GENERAL PLAN

RANCHO CORDOVA GENERAL PLAN

DRAFT ENVIRONMENTAL IMPACT REPORT VOL. I

DRAFT EIR
March 2006

City of Rancho Cordova
2729 Prospect Park Drive
Rancho Cordova, CA 95670
Phone: (916) 851-8700

State Clearinghouse # 2005022137

Ken Cooley
Mayor
Robert McGarvey
Vice Mayor
Linda Budge
Councilmember
Dan Skoglund
Councilmember
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Councilmember

NOTICE OF AVAILABILITY

THE RANCHO CORDOVA GENERAL PLAN
DRAFT ENVIRONMENTAL IMPACT REPORT

MARCH 13, 2006

LEAD AGENCY: City of Rancho Cordova Planning Department

PROJECT TITLE: The City of Rancho Cordova General Plan

PROJECT LOCATION: The Rancho Cordova General Plan Planning Area is generally bounded by Watt Avenue to the west, the American River to the north, Prairie City Road to the east, and Jackson Highway to the south. The General Plan Planning Area includes the City of Rancho Cordova, the unincorporated communities of Gold River, Rosemont, Mather Field, and the Aerojet lands.

PROJECT DESCRIPTION: The proposed City of Rancho Cordova General Plan would replace the existing General Plan, which the City adopted from Sacramento County upon incorporation in July 2003. The proposed General Plan and associated land use map would generate additional residential, commercial, office, and recreational uses throughout the entire General Plan Planning Area and include substantial improvements to the roadway system.

SIGNIFICANT ENVIRONMENTAL EFFECTS: The City has prepared a Draft Environmental Impact Report (EIR) to address the specific environmental effects of implementing the Rancho Cordova General Plan. The Draft EIR consists of a focused analysis of the following environmental issue areas that may be impacted by the project:

- Land Use
- Agriculture
- Population, Housing, and Employment
- Hazards and Human Health
- Transportation and Circulation
- Noise
- Air Quality
- Geology and Soils
- Biological Resources
- Cultural and Paleontological Resources
- Visual Resources/Light and Glare
- Public Services and Utilities
- Cumulative Impacts
- Growth Inducing Impacts

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- Hydrology and Water Quality
- Significant Irreversible Environmental Changes

Listed hazardous waste sites, hazardous materials users and other associated hazardous material sites (including sites identified under Section 65962.5 of the Government Code) are know to be present in the City of Rancho Cordova General Plan Planning Area and are identified in Section 4.4 (Hazards and Human Health) of the Draft EIR.

PUBLIC REVIEW PERIOD/STATUS: A **45-day public review period** will be provided to receive written comments on the adequacy of the Draft EIR. The comment period will start on **March 13, 2006** and end on **April 27, 2006**. Written comments should be sent to the following address:

Patrick Angell
City of Rancho Cordova Planning Department
2729 Prospect Park Drive
Rancho Cordova, CA 95670
generalplan@cityofranchocordova.org

PUBLIC MEETING: A public meeting to receive comments on the adequacy of the Draft EIR will be held on **April 13, 2006 at 6:00 pm at City of Rancho Cordova City Hall at 2729 Prospect Park Drive, Rancho Cordova, CA 95670** before the Rancho Cordova Planning Commission.

AVAILABILITY OF THE DRAFT EIR: Copies of the Draft EIR are available for review at the following locations:

Rancho Cordova Planning Department
2729 Prospect Park Drive, Rancho Cordova, CA 95670
Phone: (916) 851-8750

Rancho Cordova Community Library
9845 Folsom Boulevard, Sacramento, CA 95827
Phone: (916) 264-2770

The Rancho Cordova General Draft EIR may also be reviewed on the City's web site (http://www.cityofranchocordova.org) on **March 13, 2006**. Referenced material used in the preparation of the Draft EIR may be reviewed upon request to the Planning Department.

DRAFT ENVIRONMENTAL IMPACT REPORT

FOR

RANCHO CORDOVA GENERAL PLAN

Volume 1

Rancho Cordova
2729 Prospect Park Drive
Rancho Cordova, CA 95670
(916) 851-8700

MARCH 2006

1.0 INTRODUCTION

1.1 Purpose of the EIR 1.0-1
1.2 Known Responsible and Trustee Agencies 1.0-1
1.3 Type of Document 1.0-2
1.4 Intended Uses of the EIR 1.0-2
1.5 Organization and Scope 1.0-3
1.6 Environmental Review Process 1.0-4
1.7 Scope of the EIR 1.0-6
1.8 Comments Received on the Notice of Preparation 1.0-7

2.0 EXECUTIVE SUMMARY

2.1 Purpose and Scope of the Environmental Impact Report 2.0-1
2.2 Project Characteristics 2.0-1
2.3 Project Alternatives Summary 2.0-4
2.4 Areas of Controversy 2.0-5
2.5 Summary of Environmental Impacts 2.0-6

3.0 PROJECT DESCRIPTION

3.1 Local and Regional Setting 3.0-1
3.2 Background of Planning Activities Associated with Rancho Cordova 3.0-2
3.3 Proposed City of Rancho Cordova General Plan 3.0-7
3.4 Intended Use of the EIR and Approval Process 3.0-55

4.0 ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

4.0 Environmental Setting, Impacts and Mitigation Measures 4.0-1
4.1 Land Use 4.1-1
4.2 Agriculture 4.2-1
4.3 Population/Housing/Employment 4.3-1
4.4 Hazards and Human Health 4.4-1
4.5 Transportation and Circulation 4.5-1
4.6 Air Quality 4.6-1
4.7 Noise 4.7-1
4.8 Geology and Soils 4.8-1
4.9 Hydrology and Water Quality 4.9-1
4.10 Biological Resources 4.10-1
4.11 Cultural and Paleontological Resources 4.11-1
4.12 Public Services and Utilities 4.12-1
4.13 Visual Resources/Light and Glare 4.13-1

5.0 CUMULATIVE IMPACTS SUMMARY

5.1 Introduction 5.0-1
5.2 Cumulative Setting 5.0-2
5.3 Cumulative Impact Analysis 5.0-2

6.0 PROJECT ALTERNATIVES

6.1 Introduction 6.0-1
6.2 Project Alternatives Evaluated 6.0-5
6.3 Consistency with Project Objectives 6.0-81

7.0 LONG-TERM IMPLICATIONS OF THE PROJECT

7.1 Growth-Inducing Impacts 7.0-1
7.2 Significant Irreversible Environmental Effects 7.0-4
7-3 Significant and Unavoidable Environmental Effects..... 7.0-5

8.0 REPORT PREPARERS

APPENDICES
(LOCATED IN VOLUME 2: TECHNICAL APPENDICES)

1.0 NOP and Comment Letters
4.4 Hazards Appendix: SWRCB LUST Sites Table and SLIC Sites Table
4.5 Traffic Appendix: Traffic Modeling Data
4.6 Air Quality Appendix: URBEMIS Report
4.7 Noise Appendix: Highway Traffic Noise Prediction Model
4.9 Water Appendix: Water Supply Evaluation
4.10 Biology Appendix: Biological Resources Report

LIST OF TABLES

TABLE NUMBER PAGE

2.0-1 Executive Summary 2.0-7
3.0-1 Summary of Existing And General Plan Buildout Conditions 3.0-15
3.0-2 Proposed General Plan Land Use Designation Acreages 3.0-15
3.0-3 Summary of Buildout Conditions by Planning Area 3.0-18
4.0-1 Proposed and Approved Large-Scale Residential and Commercial Projects 4.0-4
4.1-1 Existing City of Rancho Cordova Land Uses 4.1-1
4.2-1 Sacramento Leading Farm Commodities, 2004 ..... 4.2-1
4.2-2 Storie Index Rating System 4.2-2
4.2-3 Onsite Soil Capability Classification and Storie Index Rating 4.2-3
4.2-4 Planning Area Important Farmland Inventory (in acres) 4.2-7
4.2-5 Sacramento County Farm Land Conversion – Year 2000-2002 ..... 4.2-7
4.3-1 City of Rancho Cordova Population Trends 4.3-2
4.3-2 2000 Population for General Plan Planning Area 4.3-2
4.3-3 City of Rancho Cordova Household Projections 4.3-3
4.3-4 City of Rancho Cordova Households by Type 4.3-3
4.3-5 City of Rancho Cordova Household Size 4.3-4
4.3-6 City of rancho Cordova Household Tenure 4.3-5
4.3-7 City of Rancho Cordova Age of Housing 4.3-5
4.3-8 Household Vacancy Status 4.3-6
4.3-9 Rancho Cordova Planning Area Largest Employers 4.3-6
4.3-10 Employment by Industry - Rancho Cordova CDP 4.3-7
4.3-11 General Plan Planning Area - Area Outside of Existing City Limits 4.3-11
4.3-12 General Plan Planning Area – Area Within Existing City Limits 4.3-11
4.3-13 Cumulative Projections - 2025 ..... 4.3-15
4.3-14 Cumulative Projections 4.3-16
4.4-1 Regulatory Agencies for Hazardous Materials 4.4-16
4.5-1 Roadway Segment Daily Volume Thresholds 4.5-7
4.5-2 Freeway Mainline LOS Criteria 4.5-7
4.5-3 Roadway Level of Service – Existing Conditions 4.5-11
4.5-4 Freeway Segment Level of Service - Existing Conditions 4.5-13
4.5-5 Blueprint Vehicle Miles Traveled (VMT) Comparison 4.5-21
4.5-6 Roadway Level of Service – Proposed General Plan Year 2030 Conditions, Year 2030 Roadway Network 4.5-28
4.5-7 Roadway Level of Service – Proposed General Plan Buildout Conditions, Year 2030 Roadway Network 4.5-30
4.5-8 Roadway Level of Service – General Plan Buildout Conditions, Post-Year 2030 Roadway Network 4.5-32
4.5-9 Summary of Roadway Segments Projected to Operate at a Deficient Level of Service 4.5-34
4.5-10 Freeway Segment Level of Service – Proposed General Plan Year 2030 Conditions, Year 2030 Roadway Network 4.5-40
4.5-11 Freeway Segment Level of Service – Proposed General Plan Buildout Conditions, Year 2030 Roadway Network 4.5-40
4.5-12 Freeway Segment Level of Service – Proposed General Plan Buildout Conditions, Post-Year 2030 Roadway Network 4.5-41
4.6-1 Federal and State Ambient Air Quality Standards 4.6-2

4.6-2 Rancho Cordova Area Air Quality 4.6-4
4.6-3 Projected General Plan Buildout Air Quality 4.6-22
4.6-4 Toxic Air Emission by Land Use 4.6-27
4.7-1 Typical A-Weighted Sound Levels of Common Noise Sources 4.7-1
4.7-2 FHWA-RD-77-108 Highway Traffic Noise Prediction Model Data Inputs and Distances from Centerline to 60 and 65 dB L_{dn} Contours City of Rancho Cordova Noise Element - Existing Conditions 4.7-4
4.7-3 FHWA-RD-77-108 Highway Traffic Noise Prediction Modeled Noise Levels and Distances from Centerline to 60, 65, and 70 dB Ldn Contours City of Rancho Cordova Noise Element - Year 2030 Conditions Under the Proposed General Plan 4.7-6
4.7-4 Computed Light-Rail L_{dn} Rancho Cordova, CA 4.7-9
4.7-5 Distances to 60 dB L_{dn} Light Rail Noise Level Contour Rancho Cordova, CA 4.7-9
4.7-6 Community Noise Measurement Survey results 4.7-15
4.7-7 Construction Equipment Noise 4.7-20
4.7-8 FHWA-RD-77-108 Highway Traffic Noise Prediction Modeled Noise Levels and Project Related Increases City of Rancho Cordova Noise Element – General Plan Area Buildout 4.7-23
4.8-1 Soil Types Within the Rancho Cordova Planning Area 4.8-2
4.8-2 Magnitude and Intensity Comparison 4.8-5
4.8-3 Typical Effects of Earthquake Activity 4.8-6
4.8-4 Proximity of Fault Zones to the Rancho Cordova Planning Area 4.8-7
4.9-1 Average Annual Current and Planned Water Supplies for SCWA Zone 40 through Year 2030 ..... 4.9-17
4.9-2 Historical and Projected Groundwater Pumping in Zone 40 ..... 4.9-19
4.9-3 Current and Planned Water Supplies for the GSWC Cordova System (afy) 4.9-22
4.9-4 GSWC's Projected Groundwater Pumping Volumes by Cordova System (afy) 4.9-23
4.9-5 Summary of Current and Projected Water Demand and Sources of Water Supply (afy) for Cal-Am 4.9-25
4.9-6 Land Use and Water Demands at Buildout of the City of Rancho Cordova General Plan 4.9-44
4.9-7 Summary of Water Supply and Demand for Water Purveyors in the City of Rancho Cordova General Plan Planning Area 4.9-45
4.9-8 Types of Potential Environmental Impacts that could be caused by New Water Supply Projects, Water Rights Transfers, and Related Infrastructure 4.9-51
4.10-1 Wetland Preserves and Mitigation Sites within the General Plan Planning Area – 2005 ..... 4.10-2
4.10-2 Cover Types in the City of Rancho Cordova Planning Area by Total Acres 4.10-3
4.10-3 Special Status Species Occurring within the Rancho Cordova Planning Area 4.10-17
4.10-4 Cover Types Containing Habitat for Listed Species in the Rancho Cordova General Plan Planning Area 4.10-35
4.10-5 Direct Impacts to Cover Types Containing Habitat for Listed Species by Roadway Improvement and Construction in the Rancho Cordova Planning Area 4.10-36
4.10-6 Indirect Impacts to Cover Types Containing Habitat for Listed Species by Roadway Improvement and Construction in the Rancho Cordova Planning Area 4.10-38
4.11-1 Known Cultural Resources in the Planning Area 4.11-4
4.12.1-1 Existing Rancho Cordova Planning Area Fire Department Facilities and Locations 4.12-1
4.12.6-1 FCUSD Schools and 2004/05 Enrollment in the Planning Area 4.12-67
4.12.6-2 EGUSD Schools and 2004/05 Enrollment in the Planning Area 4.12-68
4.12.6-3 SCUSD Schools and 2004/05 Enrollment in the Planning Area 4.12-71

4.12.6-4 SJUSD Schools and 2004/05 Enrollment in the Planning Area 4.12-72
4.12.6-5 Student Generation Rates for the FCUSD 4.12-74
4.12.6-6 Student Generation Rates for the EGUSD 4.12-74
4.12.6-7 Student Generation Rates for the SCUSD 4.12-74
4.12.6-8 Potential New Student Population Under Buildout Conditions for the Planning Area 4.12-77
4.12.7-1 Existing CRPD Facilities and Services 4.12-83
4.12.7-2 CRPD Classification of Mini, Neighborhood, and Community Parks and their Standards 4.12-87
6.0-1 Comparison of Project Alternatives to the proposed general plan 6.0-82

LIST OF FIGURES

FIGURE NUMBER PAGE

3.0-1 Regional Vicinity Map 3.0-3
3.0-2 Project Location Map 3.0-5
3.0-3 Draft General Plan Land Use Map 3.0-11
3.0-4 Aerojet Planning Area 3.0-19
3.0-5 Countryside/Lincoln Village Planning Area 3.0-21
3.0-6 Downtown Planning Area 3.0-23
3.0-7 East Planning Area 3.0-25
3.0-8 Glenborough Planning Area 3.0-27
3.0-9 Grant Line North Planning Area 3.0-29
3.0-10 Grant Line South Planning Area 3.0-31
3.0-11 Grant Line West Planning Area 3.0-33
3.0-12 Jackson Planning Area 3.0-35
3.0-13 Mather Planning Area 3.0-37
3.0-14 Rio Del Oro Planning Area 3.0-39
3.0-15 Suncreek/Preserve Planning Area 3.0-41
3.0-16 Sunrise Boulevard North Planning Area 3.0-43
3.0-17 Sunrise Boulevard South Planning Area 3.0-45
3.0-18 Westborough Planning Area 3.0-47
3.0-19 Roadway System Map 3.0-49
3.0-20 Draft City Trails and Bikeway Map 3.0-51
3.0-21 Transit System Map 3.0-53
4.1-1 Existing Land Uses Within the City of Rancho Cordova 4.1-3
4.1-2 Blueprint Scenario for the General Plan Planning Area 4.1-7
4.1-3 Sacramento County General Plan Land Use Designations within General Plan Planning Area 4.1-13
4.1-4 Cordova Community Land Use Map 4.1-17
4.1-5 Existing Mather Airport Comprehensive Land Use Plan Boundaries 4.1-31
4.1-6 Mather Airport Height Restrictions over the Downtown Planning Area 4.1-33
4.2-1 Prime Agricultural Land and Farmland of Statewide Importance in the General Plan Planning Area 4.2-9
4.2-2 Williamson Act Contracts in the General Plan Planning Area 4.2-15
4.4-1 State and Federal Hazardous Waste Sites and Areas of Contamination Within the General Plan Planning Area 4.4-5
4.4-2 State Water Resources Control Board Leaking Underground Fuel Tanks and SLIC Sites Within the General Plan Planning Area 4.4-7
4.5-1 General Plan Traffic Study Area 4.5-3
4.5-2 Average Daily Traffic Volumes – Existing Conditions 4.5-9
4.5-3 Average Daily Traffic Volumes – Proposed General Plan Year 2030 Conditions – Year 2030 Roadway 4.5-35
4.5-4 Average Daily Traffic Volumes – Proposed General Plan Buildout Conditions – Year 2030 Roadway Network 4.5-37
4.5-5 Average Daily Traffic Volumes – Proposed General Plan Buildout Conditions – Post Year 2030 Roadway Network 4.5-39
4.7-1 Noise Measurement Locations Within the General Plan Planning Area 4.7-13

