Fundamentals of Sound, Noise and Vibration

Sound is created when vibrating objects produce pressure variations that move rapidly outward into the surrounding air. The main characteristics of these air pressure waves are amplitude, which we experience as a sound's loudness, and frequency, which we experience as a sound's pitch. The standard unit of sound amplitude is the decibel (dB); it is a measure of the physical magnitude of the pressure variations relative to the human threshold of perception. The human ear's sensitivity to sound amplitude is frequency-dependent; it is more sensitive to sound with a

frequency at or near 1000 cycles per second than to sound with much lower or higher frequencies.

Most “real world” sounds (e.g., a dog barking, a car passing, etc.) are complex mixtures of many different frequency components. When the average amplitude of such sounds is measured with a sound level meter, it is common for the instrument to apply different adjustment factors to each of the measured sound’s frequency components. These factors account for the differences in perceived loudness of each of the sound’s frequency components relative to those that the human ear is most sensitive to (i.e., those at or near 1000 cycles per second). This practice is called “A-weighting.” The unit of A-weighted sound amplitude is also the decibel. But in reporting measurements to which A-weighting has been applied, an “A” is appended to dB (i.e., dBA) to make this clear. Table 4.11-1 in the TBR lists representative environmental sound levels.

Noise is the term generally given to the “unwanted” aspects of intrusive sound. Many factors influence how a sound is perceived and whether or not it is considered annoying to a listener. These include the physical characteristics of a sound (e.g., amplitude, frequency, duration, etc.), but also non-acoustic factors (e.g., the acuity of a listener’s hearing ability, the activity of the listener during exposure, etc.) that can influence the judgment of listeners regarding the degree of “unwantedness” of a sound. Excessive noise can negatively affect the physiological or psychological well-being of individuals or communities.

All quantitative descriptors used to measure environmental noise exposure recognize the strong correlation between the high acoustical energy content of a sound (i.e., its loudness and duration) and the disruptive effect it is likely to have as noise. Because environmental noise fluctuates over time, most such descriptors average the sound level over the time of exposure, and some add “penalties” during the times of day when intrusive sounds would be more disruptive to listeners. The most commonly used descriptors are:

- Equivalent Energy Noise Level (L_{eq}) is the constant noise level that would deliver the same acoustic energy to the ear of a listener as the actual time-varying noise would deliver over the same exposure time. No “penalties” are added to any noise levels during the exposure time; L_{eq} would be the same regardless of the time of day during which the noise occurs.
- Day-Night Average Noise Level (L_{dn}) is a 24-hour average L_{eq} with a 10 dBA “penalty” added to noise levels during the hours of 10:00 p.m. to 7:00 a.m. to account for increased sensitivity that people tend to have to nighttime noise. Because of this penalty, the L_{dn} would always be higher than its corresponding 24-hour L_{eq} (e.g., a constant 60 dBA noise over 24 hours would have a 60 dBA L_{eq} , but a 66.4 dBA L_{dn}).
- Community Noise Equivalent Level (CNEL) is an L_{dn} with an additional 5 dBA “penalty” for the evening hours between 7:00 p.m. and 10:00 p.m.
- Sound Exposure Level or Single Event Level (SEL). A descriptor used to characterize the severity of short-duration sound events. SEL is the time-averaged, constant

intensity, A-weighted sound level over a one-second reference time that would produce the same sound exposure as the actual time-varying sound over the actual exposure time. In practice, SEL is usually applied in situations where there are multiple sound events, each one having its own characteristic SEL.

Community noise exposures are typically represented by 24-hour descriptors, such as a 24-hour L_{eq} or L_{dn} . One-hour and shorter-period descriptors are useful for characterizing noise caused by short-term activities, such as the operation of construction equipment.

Vibrating objects in contact with the ground radiate energy through that medium. If a vibrating object is massive enough and/or close enough to an observer, its vibrations are perceptible. Vibration magnitude is measured in vibration decibels (VdB) relative to a reference level of 1 micro-inch per second peak particle velocity (PPV), the human threshold of perception. The background vibration level in residential areas is usually 50 VdB or lower. Most perceptible indoor vibration is caused by sources within buildings such as operation of mechanical equipment, movement of people, or slamming of doors. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If the roadway is smooth, the vibration from traffic is rarely perceptible. The range of environmental interest is typically from 50 VdB to 90 VdB (or 0.12 inch per second PPV), the latter being the general threshold where structural damage can begin to occur in fragile buildings.

■ Sources of Noise

Land uses within the Policy Area include a range of residential, commercial, institutional, industrial, recreational, and open space areas. Although there are many noise sources within the Policy Area, the primary noise source is traffic. Significant noise also occurs from airplane traffic, railroads, and various stationary sources as described below. Existing noise contours for roadways, airports, railroads, and light rail systems are shown in Figures 6.8-1 through 6.8-6.

Freeways and Highways

Motor vehicles commonly cause sustained noise levels in the vicinity of busy roadways or freeways. Several major freeways run through the Policy Area, including Interstate 5 (I-5), Interstate 80 (I-80), Capital City Freeway (SR 51), US 50, State Route 99 (SR 99), and SR 160. The Policy Area also has many local roads that experience high traffic volumes and contribute traffic noise. Some noise receptors, such as residences, built near these high-traffic corridors have some level of noise attenuation such as a sound wall or barrier. All noise receptor structures also have built-in interior noise attenuation as a result of building construction and insulation.

Aircraft

The Policy Area is served by five airports, Sacramento International Airport, Executive Airport, Mather Airport, McClellan Air Field and Rio Linda Airport, a small local airport just north of the

Robla Focused Opportunity Area in North Sacramento. Of these airports, Sacramento International provides the majority of commercial passenger flights. McClellan Airfield serves military civilian, and public agency aircraft operators. Mather Airport is used for air cargo and military purposes as well as for civilian and public agency general aviation operations. Executive Airport is a public use airport owned and operated by the County of Sacramento that serves mostly smaller, private planes.

Railway

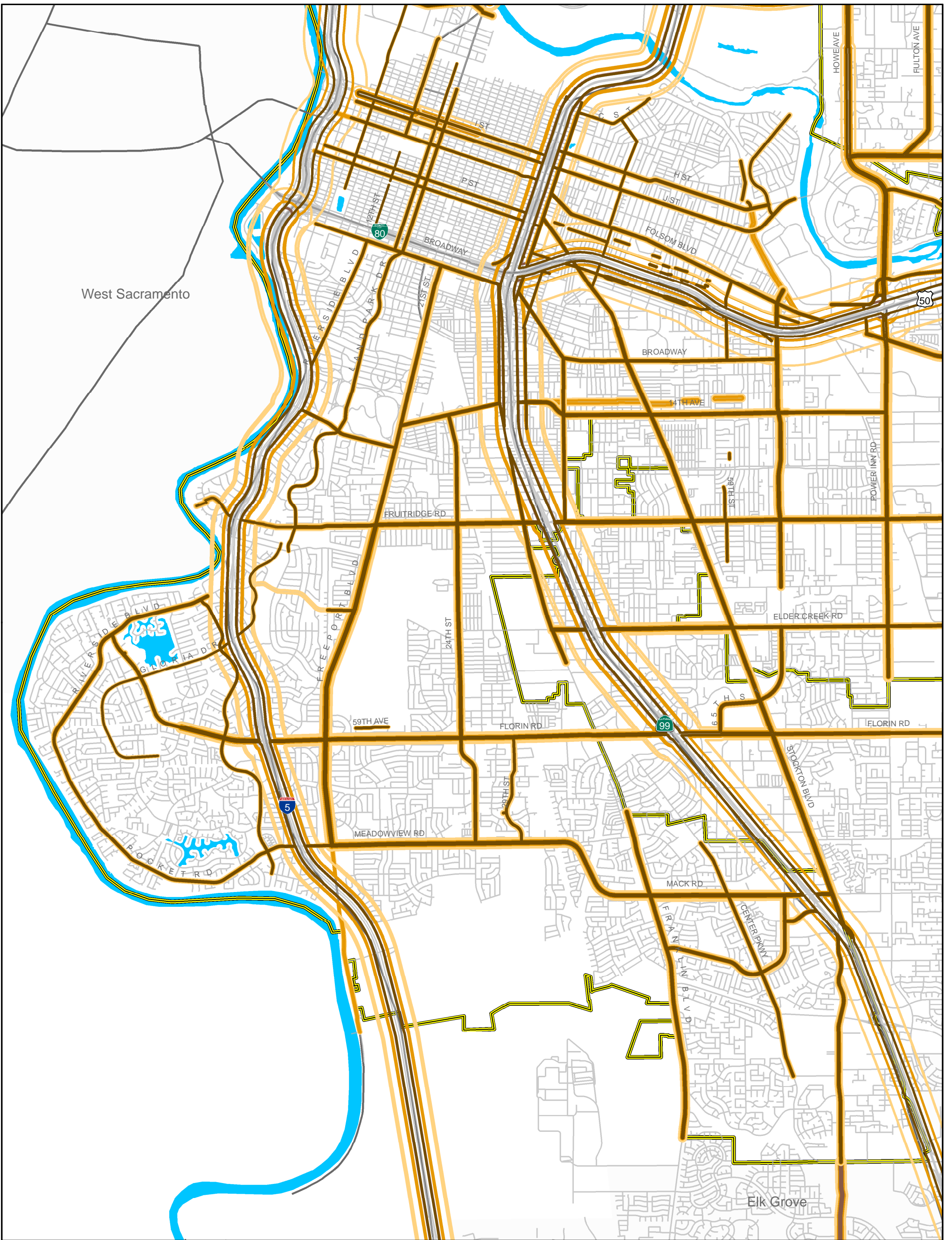
Rail lines cross through the Policy Area in a number of locations. Union Pacific (UP) trains traverse three routes:

- Generally north/south past California State University at Sacramento. This route averages approximately 17 trains per day;
- Generally north/south through downtown Sacramento. This route averages approximately 20 trains per day;
- Generally east/west through West Sacramento to the Union Pacific (UP) depot and then to North Sacramento and points east. This route averages approximately 10-12 freight trains per day. In addition to freight trains, Amtrak passenger trains also arrive and depart from the Amtrak station located at 3rd and I streets in downtown Sacramento. Trains arrive from the west, and depart heading towards the Bay Area. These trains use the same route that UP trains use coming from West Sacramento. Passenger trains along this route average approximately 28 – 30 per day.

In addition to the noise generated by the trains themselves, noise is generated where trains intersect roadways by the warning bells used to alert motorists of a train's arrival.

Light Rail

Sacramento Regional Transit (RT) light rail, a major component of the City's transit system, runs through the city of Sacramento along three routes. One route runs from the I-80/Watt Avenue interchange to the Mather area. The second route runs from the Meadowview area in South Sacramento to St. Rose of Lima Park in downtown Sacramento at 7th and K streets. The two routes parallel each other for about 20 blocks in the downtown area from St. Rose of Lima Park to R Street between 19th and 20th streets. Both routes run 69 light rail trips on weekdays, and between 56 and 63 trips on weekend days. The third route runs from the Folsom area to the east parallel to US 50 to downtown Sacramento. As with heavy rail, warning bells at intersections where light rail crosses a street contribute noise as well.



Legend

- 70 CNEL
- 65 CNEL
- 60 CNEL
- City Limit
- County Boundary
- Policy Area
- Water

Figure 6.8-1
Existing Roadway
Noise Contours
(Section 1 of 3)

Source: Fehr & Peers 2008

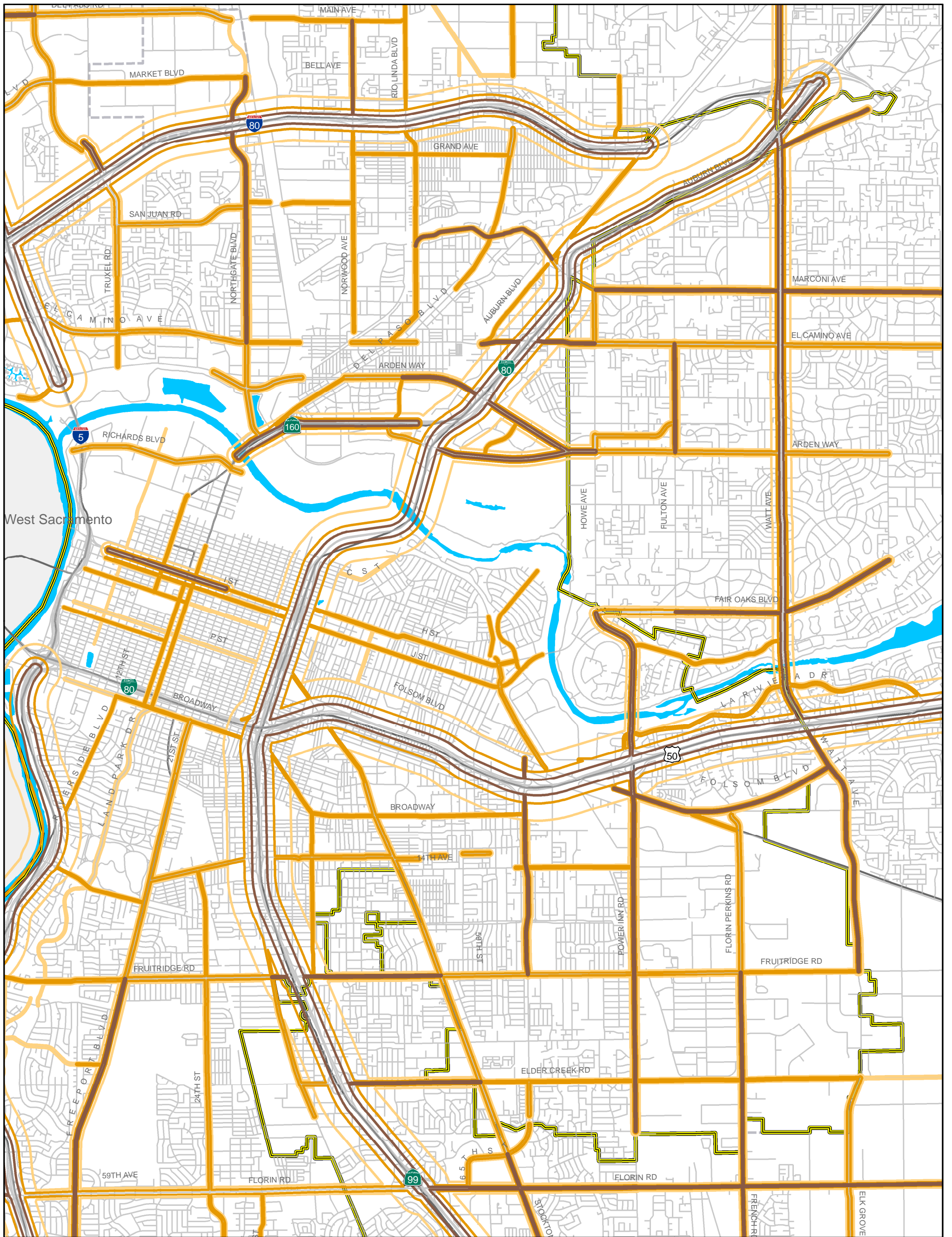


Figure 6.8-2
Existing Roadway
Noise Contours
(Section 2 of 3)



- Legend**
- 70 CNEL
 - 65 CNEL
 - 60 CNEL
 - City Limit
 - Policy Area
 - County Boundary
 - Water

Source: Fehr & Peers 2008

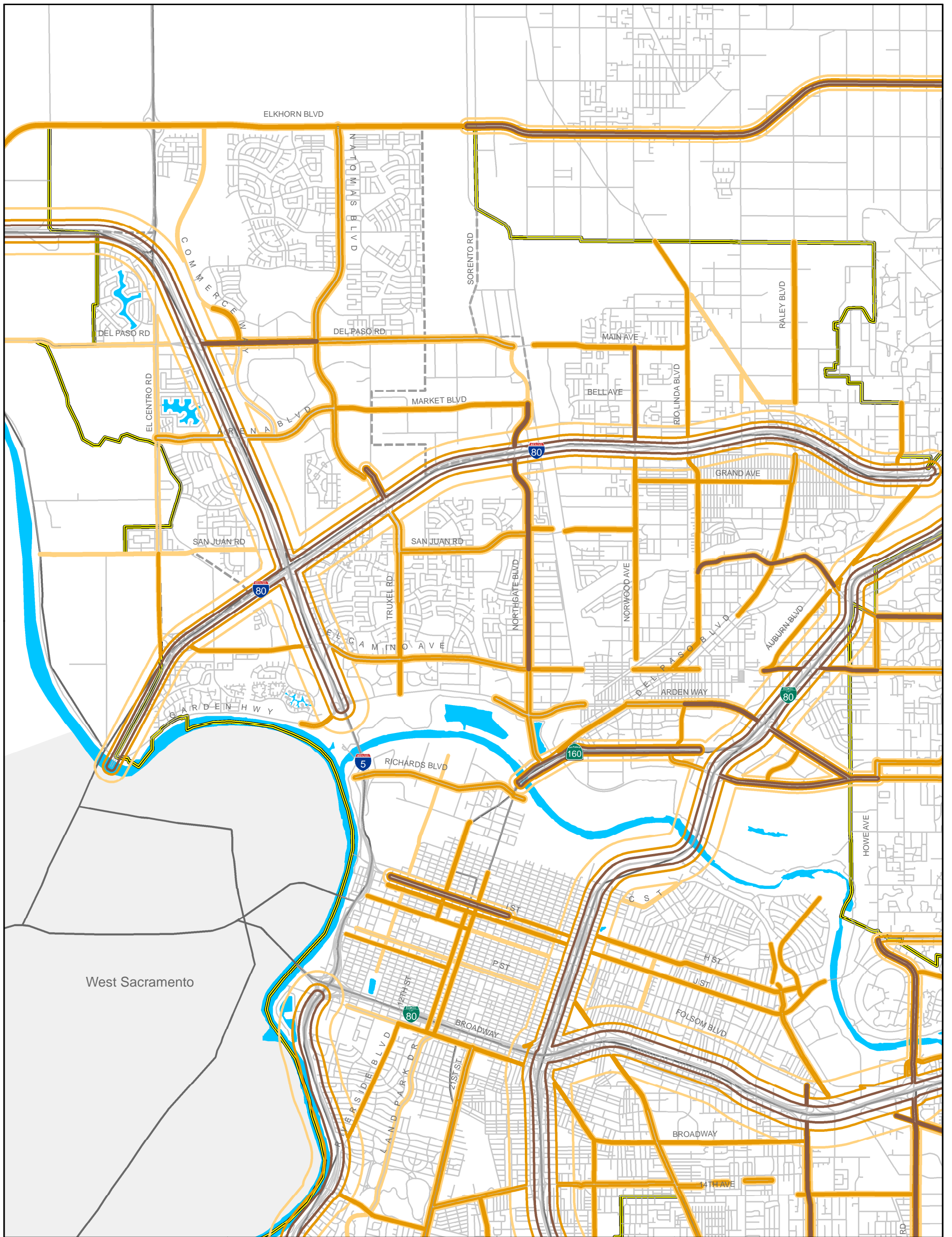


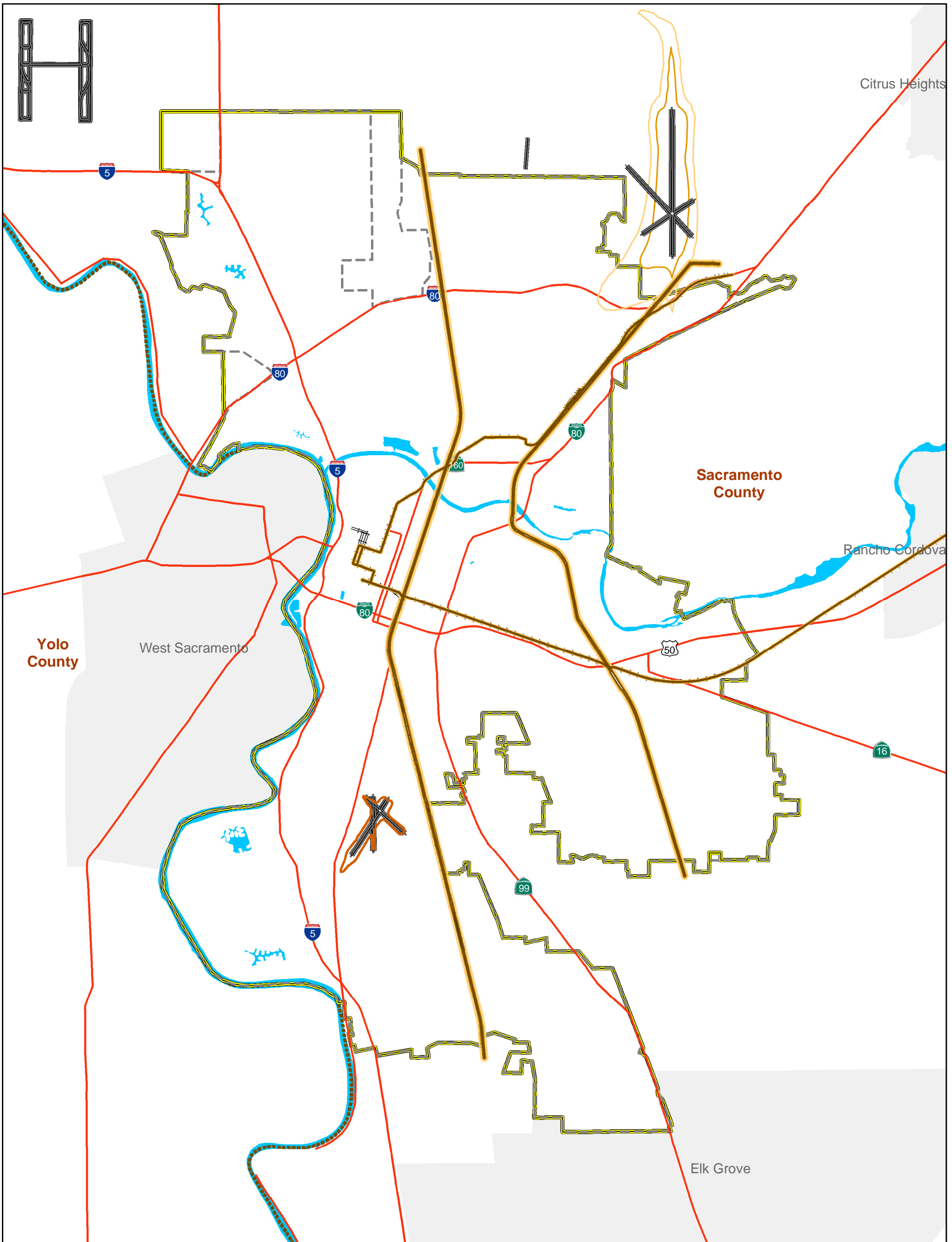
Figure 6.8-3
Existing Roadway
Noise Contours
(Section 3 of 3)

- Legend**
- 70 CNEL
 - 65 CNEL
 - 60 CNEL
 - City Limit
 - County Boundary
 - Policy Area
 - Water

Source: Fehr & Peers 2008

0 0.25 0.5 0.75
 Miles



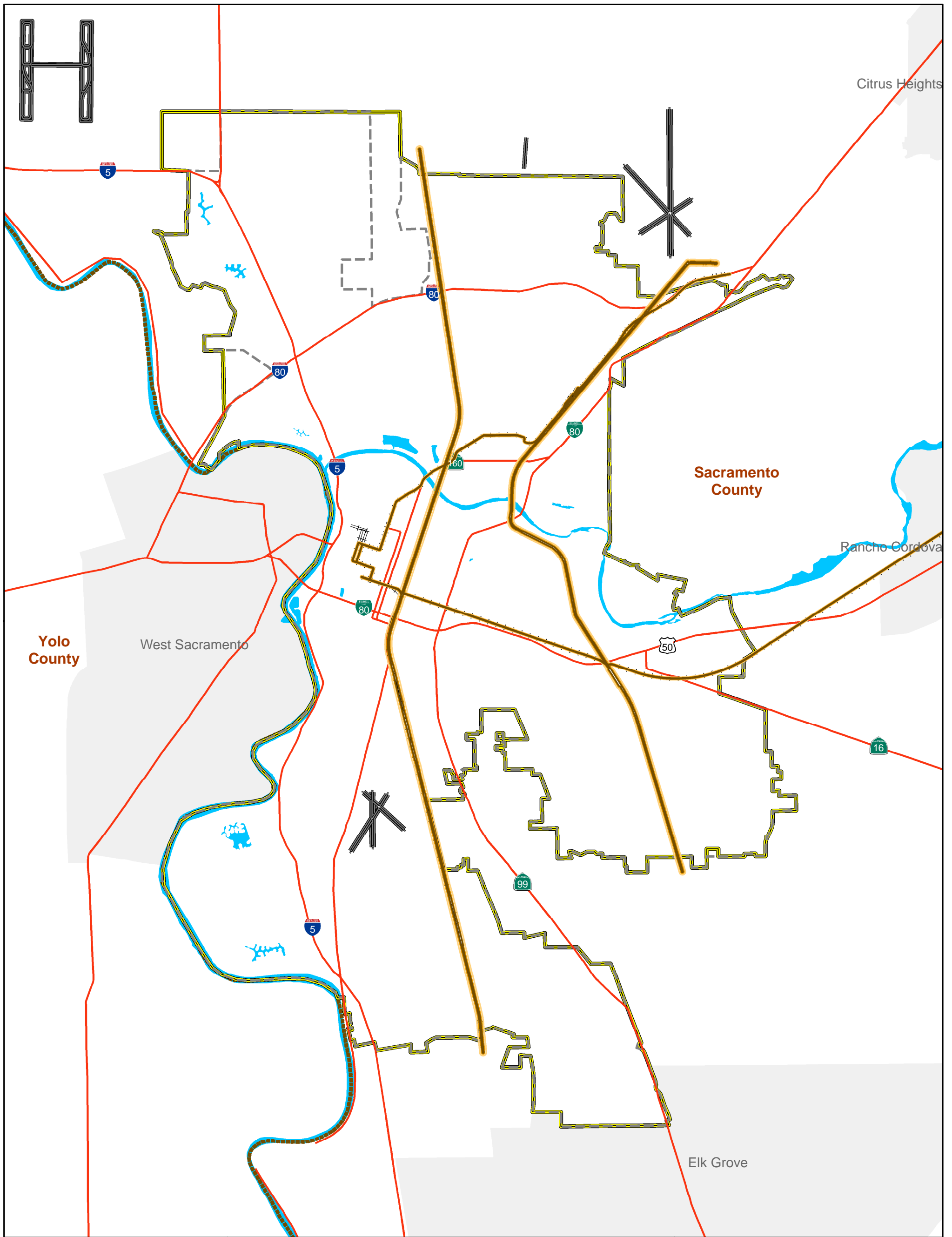


Legend	
	Executive Airport Noise Contour
Light Rail Noise Contours	
	70 CNEL
	65 CNEL
	60 CNEL
McClellan Noise Contours	
	65 CNEL
	60 CNEL
	Airport
	Rail Line
	City Limit
	County Boundary
	Other City Boundaries
	Policy Area
	Water

Figure 6.8-4
Existing Light Rail,
Executive Airport, and
McClellan Airfield
Noise Contours

City of Sacramento, 2007
 Sacramento County
 Airport System, 2002,
 PBS&J 2007

0 0.75 1.5
 Miles



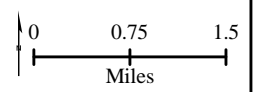
Legend

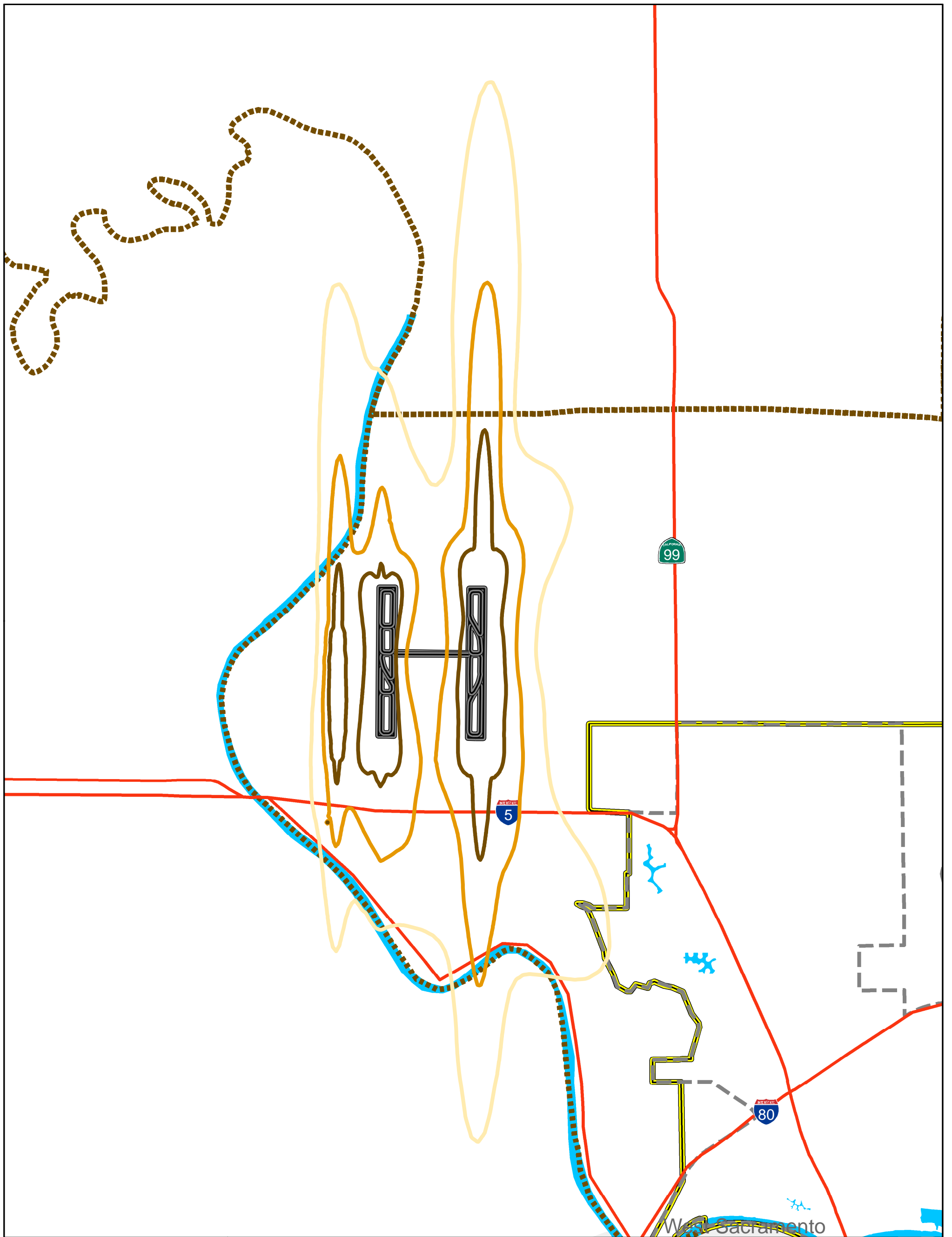
- 70 CNEL
- 65 CNEL
- 60 CNEL
- Airport
- Rail Line
- City Limit
- County Boundary
- Other City Boundaries
- Policy Area
- Water

Figure 6.8-5

Existing Rail Noise Contours

PBS&J 2007





Legend

- 70 CNEL
- 65 CNEL
- 60 CNEL
- Airport
- City Limit
- County Boundary
- Policy Area
- Water

**Figure 6.8-6
Existing
Sacramento
International Airport
Noise Contours**

Stationary Sources

A wide variety of stationary sources are present in the Policy Area including heating and cooling equipment, landscape maintenance activities such as leaf-blowing and gasoline-powered lawnmowers, shipping and loading facilities, concrete crushing facilities, and recycling centers, and outdoor sporting facilities that can attract large numbers of spectator, such as high school or college football fields, can also produce noise that can affect nearby receptors.