4.8-1 Mineral Resource Zones and Aggregate Operations Within the General Plan Planning Area 4.8-13
4.8-2 County of Sacramento Mineral Overlay Zones Within the General Plan Planning Area 4.8-15
4.9-1 Surface Water Resources Within the General Plan Area 4.9-3
4.9-2 Flood Zones Within the General Plan Planning Area 4.9-9
4.9-3 Water Purveyors Within the General Plan Planning Area 4.9-15
4.10-1 Cover Types Found Within the General Plan Planning Area 4.10-5
4.10-2 Recorded Occurrences of Special-Status Animal Species (CNDDB) Within the General Plan Planning Area 4.10-25
4.10-3 Recorded Occurrences of Special-Status Plant Species (CNDDB) Within the General Plan Planning Area 4.10-27
4.11-1 Archaeological and Cultural Resources Sensitivity Map 4.11-11
4.12.4-1 SRCSD Interceptor Upgrades and Expansions 4.12-41
4.12.4-2 CSD-1 Trunk Expansion Projects 4.12-43
4.12.6-1 School District Boundaries Within the General Plan Planning Area 4.12-69
4.12.7-1 Park District Boundaries Within the General Plan Planning Area 4.12-85
6.0-1 Alternative 1 – No Project Alternative – Sacramento County General Plan 6.0-7
6.0-2a Alternative 2 – Existing City Boundary General Plan Alternative – Proposed City of Rancho Cordova Land Use Designations 6.0-21
6.0-2b Alternative 2 – Existing City Boundary General Plan Alternative – Sacramento County Land Use Designations 6.0-23
6.0-2c Alternative 2 – Existing City Boundary General Plan Alternative – Grant Line West Planning Area 6.0-25
6.0-2d Alternative 2 – Existing City Boundary General Plan Alternative – Westborough Planning Area 6.0-27
6.0-3a Alternative 3 – Natural Resources Conservation Alternative – East Planning Area 6.0-41
6.0-3b Alternative 3 – Natural Resources Conservation Alternative – Grant Line North Planning Area 6.0-43
6.0-3c Alternative 3 – Natural Resources Conservation Alternative – Grant Line South Planning Area 6.0-45
6.0-3d Alternative 3 – Natural Resources Conservation Alternative – Grant Line West Planning Area 6.0-47
6.0-3e Alternative 3 – Natural Resources Conservation Alternative – Jackson Planning Area 6.0-49
6.0-3f Alternative 3 – Natural Resources Conservation Alternative – Mather Planning Area 6.0-51
6.0-3g Alternative 3 – Natural Resources Conservation Alternative – Rio Del Oro Planning Area 6.0-53
6.0-3h Alternative 3 – Natural Resources Conservation Alternative – Suncreek/Preserve Planning Area 6.0-55
6.0-4 Alternative 4 – Blueprint Scenario 6.0-69

1.0 – Introduction

This Draft Environmental Impact Report ("Draft EIR" or "DEIR") was prepared in accordance with the California Environmental Quality Act (CEQA) (Cal. Pub. Resources Code Sections 21000, et seq.) and the State CEQA Guidelines (14 Cal. Code Regs., Section 15000, et seq.). The City of Rancho Cordova (City) is the lead agency for the environmental review of the proposed City of Rancho Cordova General Plan ("project" or "proposed project") evaluated herein and has the principal responsibility for approving the project. This DEIR assesses the expected environmental impacts resulting from adoption of the proposed Rancho Cordova General Plan and associated impacts from subsequent development under the Plan.

1.1 PURPOSE OF THE EIR

The City, acting as the lead agency, has prepared this Draft EIR to provide the public and responsible and trustee agencies with information about the potential environmental effects of the proposed Rancho Cordova General Plan. As described in CEQA Guidelines Section 15121(a), an EIR is a public informational document that assesses potential environmental effects of the proposed project, as well as identifies mitigation measures and alternatives to the proposed project that could reduce or avoid its adverse environmental impacts. Public agencies are charged with the duty to consider and, where feasible, minimize environmental impacts of proposed development, and an obligation to balance a variety of public objectives, including economic, environmental, and social factors.

CEQA requires the preparation of an environmental impact report prior to approving any project, which may have a significant effect on the environment. For the purposes of CEQA, the term "project" refers to the whole of an action, which has the potential for resulting in a direct physical change or a reasonably foreseeable indirect physical change in the environment (CEQA Guidelines Section 15378[a]). With respect to the proposed City of Rancho Cordova General Plan, the City has determined that the proposed plan is a "project" within the definition of CEQA.

1.2 KNOWN RESPONSIBLE AND TRUSTEE AGENCIES

For the purpose of CEQA, a "Trustee" agency is has jurisdiction by law over natural resources that are held in trust for the people of the State of California. CEQA Guidelines Section 15386. The California Department of Fish and Game is a trustee agency with regard to the fish and wildlife of the state and designated rare or endangered native plants. The term "Responsible Agency" includes all public agencies other than the Lead Agency that have discretionary approval power over the project or an aspect of the project. CEQA Guidelines Section 15381. The following agencies are identified as potential Responsible Agencies:

- Sacramento County Local Agency Formation Commission
- Sacramento Area Council of Governments
- Sacramento Metropolitan Air Quality Management District
- Sacramento County Water Agency
- Sacramento County Airport System Planning and Development Department
- County Sanitation District-1
- Cordova Recreation and Park District
- Sacramento Metropolitan Fire District
- Folsom Cordova Unified School District
- Sacramento City Unified School District
- San Juan Unified School District
- Elk Grove Unified School District
- Central Valley Regional Water Quality Control Board

- State Water Resources Control Board
- Caltrans District 3
- Caltrans Division of Aeronautics
- California Department of Toxic Substances Control
- California Department of Fish and Game
- California Department of Conservation
- Native American Heritage Commission
- Federal Aviation Administration
- U.S. Bureau of Reclamation
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service

1.3 TYPE OF DOCUMENT

The State CEQA Guidelines identify several types of EIRs, each applicable to different project circumstances. This EIR has been prepared as a Program EIR pursuant to CEQA Guidelines Section 15168. According to Section 15168:

> *A program EIR is an EIR which may be prepared on a series of actions that can be characterized as one large project and are related either:*
>
> *1) Geographically,*
>
> *2) As logical parts in the chain of contemplated actions,*
>
> *3) In connection with issuance of rules, regulations, plans or other general criteria to govern the conduct of a continuing program, or*
>
> *4) As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.*

The program-level analysis considers the broad environmental effects of the overall proposed General Plan. This EIR will be used to evaluate subsequent projects and activities under the proposed General Plan. Additional environmental review under CEQA will be required and would be generally based on the subsequent project's consistency with the General Plan and the analysis in this EIR, as required under CEQA. When individual projects or activities under the General Plan are proposed, the City would be required to examine the projects or activities to determine whether their effects were adequately analyzed in the program EIR. CEQA Guidelines Section 15168. If the projects or activities would have no effects beyond those analyzed in this EIR, no further CEQA compliance would be required.

In addition, the program-level General Plan EIR analysis addresses the cumulative impacts of development of the proposed General Plan, and analyzes a reasonable range of alternative land use maps, at an equal level of detail.

1.4 INTENDED USES OF THE EIR

This EIR is intended to evaluate the environmental impacts of the project to the greatest extent possible. This EIR should be used as the primary environmental document to evaluate all subsequent planning and permitting actions associated with projects in the City. Subsequent actions that may be associated with the proposed General Plan are identified in Section 3.0 (Project Description) of this document.

1.5 ORGANIZATION AND SCOPE

Sections 15122 through 15132 of the State CEQA Guidelines identify the content requirements for Draft and Final EIRs. An EIR must include a description of the environmental setting, an environmental impact analysis, mitigation measures, alternatives, significant irreversible environmental changes, growth-inducing impacts, and cumulative impacts. Discussion of the environmental issues addressed in the Draft EIR was established through review of environmental and planning documentation developed for the project, environmental and planning documentation prepared for recent projects located within the Planning Area, environmental documentation developed for the County of Sacramento and cities and counties adjacent to the Planning Area, and public agency responses to the Notice of Preparation (NOP).

This Draft EIR is organized in the following manner:

SECTION 1.0 – INTRODUCTION

Section 1.0 provides an introduction and overview describing the purpose, type, and intended use of the EIR, responsible agencies, organization and scope of the EIR, the review and certification process, and a summary of comments received on the NOP.

SECTION 2.0 - EXECUTIVE SUMMARY

This section summarizes the characteristics of the proposed project, known areas of controversy and issues to be resolved, and provides a concise summary matrix of the project's environmental impacts, General Plan policies, and possible mitigation measures, and identification of alternatives that reduce or avoid at least one environmental effect of the proposed General Plan.

SECTION 3.0 - PROJECT DESCRIPTION

This section provides a detailed description of the proposed project, including the location, intended objectives, background information, the physical and technical characteristics including the decisions subject to CEQA and a list of related environmental review and consultation requirements.

SECTION 4.0 - ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

Section 4.0 contains an analysis of environmental topic areas as identified below. Each subsection contains a description of the existing setting of the project area, identifies project-related impacts, and recommends appropriate General Plan policies and mitigation measures.

This section also includes an introduction to the environmental analysis that describes the general assumptions used to evaluate project-specific and cumulative environmental impacts. However, specific analyses are provided in each environmental issue area section.

The following major environmental topics are addressed in this section:

- Land Use
- Agriculture
- Population/Housing/Employment
- Hazards and Human Health

- Transportation and Circulation
- Noise
- Air Quality
- Noise
- Geology and Soils
- Hydrology and Water Quality
- Biological Resources
- Cultural and Paleontological Resources
- Public Services and Utilities
- Visual Resources/Light and Glare

SECTION 5.0 - CUMULATIVE IMPACTS SUMMARY

This section summarizes all identified cumulative impacts associated with the proposed project. As required by State CEQA Guidelines Section 15130, an EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable. CEQA Guidelines Section 15065(a)(3).

SECTION 6.0 - ALTERNATIVES TO THE PROJECT

State CEQA Guidelines Section 15126.6 requires that an EIR describe a range of reasonable alternatives to the project, which could feasibly attain the basic objectives of the project and avoid and/or lessen any significant environmental effects of the project. This alternatives analysis provides a comparative analysis between the merits of the project and the selected alternatives.

SECTION 7.0 - LONG-TERM IMPLICATIONS OF THE PROJECT

This section contains discussions and analysis of various topical issues mandated by CEQA. These include significant environmental effects that cannot be avoided if the project is implemented, significant irreversible environmental changes and growth-inducing impacts.

SECTION 8.0 - REPORT PREPARERS

This section lists all authors and agencies that assisted in the preparation of the EIR, by name, title, and company or agency affiliation.

APPENDICES

This section includes all notices and other procedural documents pertinent to the EIR, as well as all technical material prepared to support the analysis.

1.6 ENVIRONMENTAL REVIEW PROCESS

The review and certification process for the EIR has involved, or will involve, the following general procedural steps:

NOTICE OF PREPARATION AND INITIAL STUDY

In accordance with Section 15082 of the State CEQA Guidelines, the City prepared a Notice of Preparation (NOP) of an EIR for the proposed project on February 25, 2005. The City was

identified as the Lead Agency for the proposed project. This notice was circulated to the State Clearinghouse and to the public, local, state, and federal agencies, and other interested parties to solicit comments on the proposed project. The NOP was posted on the City's website. A scoping meeting was held on March 9, 2005, to receive additional comments. Concerns raised in response to the NOP were considered during preparation of the Draft EIR. The NOP and responses by interested parties are presented in **Appendix 1.0**. An Initial Study for the project was prepared and released for public review along with the NOP. Its conclusions supported preparation of an EIR for the project. The Initial Study is also included in **Appendix 1.0**.

DRAFT EIR

This document constitutes the Draft EIR. The Draft EIR contains a description of the project, description of the environmental setting, identification of project impacts, and mitigation measures for impacts found to be significant, as well as an analysis of project alternatives, identification of significant irreversible environmental changes, growth-inducing impacts, and cumulative impacts. Upon completion of the Draft EIR, the City will file the Notice of Completion (NOC) with the Governor's Office of Planning and Research to begin the public review period (Cal. Pub. Resources Code Section 21161).

PUBLIC NOTICE/PUBLIC REVIEW

Concurrent with the NOC, the County will provide public notice of the availability of the Draft EIR for public review, and invite comment from the general public, agencies, organizations, and other interested parties. Consistent with CEQA, the review period for this Draft EIR is forty-five (45) days. Public comment on the Draft EIR will be accepted both in written form and orally at public hearings. Although no public hearings to accept comments on the EIR are required by CEQA, the City expects to hold a public comment meeting during the forty-five (45) day review period. Notice of the date, time and location of the hearing will be published prior to the hearing. All comments or questions regarding the Draft EIR should be addressed to:

Pat Angell
City of Rancho Cordova
10461 Old Placerville Road, Suite 110
Rancho Cordova, CA 95827

RESPONSE TO COMMENTS/FINAL EIR

Following the public review period, a Final EIR will be prepared. The Final EIR will respond to written comments received during the public review period and to oral comments made at any public hearing during such review period.

CERTIFICATION OF THE EIR/PROJECT CONSIDERATION

The City will review and consider the Final EIR. If the City finds that the Final EIR is "adequate and complete", the City Council will certify the Final EIR. Upon review and consideration of the Final EIR, the City of Rancho Cordova City Council may take action to approve, revise, or reject the project. A decision to approve the proposed General Plan, for which this EIR identifies significant environmental effects, could only be made if accompanied by written findings in accordance with State CEQA Guidelines Section 15091 and Section 15093. A Mitigation Monitoring Program, as described below, would also be adopted for mitigation measures that have been incorporated into or imposed upon the project to reduce or avoid significant effects on the

environment. This Mitigation Monitoring Program will be designed to ensure that these measures are carried out during project implementation, in a manner that is consistent with the EIR.

MITIGATION MONITORING

CEQA Section 21081.6(a) requires lead agencies to adopt a reporting and mitigation monitoring program to describe measures that have been adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment. The specific "reporting or monitoring" program required by CEQA is not required to be included in the EIR, however it will be presented to City Council for adoption. Throughout the EIR, however, mitigation measures have been clearly identified and presented in language that will facilitate establishment of a monitoring and reporting program.

1.7 SCOPE OF THE EIR

Pursuant to CEQA and the CEQA Guidelines, the scope of this DEIR includes specific issues and concerns identified as potentially significant physical effects on the environment. Based on both the Initial Study and the NOP comments, this EIR addresses the following topics in depth:

Environmental issue areas identified for study in this EIR include:

- Land Use
- Agriculture
- Population/Housing/Employment
- Hazards and Human Health
- Transportation and Circulation
- Noise
- Air Quality
- Noise
- Geology and Soils
- Hydrology and Water Quality
- Biological Resources
- Cultural and Paleontological Resources
- Public Services and Utilities
- Visual Resources/Light and Glare
- Growth Inducement
- Cumulative Impacts

The complete text of the NOP is contained in **Appendix 1.0**.

The City of Rancho Cordova determined that the preparation of an EIR was appropriate due to potentially significant environmental impacts that could result from implementing the proposed City of Rancho Cordova General Plan. This DEIR evaluates the existing environmental resources in the vicinity of the City, analyzes potential impacts on those resources due to the proposed project, and identifies mitigation measures that could avoid or reduce the magnitude of those impacts. This EIR provides a general review of the environmental effects of development of the City, based on proposed land use designations and estimated public service demands resulting therefrom. This EIR will be used to evaluate the direct and indirect environmental effects of subsequent development under the General Plan (e.g., residential subdivisions, rezones, commercial structures, park sites, recreation facility development, infrastructure improvements).

1.8 COMMENTS RECEIVED ON THE NOTICE OF PREPARATION

The City received several comment letters on the Notice of Preparation for the City of Rancho Cordova General Plan DEIR. A copy of each letter is provided in **Appendix 1.0** of this DEIR. The City received letters from the following federal, state, and local agencies, and other interested parties.

- U.S. Fish and Wildlife Service
- U.S. Environmental Protection Agency
- State of California Department of Transportation (Caltrans), District 3
- Delta Protection Commission
- State of California Department Of Conservation
- State of California Department of Fish and Game
- State of California regional Water Quality Control Board
- County Sanitation District-1
- County of Sacramento Department of Waste Management and Recycling
- County of Sacramento Water Agency
- County of Sacramento Planning and Community Development Department
- Rancho Cordova Police Department

The following summarizes the concerns in these letters.

- State Route (SR) 16 is referred to as the Jackson Highway on exhibit maps. This is a State facility.

- Impacts to the ramps and mainline of US 50 and SR 16 should be fully addressed.

- The Caltrans' System Planning Transportation Concept Reports should be adopted as part of the General Plan.

- The traffic study should provide enough detail that specific development will be able to assess their impacts and mitigate appropriately, thus reducing the need for additional traffic studies in the future.

- Establishment of fair share mitigation fee programs for traffic related impacts.

- The traffic study should include analysis of existing as well as cumulative conditions scenarios.

- The Circulation Element of the proposed General Plan should include road systems that parallel State roadways to accommodate local traffic.