Sensitive Receptors

Sensitive noise receptors typically include residences, schools, child care centers, hospitals, long-term health care facilities, convalescent centers, and retirement homes. Each of these land use types currently occur within the Policy Area.

Monitored Daytime Noise Levels

To determine existing ambient daytime noise levels, ten different locations were selected to determine representative noise levels for certain sources in various portions of the Policy Area (see Figure 6.8-7).

The ambient noise levels are provided in section 7.4 in Table 7.4-2 on page 7.4-13 of the TBR. Detailed information pertaining to the noise levels measured and the types of noise in the area is provided on pages 7.4-13 through 7.4-14 of the TBR.

Monitoring data at three of the nine locations (i.e., #4, #6 and #8) monitored for the TBR were updated for this MEIR, and a tenth location was added at the Meadowview LRT station. Descriptions of the new measurement circumstances and results are provided below:

- Location 4 – Arden Mall Transit Center. The reading was taken as one bus arrived at the Center until its departure. This reading (i.e., $L_{eq} = 87.1$ dBA) lasted approximately three minutes. The reading was taken approximately seven feet from where bus arrived. The L_{max} was high (i.e., 98.0 dBA) due to the close proximity of the noise meter to the bus as it was braking and accelerating away from the center. Multiple buses can converge on the Center simultaneously causing a higher L_{max} , but such events would be relatively infrequent based on observations during the survey.
- Location 6 – Light rail crossing. The reading was taken as the warning bell for the light rail began to sound at the intersection and the train passed through the intersection. The reading was terminated as the warning bell stopped ringing. The reading was taken approximately 28 feet from the crossing guards and warning bell, and lasted approximately one minute (i.e., $L_{eq} = 82.4$ dBA; $L_{max} = 91.6$ dBA).
- Location 8 – Water treatment plant (corner of Fruitridge Road and South Land Park Drive). The reading was taken approximately 125 feet from outside equipment. The equipment operated continuously over the 15 minute monitoring period (i.e., $L_{eq} = 70.3$ dBA; $L_{max} = 82.4$ dBA). An additional and intermittent noise, which sounded like a

valve opening and closing, occurred twice over the monitoring period. Traffic from Fruitridge Boulevard influenced the reading, as well as airplane flyovers from the nearby Sacramento Executive Airport; however, because the water treatment plant equipment operated continuously, the L_{\min} value is most indicative of true ambient noise levels generated by the equipment at this distance (i.e., 63.9 dBA).

- Location 10 – Meadowview LRT. The reading was taken 24 feet from the light rail train as it arrived at the station and lasted for approximately three minutes (i.e., $L_{\text{eq}} = 79.2$ dBA; $L_{\min} = 70.9$ dBA $L_{\max} = 85.2$ dBA). The station has approximately 690 parking spaces for riders who utilize the light rail station and bus transfer station on the site. The reading was taken at 5:32 pm on a Thursday (October 18, 2007); thus, exiting passenger automobiles were backed up at the exit of the station which also influenced the noise reading.

■ Roadway Noise Levels

Existing 24-hour noise levels were calculated for various freeways, highways, and road segments throughout the Policy Area using the Federal Highway Administration Highway Noise Prediction Model (FHWA-RD-77-108). The model calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site environmental conditions. The average vehicle noise rates (energy rates) utilized in the FHWA Model have been modified to reflect average vehicle noise rates identified for California by Caltrans. The Caltrans data show that California automobile noise is 0.8 to 1.0 dBA higher than national levels and that medium and heavy truck noise is 0.3 to 3.0 dBA lower than national levels.

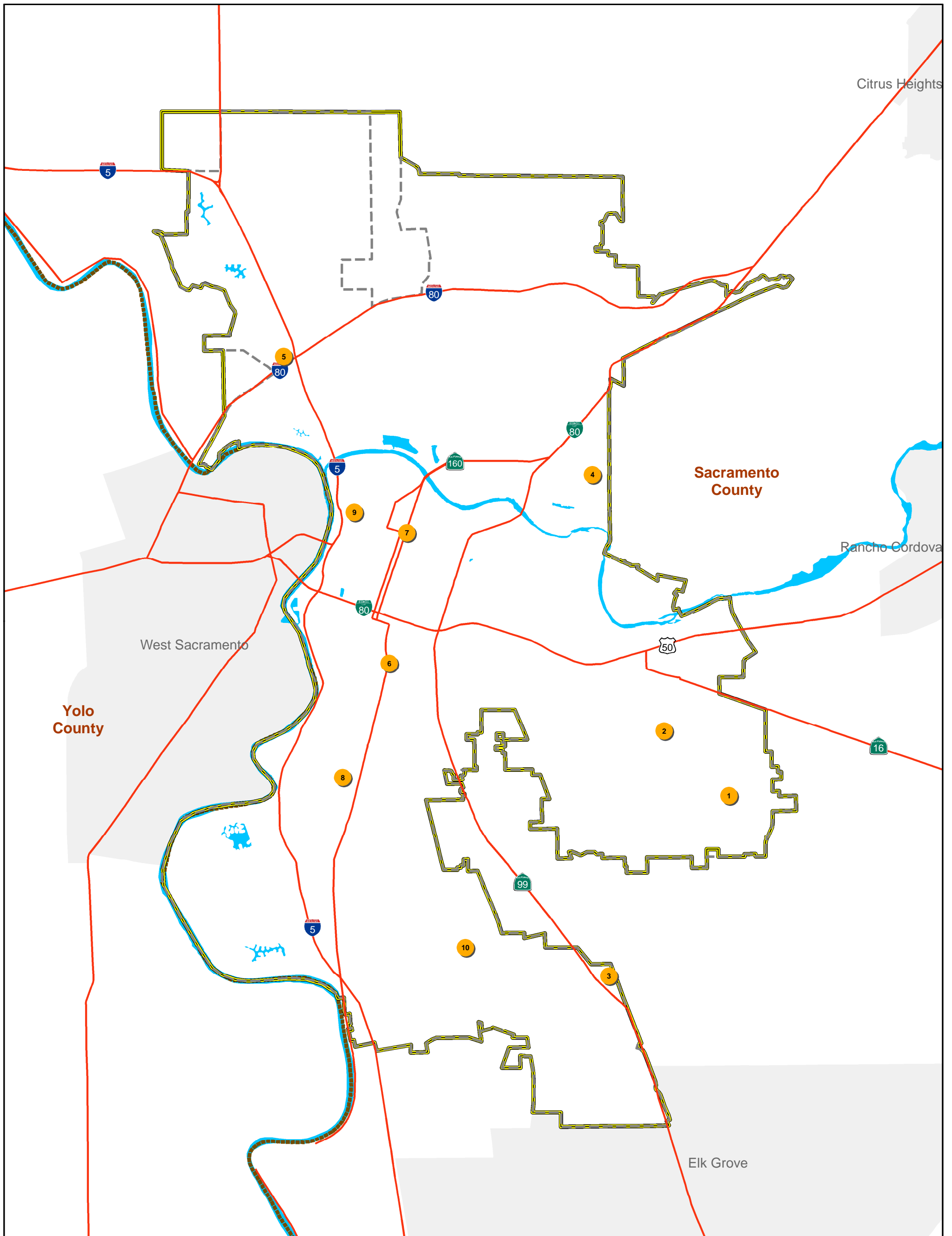
Noise levels were modeled for the roadways with the highest traffic volumes within the Policy Area. The calculated noise levels at 100 feet are presented in Appendix E of the TBR along with the distances to various noise level contours. Freeways and major surface streets were the greatest sources of traffic noise.

Regulatory Context

Noise within the Policy Area is regulated through the efforts of various federal, state, and local government agencies. However, noise is primarily monitored on a local level. These agencies work jointly, as well as individually, to address the noise environment. The agencies responsible for monitoring noise within the Policy Area are discussed in detail in the TBR starting on page 7.4-14 through 7.4-16 of section 7.4, Noise. The reader is referred to the TBR for this information. Additional information relevant to applicable regulations is included below.

■ Federal and State

The basic motivating legislation for noise control in the U.S. was provided by the Federal Noise Control Act (1972), which addressed the issue of noise as a threat to human health and welfare, particularly in urban areas. In response to the Noise Control Act, the Environmental Protection

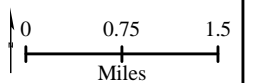


Legend

- Noise Monitoring Location
- City Limit
- Other City Boundaries
- County Boundary
- Policy Area
- Water

**Figure 6.8-7
Noise
Monitoring
Locations**

PBS&J 2007



Agency (EPA) published *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety* (EPA 1974). In summary, EPA findings were that sleep, speech, and other types of essential activity interference could be avoided in residential areas if the L_{dn} did not exceed 55 dBA outdoors and 45 dBA indoors. The EPA intent was not that these findings necessarily be considered as mandatory standards, criteria, or regulatory goals, but as advisory exposure levels below which there is no reason to suspect that the general population would be at risk from any of the identified health or welfare effects of noise. The EPA *Levels* report also identified 5 dBA as an adequate margin of safety before an increase in noise level would produce a significant increase in the severity of community reaction (i.e., increased complaint frequency, annoyance percentages, etc.) provided that the existing baseline noise exposure did not exceed 55 dBA L_{dn} .

The State of California *General Plan Guidelines 2003 (Guidelines)* promotes use of L_{dn} or CNEL for evaluating noise compatibility of various land uses with the expected degree of noise exposure. The designation of a level of noise exposure as “normally acceptable” for a given land use category implies that the expected interior noise would be acceptable to the occupants without the need for any special structural acoustic treatment. The *Guidelines* identify the suitability of various types of building construction relative the range of customary outdoor noise exposures. The *Guidelines* provide each local community some leeway in setting local noise standards that allow for the variability in individual perceptions of noise in that community. Findings presented in EPA *Levels* have had an obvious influence on the content of the State *Guidelines*, most importantly in the latter’s choice of noise exposure metrics and in the upper limits for the “normally acceptable” exposure of noise-sensitive uses (i.e., no higher than 60 dBA L_{dn} or CNEL for low-density residential, which is just at the upper limit of the 5 dBA “margin of safety” defined by the EPA for noise-sensitive land use categories).

The Federal Transit Administration (FTA) has developed an extensive methodology and significance criteria to evaluate noise impacts from surface transportation modes (i.e., private motor vehicles, trucks, buses, and rail), as presented in *Transit Noise Impact and Vibration Assessment* (May 2006). The scientific rationale for FTA’s criteria is clearly explained and is widely accepted by acoustic scientists. The FTA incremental noise impact criteria are essentially those presented in Table EC-2, as referenced in General Plan Policy EC 3.1.2, below. These criteria are based on findings in EPA *Levels* and subsequent studies of annoyance in communities affected by transportation noise. Starting from the EPA’s definition of minimal noise impact as a 5 dBA change from a “safe” ambient level of 50 dBA (using L_{dn} or peak hour L_{eq} , depending on land use), the FTA extended the incremental impact criteria to higher baseline ambient levels by requiring that increased adverse community reaction be kept below a defined minimal level (i.e., a 2% increase the number of residents reporting a “high” level of annoyance, as measured by survey). As baseline ambient levels increase, it takes a smaller and smaller increment to produce the same increase in annoyance (e. g., in residential areas with a baseline ambient noise level of 50 dBA L_{dn} , a 5 dBA increase in noise levels would be expected to increase community annoyance by 2%, but at a baseline ambient noise level of

70 dBA L_{dn} , a 1 dBA increase in noise levels would be expected to have the same effect on community annoyance levels).

Ground-borne Vibration

The FTA has also developed criteria for judging the significance of ground-borne vibration, as shown in Table 6.8-1. Vibration magnitude is measured in vibration decibels (VdB) relative to a reference level of 1 micro-inch per second, the human threshold of perception.

GROUND-BORNE VIBRATION (GBV) IMPACT CRITERIA FOR GENERAL ASSESSMENT			
Land Use Category	GVB Impact Levels (VdB re 1 micro-inch/second)		
	Frequent Events¹	Occasional Events²	Infrequent Events³
<i>Category 1:</i> Buildings where vibration would interfere with interior operations.	65 ⁴	65 ⁴	65 ⁴
<i>Category 2:</i> Residences and buildings where people normally sleep.	72	75	80
<i>Category 3:</i> Institutional land uses with primarily daytime uses.	75	78	83
Notes: 1. "Frequent Events" is defined as more than 70 vibration events of the same source per day. 2. "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day. 3. "Infrequent Events" is defined as fewer than 30 vibration events of the same source per day. 4. This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research will require detailed evaluation to define the acceptable vibration levels. Source: Federal Transit Administration, <i>Transit Noise Impact and Vibration Assessment</i> , May 2006.			

■ Local

City of Sacramento 1988 General Plan

The City's 1988 General Plan contains policies and implementation measures relevant to noise in its Health and Safety Element. Specific policies establish maximum acceptable exterior noise level criteria for new development as well as policies that address existing development. These existing policies are reflected in the current thresholds of significance used for the project. Upon approval of the proposed 2030 General Plan, all policies and implementation measures in the 1988 General Plan would be superseded. Therefore, they are not included in this analysis.

IMPACTS AND MITIGATION MEASURES

Methods of Analysis

The analysis of the existing and future noise environments is based on empirical observations, noise level measurements, and computer modeling. Existing noise levels were monitored at selected locations using a Larson-Davis Model 720 sound level meter, which satisfies the American National Standards Institute (ANSI) for general environmental noise measurement

instrumentation. Traffic noise modeling involved the calculation of existing and future motor vehicular noise levels and noise contour distances along many roadway sections in the Policy Area, as provided by the project traffic consultant, using the FHWA model. It is not common for vibration from motor vehicles traveling on paved roads to cause disturbance in adjacent areas. The same cannot be said of vibration effects in areas along light and heavy rail routes which can cause a noise disturbance to adjacent uses. The following screening distances established by the FTA are used to assess the potential for operational vibration impacts along rail routes (see Table 6.8-2).

TABLE 6.8-2			
SCREENING DISTANCES FOR VIBRATION ASSESSMENT			
Type of Transportation Route	Critical Distance for Land Use Categories¹ Distance from Right-of-Way or Property Line		
	Category 1 Buildings where vibration would interfere with interior operations	Category 2 Residences and buildings where people normally sleep	Category 3 Institutional land uses with primarily daytime uses²
Conventional Commuter Railroad	600	200	120
Rail Rapid Transit	600	200	120
Light Rail Transit	450	150	100
Intermediate Capacity Transit	200	100	50
Bus Projects (if not previously screened out)	100	50	--

Notes:
1. Some vibration-sensitive land uses are not included in these categories. Examples are: concert halls and TV studios which, for the screening procedure, should be evaluated as Category 1; and theaters and auditoriums which should be evaluated as Category 2.
2. This could include uses such as office or light manufacturing.
Source: Federal Transit Administration, *Transit Noise Impact and Vibration Assessment*, May 2006.

Construction noise and vibration levels were determined qualitatively using equipment noise and vibration reference levels developed by the FTA. For construction noise, this analysis assumed that compliance with conditions specified in the City's Noise Ordinance would avoid the potential for significant noise impacts. For construction vibration, this analysis used the city standards for structural damage and the FTA's vibration impact thresholds for annoyance within sensitive buildings, residences, and institutional land uses. In summary, these thresholds are: for damage, in existing and/or planned residential and commercial structures, vibration-peak-particle velocities greater than 0.5 inches per second, in historic buildings and archaeological sites, vibration-peak-particle velocities greater than 0.25 inches per second; for annoyance, 80 VdB at residences and buildings where people normally sleep and 83 VdB at institutional buildings, both for infrequent events. The FTA also specifies a threshold of 94 VdB (equivalent to 0.2 inches per second PPV) to prevent structural damage in "non-engineered timber and masonry buildings," which is the dominant building type for residential structures.

Proposed General Plan Policies

The following goals and policies from the proposed 2030 General Plan are relevant to noise within the entire Policy Area. The proposed General Plan does not include any policies regarding noise that are unique to any of the City's proposed Focused Opportunity Areas.

ENVIRONMENTAL CONSTRAINTS (EC)

Goal EC 3.1 Noise Reduction. Minimize noise impacts on land uses and human activity to ensure the health and safety of the community.

Policies

EC 3.1.1 **Exterior Noise Standards.** The City shall require noise mitigation for all development where the exterior noise standards exceed those shown in Table EC 1, to the extent feasible.

EXTERIOR NOISE COMPATIBILITY STANDARDS FOR VARIOUS LAND USES	
Land Use Type	Highest Level of Noise Exposure that is Regarded as "Normally Acceptable"¹ (L_{dn}² or CNEL³)
Residential – Low Density Single Family, Duplex, Mobile Homes	60 dBA ^{4,5}
Residential – Multi-family	65 dBA
Urban Residential Infill ⁶ and Mixed-use Projects ⁷	70 dBA
Transient Lodging – Motels, Hotels	65 dBA
Schools, Libraries, Churches, Hospitals, Nursing Homes	70 dBA
Auditoriums, Concert Halls, Amphitheaters	Mitigation based on site-specific study
Sports Arena, Outdoor Spectator Sports	Mitigation based on site-specific study
Playgrounds, Neighborhood Parks	70 dBA
Golf Courses, Riding Stables, Water Recreation, Cemeteries	75 dBA
Office Buildings – Business, Commercial and Professional	70 dBA
Industrial, Manufacturing, Utilities, Agriculture	75 dBA
Notes:	
1. As defined in the <i>Guidelines</i> , "Normally Acceptable" means that the "specified land use is satisfactory, based upon the assumption that any building involved is of normal conventional construction, without any special noise insulation requirements."	
2. L _{dn} or Day Night Average Level is an average 24-hour noise measurement that factors in day and night noise levels.	
3. CNEL or Community Noise Equivalent Level measurements are a weighted average of sound levels gathered throughout a 24-hour period.	
4. dBA or A-weighted decibel, a measure of noise intensity.	
5. The exterior noise standard for the residential area west of McClellan Airport known as McClellan Heights/Parker Homes is 65 dBA.	
6. With land use designations of Central Business District, Urban Neighborhood (Low, Medium, or High), Urban Center (Low or High), Urban Corridor (Low or High).	
7. All mixed-use projects located anywhere in the City of Sacramento.	
Source: Governor's Office of Planning and Research, <i>State of California General Plan Guidelines 2003</i> , October 2003.	

EC 3.1.2 **Exterior Incremental Noise Standards.** The City shall require mitigation for all development that increases existing noise levels by more than the allowable increment as shown in Table EC 2, to the extent feasible.

EC 3.1.3 **Interior Noise Standards.** The City shall require new development to include noise mitigation to assure acceptable interior noise levels appropriate to the land use type: 45 dBA L_{dn} for residential, transient lodgings, hospitals, nursing homes and other uses where people normally sleep; and 45 dBA L_{eq} (peak hour) for office buildings and similar uses.

TABLE EC 2			
EXTERIOR INCREMENTAL NOISE IMPACT STANDARDS FOR NOISE-SENSITIVE USES (DBA)			
Residences and buildings where people normally sleep ¹		Institutional land uses with primarily daytime and evening uses ²	
Existing L _{dn}	Allowable Noise Increment	Existing Peak Hour L _{eq}	Allowable Noise Increment
45	8	45	12
50	5	50	9
55	3	55	6
60	2	60	5
65	1	65	3
70	1	70	3
75	0	75	1
80	0	80	0

Notes:

1. This category includes homes, hospitals, and hotels where a nighttime sensitivity to noise is assumed to be of utmost importance.
2. This category includes schools, libraries, theaters, and churches where it is important to avoid interference with such activities as speech, meditation, and concentration on reading material.

Source: Federal Transit Administration, *Transit Noise Impact and Vibration Assessment*, May 2006.

- EC 3.1.4 **Interior Noise Review for Multiple, Loud Short-Term Events.** In cases where new development is proposed in areas subject to frequent, high-noise events (such as aircraft over-flights, or train and truck pass-bys), the City shall evaluate noise impacts on any sensitive receptors from such events when considering whether to approve the development proposal, taking into account potential for sleep disturbance, undue annoyance, and interruption in conversation, to ensure that the proposed development is compatible within the context of its surroundings.
- EC 3.1.5 **Interior Vibration Standards.** The City shall require construction projects anticipated to generate a significant amount of vibration to ensure acceptable interior vibration levels at nearby residential and commercial uses based on the current City or Federal Transit Administration (FTA) criteria.
- EC 3.1.6 **Vibration Screening Distances.** The City shall require new residential and commercial projects located adjacent to major freeways, hard rail lines, or light rail lines to follow the FTA screening distance criteria.
- EC 3.1.7 **Vibration.** The City shall require an assessment of the damage potential of vibration-induced construction activities, highways, and rail lines in close proximity to historic buildings and archaeological sites and require all feasible mitigation measures be implemented to ensure no damage would occur.
- EC 3.1.8 **Operational Noise.** The City shall require new mixed-use, commercial, and industrial development to mitigate operational noise impacts to adjoining sensitive uses when operational noise thresholds are exceeded.
- EC 3.1.9 **Compatibility with Park and Recreation Uses.** The City shall limit the hours of operation for parks and active recreation areas in residential areas to minimize disturbance to residences.
- EC 3.1.10 **Construction Noise.** The City shall require development projects subject to discretionary approval to assess potential construction noise impacts on nearby sensitive uses and to minimize impacts on these uses to the extent feasible.

- EC 3.1.11 **Alternatives to Sound Walls.** The City shall encourage the use of design strategies and other noise reduction methods along transportation corridors in lieu of sound walls to mitigate noise impacts and enhance aesthetics.
- EC 3.1.12 **Residential Streets.** The City shall discourage widening streets or converting streets to one-way in residential areas where the resulting increased traffic volumes would raise ambient noise levels.
- EC 3.1.13 **Vehicle Purchase.** The City shall purchase vehicles and equipment with low noise generation and maintain them to minimize noise.

Aircraft Noise

Goal EC 3.2 Airport Noise. Minimize exposure to high noise levels in areas of the City affected by Mather, Executive, McClellan, and Sacramento International Airports.

Policies

- EC 3.2.1 **Land Use Compatibility.** The City shall limit residential development within the 65 dBA CNEL airport noise contour, or in accordance with plans prepared by the Airport Land Use Commission, and shall only approve noise-compatible land uses.
- EC 3.2.2 **Hazardous Noise Protection.** The City shall discourage outdoor activities or uses in areas outside the 70 dBA CNEL airport noise contour where people could be exposed to hazardous noise levels.
- EC 3.2.3 **Cooperative Noise Reduction.** The City shall work with the Sacramento County Airport Systems (SCAS) to monitor aircraft noise, implement noise-reducing operation measures (i.e., Fly Quiet, Fly Neighborly programs), and promote pilot awareness of noise sensitive land uses.

Proposed South Area Community Plan Policies

The South Area Community Plan contains one policy regarding noise mitigation:

- SA.EC 1.3 **Noise Mitigation for Transportation Facilities.** The City shall consider the installation of noise barriers adjacent to residential areas along I-5 and the Union Pacific Railroad tracks.

Thresholds of Significance

For the purposes of this EIR, impacts related to noise are considered significant if the proposed General Plan would:

- result in exterior noise levels in the Policy Area that are above the upper value of the normally acceptable category for various land uses due to the project's noise level increases;
- result in residential interior noise levels of 45 dBA L_{dn} or greater caused by noise level increases due to the project;

- result in construction noise levels that exceed the standards in the City of Sacramento Noise Ordinance;
- permit existing and/or planned residential and commercial areas to be exposed to vibration-peak-particle velocities greater than 0.5 inches per second due to project construction;
- permit adjacent residential and commercial areas to be exposed to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations; or
- permit historic buildings and archaeological sites to be exposed to vibration-peak-particle velocities greater than 0.2 inches per second due to project construction, highway traffic, and rail operations.

Impacts and Mitigation Measures

A summary of all Noise and Vibration impacts and their levels of significance is located at the end of this technical section.

Impact 6.8-1	Implementation of the 2030 General Plan could result in exterior noise levels in the Policy Area that are above the upper value of the normally acceptable category for various land uses (per Table EC-1) due to an increase in noise levels.	
Applicable Regulations	<i>State General Plan Guidelines</i>	
Significance Before Mitigation	<i>Significant</i>	
Mitigation Included in the SGP	<i>Policy EC 3.1.1, EC 3.1.3, EC 3.1.11, EC 3.1.12, EC 3.2.1, EC 3.2.2</i>	
Significance after Mitigation Included in the SGP	<i>Significant</i>	
Additional Mitigation	None Available	
Residual Significance	Significant and Unavoidable	

Based on noise measurements and on existing and future noise modeling, noise levels in excess of city standards currently occur and would continue to occur in many residential areas and other noise-sensitive uses throughout the Policy Area. As shown in Table 6.8-3, along most roadway segments 2030 noise levels would exceed city standards (i.e., 60 dBA L_{dn} or CNEL) for adjacent single-family residential uses. In addition, along many roadway segments 2030 noise levels would also exceed city standards (i.e., 65 to 70 dBA L_{dn} or CNEL) for adjacent multi-family residential, transient lodging (e.g., motels, hotels), and in urban residential mixed-use projects. The noise increments highlighted in the table indicate those roadways that would experience the most change in existing noise levels that would be perceptible per the FTA standards (see Table EC-2 in the proposed policies). Traffic noise would be higher or louder in the future than it is now along all freeways and highways, and along most major arterial and collector roads in Sacramento (see Figures 6.8-8 through 6.8-10 for the noise contours). The primary cause of an increase in noise would not be implementation of the 2030 General Plan,

TABLE 6.8-3

**SACRAMENTO 2030 GENERAL PLAN
PROJECT TRAFFIC NOISE LEVELS/CONTOURS (2030)**

Roadway	Roadway Segment		2030 GP CNEL at 100 Feet	Noise Increments			Distance to Contours (feet)		
				Total ¹	2030 GP Only	2030 GP with Cumulative Buildout	70 CNEL	65 CNEL	60 CNEL
Segments Inside the City									
El Centro Rd	Del Paso	San Juan Rd	63.5	1.9	-0.1	2.0	-	80	172
Elkhorn Blvd	SR 99	E Levee Rd	67.4	4.7	0.0	4.7	67	144	310
Del Paso Rd	Power Line	I-5	60.2	4.8	0.9	3.9	-	48	103
		Truxel	70.3	3.0	1.2	1.8	104	225	485
		Northgate Blvd	68.8	3.4	0.4	3.0	83	180	387
San Juan Rd	El Centro	Orchard	61.3	2.6	0.2	2.4	-	56	122
Northgate Blvd	Del Paso	North Market	64.8	1.9	-0.2	2.1	45	96	208
		I-80	65.7	1.3	-0.4	1.7	52	112	241
Natomas Blvd	Elkhorn	Del Paso	64.2	2.4	0.3	2.1	-	89	191
Truxel Rd	Gateway Park	I-80	69.2	2.2	0.5	1.7	88	190	409
Truxel Rd	Gateway Park	Del Paso	63.5	1.7	-1.1	2.8	-	79	171
North Market Bl	Northgate	Truxel	66.5	2.2	0.4	1.8	58	125	270
Arena Bl	Commerce	Truxel	65.9	1.4	-0.1	1.5	-	115	248
		Duckhorn	66.9	2.0	0.5	1.5	62	134	289
Commerce Pk	Elkhorn	Club Center	67.3	8.1	1.0	7.1	66	142	305
		New Market	70.9	5.3	0.8	4.5	116	249	536
		Del Paso	Advantage Way	68.0	3.8	-0.3	4.1	73	158
Del Paso Blvd	Baxter	Colfax	61.0	2.2	0.5	1.7	-	54	117
		El Camino	61.2	1.1	0.2	0.9	-	55	120
		Marysville	67.1	0.7	0.3	0.4	-	-	64
Rio Linda Blvd	Main	Bell	58.5	1.9	-0.5	2.4	-	37	79
		Grand	59.3	1.1	-0.6	1.7	-	-	90
		Arcade	60.3	1.1	-0.5	1.6	-	49	105
Marysville Blvd	Rio Linda	Bell	56.6	0.5	-2.1	2.6	-	-	59
		North	62.4	1.3	-0.5	1.8	-	68	145
		Sonoma	58.9	0.8	-0.2	1.0	-	-	85
Norwood Ave	Bell	I-80	64.9	2.1	-1.0	3.1	46	98	211
		Las Palmas	61.9	0.9	-0.6	1.5	-	62	133
El Camino Ave	Rio Linda	Del Paso	64.7	1.4	0.0	1.4	44	96	206
		Auburn Bl	66.3	0.2	-0.2	0.4	56	121	261
Arden Wy	Del Paso	Royal Oaks	65.3	1.4	0.2	1.2	48	104	225
		Harvard	66.5	1.0	0.0	1.0	59	127	273
Grand Ave	Norwood	Taylor St	57.1	0.0	-0.2	0.2	-	-	64
Silver Eagle Rd	Northgate	Norwood	59.9	1.0	-1.0	2.0	-	46	99
Main Ave	Pell	Norwood	61.8	3.0	-0.6	3.6	-	61	132
		Norwood	61.5	4.7	-1.2	5.9	-	59	126
		Marysville	51.1	2.7	-6.1	8.8	-	-	-