- The General Plan Land Use, Circulation and Housing Elements should be internally consistent and compatible.

- Caltrans supports policies and strategies for affordable housing, high density zoning around transit centers, and Transit Oriented Development (TOD).

- Caltrans supports mixed-use development for livable communities with context sensitive solutions that allow expanded transportation options/choices and walkable neighborhoods.

- Caltrans supports housing development that limits sprawl, facilitates infill development and encourages a jobs/housing and service/housing balance.

- The County as part of a recent expansion established a 2,000 foot buffer area around Keifer Landfill. Some parcels within the East Planning Area, the Grant Line North Planning Area and the Grant Line South Planning Area are affected by this boundary. The County requests that the City consider appropriate planning designations within the 2,000 foot buffer around the landfill.

- Neighborhood design: the City should include a "security ordinance" in the City Code, which will provide minimum safety and security specifications for new residential and commercial development. Adapt transit-oriented development guidelines to the needs of crime prevention to the extent possible.

- Pedestrian easements: prior to considering a pedestrian easement, a direct street connection between retail/commercial and residential areas should be evaluated.

- Subdivision/building conditions: applicants should be encouraged to develop neighborhoods that provide for "eyes on the street" (living areas such as kitchens, eating areas, living rooms, and office/den spaces should be located in the front of the residential unit). All homes placed a public roadway should be oriented to face the roadway.

- All public roadways should be developed to the specifications of the Fire Marshall.

- Law Enforcement Facilities: with the rapidly growing population in the City, additional Police Department facilities will be necessary.

- As residential development is approved, there should be a corresponding increase in patrol staffing to the Police Department to maintain a minimum staffing ratio of 1 officer per 1,000 population.

- The DEIR should describe the project setting in terms of the actual and potential agricultural productivity of the land. The Important Farmland Map for Sacramento County should be utilized to identify agricultural land within the project area and surrounding area that may be impacted.

- The Williamson Act maps should be utilized to identify potentially impacted farmland.

- Current and past agricultural uses of the project area should be identified.

- Use economic multipliers to assess the total contribution of the agricultural production for the project area.

- Evaluation of the impacts to fish and wildlife and their habitat should be addressed in the DEIR.

- Impacts on significant habitats such as wetlands should be addressed.

- Evaluation of potential impacts to special-status species and species identified as rare, threatened, or endangered should be addressed.

- Consistency with local and regional land use plans, such as Watershed Plans and Habitat Conservation Plans, should be addressed.

- Growth inducing impacts with respect to wildlife resources should be considered.

- The DEIR should analyze whether implementation of the General Plan will result in reasonably foreseeable potentially significant impacts subject to regulation by the Department of Fish and Game.

- Impacts to sewer infrastructure, with regards to the Sacramento County Sanitation District 1 (CSD-1) and Sacramento Regional County Sanitation District (SRCSD) systems, should be addressed.

- Discuss growth based on the availability of water supplies as delineated in the Water Forum Agreement.

- The DEIR should assess the availability of water supplies to support proposed growth in Rancho Cordova in the context of the groundwater contamination, which underlies much of the project area.

- Any planning activities outside the Rancho Cordova city limits should involve coordination with Sacramento County.

- The potential for wildland fires within preserve areas should be considered a significant impact in the DEIR.

- The tunnel designation proposed for Mather Field is not consistent the County's Transportation Plan or circulation plans adopted for the Mather Field Specific Plan.

- Review of the Water Forum EIR for consistency with Hydrology and Water Quality impacts.

- Mineral resources exist in the Planning Area and should be addressed in the DEIR.

- Air traffic impacts should be addressed in the transportation section of the DEIR because of the existence of Mather Field in the Planning Area.

- Discussion of future landfill issues should be included in the DEIR as the potential of loss of services and haul sites could occur.

- All projects over one acre in size must obtain a National Pollutant Discharge Elimination System (NPDES) permit.

2.0 – Executive Summary

This section provides an overview of the proposed City of Rancho Cordova General Plan (the "proposed project") and the environmental analysis of the proposed project. For additional detail regarding specific issues, please consult the appropriate chapter of Sections 4.1 through 4.13 (Environmental Setting, Impacts, and Mitigation Measures).

2.1 PURPOSE AND SCOPE OF THE ENVIRONMENTAL IMPACT REPORT

This Environmental Impact Report (EIR) will provide, to the greatest extent possible, an analysis of the potential environmental effects associated with the implementation of the General Plan, pursuant to the California Environmental Quality Act (CEQA).

This EIR analysis focuses upon potential environmental impacts that could arise from implementation of the General Plan through development of the land uses within the Planning Area, as regulated and guided by General Plan policies and action items. The EIR adopts this approach in order to provide a credible worst-case scenario of the impacts resulting from project implementation.

2.2 PROJECT CHARACTERISTICS

The City of Rancho Cordova incorporated in July of 2003 and adopted the Sacramento County General Plan and corresponding land use map. Now that the City of Rancho Cordova is incorporated, the City must formulate and adopt a new General Plan that will act as the official policy statement of the City and guide public and private development in the City as well as the preservation of existing natural resources (Government Code Section 65360). The City of Rancho Cordova commenced the preparation of a General Plan in May 2004.

The proposed City of Rancho Cordova General Plan is comprised of a Land Use Map (see Section 3.0, Project Description) and policy document that contains twelve "policy" elements. Each of the elements identifies goals and associated policies and action items, with the general intent to assist and promote the development of the ideas and desires established in the Rancho Cordova Vision Book for the City, adopted by the City Council on August 2, 2004, and thereby made a part of the City's interim General Plan. A brief description and goals for each element are as follows:

LAND USE ELEMENT

The purpose of the Land Use Element is to describe existing and future land use activity in the City. The Element identifies the distribution, location, and intensity of all land use types throughout the City.

- Balance of land uses (Goal LU.1)
- Smart Growth development (Goal LU.2)
- Rancho Cordova as a destination place and leader in the region (Goal LU.3)
- Redevelopment of existing areas (Goal LU.4)

URBAN DESIGN ELEMENT

The Urban Design Element provides policies and design concepts regarding the form and character of new private development (and public improvements) along with focused plans for areas of the City in need of special design attention.

- Development consistent with the City Building Blocks (Goal UD.1)

- Create a new City identity (Goal UD.2)
- Project identity that contributes to the district and City (Goal UD.3)
- Projects designed in keeping with surrounding development (Goal UD.4)

ECONOMIC DEVELOPMENT ELEMENT

This Element is an optional element included in the General Plan so the City's officials can continue to improve the City's prosperity, maintain competitiveness, ensure accessibility to its assets, make sure the market is aware of the City's opportunities, and set fair and equitable rules for development.

- Diversify the economy (Goal ED.1)
- Encourage a wide range of businesses (Goal ED.2)
- Create a Downtown (Goal ED.3)
- Create a convention center (Goal ED.4)
- Establish a redevelopment strategy (Goal ED.5)
- Revitalize existing businesses (Goal ED.6)
- Promote infill (Goal ED.7)
- Attract a balance of businesses (Goal ED.8)

HOUSING ELEMENT

The Housing Element is a comprehensive statement by the City of Rancho Cordova of its current and future housing needs at all income levels.

- Balance Employment and Housing (Goal H.1)
- Neighborhood Preservation and Rehabilitation (Goal H.2)
- Revitalize Existing Multi-Family (Goal H.3)
- Encourage Housing Opportunities (Goal H.4)
- Promote Homeownership (Goal H.5)
- Pursue Sustainable Design (Goal H.6)
- Pursue Housing Resources (Goal H.7)

CIRCULATION ELEMENT

The Circulation Element identifies the components of the City-wide circulation system and their general location and role within the community.

- Future roadway system that meets the City's needs and desires (Goal C.1)
- Safe and attractive pedestrian and bicycle network (Goal C.2)
- Great public transit (Goal C.3)
- Air and rail transportation (Goal C.4)
- A fully funded circulation system (Goal C.5)
- A properly maintained circulation system (Goal C.6)

OPEN SPACE, PARKS AND TRAILS ELEMENT

This Element provides goals, policies, and actions intended to achieve the City's vision for open spaces that are accessible to the community. The Element also considers the relationship of open space mitigation lands adjacent to urban lands.

- World-class Parks and Recreation Programs (Goal OSPT.1)

- Connected System of Open Space (Goal OSPT-2)
- Safe and Continuous Pedestrain and Bicycle Trails (Goal OSPT-3)
- Actively Create and Maintain Trails and Open Space (Goal OSPT-4)

INFRASTRUCTURE, SERVICES, AND FINANCE ELEMENT

The Infrastructure, Services, and Finance Element works in combination with the Land Use Element to identify feasible funding options to ensure the provision of infrastructure and public services in a timely manner to accommodate the development envisioned and associated land uses proposed under the General Plan.

- Fiscally Sound City (Goal ISF.1)
- Timely Provision of Quality Infrastructure (Goal ISF-2)
- Local Services for Local Needs (Goal ISF-3)
- World-Class Schools (Goal ISF-4)

NATURAL RESOURCES ELEMENT

The management and protection of the many biological resources, creek corridors, storm drainage, hydrology, water supply and quality, geology and mineral resources, agriculture, and the consumption of energy are the focus of the Natural Resources Element.

- Preserve and protect diverse habitats (Goal NR.1)
- Preserve natural wetlands (Goal NR.2)
- Maintain creek corridors (Goal NR.3)
- Plant and preserve high-quality trees (Goal NR.4)
- Protect quantity and quality of water (Goal NR.5)
- Extraction of mineral resources (Goal NR.6)
- Reduce energy consumption (Goal NR.7)
- Promote waste reduction (Goal NR.8)

CULTURAL AND HISTORIC RESOURCES ELEMENT

This Element seeks to identify and protect areas, sites, and buildings having architectural, historical or cultural significance. The Element provides goals, policies and actions designed to foster preservation of historic resources in the City.

- Positive community image (Goal CHR.1)
- Celebrate cultural diversity and heritage (Goal CHR.2)
- Preserve cultural and historic resources (Goal CHR.3)
- Public support for preservation (Goal CHR.4)

SAFETY ELEMENT

The Safety Element discusses the human and natural safety concerns in the City. The Safety Element works in conjunction with the Infrastructure, Services and Finance Element and the Land Use Element.

- Safe Community for All (Goal S.1)
- Minimize Flood Hazards for Urban Uses (Goal S.2)
- Minimize Seismic Hazards for Residents and Employees (Goal S.3)

- Safe Railroad Crossings (Goal S.4)
- Minimize Risks of Toxic/Hazardous Substance Release (Goal S.5)
- Design Safe Neighborhoods (Goal S.7)
- Maintain Effective Law Enforcement (Goal S.8)
- Reduce Risk to Structures (Goal S.9)

AIR QUALITY ELEMENT

This Element provides goals, policies, and actions to improve air quality in the region. This Element emphasizes the effect that land use patterns and resulting transportation behavior have on air quality.

- Ensure a health community (Goal AQ.1)
- Improve air quality through land use (Goal AQ.2)
- Support multiple forms of transportation (Goal AQ.3)
- Support energy conservation (Goal AQ.4)
- Promote educational efforts (Goal AQ.5)

NOISE ELEMENT

This Element defines acceptable noise levels in different areas of the City (residential, office, industrial, etc.) and how those levels will be achieved.

- New Development Free of Noise Disturbances (Goal N.1)
- Mitigate Existing Noise Disturbances (Goal N.2)

2.3 PROJECT ALTERNATIVES SUMMARY

State CEQA Guidelines Section 15126.6 requires that an EIR describe a range of reasonable alternatives to the project, which could feasibly attain the basic objectives of the project and avoid and/or lessen the environmental effects of the project. Further, the CEQA Guidelines Section 15126.6(e) requires that a "no project" alternative be evaluated in an EIR. This alternatives analysis provides a comparative analysis between the project and the selected alternatives. In conjunction with the proposed General Plan Land Use Policy Map, the EIR qualitatively evaluates the following other land use alternatives, which include:

- ***ALTERNATIVE 1 – Sacramento County General Plan Alternative (No Project Alternative):*** Under this alternative, the proposed Rancho Cordova General Plan and its associated Land Use Policy Map would not be adopted and the City would revert to the Sacramento County General Plan (Land Use Map and policy document) that was initially adopted by the City upon incorporation as modified by recently approved General Plan amendments (Sunrise-Douglas Community Plan, Sunridge Specific Plan, Villages of Zinfandel, and Capital Village). This would also include the utilization of the transportation improvements identified in the Sacramento County General Plan Transportation Plan (also as modified by recently adopted General Plan amendments [Sunrise-Douglas Community Plan]).

- ***Alternative 2 – Existing City Boundary General Plan Alternative (No Project Alternative):*** Under this alternative, the proposed City of Rancho Cordova General Plan (Land Use Map and policy document) would only be implemented within the existing City boundaries and existing sphere of influence. The Sacramento County General Plan would guide development in regions of the Planning Area outside of the City. The Grant

Line West and Westborough Planning Area conceptual land use plans would be modified. The City's Circulation Plan would only be implemented within the existing city limits and sphere of influence.

- ***Alternative 3 – Natural Resources Conservation Alternative:*** This alternative would generally consist of the same land use concept associated with the proposed General Plan. However, this Alternative modifies the conceptual land plans for several of the Planning Areas to provide further protection of wetland resources and associated habitats. Development potential lost from these modifications were re-allocated where it was consistent with the land use concepts of the proposed General Plan. All other aspects of the proposed General Plan would remain under this alternative (General Plan land use mapping for other portions of the Planning Area and the proposed Roadway System Map).

- ***Alternative 4 – Sacramento Area Council of Governments Preferred Blueprint Scenario Alternative:*** This alternative would be based on SACOG's Preferred Blueprint Scenario for the City of Rancho Cordova Planning Area, including the circulation plan. Implementation of the SACOG Blueprint Plan would accommodate population growth to a higher degree but would provide less capacity for housing units and potential places of employment than the proposed General Plan.

2.4 AREAS OF CONTROVERSY

The City of Rancho Cordova was identified as the Lead Agency for the proposed project. In accordance with Section 15082 of the State CEQA Guidelines, the City of Rancho Cordova prepared and distributed a Notice of Preparation (NOP) for the Rancho Cordova General Plan that was circulated for public review on February 25, 2005. The NOP included a summary of probable effects on the environment from the implementation of the project. Written comments received in response to the NOP were considered in the preparation of the EIR. The issues raised included: impacts to Caltrans facilities, capacity of and setback from the Keifer landfill, safety concerns associated with design, protection of agriculture, wetlands, fish and wildlife resources, sewer capacity, water supply and coordination with the Water Forum agreements, wildland fire potential, impacts from operation of Mather Airport, consistency of the tunnel for Mather Field with the County Transportation Plan and Mather Field Specific Plan, and coordination of planning with the County of Sacramento. Section 1.0 (Introduction) provides a summary of issues and areas of concern related to the proposed General Plan and the Draft EIR, presented to the City by agencies and the public during the NOP review period. The complete text of the NOP and NOP comments are included as **Appendix 1.0** to this EIR. It should be noted that subsequent to receiving traffic-related comments on the NOP from Caltrans, representatives from the City met with Caltrans on December 13, 2005 and determined that the following analyses should be done for U.S. 50:

- Use of the Highway Capacity Manual (HCM) peak hour analyses on the freeway mainline only.

- Identification of ramp capacities during peak hours to aid in determining the ultimate number of lanes on the freeway ramps.

- Presentation of six-hour peak volumes (three hour morning peak and three hour evening peak) on Caltrans facilities.

- No merge/diverge/weave analyses at the freeway ramps, and no ramp terminal analyses.

Subsequent to the close of the public review period for the NOP, the Rancho Cordova City Council held a number of public meetings to further refine the policies, actions and land use designations associated with the General Plan. The following additional environmental topics were discussed during such meetings, all of which are addressed in this DEIR:

- Existing mining operations in the Rio del Oro, Grant Line West, and East Planning Areas. The desire to reduce development in the Jackson and other southern and eastern Planning Areas to preserve and protect more vernal pools. Land that contains vernal pools should not be used as mitigation land for Swainson's hawk foraging habitat, even if the land that would be impacted by development contains vernal pools.

- The South Sacramento Habitat Conservation Plan (SSHCP) may eventually delineate areas as wetland/vernal pool preserves that could conflict with Sunrise Douglas Community Plan and Sunridge Specific Plan land uses, as well as the proposed General Plan.

- City could develop its own Habitat Conservation Plan (HCP) or join the South Sacramento HCP to avoid needing to obtain project-by-project Federal and State Endangered Species permits and achieve a better planned/managed preserve system that can be worked into the overall planning approach in Planning Areas that contain biological resources.

- Phasing of traffic improvements and development in the southern portion of the City, to relieve traffic conditions along Sunrise Boulevard.

- City park and open space standards.

2.5 SUMMARY OF ENVIRONMENTAL IMPACTS

Table 2.0-1 displays a summary of impacts for the proposed General Plan Land Use Policy Map, City of Rancho Cordova General Plan policies and action items, and proposed mitigation measures that would avoid or minimize potential impacts. In the table, the level of significance is indicated both before and after the implementation of each mitigation measure.

For detailed discussions of all mitigation measures and of proposed General Plan policies and action items that would provide mitigation for each type of environmental impact addressed in this EIR, refer to the appropriate environmental topic section (i.e., Sections 4.1 through 4.13.)

Impact		General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
Land Use					
Impact 4.1.1	Implementation of the Rancho Cordova General Plan would not result in the physical division of established communities because the General Plan was designed to focus on redevelopment of existing urbanized areas and siting new development in vacant portions of the Planning Area, rather than developing in a way that might divide established communities. The "building block" concept in the proposed General Plan, and relevant policies and action items, would ensure that such division does not occur.	Policies: LU.1.4, LU.2.2, LU.4.1, LU.4.2, LU.4.4, LU.4.9, ED.1.1, UD.4.3 Action Items: LU.1.4.1, LU.1.4.2, LU.1.4.3, LU.1.4.4, LU.1.4.5, LU.2.2.1, LU.4.1.1, LU.4.1.2, LU.4.2.1, LU.4.4.1, ED.1.1.1, ED.1.1.2, UD.4.3.3, UD.4.3.4	LS	None Required	LS
Impact 4.1.2	Implementation of the General Plan could result in incompatibilities or conflicts between existing and future land uses in the Planning Area, including land located outside of the Rancho Cordova city limits. However, implementation of policy provisions of the General Plan would reduce this potential impact to **less than significant** impact.	Policies: LU.1.4, LU.2.3, LU.2.6, LU.3.3, LU.3.5, LU.3.8, LU.3.9, NR.6.1, ED.1.1, ED.1.3, UD.1.6, UD.2.3, UD.3.3, UD.4.2, UD.4.3, UD.4.4 Action Items: LU.1.4.1, LU.1.4.2, LU.1.4.3, LU.1.4.4, LU.1.4.5, LU.2.6.1, LU.3.3.1, NR.6.1.1, NR.6.1.2, NR.6.1.3, ED.1.1.1, ED.1.1.2, ED.1.3.1, ED.1.3.2,	LS	None Required	LS

S - Significant
PS-Potentially Significant
LS – Less Than Significant
CS – Cumulative Significant
SU – Significant and Unavoidable
B - Beneficial

Impact		General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		UD.2.3.1, UD.2.3.2, UD.2.3.3, UD.3.3.1, UD.3.3.2, UD.3.3.3, UD.3.3.4, UD.4.2.1, UD.4.3.3, UD.4.3.4, UD.4.4.2			
Impact 4.1.3	Implementation of the proposed General Plan has the potential to conflict with applicable land use plans, policies or regulations of agencies with jurisdiction over parts of the Planning Area that provide for environmental protection.	Policies: LU.2.4, LU.3.3, LU.3.4, LU.3.5, LU.3.11 Action Items: LU.2.4.1, LU.3.3.1	S	None Available	SU
Impact 4.1.4	The Rancho Cordova General Plan has the potential to conflict with the South Sacramento Habitat Conservation Plan, which is the only applicable habitat conservation plan in the Planning Area.	Policies: NR.1.1, NR.1.2, NR.1.3, NR.1.4, NR.1.5 , NR.2.1, NR.2.2, NR.2.3, NR.2.4, NR.3.1, NR.3.2, NR.3.3, NR.3.4, *NR.4.1, NR.4.2, NR.4.3, NR.5.1, NR.5.2, NR.5.3, NR.5.4, NR.5.5* Action Items: NR.1.1.1, NR.1.2.1, NR.1.3.1, NR.1.4.1, NR.2.2.1, NR.2.4.1, NR.2.4.2, NR.3.2.1, NR.3.2.2, NR.3.3.1, NR.3.4.1, NR.3.4.2, *NR.3.4.3, NR.4.1.1, NR.4.1.2, NR.4.1.3,*	LS	None Required	

S - Significant
PS-Potentially Significant
LS – Less Than Significant
CS – Cumulative Significant
SU – Significant and Unavoidable
B - Beneficial

Impact		General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure		Resulting Level of Significance
		NR.4.2.1, NR.4.2.2, NR.4.2.3, NR.4.3.1, *NR.4.3.2,* NR.4.3.3, *NR.4.3.4, NR.5.1.1, NR.5.1.2,* NR.5.1.3, , *R.5.2.1, NR.5.2.2,* NR.5.3.1, NR.5.3.2, NR.5.3.3, *NR.5.4.1, NR.5.4.2,* NR.5.4.3, NR.5.5.1, NR.5.5.2, NR.5.5.3, *NR.5.5.4*				
Impact 4.1.5	When considered with existing, proposed, planned and approved development in the region, implementation of the Rancho Cordova General Plan has the potential to result to contribute cumulative land use conditions in the region that result in significant impacts to the physical environment.	Policies: LU.2.4, LU.3.3, LU.3.4, LU.3.5, LU.3.11 Action Items: LU.2.4.1, LU.3.3.1	CC	None Available		SU
Agriculture						
Impact 4.2.1	Implementation of the proposed General Plan would result in the loss of important farmlands (Prime Farmland, Unique Farmland, and Farmland of Statewide Importance, etc) as designated by the Farmland Mapping and Monitoring Program.	Policy: UD.2.3 Action Item: UD.2.3.1	S	MM 4.2.1a	The following shall be added as policies to the Land Use Element under Goal LU.1: While agricultural uses are anticipated to be phased out within the City Limits, the City recognizes the right of these uses to continue as long as individual owners/farmers desire. The City shall require development to protect one acre of existing farmland of equal or higher quality	SU

S - Significant
PS-Potentially Significant
LS – Less Than Significant
CS – Cumulative Significant
SU – Significant and Unavoidable
B - Beneficial

Impact	General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure		Resulting Level of Significance
				for each acre of Prime Farmland, Unique Farmland or Farmland of Statewide Importance that would be converted to non-agricultural uses. This protection may consist of the establishment of farmland conservation easement, farmland deed restriction, or other appropriate farmland conversion in perpetuity, but may also be utilized for compatible wildlife conservation efforts. The farmland to be preserved shall be located within Sacramento County and must have adequate water supply to support agricultural use. As part of the consideration of land areas proposed to be protected, the City shall consider the benefits of preserving farmlands in proximity to other protected lands.	
			MM 4.2.1b	The following shall be added an action item to the Land Use Element under Goal LU.1: The City shall ensure that the following standards are met regarding agricultural conservation easement content: • Provisions of an accurate legal document that prohibits any activity that substantially impairs or diminishes the agricultural productivity of the land. • Protection of any existing water		

Impact		General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
				rights necessary to maintain agricultural uses and retain such water rights for on-going use on the agricultural land. • Interests in the agricultural land shall be held in trust by an entity acceptable to the City and/or the City in perpetuity.	
Impact 4.2.2	Implementation of the proposed General Plan could result in the placement of urban uses adjacent to agricultural uses within and adjacent to the City.	Policies: LU.1.4, LU.2.1, UD.2.3, UD.4.2 Action Items: LU.1.4.3, LU.1.4.4, LU.1.4.5, LU.2.1.1, UD.2.3.1	S	None Available	SU
Impact 4.2.3	Implementation of the proposed General Plan could result in a conflict with existing Williamson Act contracts.	Policies: UD.2.3 Action Items: LU.1.4.4, LU.1.4.5, UD.2.3.1	S	None Available	SU
Impact 4.2.4	Implementation of the General Plan Land Use Map Book along, with other proposed development in Sacramento County, would contribute to the additional conversion of important farmlands to other uses and may increase agriculture/urban interface conflicts.	Policies: UD.2.3, LU.1.4, LU.2.1, LU.1.5, UD.2.3, UD.2.3, UD.4.2 Action Items: LU.1.4.3, LU 1.4.4, LU 1.4.5, LU.2.1.1, UD.2.3.1	CC	None Available	SU

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Impact		General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
Population Housing and Employment					
Impact 4.3.1	Implementation of the proposed General Plan Land Use Map would include land uses that promote the increase in population, housing, and employment to the area, and thus induce substantial growth.	Policies: H.1.2, H.1.5, H.2.2, H.2.4, H.2.5, H.2.6, H.2.7, H.3.2, H.4.1, H.6.2, H.6.3, LU.1.3, LU.1.4, LU.2.3, LU.2.4, LU.2.7, LU.4.1 Action Items: H.2.2.2, H.2.5.1, H.2.5.2, LU.1.4.1, LU.2.7.1, LU.2.7.2	S	None Available	SU
Impact 4.3.2	Implementation of the General Plan may result in the displacement of housing and/or persons due to the construction of infrastructure necessary to serve new development or revitalization efforts.	No Applicable Policies or Actions	LS	None Required	LS
Impact 4.3.3	Buildout in the planning area, under the proposed General Plan Land Use Map, would include substantial population, housing unit and employment increases.	Policies: H.1.2, H.1.5, H.2.2, H.2.4, H.2.5, H.2.6, H.2.7, H.3.2, H.4.1, H.6.2, H.6.3, LU.1.4, LU.2.3, LU.2.4, LU.2.7, LU.4.1 Action Item: H.2.2.2, H.2.5.1, H.2.5.2, LU.1.4.1, LU.2.7.1, LU.2.7.2	CC	None Available	SU

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Impact		General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure		Resulting Level of Significance
Hazards and Human Health						
Impact 4.4.1	Implementation of the General Plan would include the routine transportation of hazardous materials on Planning Area roadways.	Policies: S.1.1, S.5.4, S.5.5, S.5.6 Action Item: S.1.1.1, S.5.4.1, S.5.4.2, S.5.5.1, S.5.5.2, S.5.6.1, S.5.6.2	LS	None Required		LS
Impact 4.4.2	The Planning Area consists of land uses having the potential to result in an increased risk of release of hazardous materials.	Policies: LU.1.4, NR.8.1, S.1.1, S.1.3, S.5.1, S.5.2, S.5.1, S.5.3, S.5.4, S.5.5 Action Items: LU.1.4.3, LU.1.4.4, NR.8.1.6, S.1.1.1, S.1.3.1, S.5.2.1, S.5.3.1, S.5.3.2, S.5.3.3, S.5.4.1, S.5.4.2, S.5.5.1, S.5.5.2 Goals: S.5	PS	MM 4.4.2	The following shall be added as a policy to the Safety Element under Goal SA.1: The City shall require written confirmation from applicable local, regional, state, and federal agencies that known contaminated sites have been deemed remediated to a level appropriate for land uses proposed prior to the City approving site development or provide an approved remediation plan that demonstrates how contamination will be remediated prior to site occupancy. This documentation will specify the extent of development allowed on the remediated site as well as any special conditions and/or restrictions on future land uses.	LS

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Impact		General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
Impact 4.4.3	Implementation of the proposed General Plan would locate development within an airport land use plan, potentially resulting in a safety hazard for people residing or working in the area.	Policies: LU.3.3, LU.3.5	LS	None Required	LS
Impact 4.4.4	Implementation of the proposed General Plan could impair implementation of or physically interfere with the Sacramento County Multi-Hazard Disaster Plan (SCMDP).	No Applicable Policies or Actions	LS	None Required	LS
Impact 4.4.5	Persons could be exposed to contaminated soil or groundwater during development of previously contaminated sites or sites undergoing remediation.	Policies: LU.1.4, NR.8.1, S.1.1, S.1.3, S.5.1, S.5.2, S.5.1, S.3, S.5.4, S.5.5 Action Items: LU.1.4.3, LU.1.4.4, NR.8.1.6, S.1.1.1, S.1.3.1, S.5.2.1, S.5.3.1, S.5.3.2, S.5.3.3, S.5.4.1, S.5.4.2, S.5.5.1, S.5.5.2 Goals: S.5	LCC	None Required	LS
Transportation and Circulation					
Impact 4.5.1	Implementation of the proposed General Plan would result in an increase in traffic volumes that would result in deficient level of service	Policies: C.1.2 Action Items:	S	None Available	SU

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Impact		General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
	conditions in year 2030.	C.1.2.1, C.1.2.2			
Impact 4.5.2	Implementation of the proposed General Plan would exacerbate unacceptable operations on eastbound and westbound U.S. 50 during the a.m. and p.m. peak hours.	Policies: C.5.1, C.5.2, C.5.3 Action Items: C.5.3.1, C.5.3.2	S	None Available	SU
Impact 4.5.3	Implementation of the proposed General Plan would result in an increase in traffic volumes, which could increase the potential opportunities for safety conflicts as well as potential conflicts with emergency access.	Policies: C.5.1, C.5.2, C.5.3 Action Items: C.5.3.1, C.5.3.2	LS	None Required	LS
Impact 4.5.4	Implementation of the proposed General Plan would result in an increase in the demand for public transit service (e.g., bus and light rail service).	Policies: C.3.1, C.3.2, C.3.3, C.3.4 Action Items: C.3.1.1, C.3.1.2, C.3.1.3, C.3.1.4, C.3.1.5, C.3.2.1, C.3.3.1, C.3.4.1	LS	None Required	LS
Impact 4.5.5	Implementation of the proposed General Plan would result in an increase in the demand for pedestrian and bicycle infrastructure.	Policies: C.2.1, C.2.2, C.2.3, C.2.4, C.2.5, C.2.6, C.2.7, C.2.8, C.2.9 Action Items: C.2.4.1, C.2.4.2, C.2.5.1, C.2.5.2, C.2.5.3, C.2.5.4, C.2.5.5, C.2.5.6, C.2.7.1, C.2.7.2, C.2.8.1, C.2.8.2,	LS	None Required	LS

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Impact		General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		C.2.8.3, C.2.8.4, C.2.8.5, C.2.8.6, C.2.8.7, C.2.8.8, C.2.8.9 Goals: C.2			
Impact 4.5.6	When considered with existing, proposed, planned and approved development in the region, implementation of the Rancho Cordova General Plan would contribute to cumulative traffic volumes in the region that result in significant impacts to level of service and operations.	Policies: C.5.1, C.5.2, C.5.3 Action Items: C.5.3.1, C.5.3.2	CC	None Available	SU
Impact 4.5.7	Implementation of the proposed General Plan would contribute to the cumulative demand for public transit service (e.g., bus and light rail service).	Policies: C.3.1, C.3.2, C.3.3, C.3.4 Action Items: C.3.1.1, C.3.1.2, C.3.1.3, C.3.1.4, C.3.1.5, C.3.2.1, C.3.3.1, C.3.4.1	LCC	None Required	LCC
Impact 4.5.8	Implementation of the proposed General Plan would contribute to cumulative demands for pedestrian and bicycle infrastructure.	Policies: C.2.1, C.2.2, C.2.3, C.2.4, C.2.5, C.2.6, C.2.7, C.2.8 , C.2.9 Action Items: C.2.4.1, C.2.4.2, C.2.5.1, C.2.5.2 , C.2.5.3, C.2.5.4 , C.2.5.5, C.2.5.6, C.2.7.1, C.2.7.2,	LCC	None Required	LCC

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Impact		General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		C.2.8.1, C.2.8.2, C.2.8.3, C.2.8.4, C.2.8.5, C.2.8.6, C.2.8.7, C.2.8.8, C.2.8.9 Goals: C.2			
Air Quality					
Impact 4.6.1	The implementation of the proposed City of Rancho Cordova General Plan land uses would conflict with the land use assumptions used 1994 SMAQMD Regional Ozone Attainment Plan.	Policies: AQ.1.1 Action Items: AQ.1.1.1, AQ.1.1.2, AQ1.1.3	PS	None Available	SU
Impact 4.6.2	Implementation of the proposed General Plan would result in short-term emissions generated by construction and demolition activities that would affect local air quality and could result in health and nuisance-type impacts in the immediate vicinity of individual construction sites as well as contribute to particulate matter and regional ozone impacts.	Policies: AQ.1.1, AQ.1.2, AQ.2.1, AQ.2.2, AQ.2.3, AQ.2.4, AQ.3.1, AQ.3.2, AQ.3.3, AQ.3.4, AQ.4.1 Action Items: AQ.1.1.1, AQ.1.1.2 , AQ1.1.3, AQ.1.2.1, AQ.1.2.2, AQ.1.2.3 , AQ.2.1.1, AQ.2.3.1, AQ.2.4.1, AQ.3.4.1, AQ.3.4.2, AQ.4.1.1, AQ.4.1.2, AQ.4.1.3, AQ.4.1.4, AQ.4.1.5, AQ.4.1.6	S	None Available	SU
Impact 4.6.3	Implementation of the proposed	Stationary Source	S	MM 4.6.3a The following mitigation	SU

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Impact		General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure		Resulting Level of Significance
	General Plan would increase air pollutant emissions from operational activities of land uses within the Planning Area will exceed thresholds for ROG and NOx, and other federal or state emissions standards.	Reduction Policies and Actions Policies: AQ.4.1, AQ.4.2, AQ.4.4 Action Items: AQ.4.1.1, AQ.4.1.2, AQ.4.1.3, AQ.4.1.4, AQ.4.1.5, AQ.4.1.6, AQ.4.2.1, AQ.4.2.2, AQ.4.2.3, AQ.4.2.4 , AQ.4.2.5, AQ.4.4.1 Mobile Source Reduction Policies and Actions Policies: AQ.2.1, AQ.2.2, AQ.2.3, AQ.2.4, AQ.3.1, AQ.3.2, AQ.3.2.4, AQ.3.3, AQ.3.4 Action Items: AQ.2.1.1, AQ.2.2.1, AQ.2.2.2, AQ.2.3.1, AQ.2.4.1, AQ.2.4.2, AQ.3.1.1, AQ.3.1.2, AQ.2.1.1, AQ.3.2.1, AQ.3.2.2, AQ.3.2.3, AQ.3.3.1, AQ.3.3.2, AQ.3.4.1, AQ.3.4.2, AQ.3.4.3			measure shall be added as a policy under General Plan Goal AQ.1: The City shall prohibit wood-burning open masonry fireplaces in all new development. Fireplaces with EPA-approved inserts, EPA-approved stoves, and fireplaces burning natural gas will be allowed. The following mitigation measure shall be added as a policy under General Plan Goal AQ.1: The City shall develop an incentive program to encourage homeowners to replace high-pollution emitting non-EPA-certified wood stoves that were installed before the effective date of the applicable EPA regulation with newer cleaner-burning EPA-certified wood stoves.		
Impact 4.6.4	Implementation of the proposed General Plan would include sources of	Policies:	PS	MM 4.6.4a	The following change is made to General Plan Policy	SU