TABLE 6.8-3

**SACRAMENTO 2030 GENERAL PLAN
PROJECT TRAFFIC NOISE LEVELS/CONTOURS (2030)**

Roadway	Roadway Segment		2030 GP CNEL at 100 Feet	Noise Increments			Distance to Contours (feet)		
				Total ¹	2030 GP Only	2030 GP with Cumulative Buildout	70 CNEL	65 CNEL	60 CNEL
Arcade Blvd	Marysville	Palmer	67.2	1.1	-0.7	1.8	65	141	304
Raley Blvd	City limits	Bell	65.0	3.9	-0.8	4.7	-	100	216
Bell Ave	All		57.2	0.6	-4.2	4.8	-	-	65
Roseville Rd	Connie	I-80	62.9	3.6	0.1	3.5	-	73	157
Winters St	I-80	North Ave	59.9	0.0	0.0	0.0	-	46	99
Royal Oaks Dr	SR 160	Southgate	59.8	4.1	0.3	3.8	-	45	97
Dry Creek Rd	Bell	Marysville	56.7	0.0	-0.3	0.3	-	-	60
Arden Garden Connector	Northgate	El Monte	67.1	1.0	0.1	0.9	65	139	300
San Juan Rd	Truxel	Rockhampton	66.4	1.0	-0.1	1.1	58	124	267
West El Camino Ave	I-80	Grasslands	60.1	2.7	0.2	2.5	-	-	102
	I-80	Azevedo	63.3	1.4	0.1	1.3	-	76	165
	Truxel	Stonecreek	61.4	1.1	-0.1	1.2	-	57	123
	Northgate	American	61.3	1.9	-0.1	2.0	-	57	123
Garden Hwy	I-80	Durazno	54.4	2.0	0.3	1.7	-	-	42
	Gateway oaks	I-5	64.7	0.2	-0.6	0.8	45	96	207
Northgate Blvd	I-80	W El Camino	62.5	1.1	-0.3	1.4	-	68	147
	Harding	Garden Hwy	61.3	2.0	0.0	2.0	-	56	122
West Silver Eagle Rd	All		44.6	0.0	0.0	0.0	-	-	-
Truxel Rd	Garden Hwy	Waterwheel	61.8	1.6	0.5	1.1	-	61	132
	Saginaw	San Juan	63.4	1.0	0.1	0.9	-	78	168
	I-80	Vallarta	63.9	0.4	0.0	0.4	-	84	181
I St	5 th	6 th	64.6	1.8	0.8	1.0	-	93	201
	21 st	22 nd	60.2	1.2	0.6	0.6	-	48	102
L St	5 th	6 th	63.7	2.1	1.2	0.9	38	82	177
	16 th	17 th	62.3	1.4	1.4	0.0	-	66	142
P St	16 th	17 th	58.0	0.5	0.5	0.0	-	34	73
J St	5 th	6 th	61.4	0.3	0.3	0.0	-	57	123
	28 th	29 th	59.6	1.1	1.0	0.1	-	44	95
Q St	3 rd	4 th	61.5	2.6	1.5	1.1	-	58	125
7 th St	N St	P St	57.9	4.8	1.8	3.0	-	-	72
12 th St	F St	G St	62.4	2.0	0.5	1.5	-	68	145
	N St	P St	43.8	0.0	0.0	0.0	-	-	-
15 th St	X St	Broadway	60.1	1.0	0.5	0.5	-	47	102
	J St	K St	60.8	0.8	0.8	0.0	-	53	114
16 th St	R St	S St	62.5	2.7	0.4	2.3	-	68	147
29 th St	J St	K St	62.2	2.4	0.8	1.6	-	66	141
30 th St	J St	K St	60.5	1.8	0.3	1.5	-	50	108
Alhambra Blvd	Folsom	N	59.2	0.0	0.0	0.0	-	41	88

TABLE 6.8-3

**SACRAMENTO 2030 GENERAL PLAN
PROJECT TRAFFIC NOISE LEVELS/CONTOURS (2030)**

Roadway	Roadway Segment		2030 GP CNEL at 100 Feet	Noise Increments			Distance to Contours (feet)		
				Total ¹	2030 GP Only	2030 GP with Cumulative Buildout	70 CNEL	65 CNEL	60 CNEL
Broadway	3 rd	5 th	61.0	3.1	0.9	2.2	-	54	117
	16 th	17 th	61.5	2.1	0.4	1.7	-	59	126
Richards Blvd. -Bannon Couplet	Bercut	5 th	67.9	6.1	1.4	4.7	72	156	336
Exposition Blvd	Sr 160	Tribute	65.3	2.4	0.2	2.2	48	104	225
	B-80	Response	67.0	1.4	0.5	0.9	63	136	293
Arden Wy	Point West	Heritage	69.4	1.3	0.5	0.8	91	196	421
El Camino Ave	B-80	Howe	66.9	0.4	0.1	0.3	62	133	287
Auburn Blvd	Howe	Fulton	58.4	3.6	0.0	3.6	-	-	78
	East Of	Watt	62.2	0.3	0.0	0.3	-	65	141
	El Camino	Marconi	60.8	1.7	-0.3	2.0	-	52	112
Heritage Ln	Arden	Response	62.0	3.6	2.3	1.3	-	63	137
Howe Ave	American River	Swarthmore	66.1	1.1	0.0	1.1	-	119	256
El Camino Ave	Watt	Walnut	64.8	0.3	-0.1	0.4	45	96	207
Elvas Ave	D St	E St	56.8	0.1	-0.1	0.2	-	-	61
	J St	Folsom	64.7	0.3	-0.6	0.9	44	95	205
H St	39 th	40 th	59.9	0.0	0.0	0.0	-	46	98
	57 th	Carlson	58.5	0.0	0.0	0.0	-	-	79
J St	48 th	49 th	58.3	0.0	0.0	0.0	-	-	77
Folsom Blvd	59 th	65 th St	63.6	0.9	0.2	0.7	-	80	173
	Howe	Bicentennial	67.7	1.6	-0.1	1.7	70	150	324
Howe Ave	US 50	Folsom	67.7	0.9	0.0	0.9	70	150	324
Stockton Blvd	Alhambra	32 nd	65.4	2.4	0.4	2.0	50	107	230
Jackson Rd	South Of	Folsom	62.6	3.5	-0.4	3.9	-	69	149
Hornet Dr	College Town Dr	Wb 50 On- Ramp	65.9	1.6	0.9	0.7	54	115	249
Carlson Dr	H Street	Sandburg	58.4	0.5	-0.1	0.6	-	36	78
College Town Dr	La Riviera	Hornet	62.9	1.0	0.2	0.8	-	72	155
39 th St	Folsom Blvd	M St	60.5	0.0	-0.7	0.7	-	50	107
59 th St	Folsom	S St	62.6	0.6	-0.1	0.7	32	69	149
C St	Alhambra	Elvas	55.7	0.0	-0.1	0.1	-	-	51
Sutterville Rd	19 th St	Freeport	62.5	0.0	0.0	0.0	-	68	148
	Cutter	Franklin	65.7	0.4	-0.4	0.8	52	112	241
Seamas Ave	I-5 NB Ramp	Kingston	60.0	0.6	-0.5	1.1	-	47	100
Fruitridge Rd	Land Park	Freeport	64.7	0.4	-0.4	0.8	45	96	207
	28 th	Franklin	66.9	0.3	-0.5	0.8	62	134	289
	Franklin	SR 99	67.6	0.0	-0.3	0.3	69	149	322
Franklin Blvd	Broadway	2 nd Ave	62.2	3.3	0.1	3.2	-	65	141
	29 th Ave	Fruitridge	65.0	1.1	0.0	1.1	47	101	217

TABLE 6.8-3

**SACRAMENTO 2030 GENERAL PLAN
PROJECT TRAFFIC NOISE LEVELS/CONTOURS (2030)**

Roadway	Roadway Segment		2030 GP CNEL at 100 Feet	Noise Increments			Distance to Contours (feet)		
				Total ¹	2030 GP Only	2030 GP with Cumulative Buildout	70 CNEL	65 CNEL	60 CNEL
Freeport Blvd	Sutterville	Meer	66.3	0.3	-0.4	0.7	56	121	262
Riverside Blvd	Broadway	2 nd Ave	59.2	1.1	0.3	0.8	-	-	89
	Sutterville	Seamas	56.0	0.2	0.1	0.1	-	-	54
Land Park Dr	Broadway	2 nd Ave	60.5	1.4	0.0	1.4	-	50	107
South Land Park Dr	Sutterville	Moss	57.4	0.8	0.2	0.6	-	-	67
24 th St	Sutterville	Fruitridge	61.6	1.0	0.0	1.0	-	59	127
Stockton Blvd	T St	U St	62.4	0.0	0.0	0.0	-	67	144
	22 nd Ave	Fruitridge	64.7	0.4	-0.3	0.7	-	95	204
Broadway	San Diego	Stockton	61.1	0.5	-0.3	0.8	-	55	118
	58 th	59 th	60.9	1.4	0.3	1.1	-	53	115
65 th St	San Joaquin	14 th Ave	67.2	1.2	0.0	1.2	65	140	302
Power Inn Rd	14 th Ave	Belvedere	65.0	0.6	-0.4	1.0	-	100	217
12 th Ave/14 th Ave	33 rd	34 th	61.6	0.3	0.0	0.3	-	59	128
	14 th Ave	E. Railroad	Power Inn	63.0	2.2	-0.2	2.4	-	74
Florin Perkins Rd	Jackson Hwy	23 rd Ave	65.3	0.5	-0.5	1.0	48	104	225
Fruitridge Rd	SR 99	Martin Luther King Bl	67.9	0.3	-0.1	0.4	72	155	334
	44 th Ave	Ethel	67.9	0.4	-0.1	0.5	72	156	336
	64 th	65 th St	66.6	1.0	-0.2	1.2	59	128	276
	Wallace	Florin-Perkins	67.3	1.6	-0.3	1.9	66	141	304
	Florin- Perkins	S Watt Ave	66.0	2.2	-1.0	3.2	54	117	252
Martin Luther King Blvd	Broadway	6 th Ave	57.9	0.6	-0.2	0.8	-	34	72
T St	48 th	49 th	55.3	0.0	0.0	0.0	-	-	49
33 rd St	10 th Ave	14 th Ave	56.2	0.2	-0.8	1.0	-	-	56
Raley Blvd	Bell	Marysville	66.4	2.3	-1.0	3.3	58	125	269
Florin Rd	Riverside	Windward	61.0	0.6	0.0	0.6	-	54	116
	Greenhaven	I-5	67.7	0.5	0.0	0.5	70	150	324
Riverside Bl/43 rd Ave	Park Riviera	Ashore	57.8	0.1	0.0	0.1	-	-	71
Pocket Rd	Riverside	Freeport	60.0	2.4	-0.5	2.9	-	47	100
43 rd Ave	S. Land Park	Holstein	58.5	0.0	-0.4	0.4	-	37	80
South Land Park Dr	Greenhaven	I-5	57.1	1.3	-1.5	2.8	-	-	64
Gloria Dr	Greenhaven	I-5	58.0	0.4	-0.1	0.5	-	34	73
Greenhaven Dr	Gloria	Trestle Glen	57.5	0.4	0.0	0.4	-	-	68
Freeport Blvd	Pocket	South City Limits	60.0	0.9	0.2	0.7	-	47	101
	Fruitridge	Pocket	64.3	0.0	-0.3	0.3	-	89	193
24 th St	45 th Ave	47 th Ave	63.4	1.1	0.0	1.1	-	79	169
	Florin	Meadowview	63.3	1.5	-0.3	1.8	-	77	165

TABLE 6.8-3

**SACRAMENTO 2030 GENERAL PLAN
PROJECT TRAFFIC NOISE LEVELS/CONTOURS (2030)**

Roadway	Roadway Segment		2030 GP CNEL at 100 Feet	Noise Increments			Distance to Contours (feet)		
				Total ¹	2030 GP Only	2030 GP with Cumulative Buildout	70 CNEL	65 CNEL	60 CNEL
Meadowview Rd	Freeport	Mack	63.2	0.0	-0.5	0.5	-	75	163
Florin Rd	UP Rail Line	Luther	68.2	1.2	0.5	0.7	76	164	353
Blair Ave	S. Land Park	Freeport	58.2	0.2	-0.4	0.6	-	35	75
47 th Ave	Kiessing	Franklin	64.6	0.6	0.1	0.5	-	93	201
Franklin Blvd	Caselli Cir	Brookfield	66.1	0.4	-0.4	0.8	55	118	255
65 th Expway	14 th Ave	Elder Creek	65.5	0.8	0.0	0.8	50	108	232
	Elder Creek	53 rd Ave	64.4	0.6	-0.3	0.9	-	91	197
Elder Creek Rd	Stockton	Elk Grove-Florin	66.5	3.1	-0.9	4.0	59	127	273
Florin Perkins Rd	Fruitridge	Elder Creek	67.2	1.1	-0.5	1.6	65	141	304
Florin Perkins	Elder Creek	Florin	66.0	1.1	-0.5	1.6	54	116	251
Mack Rd	Meadowview	Franklin	65.7	0.9	-0.1	1.0	52	111	239
	Tangerine	Center Pkwy	66.8	0.6	-0.1	0.7	61	131	282
	Center Pkwy	Stockton	66.9	1.8	-0.2	2.0	62	134	289
Center Pkwy	Tangerine	Mack	59.3	0.1	-0.1	0.2	-	42	90
	Green Dr	Valley Hi	60.6	1.0	-0.1	1.1	-	51	109
Valley Hi Dr	Center	Franklin	57.4	0.4	-0.2	0.6	-	-	67
	Mack	Center	63.1	0.5	-0.7	1.2	-	75	162
Bruceville Rd	Valley Hi	Calvine	61.5	0.2	0.0	0.2	-	58	126
	Calvine	Center	66.6	2.4	-0.2	2.6	59	127	274
Franklin Blvd	Dwight	Sims	65.2	0.1	-0.1	0.2	48	103	222
	North Of	Florin	67.2	1.4	0.3	1.1	65	141	303
Stockton Blvd	47 th Ave	48 th Ave	65.2	0.2	-0.1	0.3	48	103	222
65 th Ex	East Of	Stockton	64.2	0.7	-0.3	1.0	-	88	190
47 th Ave	Martin Luther King Blvd	SR 99	66.5	0.1	0.1	0.0	59	127	273
	44 th Ave	47 th Ave	65.6	0.2	-0.2	0.4	51	109	235
Franklin Blvd	Valley Hi	City Limits	65.2	0.4	-0.1	0.5	48	103	222
Elkhorn Blvd	SR 99	E Commerce	69.0	6.1	0.1	6.0	86	185	399
Freeport Blvd	15 th Ave	16 th Ave	66.3	0.2	-0.2	0.4	57	123	265
Folsom Blvd	UPRR	Jed Smith Dr	65.7	2.0	0.3	1.7	52	112	241
Elder Creek Rd	65 th St	Bibb	67.6	1.5	-0.3	1.8	69	148	320
	Younger Creek Dr	S Watt Ave	66.3	3.4	-1.0	4.4	56	122	262
Segments Outside the City									
El Centro Rd	San Juan Rd	I-80	65.6	5.0	0.5	4.5	51	109	235
Sorento Rd	N of Del Paso		61.2	6.9	-0.1	7.0	-	-	120
Elkhorn Blvd	Marysville	Rio Linda	67.6	3.3	-0.1	3.4	69	149	320
	Dry Creek	Rio Linda	67.6	2.5	-0.1	2.6	69	150	322