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Impact		General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure		Resulting Level of Significance
	toxic air contaminants that may affect surrounding land uses. Sensitive land uses may also be located near existing sources toxic air contaminants.	AQ.2.1, AQ.4.1, AQ.4.2, AQ.4.4 Action Items: AQ.2.1.1, AQ.4.1.1, AQ.4.1.2, AQ.4.1.3, AQ.4.1.4, AQ.4.1.5, AQ.4.1.6, AQ.4.2.1, AQ.4.2.2, AQ.4.2.3, AQ.4.2.4 , AQ.4.2.5, AQ.4.4.1			AQ.4.2.5: ~~Consider~~ ~~a~~Adoption of an ordinance that limits the amount of time diesel-powered trucks, buses, and other heavy vehicles may idle in accordance with California Air Resources Control Board rules for mobile TAC sources. The following shall be added as a new policy under General Plan Goal AQ.2: Utilize the guidelines in the California Air Resources Control Board Air Quality and Land Use Handbook: A Community Health Perspective when evaluating new development requests that either would generate toxic air contaminant emissions near sensitive receptors or locate new sensitive receptors near existing sources of air toxic emissions or order to minimize health hazards.	
				MM 4.6.4b		
Impact 4.6.5	Implementation of the proposed General Plan would include sources that may expose sensitive receptors to construction and long-term odorous emissions.	Policies: *LU.1.4* *Action Items:* *LU.1.4.3*	PS	MM 4.6.5	The following mitigation measure shall be added as a new policy under General Plan Goal AQ.1: Require odor impact analyses	LS

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Impact		General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
				be conducted for evaluating new development requests that either could generate objectionable odors that may violate SMAQMD Rule 402 or any subsequent rules and regulations regarding objectionable odors near sensitive receptors or locate new sensitive receptors near existing sources of objectionable odors. Should objectionable odor impacts be identified, odor mitigation shall be required in the form of setbacks, facility improvements or other appropriate measures.	
Impact 4.6.6	Implementation of the proposed General Plan along with potential development of the Planning Area would exacerbate existing regional problems with ozone and particulate matter.	Stationary Source Reduction Policies and Actions Policies: AQ.4.1, AQ.4.2, AQ.4.4 Action Items: AQ.4.1.1, AQ.4.1.2, AQ.4.1.3, AQ.4.1.4, AQ.4.1.5, AQ.4.1.6, AQ.4.2.1, AQ.4.2.2, AQ.4.2.3, AQ.4.2.4, AQ.4.2.5, AQ.4.4.1 Mobile Source Reduction Policies and Actions	CC	None Available	SU

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Impact		General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure		Resulting Level of Significance
		Policies: AQ.2.1, AQ.2.2, AQ.2.3, AQ.2.4, AQ.3.1, AQ.3.2, AQ.3.2.4, AQ.3.3, AQ.3.4, AQ.5.1, AQ.5.2 Action Items: AQ.2.1.1, AQ.2.2.1, AQ.2.2.2, AQ.2.3.1, AQ.2.4.1, AQ.2.4.2, AQ.3.1.1, AQ.3.1.2, AQ.2.1.1, AQ.3.2.1, AQ.3.2.2, AQ.3.2.3, AQ.3.3.1, AQ.3.3.2, AQ.3.4.1, AQ.3.4.2, AQ.3.4.3, AQ.5.1.1, AQ.5.1.2				
Noise						
Impact 4.7.1	Implementation of the proposed General Plan would result in subsequent development projects and cause an increase in construction noise levels that would exceed City of Rancho Cordova noise standards.	Policies: N.1.1, N.1.4, N.1.5 Action Items: N.1.4.1, N.1.4.2, N.1.4.3	PS	MM 4.7.1	The following shall be added as a new policy under Goal N.1: To the extent feasible and appropriate, the City shall require the use of temporary construction noise control measures for public and private project that may include the use of temporary noise barriers, temporary relocation of noise-sensitive land uses or other appropriate measures.	SU
Impact 4.7.2	Implementation of the proposed	Policies:	S	None Available		SU

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Impact		General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure		Resulting Level of Significance
	General Plan would result in increases in traffic noise levels that would be in excess of City of Rancho Cordova noise standards.	N.1.1, N.1.5, N.1.6, N.2.1, N.2.2, N.2.3, N.2.4 Action Items: N.1.6.1, N.2.1.1, N.2.2.1, N.2.3.1, N.2.4.1				
Impact 4.7.3	Implementation of the proposed General Plan could result in future stationary noise sources that generate noise levels in excess of applicable noise standards for non-transportation noise sources.	Policies: N.1.1, N.1.2, N.1.3, N.1.4, N.1.5, N.2.3, N.2.4 Action Items: N.1.2.1, N.1.2.2, N.1.2.3, N.1.3.1, N.1.3.2, N.1.4.1, N.1.4.2, N.1.4.3, N.2.3.1, N.2.4.1	PS	None Available		SU
Impact 4.7.4	Implementation of the proposed General Plan would result in the creation of new noise-sensitive land uses within the 65 dB CNEL noise contours contained within the Mather Airport CLUP. Additionally, the implementation of the General Plan would result in the creation of new noise-sensitive land uses within over-flight areas of Mather Airport, thereby presenting the potential for annoyance from single event noise.	Policies: LU.3.10, N.1.1, N.1.2 Action Items: N.1.2.11 N.1.2.2 N.1.2.3	S	MM 4.7.4	The following shall be added as a new Policy under Goal N.1: New residential development shall be prohibited within the 60 CNEL Mather Airport Policy Area and new residential development shall only be allowed inside of the 60 CNEL Mather Airport Policy Area if the following conditions are met: 1. Noise insulation is provided in all new residential dwelling units that reduces interior noise	SU

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Impact	General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
			levels to 45 dB with windows closed in any habitable room. 2. Prospective buyers are notified through the Public Report prepared by the California Department of Real Estate disclosing the fact that the parcel is located within the Mather Airport Policy Area. 3. An Avigation Easement is recorded on the property acknowledging that the property is located within the Mather Airport Policy Area. The easement shall grant the right of flight and unobstructed passage of all aircraft into and out of Mather Airport. The Avigation Easement shall be granted to the County of Sacramento, recorded with the Sacramento County Recorder and filed with the County Department of Airports.	
Impact 4.7.5 Implementation of the General Plan could expose future land uses and residents to light rail and public transit related noise.	Policies: N.1.1 N.1.2, N.1.5, N.2.3, N.2.4	LS	None Required	LS

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Impact		General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		Action Items: N.2.3.1, N.2.4.1			
Impact 4.7.6	Implementation of the proposed General Plan in combination with regional growth and traffic conditions (pass-through traffic) would increase transportation noise along area roadways.	Policies: N.1.1, N.1.2, N.1.5, N.2.2, N.2.3, N.2.4 Action Items: N.2.2.1, N.2.3.1, N.2.4.1	CC	None Available	SU
Impact 4.7.7	Implementation of the proposed General Plan, in combination with regional growth in surrounding communities outside of the Planning Area, would increase stationary noise.	Policies: N.1.1, N.1.2, N.1.3, N.1.4, N.2.3, N.2.4 Action Items: N.1.2.1, N.1.2.2, N.1.2.3, N.1.3.1, N.1.3.2, N.1.4.1, N.1.4.2, N.2.3.1, N.2.4.1	CC	None Available	SU
Impact 4.7.8	Implementation of the proposed General Plan in combination with regional growth in the Planning Area and surrounding communities would subject more noise-sensitive land uses to airport noise.	Policies: LU.3.10, N.1.1, N.1.2 Action Items: N.1.2.11, N.1.2.2, N.1.2.3	LCC	None Required	LCC
Geology and Soils					
Impact 4.8.1	Implementation of the proposed General Plan, and the resulting increase in population, employment, and development activity within the Planning Area, may expose people, structures, and development to ground	Policies: S.3.1, S.3.2 Action Items: S.3.1.1, S.3.2.1, S.3.2.2	LS	None Required	LS

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Impact		General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure		Resulting Level of Significance
	shaking and seismic hazards as a result of fault activity.					
Impact 4.8.2	Implementation of the proposed General Plan would include substantial construction and site preparation activities. These activities increase soil erosion, especially from wind and water, and siltation of local drainages during construction, excavation and grading activities.	Policies: NR.5.5 Action Items: NR.5.5.1, NR.5.5.2, NR.5.5.3, NR.5.5.4	LS	None Required		LS
Impact 4.8.3	Implementation of the proposed General Plan may place development in areas with unstable soils.	Policies: S.3.2 Action Items: S.3.2.1, S.3.2.2	LS	None Required		LS
Impact 4.8.4	Implementation of the proposed General Plan could impact areas where soils are may be incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems.	Policies: ISF.3.4, ISF.4.2 Action Items: ISF.2.6.1, ISF.2.6.2, ISF.2.6.3	LS	None Required		LS
Impact 4.8.5	Implementation of the proposed General Plan would result in the loss of availability of aggregate resources, which are locally important due to their use by the construction community in development of the area.	Policies: NR.6.1, LU.1.4 Action Items: NR.6.1.1, NR.6.1.2, NR.6.1.3	S	MM 4.8.5	The following will be added under Goal NR.8 as a new policy: While mining activities are anticipated to be phased out within the City, the City recognizes the right of these uses to continue, and will require setbacks, buffers, screening and other appropriate measures to allow for the continued operation of mining	SU

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Impact		General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure		Resulting Level of Significance
					activities.	
Impact 4.8.6	Implementation of the proposed General Plan, in combination with existing, planned, proposed and reasonably foreseeable development, would not contribute to cumulative geologic and soil impacts, as the impacts would be site-specific and not additive in character.	Policies: NR.5.5, S.3.2 Action Items: NR.5.5.1, NR.5.5.2, NR.5.5.3, NR.5.5.4, S.3.2.1, S.3.2.2	LCC	None Required		LCC
Impact 4.8.7	Implementation of the proposed General Plan, together with past, present, and probable future projects in the area, would result in a cumulatively significant loss of mineral resources in the region.	Policies: NR.6.1, LU.1.4 Action Items: NR.6.1.1, NR.6.1.2, NR.6.1.3	CC	None Available		SU
Hydrology and Water Quality						
Impact 4.9.1	Implementation of the proposed General Plan could result in the discharge of polluted runoff, discharge that could cause harm to the biological integrity of waterways, adversely impact water quality standards, or otherwise substantially degrade surface water quality.	Policies: NR.3.1, NR.3.2, NR.3.3, NR.3.4, NR.5.3, NR.5.4, NR.5.5 Action Items: NR.3.2.1, NR.3.2.2, NR.3.3.1, NR.3.4.1, NR.3.4.2, NR.3.4.3, NR.5.3.1, NR.5.3.2, NR.5.3.3, NR.5.4.1, NR.5.4.2, NR.5.4.3, NR.5.5.1, NR.5.5.2, NR.5.5.3, NR.5.5.4	PS	MM 4.9.1a	The following shall be added as a new policy under Goal NR.5: Continue to cooperate and participate with the County, other cities and the Regional Water Quality Control Board regarding compliance with the joint National Pollutant Discharge Elimination System Permit (NPDES No. CAS082597) or any subsequent permit and support water quality improvement projects in order to maintain compliance with regional, state and federal	LS

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Impact		General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure		Resulting Level of Significance
					water quality requirements. The following mitigation measure shall be added as an action item under Policy NR.5.3: Future land uses that are anticipated to utilize hazardous materials or waste shall be required to provide adequate containment facilities to ensure that surface water and groundwater resources are protected from accidental releases. This shall include double-containment, levees to contain spills, and monitoring wells for underground storage tanks, as required by local, state and federal standards.	
Impact 4.9.2	Implementation of the proposed General Plan could result in the degradation of groundwater quality resulting from future land uses.	Policies: NR.5.3, NR.5.4 Action Items: NR.5.4.1, NR.5.4.2, NR.5.4.3	PS	MM 4.9.2	The following shall be added as a new policy under Goal NR.5: The City shall require groundwater impact evaluations be conducted for the Grant Line West, Westborough, Aerojet, Glenborough, Mather and Jackson Planning Areas to determine whether urbanization of these areas would adversely impact groundwater remediation activities associated with Mather and Aerojet prior to	LS

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Impact		General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
				the approval of large-scale development. Should an adverse impact be determined, a mitigation program shall be developed in consultation with applicable local, state and federal agencies to ensure remediation activities are not impacted. This may include the provision of land areas for groundwater remediation facilities, installation/extension of necessary infrastructure or other appropriate measures.	
Impact 4.9.3	Implementation of the proposed General Plan would increase impervious surfaces and alter drainage conditions and storm water runoff rates throughout the Planning Area, which could result in potential flooding impacts. However, the General Plan contains adequate General Plan policies and action items that address drainage and flooding issues.	Policies: S.2.1, S.2.2, S.1.13, S.2.3 Action Items: S.2.1.1, S.2.1.2, S.2.1.3, S.2.2.1, S.2.2.2, S.2.2.3, S.2.2.4, S.2.2.5, S.2.2.6, S.2.2.7, S.2.2.8, S.2.2.9, S.2.3.1, S.2.3.2, S.2.3.3	LS	None Required	LS
Impact 4.9.4	Implementation of the proposed General Plan would increase demand for water supply and require increased groundwater production and the use of surface water supplies. This additional water supply demand would result in significant effects on the physical	Policies: NR.4.2, NR.5.1, NR.5.2, ISF.2.1, ISF.2.2, ISF.2.3, ISF.2.4, ISF.2.7, LU.2.5 Action Items:	S	**MM 4.9.4** Modify the text of Action Item ISF.2.4.1 and ISF.2.4.2 as follows: *Action ISF.2.4.1 The following shall be required for all development projects, excluding subdivisions:*	SU

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Impact	General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
environment.	NR.4.2.2, NR.4.2.3, NR.5.1.1, NR.5.1.2, NR.5.1.3, NR.5.2.1, NR.5.2.2, ISF.2.1.1, ISF.2.1.2, ISF.2.1.3, ISF.2.2.1, ISF.2.3.1, ISF.2.3.2, ISF.2.3.3, ISF.2.4.1, ISF.2.4.2, ISF.2.7.1, LU.2.5.1		• *An assured water supply and delivery system shall be available at the time of project approval. The water agency providing service to the project may provide several alternative methods of supply and/or delivery, provided that each is capable individually of providing water to the project. <u>However, assurance of water supply shall identify that the water agency has legal entitlement to the water source and that the water source has long term reliability (at least 20 years) under normal, dry and multiple dry years.</u>* • *All required water infrastructure for the project shall be in place at the time of project approval, or shall be assured through the use of bonds or other sureties to the City's satisfaction. Water infrastructure may be phased to coincide with the phased development of large-scale projects.* *Action ISF.2.4.2 The following shall be required for all subdivisions to the extent permitted by state law:* • *Proposed water supply and delivery systems shall be identified at the time of tentative map approval to the satisfaction of the City. The water agency providing service to the project may provide several alternative methods of supply and/or delivery, provided that each is capable individually of providing water to the project.* • *The agency providing water service to the subdivision shall demonstrate prior to the approval of the Final Map by the City that*	

Impact		General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
				sufficient capacity shall be available to accommodate the subdivision plus existing development, and other approved projects in the same service area, and other projects which have received commitments for water service. This assurance of water supply shall identify that the water agency has legal entitlement to the water source and that the water source has long term reliability (at least 20 years) under normal, dry and multiple dry years. • *Offsite and onsite water infrastructure sufficient to provide adequate water to the subdivision shall be in place prior to the approval of the Final Map or their financing shall be assured to the satisfaction of the City, consistent with the requirements of the Subdivision Map Act.* • *Offsite and onsite water distribution systems required to serve the subdivision shall be in place and contain water at sufficient quantity and pressure prior to the issuance of any building permits. Model homes may be exempted from this policy as determined appropriate by the City, and subject to approval by the City.*	
Impact 4.9.5	Implementation of the proposed General Plan and potential development of the Planning Area would include substantial grading, site preparation, and an increase in urbanized development.	Policies: NR.3.1, NR.3.2, NR.3.3, NR.3.4, NR.5.3, NR.5.4, NR.5.5 Action Items: NR.3.2.1, NR.3.2.2, NR.3.3.1, NR.3.4.1,	CC	None Available	LCC