TABLE 6.8-3

**SACRAMENTO 2030 GENERAL PLAN
PROJECT TRAFFIC NOISE LEVELS/CONTOURS (2030)**

Roadway	Roadway Segment		2030 GP CNEL at 100 Feet	Noise Increments			Distance to Contours (feet)		
				Total ¹	2030 GP Only	2030 GP with Cumulative Buildout	70 CNEL	65 CNEL	60 CNEL
Marconi Ave	Auburn	Howe	63.6	0.0	0.0	0.0	-	81	174
	Fulton	Watt	64.7	0.0	0.0	0.0	44	96	207
American River Dr	West of	Watt	59.6	0.1	-0.2	0.3	-	44	94
Arden Way	Morse	Bell	65.3	0.2	0.0	0.2	48	104	224
	Watt	Eastern	63.4	0.1	0.0	0.1	-	79	170
	Eastern	Stewart	62.8	0.2	0.0	0.2	-	72	154
El Camino Ave	Howe	Bell	63.5	0.9	-0.1	1.0	-	80	172
	Garfield	Fair Oaks	62.2	0.3	0.0	0.3	-	65	141
Howe Ave	Fair Oaks	Cadillac	70.2	0.2	-0.1	0.3	103	221	476
	North of	Arden	68.3	0.8	-0.2	1.0	77	166	357
	North of	El Camino	67.9	2.8	-0.2	3.0	73	157	337
Fulton Ave	South of	El Camino	65.1	0.0	0.0	0.0	47	102	220
Alta Arden Exp	Howe	Bell	62.9	0.3	0.2	0.1	-	72	156
Fair Oaks Blvd	Howe	University	67.4	0.0	-0.1	0.1	67	145	313
	East of	Watt	67.3	0.2	0.0	0.2	66	143	307
	Estates Drive	Eastern	67.7	0.5	-0.1	0.6	70	151	325
	North of	Walnut	66.2	0.3	-0.1	0.4	56	121	260
Watt Ave	North of	American River Bridge	72.4	0.7	-0.1	0.8	144	310	667
	North of	Palm	70.9	2.0	-0.1	2.1	115	248	534
La Riviera Dr	East of	Watt	61.9	0.0	0.0	0.0	-	62	134
South Watt Ave	Folsom	Kiefer Blvd	71.3	3.0	-0.2	3.2	122	262	565
	North of	Jackson Hwy	67.6	3.8	-0.3	4.1	69	149	320
Franklin Blvd	41st	42nd	64.2	0.6	0.1	0.5	-	89	192
Stockton Blvd	Florin	66th Ave	66.0	0.8	0.0	0.8	-	116	250
Power Inn Rd	53rd Ave	Florin	68.6	2.5	-0.3	2.8	80	173	374
Florin Rd	Franklin	Lincolnshire	67.8	0.8	0.0	0.8	71	153	331
	SR 99	59th	69.3	0.7	-0.1	0.8	90	195	420
	65th St	Stockton	67.4	1.1	-0.1	1.2	67	144	311
	Strand	Power Inn	66.4	1.5	-0.3	1.8	58	125	269
	Edith	Florin Perkins	64.7	0.9	-0.4	1.3	-	96	206
Elder Creek Rd	S Watt Ave	Bradshaw	66.4	7.9	-0.5	8.4	57	123	265
Franklin Blvd	Martin Luther King	51st Ave	67.3	1.3	0.3	1.0	66	142	306
Power Inn Rd	Hemingway	Gerber	67.1	1.1	-0.2	1.3	64	137	296
Elk Grove- Florin/ S Watt Ave	McCoy	Gerber	66.0	2.1	-0.3	2.4	-	116	250

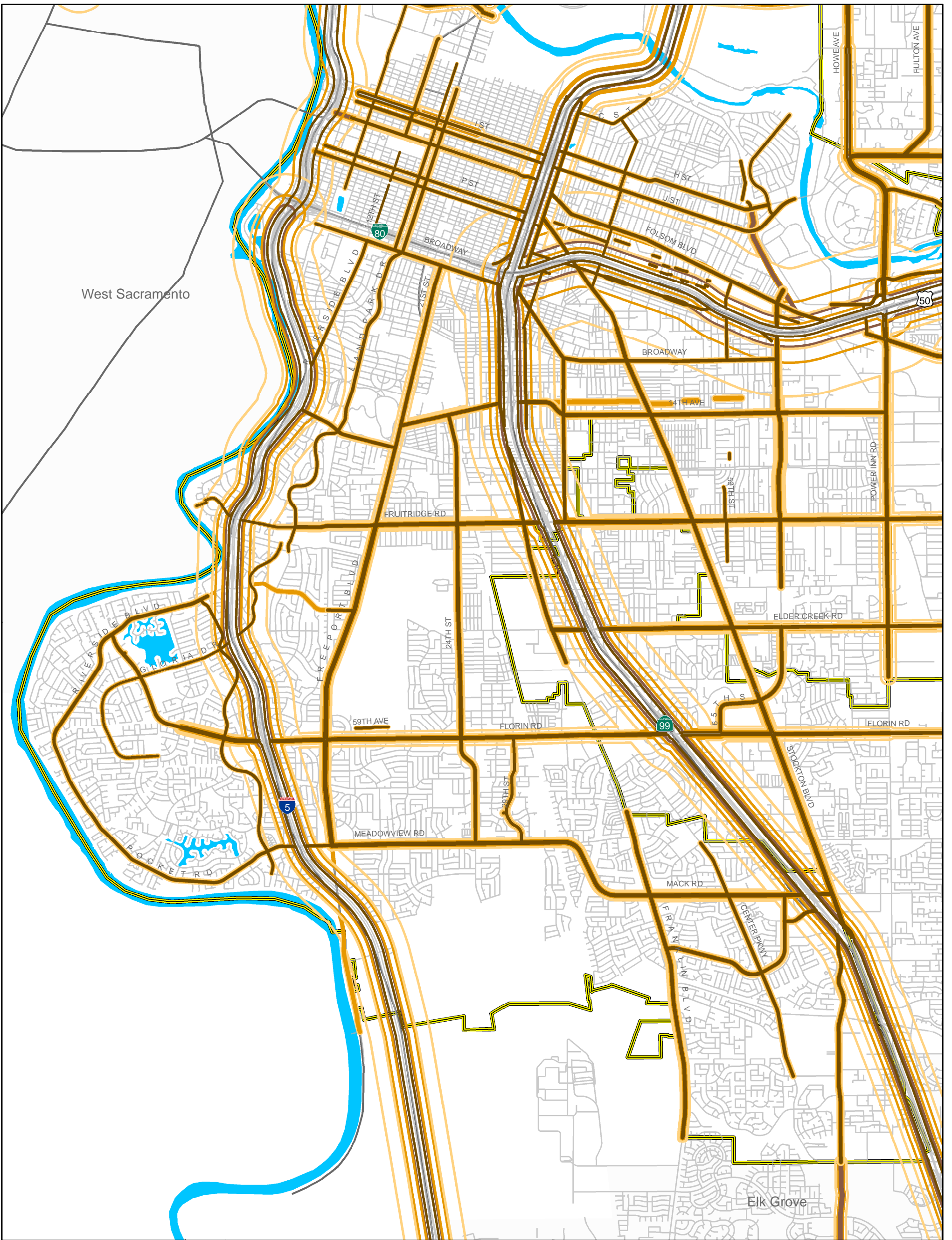
TABLE 6.8-3

**SACRAMENTO 2030 GENERAL PLAN
PROJECT TRAFFIC NOISE LEVELS/CONTOURS (2030)**

Roadway	Roadway Segment	2030 GP CNEL at 100 Feet	Noise Increments			Distance to Contours (feet)			
			Total ¹	2030 GP Only	2030 GP with Cumulative Buildout	70 CNEL	65 CNEL	60 CNEL	
Freeway Segments									
I-5	Arena Blvd	I-80	80.6	2.8	0.5	2.3	512	1103	2376
I-5	I-80	W El Camino Ave	81.1	2.6	0.3	2.3	550	1185	2553
I-5	US 50	Sutterville Rd	79.1	1.0	0.0	1.0	403	868	1871
I-5	43rd Ave	Florin Rd	78.3	1.2	0.0	1.2	357	768	1656
I-5	Cosumnes River Blvd	Laguna Blvd	76.9	1.2	0.0	1.2	287	617	1330
I-80	Reed Ave	W El Camino Ave	77.1	2.3	0.0	2.3	297	640	1380
I-80	Norwood Ave	Rio Linda Blvd	78.3	1.2	0.0	1.2	355	765	1647
I-80	Winters St	Roseville Rd	78.1	1.1	-0.3	1.4	348	750	1615
Business 80	Watt Ave	I-80	75.6	0.3	0.1	0.2	235	507	1092
Business 80	Arden Way	El Camino Ave	77.5	0.7	0.1	0.6	318	684	1474
Business 80	E St	Exposition Blvd	76.3	0.3	0.0	0.3	262	564	1216
US 50	Freeport Blvd	SR 99	82.2	0.8	0.0	0.8	648	1396	3007
SR 160	Tribute Rd	Business 80	73.7	1.9	0.4	1.5	177	381	821
US 50	Howe Ave	Watt Ave	79.8	1.2	0.0	1.2	448	965	2079
US 50	59th St	65 th St	80.8	1.0	0.1	0.9	522	1124	2421
SR 99	Broadway	12 th Ave	80.2	0.6	0.0	0.6	475	1024	2206
SR 99	47th Ave	Florin Rd	78.9	0.7	0.0	0.7	394	849	1829
SR 99	Mack Rd	Calvine Rd	77.4	0.9	0.0	0.9	312	672	1447
SR 99	Elkhorn	Elverta	75.4	3.3	-0.1	3.4	229	492	1061

Note:

1. The total is reflects both the 2030 GP and cumulative numbers.
Shaded values represent significant noise increases based on FTA criteria.
Source: PBS&J calculations, 2008.

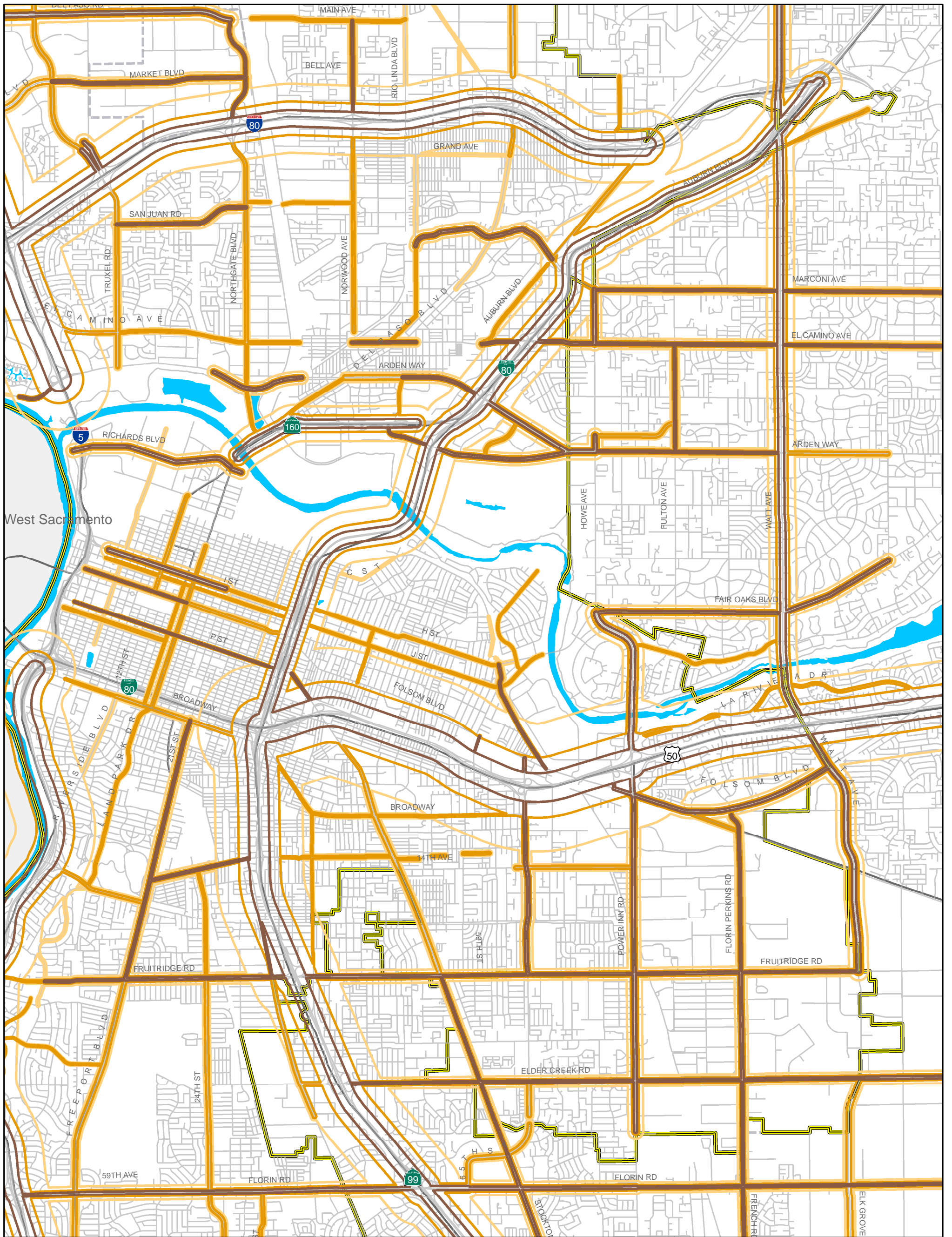


Legend

- 70 CNEL
- 65 CNEL
- 60 CNEL
- City Limit
- County Boundary
- Policy Area
- Water

Figure 6.8-8
Future Roadway
Noise Contours
(Section 1 of 3)

Source: Fehr & Peers 2008



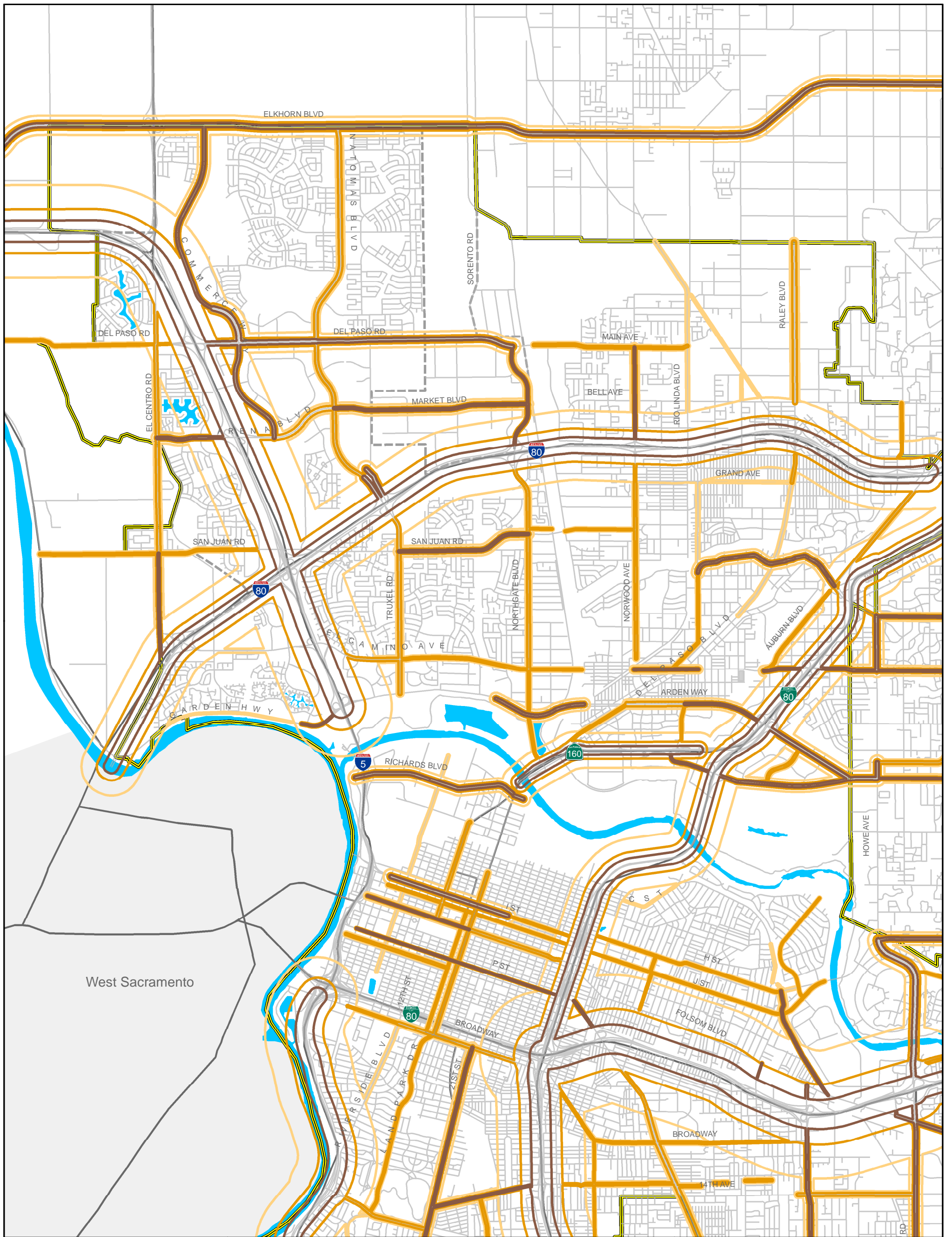
Legend

- 70 CNEL
- 65 CNEL
- 60 CNEL
- City Limit
- Policy Area
- County Boundary
- Water

Figure 6.8-9
Future Roadway Noise Contours
(Section 2 of 3)

Source: Fehr & Peers 2008

0 0.25 0.5 0.75
Miles



Legend

- 70 CNEL
- 65 CNEL
- 60 CNEL
- City Limit
- County Boundary
- Policy Area
- Water

Figure 6.8-10
Future Roadway
Noise Contours
(Section 3 of 3)

Source: Fehr & Peers 2008

but development both inside and outside of the Policy Area that is anticipated to occur regardless of whether the General Plan is adopted or not. These noise increases have the potential for significantly increasing annoyance in communities adjacent to the roadways. It should be noted, however, that roadway noise levels/contours have been generated by a computer model, and the true levels may vary with specific conditions at particular locations. Intervening structures or other noise-attenuating obstacles between a roadway and a receptor may reduce roadway noise levels at the receptor, but such potential reductions are not assumed in the following judgments made regarding impact significance. Substantial noise exposures can also be expected from aircraft, trains, light rail, and stationary sources.

The 2030 General Plan includes a number of policies to address noise issues. For example, Policy EC 3.1.1 requires noise mitigation for all development at locations where the exterior noise standards exceed city standards. Policy EC 3.1.3 requires noise mitigation in the design of new residential or other noise sensitive uses, while Policy EC 3.1.11 encourages the use of design strategies and other methods along transportation corridors to attenuate noise in lieu of sound walls. To address traffic noise in residential neighborhoods, Policy EC 3.1.12 discourages widening streets or converting streets to one-way. To address aircraft noise, Policy EC 3.2.1 requires that the city would approve only noise-compatible land uses and limit residential development within airport areas (with exceptions for those residential land uses that currently exist within airport areas or where new residential development is planned to revitalize existing areas (e.g., McClellan/Parker Homes). New development in these areas would be required to adhere to strict noise reduction standards and notification requirements). Lastly, Policy EC 3.2.2 discourages outdoor recreational uses in areas where noise levels are higher than 70 dBA CNEL near airports.

Implementation of the proposed General Plan policies would, in most cases, reduce to a less-than-significant level the exterior noise levels and/or increments on future noise-sensitive land uses that could be developed under the proposed General Plan. However, the proposed policies would do little to remediate or reduce the magnitude of noise effects on many existing noise-sensitive land uses in areas with current high noise exposures or where substantial noise increases are expected. Therefore, the continuing exposure of existing noise-sensitive land uses to noise levels in excess of city standards or to substantial noise increases as a result of the future growth under the proposed General Plan is considered a *significant impact*.

Mitigation Measure

Exterior noise levels in existing and proposed noise-sensitive areas can be remediated by relocating roadways, building sound walls, providing buffer zones, retrofitting older homes with insulation or applying appropriate window treatments (i.e., double-paned windows, interior storm windows, etc.) or choosing development sites in quiet areas, etc. For new development it is anticipated that many city standards could be met and substantial noise increases could be avoided by incorporating some of the strategies listed above. However, it would not be possible to guarantee success in all cases because funding may not be available for sound wall

construction, land may not be available for buffer zones, or it may be cost prohibitive to relocate existing roadways. For existing residences located in areas adjacent to roadways or other noise generating sources it may not be possible or feasible to include noise reduction strategies to address an increase in noise levels. Thus, this mitigation does not meet the CEQA standard of “potentially feasible.” Therefore, the impact would be considered ***significant and unavoidable***.

None available.

Impact 6.8-2	Implementation of the 2030 General Plan would result in residential interior noise levels of L_{dn} 45 dB or greater caused by an increase in noise levels.
Applicable Regulations	<i>EPA recommendations and State Title 24</i>
Significance Before Mitigation	<i>Significant</i>
Mitigation Included in the SGP	<i>Policy EC 3.1.2, EC 3.1.4</i>
Significance after Mitigation Included in the SGP	<i>Significant</i>
Additional Mitigation	None available
Residual Significance	Significant and Unavoidable

Similar to the high noise levels that currently exceed the city’s exterior noise standards in many existing residential areas (presented in Impact 6.8-1, above), interior noise levels within many existing residential structures are likely to exceed the daily average acceptable interior levels recognized by the City and recommended by federal and state agencies (i.e., 45 dBA L_{dn}). In addition, interior noise levels within many institutional land uses (e.g., schools, libraries, theaters, and churches), where it is important to avoid interference with such activities as speech, meditation, and reading, are likely to exceed the hourly average acceptable levels recommended by federal and state agencies (i.e., 45 dBA L_{eq} peak hour). Finally, interior noise levels within existing noise-sensitive uses that are located in areas influenced by flight operations from area airports (i.e., Sacramento International Airport, Executive Airport, Mather Airport and McClellan Airfield) or along busy rail or truck routes are likely to cause sleep disturbance, undue annoyance, or interruption in conversation.

To address this issue the proposed General Plan includes a number of policies intended to protect sensitive uses from high noise levels. Specifically, Policy EC 3.1.2 requires noise mitigation that assures acceptable interior noise levels appropriate to the land use type. In addition, Policy EC 3.1.4 requires an evaluation of noise impacts that could occur on new development in areas subject to frequent, high-noise events (such as aircraft over-flights, or train and truck pass-bys). In addition, the policy requires the City to take into account the potential for sleep disturbance, undue annoyance, and interruption in conversation prior to approving the development proposal. Policy EC 3.2.1 requires the City to only approve noise-compatible land uses and limit residential development within airport influence areas.

Implementation of the proposed policies would reduce to a less-than-significant level interior noise impacts on future (new) noise-sensitive (i.e., residential) land uses that could be

developed under the proposed General Plan. However, similar to Impact 6.8-1, the policies would do little to reduce the magnitude of noise effects on existing noise-sensitive land uses in areas with high noise exposures. The continuing exposure of existing noise-sensitive land uses to noise levels in excess of city standards as a result of the future growth under the proposed General Plan is considered a *significant impact*.

Mitigation Measure

Similar to Impact 6.8-1, interior noise in existing and proposed noise-sensitive areas can be remediated by relocating roadways, building sound walls, providing buffer zones, retrofitting older homes with insulation or appropriate window treatments (i.e., double-paned windows, interior storm windows, etc.) or choosing development sites in quiet areas, etc. For new development it is anticipated that many city standards could be met and substantial noise increases could be avoided by incorporating some of the strategies listed above. However, it would not be possible to guarantee success in all cases because funding may not be available for sound wall construction, land may not be available for buffer zones, or it may be cost prohibitive to relocate existing roadways. For existing residences located in areas adjacent to roadways or other noise generating sources it may not be possible or feasible to include noise reduction strategies to address an increase in interior noise levels due to lack of access or the inability to assure upgrades would be made to the residences. Thus, this mitigation does not meet the CEQA standard of “potentially feasible.” Therefore, the impact would be considered ***significant and unavoidable***.

None available.

Impact 6.8-3	Implementation of the 2030 General Plan could result in construction noise levels that exceed the standards in the City of Sacramento Noise Ordinance.	
Applicable Regulations	<i>City Noise Ordinance</i>	
Significance Before Mitigation	<i>Significant</i>	
Mitigation Included in the SGP	<i>Policy EC 3-1.10</i>	
Significance after Mitigation Included in the SGP	<i>Less than Significant</i>	
Additional Mitigation	None required	
Residual Significance	Less than Significant	

Under the proposed 2030 General Plan, the primary source of temporary or periodic noise within the city would be construction activity and maintenance work. This involves both construction-site activity and the transport of workers and equipment to and from the construction sites. Construction noise is and would continue to be a major noise source in the city whether or not the proposed 2030 General Plan is adopted. Noise levels at individual construction sites would not be substantially different from what they would be for developments of similar size and type under the existing General Plan, but the developments would occur

selectively in different areas of the city as determined by the new zoning designations and new General Plan policy requirements.

To address future noise from construction activities the 2030 General Plan includes Policy EC 3.1.10, which requires all development projects subject to discretionary approval be reviewed that may have construction noise generation potential and require all new development to mitigate construction noise impacts on sensitive uses.

Since this policy would require mitigation of construction noise from future development and since construction noise would be restricted in intensity and hours of operation by the City's Noise Ordinance contained in Title 8 – Health and Safety, Chapter 8.68 of the Municipal Code. Section 8.68.060 exempts certain activities from Chapter 8.68, including “noise sources due to the erection (including excavation), demolition, alteration or repair of any building or structure” as long as these activities are limited to between the hours of 7 a.m. and 6 p.m. Monday through Saturday, and between the hours of 9 a.m. and 6 p.m. on Sunday. Compliance with the proposed General Plan policies as well as the Municipal Code would reduce the severity of construction noise from development under the proposed General Plan resulting in a ***less-than-significant impact***.

Mitigation Measure

None required.

Impact 6.8-4	Implementation of the 2030 General Plan could permit existing and/or planned residential and commercial areas to be exposed to vibration-peak-particle velocities greater than 0.5 inches per second due to project construction.	
Applicable Regulations	<i>City Vibration Criteria</i>	
Significance Before Mitigation	<i>Significant</i>	
Mitigation Included in the SGP	<i>Policy EC 3.1.5</i>	
Significance after Mitigation Included in the SGP	<i>Significant</i>	
Additional Mitigation	None available	
Residual Significance	Significant and Unavoidable	

Future construction activities that could occur under the proposed 2030 General Plan could have the potential to generate ground-borne vibration. Construction activities would occur at discrete locations throughout the Policy Area and vibration from such activities may impact existing buildings (i.e., through structural damage) and their occupants (i.e., through activity disruption, annoyance, etc.) if they are located close enough to the construction sites. In general, vibration-induced structural damage could only occur when certain types of construction activity (e.g., blasting, pile driving, heavy earth-moving) take place very close to existing structures, while vibration-induced disruption/annoyance could occur during more common types of construction activity (e.g., truck movements) at greater distance from the activity area. Vibration disruption/annoyance levels could be problematic if sensitive uses are

located within about 100 feet of potential project construction sites, where sensitive receptors (e.g., residents, school children) would experience vibration levels that exceed the FTA's vibration impact threshold of 72 VdB. Policy EC 3.1.5 would require construction projects anticipated to generate a significant amount of vibration to ensure acceptable interior vibration levels at nearby residential and commercial uses based on the current City or Federal Transit Administration (FTA) criteria. Impacts related to construction vibration are event- and location-specific; these impacts would not occur at great distances. However, when construction vibration occurs at sensitive land uses close to construction sites, the impacts would be considered *significant*.

Mitigation Measure

Vibration-induced structural damage could be avoided in all cases by prohibiting any construction projects that have any potential for causing structural damage to nearby buildings, as determined by a pre-construction vibration assessment in accordance with city vibration damage criteria. Vibration-induced disruption/annoyance potential should be assessed according to the FTA criteria presented in Table 6.8-2. Compliance with 2030 General Plan policy EC 3.1.5 would help to reduce the significance of the impact. However, there is no assurance that all construction-induced disruption/annoyance impacts could be avoided if existing sensitive uses are very close (i.e., within 150 feet) to construction sites. Since it is not feasible to prohibit all construction within 150 feet of all existing receptors, the residual potential for disruption/annoyance impacts at certain receptors would be ***significant and unavoidable***.

None available.

Impact 6.8-5	Implementation of the 2030 General Plan could permit adjacent residential and commercial areas to be exposed to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations.	
Applicable Regulations	<i>City Vibration Criteria</i>	
Significance Before Mitigation	<i>Significant</i>	
Mitigation Included in the SGP	<i>Policy EC 3.1.6</i>	
Significance after Mitigation Included in the SGP	<i>Less than Significant</i>	
Additional Mitigation	None required	
Residual Significance	Less than Significant	

Development proposed for sites alongside major heavy and light rail lines or adjacent to major freeways under the proposed 2030 General Plan would have the potential for exposure to ground-borne vibration that may impact buildings (i.e., through structural damage) and their occupants (i.e., through activity disruption, annoyance) In general, the potential for vibration-induced structural damage from such sources would be very rare under any circumstances, but vibration-induced disruption/annoyance could occur if the uses were close enough to rail lines or major freeways. Compliance with Policy EC 3.1.6, which necessitates the City to require new residential and commercial projects located adjacent to major freeways, hard rail lines, or light

rail lines to follow the FTA screening distance criteria, would limit vibration impacts and would ensure that vibration guidelines are adhered to. As a result, vibration impacts on residential and commercial areas would be **less than significant**.

Mitigation Measure

None required.

Impact 6.8-6	Implementation of the 2030 General Plan could permit historic buildings and archaeological sites to be exposed to vibration-peak-particle velocities greater than 0.25 inches per second due to project construction, highway traffic, and rail operations.	
Applicable Regulations	<i>City Vibration Criteria</i>	
Significance Before Mitigation	<i>Significant</i>	
Mitigation Included in the SGP	<i>Policy EC 3.1.7</i>	
Significance after Mitigation Included in the SGP	<i>Less than Significant</i>	
Additional Mitigation	None required	
Residual Significance	Less than Significant	

Construction activities as well as an increase in highway traffic and rail operations that could occur under the proposed 2030 General Plan could have the potential to generate ground-borne vibration. Construction activities, highway traffic, or rail operations in close proximity to historic buildings and archeological sites may cause structural damage under certain circumstances, for example, when blasting, pile driving, heavy earth-moving, etc. take place very close to sensitive buildings or sites. Policy EC 3.1.7 would ensure that the City require an assessment of the damage potential of vibration-induced construction activities, highways, and rail lines in close proximity to historic buildings and archeological sites and require all feasible mitigation measures be implemented to ensure no damage would occur. Because historic buildings and archeological sites would be assessed for damage potential prior to construction activities, the impact to these resources would be **less than significant**.

Mitigation Measure

None required.

Cumulative Impacts and Mitigation Measures

The geographic context for the analysis of cumulative noise impacts associated with an increase in interior and exterior noise levels includes future development within the Policy Area, as well as planned development in the region which includes Sacramento County and neighboring cities, including West Sacramento, Roseville, Folsom, Elk Grove, Citrus Heights. Development in the region would change the intensity of land uses and increase the amount of traffic passing through or accessing the Policy Area for employment, shopping, or recreational

activities. This increase in noise is accounted for in regional traffic volume conditions anticipated for year 2030 on all city roadways modeled in the traffic analysis.

For construction-related impacts, the cumulative context would be any construction taking place within the Policy Area.

Impact 6.8-7	Implementation of the 2030 General Plan along with other development in the region could result in an increase in interior and exterior noise levels in the Policy Area that are above acceptable levels.
Applicable Regulations	<i>State General Plan Guidelines</i>
Significance Before Mitigation	<i>Significant</i>
Mitigation Included in the SGP	<i>Policy EC 3.1.1 through EC 3.1.4, EC 3.1.11, EC 3.1.12, EC 3.2.1, EC 3.2.2</i>
Significance after Mitigation Included in the SGP	<i>Significant</i>
Additional Mitigation	None available
Residual Significance	Significant and Unavoidable

Increases in noise from motor vehicles associated with all development projects in the Policy Area, combined with other development anticipated to occur in the region would lead to an increase in traffic, light rail, trains, and aircraft, and in some cases from stationary noise sources, resulting in a cumulative increase in noise in many areas, especially along area roadways, thus impacting many interior and exterior noise-sensitive uses (i.e., residences) in the city. This would be a significant cumulative impact.