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Impact		General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		NR.3.4.2, NR.3.4.3, NR.5.3.1, NR.5.3.2, NR.5.3.3, NR.5.4.1, NR.5.4.2, NR.5.4.3, NR.5.5.1, NR.5.5.2, NR.5.5.3, NR.5.5.4			
Impact 4.9.6	Implementation of the proposed General Plan would increase impervious surfaces and alter drainage conditions and rates in the Planning Area, which could contribute to cumulative flood conditions along the American River, Sacramento River, Cosumnes River, and local waterways. However, the General Plan contains adequate General Plan policies and action items that address drainage and flooding issues.	Policies: S.2.1, S.2.2, S.1.13, S.2.3, NR.5.5 Action Items: S.2.1.1, S.2.1.2, S.2.1.3, S.2.2.1, S.2.2.2, S.2.2.3, S.2.2.4, S.2.2.5, S.2.2.6, S.2.2.7, S.2.2.8, S.2.2.9, S.2.3.1, S.2.3.2, S.2.3.3, NR.5.5.3	LCC	None Required	LCC
Impact 4.9.7	Implementation of the proposed General Plan would contribute to an increased demand for water supply requiring increased groundwater production and the use of surface water supplies that could result in significant environmental impacts.	Policies: NR.4.2, NR.5.1, NR.5.2, ISF.2.1, ISF.2.2, ISF.2.3, ISF.2.4, ISF.2.7, LU.2.5 Action Items: NR.4.2.2, NR.4.2.3, NR.5.1.1, NR.5.1.2, NR.5.1.3, NR.5.2.1, NR.5.2.2, ISF.2.1.1, ISF.2.1.2, ISF.2.1.3, ISF.2.2.1, ISF.2.3.1, ISF.2.3.2, ISF.2.3.3, ISF.2.4.1, ISF.2.4.2,	CC	None Available	SU

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Impact		General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure		Resulting Level of Significance
		ISF.2.7, LU.2.5.1				
Biological Resources						
Impact 4.10.1	Implementation of the proposed General Plan would result in direct and indirect loss of habitat and individuals of endangered, threatened, rare, proposed, and candidate status as well as plant species identified by the California Native Plant Society with a rating of List 1B (i.e. rare, threatened or endangered plants).	Policies: NR.1, NR.1.2, NR.1.3, NR.1.4, NR.1.5, NR.2.1, NR.2.2, NR.2.3, NR.2.4, NR.3.1, NR.3.2, NR.3.3, NR.3.4, NR.4.1, NR.5.3, NR.5.4, NR.5.5, NR.6.1 Action Items: NR.1.1.1, NR.1.2.1, NR.1.3.1, NR.1.4.1, NR.2.2.1, NR.2.4.1, NR.2.4.2, NR.3.2.1, NR 3.3.1, NR.3.4.1, NR.3.4.2, NR.3.4.3, NR.4.1.1, NR.4.1.3, NR.5.3.1, NR.5.3.2, NR.5.3.3, NR.5.4.1, NR.5.4.2, NR.5.4.3, NR.5.5.1, NR.5.5.2, NR.5.5.3, NR.5.5.4	S	MM 4.10.1a MM 4.10.1b	The following shall be incorporated into the Natural Resources Element as a policy under Goal NR.1: The City shall require a biological resources evaluation for private and public development projects in areas identified to contain or possibly contain listed plant and/or wildlife species based upon the City's biological resource mapping provided in the General Plan EIR or other technical materials. This evaluation shall be conducted prior to the authorization of any ground disturbance. The following measure shall be incorporated as an action item immediately under the above policy (MM 4.10.1a): For those areas in which special status species are found or likely to occur or where the presence of species can be reasonably inferred, the City shall require mitigation of impacts to those species.	SU

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Impact	General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure		Resulting Level of Significance
				Mitigation shall be designed by the City in coordination with the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Game (CDFG), and shall emphasize a multi-species approach to the maximum extent feasible. This may include development or participation in a habitat conservation plan.	
			MM 4.10.1c	The following measure shall be incorporated into the Natural Resources Element as a policy under Goal NR.1: The City shall encourage creation of habitat preserves that are immediately adjacent to each other in order to provide interconnected open space areas for animal movement.	
			MM 4.10.1d	The following measure shall be incorporated into the Natural Resources Element as an action item under Policy NR.1.4: The City shall adopt and maintain a Noxious Weed Ordinance. The Noxious	

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Impact		General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure		Resulting Level of Significance
					Weed Ordinance shall include regulatory standards for construction activities that occur adjacent to natural areas to inhibit the establishment of noxious weeds through accidental seed import.	
				MM 4.10.1e	The following measure shall be incorporated into the Natural Resources Element as a policy under Goal NR.2: The City shall require that drainage improvements that discharge into areas of wetlands to be preserved are, to the maximum extent feasible, designed to mimic the undeveloped surface water flow conditions of the area in terms of seasonality, volume and flow velocity.	
Impact 4.10.2	Implementation of the proposed General Plan would result in direct and indirect loss of habitat and individuals of animal and plant species of concern and other non-listed special status species.	Policies: NR.1.1, NR.1.2, NR.1.3, NR.1.4, NR.1.5, NR.2.1, NR.2.2, NR.2.3, NR.2.4, NR.3.1, NR.3.2, NR.3.3, NR.3.4, NR.4.1, NR.5.1, NR.5.3, NR.5.4, NR.5.5, NR.6.1	S	None Available		SU

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Impact		General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure		Resulting Level of Significance
		Action Items: NR.1.1.1, NR.1.2.1, NR.1.3.1, NR.1.4.1, NR.2.2.1, NR.2.4.1, NR.2.4.2, NR.3.2.1, NR 3.3.1, NR.3.4.1, NR.3.4.2, NR.3.4.3, NR.4.1.1, NR.4.1.3, NR.5.3.1, NR.5.3.2, NR.5.3.3, NR.5.4.1, NR.5.4.2, NR.5.4.3, NR.5.5.1, NR.5.5.2, NR.5.5.3, NR.5.5.4				
Impact 4.10.3	Implementation of the proposed General Plan would result in the loss of foraging habitat for raptors, migratory birds, and other wildlife.	Policies: NR.1.1, NR.1.2, NR.1.3, NR.1.4, NR.1.5, NR.2.1, NR.2.2, NR.2.3, NR.2.4, NR.3.1, NR.3.2, NR.3.3, NR.3.4, NR.4.1, NR.4.2, NR.5.3 Action Items: NR.1.1.1, NR.1.2.1, NR.1.3.1, NR.1.4.1, NR.2.2.1, NR.2.4.1, NR.2.4.2, NR.3.2.1, NR.3.2.2, NR , .3.1, NR.3.4.1, NR.3.4.2, NR.3.4.3, NR.4.1.1, NR.4.1.2, NR.4.1.3, NR.4.2.2, NR.4.2.3, NR.4.3.1, NR.4.3.2, NR.4.3.3, NR.4.3.4,	S	MM 4.10.3	The following measure shall be incorporated into the Natural Resources Element as a policy under Goal NR.1: The City shall require that impacts to riparian habitats be mitigated at a no net loss of existing function and value based on field survey and analysis of the riparian habitat to be impacted. No net loss may be accomplished by avoidance of the habitat, restoration of existing habitat, or creation of new habitat, or through some combination of the above.	SU

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Impact		General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		NR.5.3.1, NR.5.3.2			
Impact 4.10.4	Implementation of the proposed General Plan would result in substantial adverse impacts to and the potential loss of jurisdictional waters of the U.S.	Policies: NR.1.1, NR.1.3, NR.1.4, NR.1.5, NR.2.1, NR.2.2, NR.2.3, NR.2.4, NR.3.1, NR.3.2, NR.3.3, NR.3.4, NR.5.1, NR.5.3, NR.5.4, NR.5.5 Action Items: NR.1.1.1, NR.1.3.1, NR.1.4.1, NR.2.2.1, NR.2.4.1, NR.2.4.2, NR.3.2.1, NR 3.3.1, NR.3.4.1, NR.3.4.2, NR.3.4.3, NR.5.3, NR.5.3.2, NR.5.3.3, NR.5.4.1, NR.5.4.2, NR.5.4.3, NR.5.5.1, NR.5.5.2, NR.5.5.3, NR.5.5.4	S	None Available	SU
Impact 4.10.5	Implementation of the proposed General Plan would interfere substantially with the movement of several special status and common wildlife species.	Policies: NR.1.1, NR.1.2, NR.1.3, NR.1.4, NR.1.5, NR.2.1, NR.2.2, NR.2.3, NR.2.4, NR.3.1, NR.3.2, NR.3.3, NR.3.4, NR.4.1, NR.5.1, NR.5.3, NR.5.4, NR.5.5, NR.6.1	S	The following measure identifies changes to policy NR.3.2. Deletions are shown as a ~~strikethrough~~ and new text is <u>underlined</u>. MM 4.10.5a Modify Policy NR.3.2 to read: Create or retain the natural topographic relief and meandering alignment of natural creek corridors in the construction of new channels and the modification of	SU

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Impact	General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
	Action Items: NR.1.1.1, NR.1.2.1, NR.1.3.1, NR.1.4.1, NR.2.2.1, NR.2.4.1, NR.2.4.2, NR.3.2.1, NR 3.3.1, NR.3.4.1, NR.3.4.2, NR.3.4.3, NR.4.1.1, NR.4.1.3, NR.5.3.1, NR.5.3.2, NR.5.3.3, NR.5.4.1, NR.5.4.2, NR.5.4.3, NR.5.5.1, NR.5.5.2, NR.5.5.3, NR.5.5.4		existing channels, and ~~discourage~~ prohibit the placement of concrete within creeks and channels. The following mitigation measures shall be incorporated into the City of Rancho Cordova General Plan as new policies under Goal NR.1. **MM 4.10.5b** The following mitigation measures shall be incorporated into the City of Rancho Cordova General Plan as a new policy under Goal NR.1: The City shall avoid the placement of new roadways within habitat preserves to the maximum extent feasible. **MM 4.10.5c** The following mitigation measures shall be incorporated into the City of Rancho Cordova General Plan as a new policy under Goal NR.1: In such cases where habitat preserves are crossed by a roadway, or where two adjacent preserves are separated by a roadway, the roadway shall be designed or updated with wildlife passable fencing separating the roadway from the	

Impact		General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
				preserve and/or shall incorporate design features that allow for the movement of wildlife across or beneath the road without causing a hazard for vehicles and pedestrians on the roadway.	
Impact 4.10.6	Implementation of the proposed General Plan would result in the loss of native and landmark trees.	Policies: NR.1.1, NR.1.3, NR.1.4, NR.2.2, NR.3.1, NR.3.2, NR.3.4, NR.4.1 Action Items: NR.1.1.1, NR.1.3.1, NR.1.4.1, NR.2.2.1, NR.3.4.3, NR.4.1.1, NR.4.1.3	S	None Available	SU
Impact 4.10.7	Implementation of the proposed General Plan would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or any adopted biological resources recovery or conservation plan of any Federal or State agency.	No Applicable Policies or Actions	No Impact		No Impact
Impact 4.10.8	Implementation of the proposed General Plan, together with past, present, and probable future projects in the Planning Area and larger regional context would result in a cumulatively significant loss of biological resources in the region.	Policies: NR.1.1, NR.1.2, NR.1.3, NR.1.4, NR.1.5, NR.2.1, NR.2.2, NR.2.3, NR.2.4, NR.3.1, NR.3.2, NR.3.3, NR.3.4, NR.4.1,	CC	None Available	SU

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Impact	General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
	NR.4.2, NR.5.3 Action Items: NR.1.1.1, NR.1.2.1, NR.1.3.1, NR.1.4.1, NR.2.2.1, NR.2.4.1, NR.2.4.2, NR.3.2.1, NR.3.2.2, NR 3.3.1, NR.3.4.1, NR.3.4.2, NR.3.4.3, NR.4.1.1, NR.4.1.2, NR.4.1.3, NR.4.2.2, NR.4.2.3, NR.4.3.1, NR.4.3.2, NR.4.3.3, NR.4.3.4, NR.5.3.1, NR.5.3.2			
Cultural and Paleontological Resources				
Impact 4.11.1 Adoption of the City of Rancho Cordova General Plan could result in the potential disturbance of cultural resources (i.e., prehistoric sites, historic sites, and isolated prehistoric/historic artifacts and features) and human remains.	Policies: CHR.1.1, CHR.1.2, CHR.1.3, CHR.3.1, CHR.3.2, CHR.3.3, CHR.3.4, CHR.4.1 Action Items: CHR.1.1.1, CHR.1.1.2, CHR.1.1.3, CHR.1.1.4, CHR.1.1.5, CHR.1.1.6, CHR.1.2.1, CHR.1.2.2, CHR.3.1.1, CHR.3.1.2, CHR.3.1.3, CHR.3.2.1,	PS	None Available	SU

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Impact		General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure		Resulting Level of Significance
		CHR.3.2.2, CHR.3.2.3, CHR.3.2.4, CHR.3.3.1, CHR.3.3.2, CHR.3.3.3, CHR.3.3.4, CHR.3.4.1, CHR.3.4.2, CHR.4.1.1, CHR.4.1.2				
Impact 4.11.2	Adoption of the Rancho Cordova General Plan could result in the potential disturbance of paleontological resources (i.e., fossils and fossil formations).	Action Items: CHR.3.3.4	PS	**MM 4.11.2**	The following text change shall be made to Action CHR.3.3.3: Require historic resources and paleontological studies (i.e., archaeological and historical investigations) for all applicable discretionary projects, in accordance with CEQA regulations. The studies should identify paleontological, historic or cultural resources in the project area, determine their eligibility for inclusion in the California Register of Historical Resources, and provide mitigation measures for any resources in the project area that cannot be avoided.	LS
Impact 4.11.3	Adoption of the Rancho Cordova General Plan along with foreseeable development in the region could result in the disturbance of cultural resources (i.e., prehistoric sites, historic sites, and	Policies: CHR.1.1, CHR.1.2, CHR.1.3, CHR.3.1, CHR.3.2, CHR.3.3,	CC	None Available		SU

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Impact		General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
	isolated artifacts and features) and human remains.	CHR.3.4, CHR.4.1 Action Items: CHR.1.1.1, CHR.1.1.2, CHR.1.1.3, CHR.1.1.4, CHR.1.1.5, CHR.1.1.6, CHR.1.2.1, CHR.1.2.2, CHR.3.1.1, CHR.3.1.2, CHR.3.1.3, CHR.3.2.1, CHR.3.2.2, CHR.3.2.3, CHR.3.2.4, CHR.3.3.1, CHR.3.3.2, CHR.3.3.3, CHR.3.3.4, CHR.3.4.1, CHR.3.4.2, CHR.4.1.1, CHR.4.1.2			
Impact 4.11.4	Adoption of the Rancho Cordova General Plan along with any foreseeable development in the region could result in the potential disturbance of paleontological resources (i.e., fossils and fossil formations).	Action Items: CHR.3.3.4	LCC	None Required	LCC

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Impact		General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
Public Services and Utilities					
Impact 4.12.1.1	Implementation of the General Plan would result in the need for additional fire protection and emergency medical equipment and facilities that could result in physical environmental impacts.	Policies: ISF.2.1, ISF.2.2, ISF.2.3, ISF.2.4, ISF.2.5, S.9.1, S.9.2, S.9.3 Action Items: ISF.2.1.1, ISF.2.1.2, ISF.2.1.3, ISF.2.1.4, ISF.2.2.1, ISF.2.3.1, ISF.2.3.2, ISF.2.3.3, S.9.1.1, S.9.1.2, S.9.1.3, S.9.1.4, S.9.1.5, S.9.1.6, S.9.1.7, S.9.1.8	LS	None Required	LS
Impact 4.112.1.2	Implementation of the proposed General Plan could result in safety hazards associated with wildland fires in residential areas adjacent to open space and natural areas.	Policies: S.9.1, S.9.2, S.9.3 Action Items: S.9.1.1, S.9.1.2, S.9.1.3, S.9.1.4, S.9.1.5, S.9.1.6, S.9.1.7, S.9.1.8	LS	None Required	LS
Impact 4.12.1.2	Implementation of the General Plan in combination with other reasonably foreseeable development (based on Sacramento County, and the cities of Folsom, Elk Groove, Citrus Heights, Galt, Lodi, and Sacramento General Plans land use projections), would increase the population within the SMFD service area, requiring additional fire and emergency medical	Policies: ISF 2.1, ISF.2.2, ISF.2.3, ISF.2.4, ISF.2.5, S.9.1, S.9.2, S.9.3 Action Items: ISF.2.1.1, ISF.2.1.2, ISF.2.1.3, ISF.2.1.4, ISF.2.2.1, ISF.2.3.1,	LCC	None Required	LS

S - Significant
PS-Potentially Significant
LS – Less Than Significant
CS – Cumulative Significant
SU – Significant and Unavoidable
B - Beneficial

Impact		General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
	services and related facilities.	ISF.2.3.2, ISF.2.3.3, S.9.1.1, S.9.1.2, S.9.1.3, S.9.1.4, S.9.1.5, S.9.1.6, S.9.1.7, S.9.1.8			
Impact 4.12.2.1	Implementation of the General Plan would increase the Planning Area population and would result in additional commercial, industrial and recreational uses in the Planning Area uses, which may result in additional law enforcement protection facilities that could result in physical environmental impacts.	Policies: ISF 2.1, ISF.2.3, ISF.2.4, ISF.2.5, S.7.1, S.8.1, S.8.2, S.8.3, S.8.4 Action Items: ISF.2.1.1, ISF.2.1.2, ISF.2.1.3, ISF.2.1.4, ISF.2.3.1, ISF.2.3.2, ISF.2.3.3, S.7.1.1, S.7.1.2, S.8.1.1	LS	None Required	LS
Impact 4.12.2.2	The neighborhood design, home design, street design, and other features associated with implementation of the General Plan could reduce the ability of the City of Rancho Cordova Police Department to enforce the law and respond to crime and other emergencies in the project area.	Policies: S.7.1, S.8.1, S.8.2, S.8.3, S.8.4, ISF.2.2 Action Items: S.7.1.1, S.7.1.2, S.8.1.1, ISF.2.2.1	LS	None Required	LS
Impact 4.12.2.3	Implementation of the General Plan and other reasonably foreseeable development in southeastern Sacramento County (based on Sacramento County land use projections) would increase the population within the Planning Area and surrounding area and would require additional law enforcement	Policies: S.7.1, S.8.1, S.8.2, S.8.3, S.8.4, ISF.2.2 Action Items: S.7.1.1, S.7.1.2, S.8.1.1, ISF.2.2.1	LCC	None Required	LCC