As discussed above under the project-specific analysis, implementation of the proposed 2030 General Plan policies would help to reduce both interior and exterior noise levels at future noise-sensitive land uses that could be developed under the proposed General Plan. However, as discussed above under Impacts 6.8-1 and 6.8-2, the proposed policies would do little to remediate or reduce the magnitude of interior and exterior noise effects on many existing noise-sensitive land uses in areas with current high noise exposures or where substantial noise increases are expected.

The following are representative examples of the cumulative noise level increases (i.e., CNEL) expected to occur at uses adjacent to roadways in various areas of the city regardless of whether the General Plan is adopted or not.

North area of the city:

El Centro from Del Paso to San Juan	2.0 dBA
Elkhorn Boulevard from SR 99 to E Levee Road	4.7 dBA
Del Paso from I-5 to Truxel	1.8 dBA
Del Paso from Truxel to Northgate	3.0 dBA

Commerce Park from Elkhorn to Club Center	7.1 dBA
Commerce Park from New Market to Del Paso	4.5 dBA
Commerce Park from Del Paso to Advantage	4.1 dBA
Main Ave from Norwood to Rio Linda	5.9 dBA

Downtown area of the city:

Royal Oaks Dr from SR 160 to Southgate	3.8 dBA
7 th Street from N to P	3.0 dBA
Broadway from 3 rd to 5 th	2.2 dBA
Richards Blvd from Bercut to 5 th	4.7 dBA

East area of the city:

Auburn Blvd from Howe to Fulton	3.6 dBA
Heritage Lane from Ardent to Response	1.3 dBA
Jackson Road south of Folsom	3.9 dBA

South area of the city:

Franklin Blvd from Broadway to 2 nd Ave	3.2 dBA
Elder Creek Rd from Stockton to Elk-Grove Florin	4.0 dBA

Based on the increase in traffic-related noise associated with an increase in development both within and outside of the Policy Area vehicle trips on most local roadways are anticipated to increase regardless of whether or not the proposed general Plan is adopted. The continuing exposure of existing noise-sensitive land uses to noise levels in excess of city standards and the increase in noise as a result of future growth, attributed to the proposed General Plan would make a considerable contribution which would result in a *significant cumulative impact*.

Mitigation Measure

As discussed above under Impact 6.8-1, there are no feasible mitigation measures to address the increase in noise on both interior and exterior noise levels for existing noise-sensitive land uses (i.e., residential). Therefore, the cumulative impact would remain cumulatively ***significant and unavoidable***.

None available.

Impact 6.8-8	Implementation of the 2030 General Plan could result in cumulative construction noise and vibration levels that exceed the standards in the City of Sacramento Noise Ordinance as well as vibration-peak-particle velocities greater than 0.5 inches per second.
Applicable Regulations	<i>City Noise Ordinance</i>
Significance Before Mitigation	<i>Significant</i>
Mitigation Included in the SGP	<i>Policy EC 3-2.1</i>
Significance after Mitigation Included in the SGP	<i>Less than Significant</i>
Additional Mitigation	None required
Residual Significance	Less than Significant

Noise generated by each and every construction project taking place in the Policy Area would be temporary, and, therefore, would not add to the Policy Area's permanent ambient noise background. In addition, construction noise from each project would be localized to the immediate vicinity of that site and would not be part of the cumulative context of other construction projects taking place simultaneously at more distant locations. Noise from stationary construction equipment (i.e., generators) would decrease at approximately 6 dBA per doubling of distance. Therefore, it would not be common for construction-related noise from individual projects to result in a cumulative impact.

As discussed in Impact 6.8-4, proposed project construction could have vibration impacts that are event- and location-specific; and these impacts would not occur at great distances. However, when construction vibration occurs at sensitive land uses close to construction sites the impact would be significant. For a cumulative impact to occur, project-related construction would have to occur within 50 feet of a receptor simultaneously with construction of some other development in the area. It is not anticipated that this would occur in residential areas where many sensitive receptors are located. However, it could occur in the downtown area where churches, child care centers, or senior centers are located. Construction at distances greater than 50 feet from a receptor would not have the capacity to add to any cumulative vibration effect. However, numerous pieces of equipment operating within 50 feet of a receptor would have a combined effect that could result in substantial VdB levels resulting in a significant cumulative impact.

Since City policy would require mitigation of construction noise from each individual future development project and since construction noise from each project would be restricted in intensity and hours of occurrence by the City's Noise Ordinance, construction noise from each project would be mitigated and the project's contribution would not be considerable resulting in a ***less than significant cumulative impact***.

Mitigation Measure

None required.

Impact 6.8-9	Implementation of the 2030 General Plan could result in cumulative construction vibration levels that exceed the vibration-peak-particle velocities greater than 0.5 inches per second.
Applicable Regulations	<i>City Noise Ordinance</i>
Significance Before Mitigation	<i>Significant</i>
Mitigation Included in the SGP	<i>Policy EC 3.1.5 and EC 3.2.1</i>
Significance after Mitigation Included in the SGP	<i>Significant</i>
Additional Mitigation	None available
Residual Significance	Significant and Unavoidable

As discussed in Impact 6.8-4, proposed project construction could have vibration impacts that are event- and location-specific; and these impacts would not occur at great distances. However, when construction vibration occurs at sensitive land uses close to construction sites the impact would be significant. For a cumulative impact to occur, project-related construction would have to occur within 50 feet of a receptor simultaneously with construction of some other development in the area. It is not anticipated that this would occur in residential areas where many sensitive receptors are located. However, it could occur in the downtown area where churches, child care centers, or senior centers are located. Construction at distances greater than 50 feet from a receptor would not have the capacity to add to any cumulative vibration effect. However, numerous pieces of equipment operating within 50 feet of a receptor would have a combined effect that could result in substantial VdB levels resulting in a significant cumulative impact.

Because future development within the Policy Area could occur simultaneously in areas that may be located close to existing sensitive receptors the project's contribution to the cumulative impact would be considerable resulting in a *significant cumulative impact*.

Mitigation Measure

Compliance with 2030 General Plan policy EC 3.1.5 would require construction projects anticipated to generate a significant amount of vibration to address vibrational effects. However, even with compliance of this policy the impact would not be reduced to a less-than-significant level. The impact would remain **significant and unavoidable**.

None available.

Impact 6.8-10	Implementation of the 2030 General Plan could result in cumulative impacts on adjacent residential and commercial areas exposed to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations.	
Applicable Regulations	<i>City Vibration Criteria</i>	
Significance Before Mitigation	<i>Significant</i>	
Mitigation Included in the SGP	<i>Policy EC 3.1.6</i>	
Significance after Mitigation Included in the SGP	<i>Less than Significant</i>	
Additional Mitigation	None required	
Residual Significance	Less than Significant	

As discussed in Impact 6.8-5, development within the Policy Area proposed for sites alongside major heavy and light rail lines or adjacent to major freeways would have the potential for exposure to ground-borne vibration that may impact buildings (i.e., through structural damage) and their occupants (i.e., through activity disruption, annoyance, etc.) In general, the potential for vibration-induced structural damage from such sources would be very rare under any circumstances, but vibration-induced disruption/annoyance could occur if the uses were close enough to rail lines or major freeways. Since it is anticipated that in some locations traffic volumes would increase along freeways or major roadways and that in the future it is anticipated that more freight trains may access the city along with an increase in light rail trains resulting in exposing more sensitive areas to vibration-borne effects. Compliance with Policy EC 3.1.6, which necessitates the City to require new residential and commercial projects located adjacent to major freeways, hard rail lines, or light rail lines to follow the FTA screening distance criteria, would limit vibration impacts and would ensure that vibration guidelines are adhered to. As a result, this would be a ***less-than-significant cumulative impact***.

Mitigation Measure

None required.

South Area Community Plan

Noise and vibration sources would vary from location to location, as would the potential for noise and vibration impacts from subarea to subarea within the entire Policy Area. But the general potential for noise and vibration impacts and their mitigation in the SACP would be the same as described in the city wide analysis.

The primary noise source in the South Area Community Plan is the Executive Airport.

Focused Opportunity Areas

■ Robla

Noise and vibration sources would vary from location to location, as would the potential for noise and vibration impacts from subarea to subarea within the entire Policy Area. But the general potential for noise and vibration impacts and their mitigation in the Robla area would be the same as described in the city wide analysis.

The primary noise source located adjacent to the northeast boundary of the Policy Area is McClellan Airfield which does provide limited aircraft operations that may affect the Robla Opportunity Area.

■ River District

Noise and vibration sources would vary from location to location, as would the potential for noise and vibration impacts from subarea to subarea within the entire Policy Area. But the general potential for noise and vibration impacts and their mitigation in the River District would be the same as described in the city wide analysis.

Within the River District RT is planning a new light rail line that would connect the downtown Amtrak station to the Airport via the North Natomas neighborhood. This has the potential for generating future noise within the River District as well as the Union Pacific rail line that accesses downtown.

■ Arden Fair/Point West

Noise and vibration sources would vary from location to location, as would the potential for noise and vibration impacts from subarea to subarea within the entire Policy Area. But the general potential for noise and vibration impacts and their mitigation in the Arden Fair/Point West would be the same as described in the city wide analysis.

Within the Arden Fair/Point West Focused Opportunity Area there is the potential for a new basketball arena to be constructed on land currently owned by the state at the state fairgrounds (Cal Expo). At this time no formal plans have been submitted to either the City or the State to construct this type of use so it is too early to consider the environmental effects. However, it is anticipated that noise associated with events as well as traffic would be a major source of future noise in this area if this facility is constructed in this area.

■ 65th Street/University Village

Noise and vibration sources would vary from location to location, as would the potential for noise and vibration impacts from subarea to subarea within the entire Policy Area. Within the

65th Street/University Village Opportunity Area the proximity to the light rail lines as well as Highway 50 could result in an increase in noise levels in those immediate areas. But the potential for noise and vibration impacts and their mitigation in the 65th Street/University Village area would generally be the same as described in the city wide analysis.

■ Florin Center/Light Rail Station

Noise and vibration impacts for the Florin LRT area are the same as those identified in the city wide analysis.

■ Meadowview Light Rail Station

Noise and vibration sources would vary from location to location, as would the potential for noise and vibration impacts from subarea to subarea within the entire Policy Area. But the general potential for noise and vibration impacts and their mitigation in the Meadowview LRT area would be the same as described in the city wide analysis.

Insufficient Information to Support a Complete Analysis of the Potential Impacts

Section 15176(c) of the CEQA Guidelines acknowledges that all the information necessary to analyze potential impacts associated with anticipated future development may not be available. It is anticipated that future development within the Focused Opportunity Areas, as well as in the SACP and future development within the Policy Area could include potential impacts associated with noise and vibration. At this time specific project information is not available (i.e., individual project site characteristics, site-specific location, construction equipment, etc.) to evaluate potential impacts associated with noise and vibration. Once specific development proposals are prepared and submitted to the City a project-specific environmental analysis would be prepared to analyze potential impacts related to noise and vibration.

SUMMARY OF NOISE AND VIBRATION IMPACTS

LEVEL OF SIGNIFICANCE

	6.8-1 Implementation of the 2030 General Plan could result in exterior noise levels in the Policy Area that are above the upper value of the normally acceptable category for various land uses (per Table EC-1) due to an increase in noise levels.	6.8-2 Implementation of the 2030 General Plan would result in residential interior noise levels of L _{dn} 45 dB or greater caused by an increase in noise levels.	6.8-3 Implementation of the 2030 General Plan could result in construction noise levels that exceed the standards in the City of Sacramento Noise Ordinance.	6.8-4 Implementation of the 2030 General Plan could permit existing and/or planned residential and commercial areas to be exposed to vibration-peak-particle velocities greater than 0.5 inches per second due to project construction.	6.8-5 Implementation of the 2030 General Plan would permit adjacent residential and commercial areas to be exposed to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations.	6.8-6 Implementation of the 2030 General Plan would permit historic buildings and archaeological sites to be exposed to vibration-peak-particle velocities greater than 0.25 inches per second due to project construction, highway traffic, and rail operations.	6.8-7 Implementation of the 2030 General Plan along with other development in the region could result in an increase in interior and exterior noise levels in the Policy Area that are above acceptable levels.	6.8-8 Implementation of the 2030 General Plan could result in cumulative construction noise and vibration levels that exceed the standards in the City of Sacramento Noise Ordinance as well as vibration-peak-particle velocities greater than 0.5 inches per second.	6.8-9 Implementation of the 2030 General Plan could result in cumulative construction vibration levels that exceed the vibration-peak-particle velocities greater than 0.5 inches per second.	6.8-10 Implementation of the 2030 General Plan could result in cumulative impacts on adjacent residential and commercial areas exposed to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations.
Community Plan Areas										
Arden-Arcade	●	●	○	●	○	●	○	●	○	
Central City	●	●	○	●	○	●	○	●	○	
East Broadway	●	●	○	●	○	●	○	●	○	
East Sacramento	●	●	○	●	○	●	○	●	○	
Land Park	●	●	○	●	○	●	○	●	○	
North Natomas	●	●	○	●	○	●	○	●	○	
North Sacramento	●	●	○	●	○	●	○	●	○	
Pocket	●	●	○	●	○	●	○	●	○	
South Area	●	●	○	●	○	●	○	●	○	
South Natomas	●	●	○	●	○	●	○	●	○	
○ = less than significant ● = less than significant with mitigation incorporated ● = significant and unavoidable										

SUMMARY OF NOISE AND VIBRATION IMPACTS

LEVEL OF SIGNIFICANCE

	6.8-1 Implementation of the 2030 General Plan could result in exterior noise levels in the Policy Area that are above the upper value of the normally acceptable category for various land uses (per Table EC-1) due to an increase in noise levels.	6.8-2 Implementation of the 2030 General Plan would result in residential interior noise levels of L _{dn} 45 dB or greater caused by an increase in noise levels.	6.8-3 Implementation of the 2030 General Plan could result in construction noise levels that exceed the standards in the City of Sacramento Noise Ordinance.	6.8-4 Implementation of the 2030 General Plan could permit existing and/or planned residential and commercial areas to be exposed to vibration-peak-particle velocities greater than 0.5 inches per second due to project construction.	6.8-5 Implementation of the 2030 General Plan would permit adjacent residential and commercial areas to be exposed to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations.	6.8-6 Implementation of the 2030 General Plan would permit historic buildings and archaeological sites to be exposed to vibration-peak-particle velocities greater than 0.25 inches per second due to project construction, highway traffic, and rail operations.	6.8-7 Implementation of the 2030 General Plan along with other development in the region could result in an increase in interior and exterior noise levels in the Policy Area that are above acceptable levels.	6.8-8 Implementation of the 2030 General Plan could result in cumulative construction noise and vibration levels that exceed the standards in the City of Sacramento Noise Ordinance as well as vibration-peak-particle velocities greater than 0.5 inches per second.	6.8-9 Implementation of the 2030 General Plan could result in cumulative construction vibration levels that exceed the vibration-peak-particle velocities greater than 0.5 inches per second.	6.8-10 Implementation of the 2030 General Plan could result in cumulative impacts on adjacent residential and commercial areas exposed to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations.
Focused Opportunity Areas										
65 th Street/University Village	●	●	○	●	○	●	○	●	○	
Arden Fair/Point West	●	●	○	●	○	●	○	●	○	
Florin LRT/Subregional Center	●	●	○	●	○	●	○	●	○	
Meadowview LRT	●	●	○	●	○	●	○	●	○	
River District	●	●	○	●	○	●	○	●	○	
Robla	●	●	○	●	○	●	○	●	○	
○ = less than significant ● = less than significant with mitigation incorporated ● = significant and unavoidable										