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Impact		General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
	services and related facilities under cumulative conditions.				
Impact 4.12.3.1	Implementation the General Plan would require additional treatment capacity, storage capacity, and other conveyance facilities to meet the projected water demands.	Policies: ISF.2.1, ISF.2.2, ISF.2.3, ISF.2.4, ISF.2.5, ISF.2.6, ISF.2.7, ISF.2.8, ISF.3.1 Action Items: ISF.2.1.1, ISF.2.1.2, ISF.2.1.3, ISF.2.1.4, ISF.2.2.1, ISF.2.3.1, ISF.2.3.2, ISF.2.3.3, ISF.2.4.1, ISF.2.4.2, ISF.2.7.1, ISF.2.8.1, ISF.2.8.2, ISF.3.1.1, ISF.3.1.2, ISF.3.1.3, ISF.3.1.4	S	None Available	SU
Impact 4.12.3.2	Implementation of the General Plan would contribute to the need for additional treatment capacity, storage capacity, and other conveyance facilities to meet cumulative water demands with SCWA, GSWC and Cal-Am.	Policies: ISF.2.1, ISF.2.2, ISF.2.3, ISF.2.6, ISF.2.7, NR.5.1, NR.5.2, NR.5.3, NR.5.4, NR.5.5 Action Items: ISF.2.1.1, ISF.2.1.2 , ISF.2.1.3, ISF.2.1.4, ISF.2.2.1, ISF.2.3.1, ISF.2.3.2, ISF.2.3.3, ISF.2.6.1, ISF.2.6.2, ISF.2.6.3, ISF.2.7.1, NR.5.1.1, NR.5.1.2, NR.5.1.3, NR.5.2.1,	CC	None Available	SU

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Impact		General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		NR.5.2.2, NR.5.3.1, NR.5.3.2, NR.5.3.3, NR.5.4.1, NR.5.4.2, NR.5.4.3, NR.5.5.1, NR.5.5.2, NR.5.5.3, NR.5.5.4			
Impact 4.12.4.1	Implementation of the Rancho Cordova General Plan would substantially increase wastewater flows and require additional infrastructure and may require additional treatment capacity to accommodate anticipated demands that would result in a physical effect on the environment.	Policies: ISF.2.1, ISF.2.2, ISF.2.3, ISF.2.6, ISF.2.7, LU.2.5 Action Items: ISF.2.1.1, ISF.2.1.2 , ISF.2.1.3, ISF.2.1.4, ISF.2.2.1, ISF.2.3.1, ISF.2.3.2 , ISF.2.3.3, ISF.2.6.1, ISF.2.6.2, ISF.2.6.3, ISF.2.7.1, LU.2.5.1	S	None Available	SU
Impact 4.12.4.2	Implementation of the proposed General Plan, in addition to other reasonably foreseeable development in eastern Sacramento County (based on the land use projections established in the Sacramento County General Plan), would substantially increase in wastewater flows and require additional infrastructure and treatment capacity that would result in a physical effect on the environment.	Policies: ISF.2.1, *ISF.2.2, ISF.2.3, ISF.2.6, ISF.2.7, LU.2.5* Action Items: *ISF.2.1.1, ISF.2.1.2 , ISF.2.1.3, ISF.2.1.4, ISF.2.2.1, ISF.2.3.1, ISF.2.3.2 , ISF.2.3.3, ISF.2.6.1, ISF.2.6.2, ISF.2.6.3, ISF.2.7.1, LU.2.5.1*	CC	None Available	SU
Impact 4.12.5.1	Implementation of the General Plan would increase solid waste generation	Policies: ISF.2.1, ISF.2.2,	S	**MM 4.12.5.1** The following shall be added as	LS

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Impact		General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
	and the demand for related services.	NR.8.1, NR.8.2, NR.8.3, NR.8.4, NR.8.5, NR.8.6, NR.8.7 Action Items: ISF.2.1.1, ISF.2.1.2, ISF.2.1.3, ISF.2.1.4, NR.8.1.1, NR.8.1.2, NR.8.1.3, NR.8.1.4, NR.8.1.5, NR.8.1.6, NR.8.2.1, NR.8.4.1, NR.8.5.1		a new policy under Goal LU.1: Property buffering for the Kiefer landfill of a 2,000-foot buffer around the permitted footprint of the landfill shall be required. ~~planned with the landfill's operation in mind.~~ Where appropriate, land use density, buffers, or other measures should be used when planning future land uses near the landfill.	
Impact 4.12.5.2	The proposed project, in addition to proposed and approved projects in the region area, would generate solid waste that would require expanded collection and disposal services.	Policies: ISF.2.1, ISF.2.2, NR.8.1, NR.8.2, NR.8.3, NR.8.4, NR.8.5, NR.8.6, NR.8.7 Action Items: ISF.2.1.1, ISF.2.1.2, ISF.2.1.3, ISF.2.1.4, NR.8.1.1, NR.8.1.2, NR.8.1.3, NR.8.1.4, NR.8.1.5, NR.8.1.6, NR.8.2.1, NR.8.4.1, NR.8.5.1	LCC	None Required	LCC
Impact 4.12.6.1	Implementation of the project would increase student enrollment in the Planning Area and require the construction of new schools and related facilities to serve the anticipated demand.	Policies: ISF.4.1, *ISF.2.1, ISF.2.2, ISF.2.3* Action Items: ISF.4.1.1, *ISF.4.1.2, ISF.2.1.1, , ISF.2.2.1,*	LS	None Required	LS

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Impact		General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		ISF.2.3.1, ISF.2.3.2, ISF.2.3.3			
Impact 4.12.6.2	Implementation of the General Plan in combination with other reasonably foreseeable development (based on General Plan land use projections for Sacramento County, Folsom, and Elk Grove) proposed in eastern Sacramento County would result in a cumulative increase in student enrollment and require additional schools and related facilities to accommodate the growth.	Policies: ISF.4.1, ISF.2.1, ISF.2.2, ISF.2.3 Action Items: ISF.4.1.1, ISF.4.1.2, ISF.2.1.1, ISF.2.2.1, ISF.2.3.1, ISF.2.3.2, ISF.2.3.3	LCC	None Required	LCC
Impact 4.12.7.1	Implementation of the General Plan would increase the demand for existing facilities and require additional parks and recreational facilities to accommodate the anticipated growth associated with the General Plan.	Policies: ISF.2.1, ISF.2.2, ISF.2.3, UD.3.3, OSPT.1.1, OSPT.1.2, OSPT.1.3, OSPT.1.4, OSPT.1.5, OSPT.1.6, OSPT.2.1, OSPT.2.2, OSPT.2.3, OSPT.2.4, OSPT.3.1, OSPT.3.2, OSPT.3.3, OSPT.4.1, OSPT.4.2 Action Items: ISF.2.1.1, ISF.2.2.1, ISF.2.3.1, ISF.2.3.2, ISF.2.3.3, UD.3.3.1, UD.3.3.2, UD.3.3.3, UD.3.3.4, OSPT.1.1.1, OSPT.1.1.2, OSPT.1.1.3, OSPT.1.4.1, OSPT.1.4.2,	LS	None Required	LS

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Impact	General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
	OSPT.1.5.1, OSPT.1.5.2, OSPT.1.5.3, OSPT.1.6.1, OSPT.1.6.2, OSPT.2.1.1, OSPT.2.1.2, OSPT.2.1.3, OSPT.2.1.4, OSPT.2.1.5, OSPT.2.1.6, OSPT.2.1.7, OPST.2.2.1, OPST.2.3.1, OSPT.2.3.1, OSPT.2.3.2, OSPT.3.1.1, OSPT.3.1.2, OSPT.3.1.3, OSPT.3.1.4, OSPT.3.2., OSPT.3.3.1, OSPT.4.1.1, OSPT.4.1.2, OSPT.4.2.1, OSPT.4.2.2, OSPT.4.2.3 Goals: OSPT.3, OSPT.4			
Impact 4.12.7.3 Implementation of the General Plan in combination with other reasonably foreseeable development would require additional park and recreation facilities within the Planning Area boundaries and CRPD's service area	Policies: ISF.2.1, ISF.2.2, ISF.2.3, UD.3.3, OSPT.1.1, OSPT.1.2, OSPT.1.3, OSPT.1.4,	LCC	None Required	LCC

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Impact	General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
boundaries.	OSPT.1.5, OSPT.1.6, OSPT.2.1, OSPT.2.2, OSPT.2.3, OSPT.2.4, OSPT.3.1, OSPT.3.2, OSPT.3.3, OSPT.4.1, OSPT.4.2 Action Items: ISF.2.1.1, ISF.2.2.1, ISF.2.3.1, ISF.2.3.2, ISF.2.3.3, UD.3.3.1, UD.3.3.2, UD.3.3.3, UD.3.3.4, OSPT.1.1.1, OSPT.1.1.2, OSPT.1.1.3, OSPT.1.4.1, OSPT.1.4.2, OSPT.1.5.1, OSPT.1.5.2, OSPT.1.5.3, OSPT.1.6.1, OSPT.1.6.2, OSPT.2.1.1, OSPT.2.1.2, OSPT.2.1.3, OSPT.2.1.4, OSPT.2.1.5, OSPT.2.1.6, OSPT.2.1.7, OPST.2.2.1, OPST.2.3.1, OSPT.2.3.1, OSPT.2.3.2, OSPT.3.1.1, OSPT.3.1.2,			

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Impact		General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		OSPT.3.1.3, OSPT.3.1.4, OSPT.3.2.1, OSPT.3.3.1, OSPT.4.1.1, OSPT.4.1.2, OSPT.4.2.1, OSPT.4.2.2, OSPT.4.2.3, Goals: OSPT.3, OSPT.4			
Impact 4.12.8.1	Implementation of the General Plan would substantially increase demand for electrical, natural gas, telephone and related infrastructure.	Policies: ISF.2.1, ISF.2.2, ISF.2.3, ISF.2.7, ISF.2.8 Action Items: ISF.2.1.1, ISF.2.1.2, ISF.2.1.3, ISF.2.1.4, ISF.2.2.1, ISF.2.3.1, ISF.2.3.2, ISF.2.3.3, ISF.2.7.1, ISF.2.8.1, ISF.2.8.2	LS	None Required	LS
Impact 4.12.8.2	Implementation of the proposed project as well as potential development in the surrounding areas (based on Sacramento County General Plan land use projections) would result in cumulative utility service impacts.	Policies: ISF.2.1, ISF.2.2, ISF.2.3, ISF.2.7, ISF.2.8 Action Items: ISF.2.1.1, ISF.2.1.2, ISF.2.1.3, ISF.2.1.4, ISF.2.2.1, ISF.2.3.1, ISF.2.3.2, ISF.2.3.3, ISF.2.7.1, ISF.2.8.1,	LCC	None Required	LCC

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Impact		General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure		Resulting Level of Significance
		ISF.2.8.2				
Visual Resources/Light and Glare						
Impact 4.13.1	Implementation of the proposed General Plan Land Use Map will not result in substantial damage to scenic resources within a state scenic highway.	No Applicable Policies or Actions	No Impact	None Required		No Impact
Impact 4.13.2	Implementation of the General Plan will encourage new development and redevelopment activities that could potentially degrade existing scenic vistas.	No Applicable Policies or Actions	LS	None Required		LS
Impact 4.13.3	Implementation of the General Plan will encourage new development and redevelopment activities that could degrade the existing visual character or quality of the Planning Area.	Policies: LU.1.4, NR.3.1, NR.3.2, NR.3.3, NR.3.4, NR.4.1, NR.4.2, NR.4.3, UD.1.2, UD.2.3, UD.4.2 Action Items: LU.1.4.1, LU.1.4.2, LU.1.4.3, LU.1.4.4, NR.3.2.1, NR.3.2.2, NR 3.3.1, NR.3.4.1, NR.3.4.2, NR.3.4.3, NR.4.1.1, NR.4.1.2, NR.4.1.3, NR.4.2.1, NR.4.2.2, NR.4.2.3, NR.4.3.1, NR.4.3.2, NR.4.3.3, NR.4.3.4, UD.2.3.1, UD.4.2.1	PS	MM 4.13.3	The following shall be added as a new policy under Goal LU.1: Create development standards in the Zoning Code and design guidelines in the Citywide Design Guidelines to specifically address the compatibility of high-rise development in the Downtown Planning Area with consideration of those issues unique to high-rise development (visual intrusion, distant viewshed, shadowing of adjacent properties, glare, wind tunnel effects, emergency service, interruption of electronic transmissions, traffic and parking, noise and vibration).	SU

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Impact		General Plan Policies and Action Items	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
Impact 4.13.4	Implementation of the General Plan Land Use Map would create new sources of daytime glare, and substantially change nighttime lighting and illumination levels in the Planning Area, associated with new and redevelopment activities.	Policies: UD.4.2	LS	None Required	LS
Impact 4.13.5	Implementation of the General Plan will encourage new development and redevelopment activities that would contribute to the cumulative alteration of existing landscape characteristics of the region.	Policies: LU.1.4, NR.2.1, NR.2.2, NR.3.1, NR.3.2, NR.3.3, NR.3.4, NR.4.1, NR.4.2, NR.4.3, UD.1.2, UD.2.3, UD.4.2 Action Items: LU.1.4.1, LU.1.4.2, LU.1.4.3, LU.1.4.4, NR.2.2.1, NR.3.2.1, NR.3.2.2, NR 3.3.1, NR.3.4.1, NR.3.4.2, NR.3.4.3, NR.4.1.1, NR.4.1.2, NR.4.1.3, NR.4.2.1, NR.4.2.2, NR.4.2.3, NR.4.3.1, NR.4.3.2, NR.4.3.3, NR.4.3.4, UD.2.3.1, UD.4.2.1	CC	None Available	SU

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3.0 – Project Description

This section of the Draft Environmental Impact Report (Draft EIR) is the Project Description of the proposed City of Rancho Cordova General Plan. The purpose of the Project Description is to describe the project in a way that will be meaningful to the public, reviewing agencies and decision-makers. As described in Section 15124 of the State CEQA Guidelines, a complete project description must contain the following information but is not required to supply extensive detail beyond that needed for evaluation and review of the environmental impact: (1) The location and boundaries of the proposed project on a regional and detail map; (2) A statement of objectives sought by the proposed project; (3) A general description of the project's technical, economic and environmental characteristics; and, (4) A statement briefly describing the intended uses of the EIR. For a complete discussion of the CEQA requirements for a project description, please refer to State CEQA Guidelines Section 15124.

3.1 LOCAL AND REGIONAL SETTING

PROJECT LOCATION

The City of Rancho Cordova and its Planning Area are located in Sacramento County in the north central portion of the State of California (see **Figure 3.0-1**). The City of Rancho Cordova is located entirely within the eastern portion of Sacramento County, covering approximately 20,000 acres (see **Figure 3.0-2**). The Planning Area for the City of Rancho Cordova General Plan (referred to hereafter as "Planning Area") consists of the existing incorporated City and a larger study area (approximately 58,190 acres). The Planning Area was selected based on the City limits and surrounding areas that are anticipated to be incorporated into the City in the future. The Planning Area includes the City's Sphere of Influence along Folsom Boulevard between Sunrise Boulevard and Hazel Avenue and Sunrise Boulevard between Folsom Boulevard and White Rock Road. The northern boundary of the Planning Area is the American River, the eastern edge of the Planning Area is the Cosumnes floodplain and the Urban Services Boundary for Sacramento County. The Planning Area ends at Prairie City Road, which is the western boundary of the Folsom Sphere of Influence. The communities of Rosemont and Gold River were included in the Planning Area because of their close proximity to Rancho Cordova and the interaction between these communities and future land uses in the City. The City Council requested that the Planning Area boundary extend west to Watt Avenue (to include Rosemont) and extend south of Jackson Highway by at least one mile to include entire parcels

PROJECT SETTING

The Planning Area is predominately flat with undulating topography near the Cosumnes River floodplain to the south and the American River to the north. The American River Parkway is located along the northern boundary of the Planning Area. Other waterways include Morrison Creek, Laguna Creek, Elder Creek, Buffalo Creek, Frye Creek, Rebel Hill Ditch and the Folsom South Canal. Southern portions of the Planning Area include one of the largest complexes of vernal pools in California. Approximately 400 acres of vernal pools are preserved as part of the Sunrise-Douglas Community Plan Area (established by Sacramento County prior to incorporation) while another 1,000 acres of vernal pool preserve are proposed as part of the Mather Field Regional Park (proposed by and currently within Sacramento County). Other natural features in the Planning Area include riparian habitat (primarily located along the American River), oak trees and oak woodlands, grasslands, land areas substantially disturbed from historic gold dredging activities (specifically in the northern and eastern portions of the Planning Area).

U.S. Highway 50 running east to west passes through the northern portion of the Planning Area, while State Highway 16 passes through the southern portion of the Planning Area. Sunrise

Boulevard, a major thoroughfare running north and south, bisects the Planning Area. Folsom Boulevard, running northeast to southwest, is located in the northern portion of the Planning Area.

The Planning Area currently includes but is not limited to land uses such as residential, commercial, office industrial, and agricultural. The majority of developed area is located in the northern portion of the Planning Area with current development planned for the south central portion of the Planning Area in the Sunrise-Douglas Community Plan area. While the northern portion of the Planning Area is developed, vast regions to the south and west are primarily undeveloped. The reader is referred to Section 4.1 (Land Use) for a description of land use and applicable land use plans throughout the Planning Area.

Located in the Planning Area, but outside of the existing city limits, is the site of the existing Aerojet/GenCorp operations. This area has been used for rocket testing and development operations since the 1950's that resulted in soil and groundwater contamination through much of the area. The site has been identified as a Superfund site. Environmental investigations at the site began in 1979 and in 1989, Aerojet, EPA, the Regional Water Quality Control Board (RWQCB) and DTSC signed a Partial Consent Decree to complete a comprehensive Remedial Investigation/ Feasibility Study (RI/FS) and take any necessary removal or abatement actions.

Also located within the Planning Area, but outside of current city limits, is the former site of Mather Field Air Force Base. The former air base includes the still operating Mather Field Airport. Because of the required safety zones and the various flight patterns into and around Mather Field, in conjunction with the environmentally sensitive habitat and a proposed regional park site located centrally between Mather Field and Sunrise Boulevard, large portions of the Mather Planning Area will need to remain undeveloped or developed with restricted land uses.

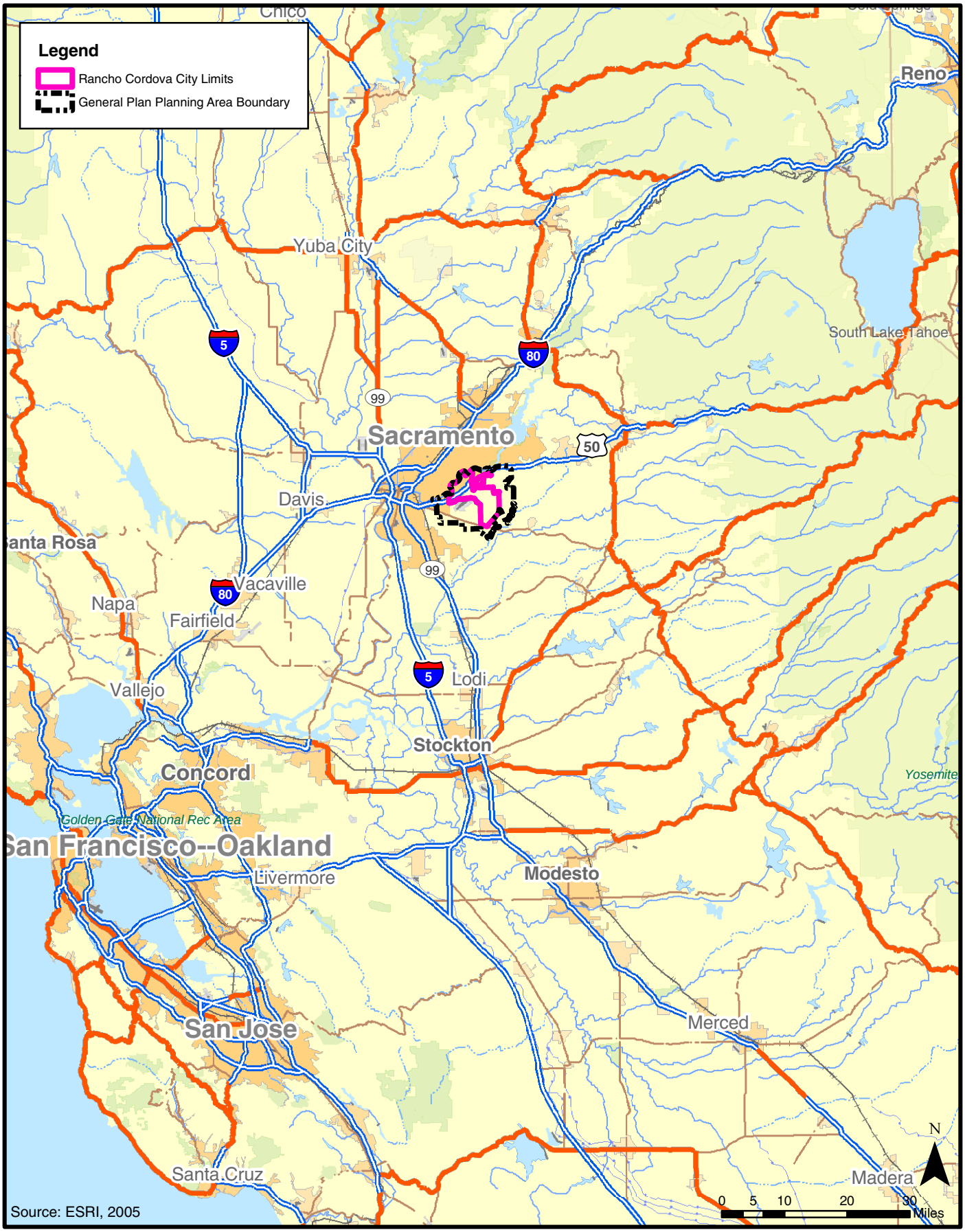
3.2 BACKGROUND OF PLANNING ACTIVITIES ASSOCIATED WITH RANCHO CORDOVA

LAND USE PLANS IN PLACE PRIOR TO INCORPORATION

When the City of Rancho Cordova incorporated in July of 2003, it adopted the Sacramento County General Plan and corresponding land use map. In addition to the Sacramento County General Plan, land uses in the City have also been guided by the Cordova Community Plan, the Sunrise-Douglas Community Plan, the Sunridge Specific Plan and special planning areas (SPAs) associated with specific land areas in the City (e.g., Aerojet), which were adopted prior to incorporation. The reader is referred to Section 4.1 (Land Use) presenting an overview of these documents.

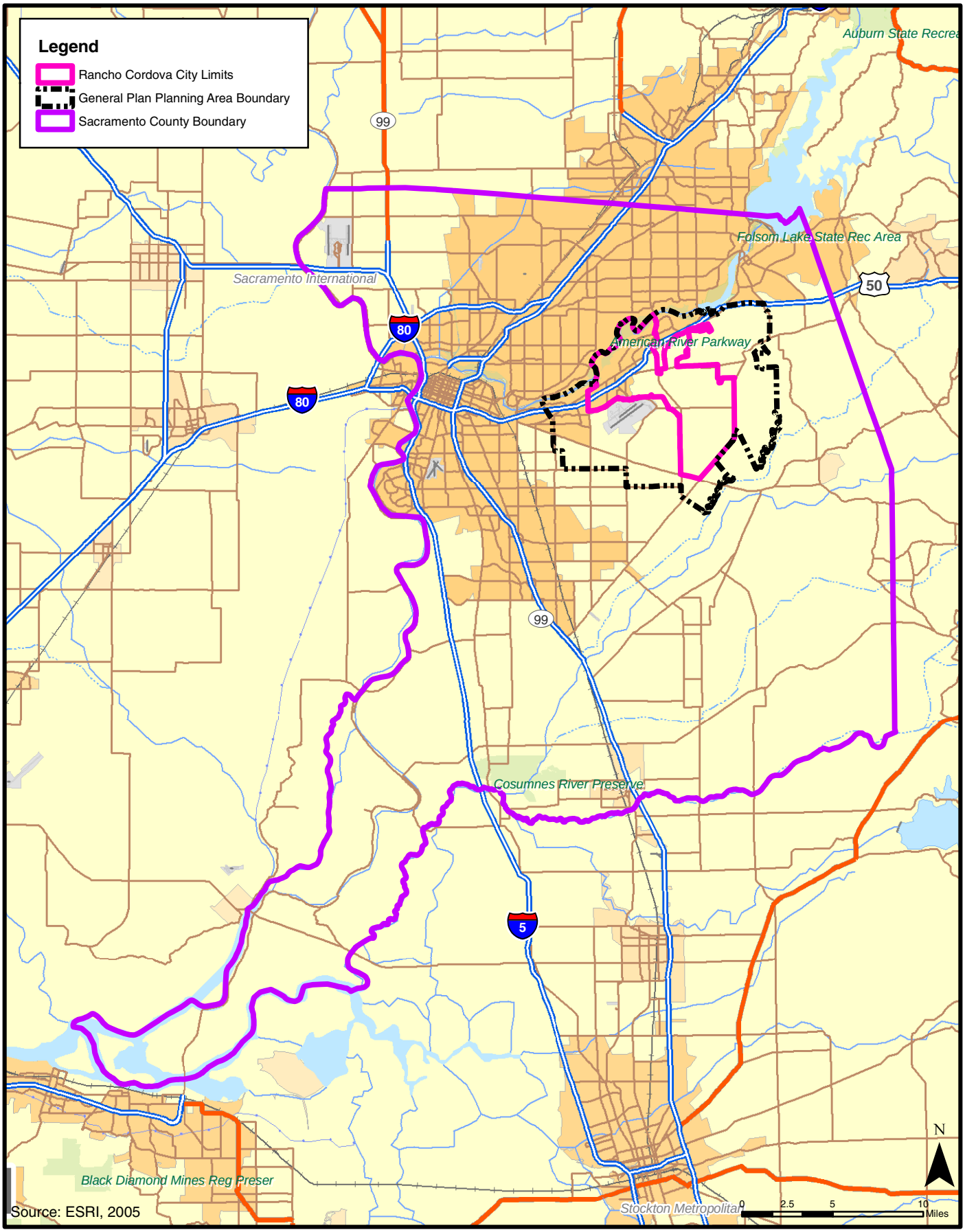
INITIATION OF THE DEVELOPMENT OF A NEW GENERAL PLAN FOR THE CITY

As a result of incorporation, the City must formulate and adopt a new General Plan that will act as the official policy statement of the City and guide public and private development in the City as well as the preservation of existing natural resources (Government Code Section 65360). The City of Rancho Cordova commenced the preparation of a General Plan in May 2004. Technical consultants began fieldwork and gathering data in technical disciplines including traffic, noise, history/archaeology/paleontology, and biology. The Rancho Cordova Planning Department staff conducted an existing land use inventory utilizing aerial photographs and field reconnaissance.



City of Rancho Cordova
Planning Department

Figure 3.0-1
Regional Vicinity Map



City of Rancho Cordova
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Figure 3.0-2
Project Location Map

Beginning in June 2004, three public visioning workshops were held in different locations throughout the Planning Area. These workshops were held in order to allow the public to impart their desires for the future of Rancho Cordova. The result of the workshop was the development of the Draft Vision Book (dated August 2, 2004). This "Vision Book" represents the first major product prepared for the Rancho Cordova General Plan, as well as the starting point for the preparation of the detailed General Plan.

These "Visions" were presented to the General Plan Advisory Committee (GPAC) in a series of meetings beginning in September 2004. In May of 2005 the Rancho Cordova City Council adopted the Draft Land Use Map Book. The Draft Land Use Map Book reflects an approach that combines specific land use designations in some areas of the City and more general descriptions of land uses in areas planned for future growth. This action by the City Council and subsequent activities by the GPAC in the development of the General Plan policy document are the foundation of the proposed City of Rancho Cordova General Plan described below.

REQUIREMENT TO ADOPT A GENERAL PLAN

California Government Code Section 65300, et seq. establishes the obligation of cities and counties to adopt and implement general plans. The general plan is a comprehensive, long-range, and general document that describes plans for the physical development of a city or county and of any land outside its boundaries that, in the city's or county's judgment, bears relation to its planning. The general plan addresses a broad range of topics, including, at a minimum, the following mandatory elements: land use, circulation, housing, conservation, open space, noise, and safety; further, the city or county can adopt additional optional elements. In addressing these topics, the general plan identifies the goals, objectives, policies, principles, standards, and plan proposals that support the city's or county's vision for the area. The general plan is a long-range document that typically addresses the physical development of an area over a 20-year period. Although the general plan serves as a blueprint for future development and identifies the overall vision for the planning area, it remains general enough to allow for flexibility in the approach taken to achieve the plan's goals.

State Planning and Zoning Law (California Government Code Section 65000 et seq.) establishes that zoning ordinances, which are laws that commonly define allowable land uses, establish development standards, and provide thresholds for development within a specific zoning district, are required to be consistent with the general plan and any applicable specific plans. When amendments to the general plan are made, corresponding changes in the zoning ordinance may be required within a reasonable time to ensure consistency between the revised land use designations in the general plan (if any) and the permitted uses or development standards of the zoning ordinance (Gov. Code, Section 65860, subd. [c]).

3.3 PROPOSED CITY OF RANCHO CORDOVA GENERAL PLAN

The proposed General Plan provides policy direction for land uses within the current City limits, the City's existing sphere of influence, and Planning Areas outside of the City limits within the unincorporated area of Sacramento County. While the City does not have land use authority over land areas outside of the City, the proposed General Plan provides direction on the City's vision of land use should they be annexed to the City.

PROJECT OBJECTIVES

The following are the overall objectives of the General Plan based on the City of Rancho Cordova Vision Book, Revised Draft Land Use Map Book and the proposed General Plan:

- Establish the City of Rancho Cordova as a vibrant destination place in the region.
- Proactively seek beneficial changes in land use and the scope of the City's operations.
- Obtain measurable fiscal success for the City from the implementation of its General Plan.
- Plan for a balanced mix and integration of land uses that will make Rancho Cordova a desirable place to live, work and play.
- Implement a land use strategy for the Planning Area that generally reflects the types of intensity of Sacramento Council of Government's Blueprint Scenario C. Blueprint Scenario C, through a land use plan that intensifies development within Sacramento County's Urban Service Boundary, uses Smart Growth Principles that make efficient use of land use to accommodate anticipated growth, encourages use of non-automobile transportation opportunities (walking, bicycling and transit use), provides residential uses in close proximity to jobs and services and balances land uses. Preserve and minimize impacts to the Planning Area's natural resources in balance with the implementation of Smart Growth Principles.
- Provide improved transportation and connection through the City by improved roadway facilities, enhanced pedestrian and bicycle facilities and trails and the expansion of various forms of transit throughout the City and Planning Area.

COMPONENTS OF THE PROPOSED RANCHO CORDOVA GENERAL PLAN

Proposed Land Use Concept for the City

General Plan workshops identified the following issues that need to be solved through the development of an effective General Plan:

- Existing land use is not balanced – Rancho Cordova is an employment center with a lack of housing stock and housing choices.
- Residential, commercial and office uses are separated physically from one another.
- Mix and distribution of commercial services (retail in particular) is limited.
- U.S. Highway 50 and Folsom South Canal bisect the community.
- Land use patterns do not promote accessibility (transit, vehicle and pedestrian).
- City has a substantial supply of industrial uses and such uses are located near future residential and mixed-use areas.
- Natural resources need to be integrated into future development in the community through project design.

As result of evaluating these issues, the land use concept set forth in the General Plan has been developed based on the following two primary development principles (Smart Growth and Building Blocks):

Smart Growth

One of the key tenets of the proposed General Plan is to apply smart growth planning principles to development. Rancho Cordova is striving to change the way development occurs so that it positively improves the image and character of the City. An essential goal of the City and General Plan is to achieve compact, mixed-use development with improved mobility to enhance the quality of life of all residents, employees, and visitors. The General Plan utilizes building blocks (e.g., neighborhoods, villages, districts, and centers) and Smart Growth Principles to achieve this goal. The eight Smart Growth Principles are listed below and described further in the Land Use Element of the proposed General Plan:

- Provide a variety of Transportation Choices
- Offer Housing Choices and opportunities
- Integrate a Mix of Land Uses into New and Existing Development Areas
- Promote Compact Urban Development
- Encourage Regeneration/Infill in Existing Developed Areas
- Create Walkable Neighborhoods
- Foster Distinctive, Attractive Communities with a Strong Sense of Place and Quality Design
- Promote Preservation and Integration of Natural Resources with Urban Land Uses

The Building Blocks Of The City – Neighborhoods, Villages, And Districts

The proposed General Plan also sets forth several basic elements for the buildout of the City. These elements are identified as City "Building Blocks" – a system of neighborhoods, villages, and districts served by a range of "centers" that establish a more walkable, sustainable community. Each building block type is characterized by different levels and intensities of development that contribute to a greater City. These Building Blocks serve as the foundation for all new development/redevelopment and contribute to the overall function and character of the City. Building Blocks are shown on **Figure 3.0-3** and are summarized below:

Neighborhoods and Neighborhood Centers - Neighborhoods are the most basic building block of the City. They are the places where residents live. They are predominately made up of single-family homes, both detached and attached products, but apartment complexes and condominiums are not uncommon. The average density is approximately six to eight units per acre, with both one- and two-story homes and buildings associated with the Neighborhood Centers. Neighborhoods are compact and walkable in design, scaled at approximately 1/3 mile in radius and an average size of about 200 acres. The residential population of the neighborhood building block is approximately 4,000 people. Neighborhoods also include many amenities, such as trails and local parks. Their major feature is the Neighborhood Center, a gathering place for residents. These Centers are usually defined by schools, neighborhood parks, community centers, or small commercial outlets serving local residents (e.g., coffee shops, small markets).

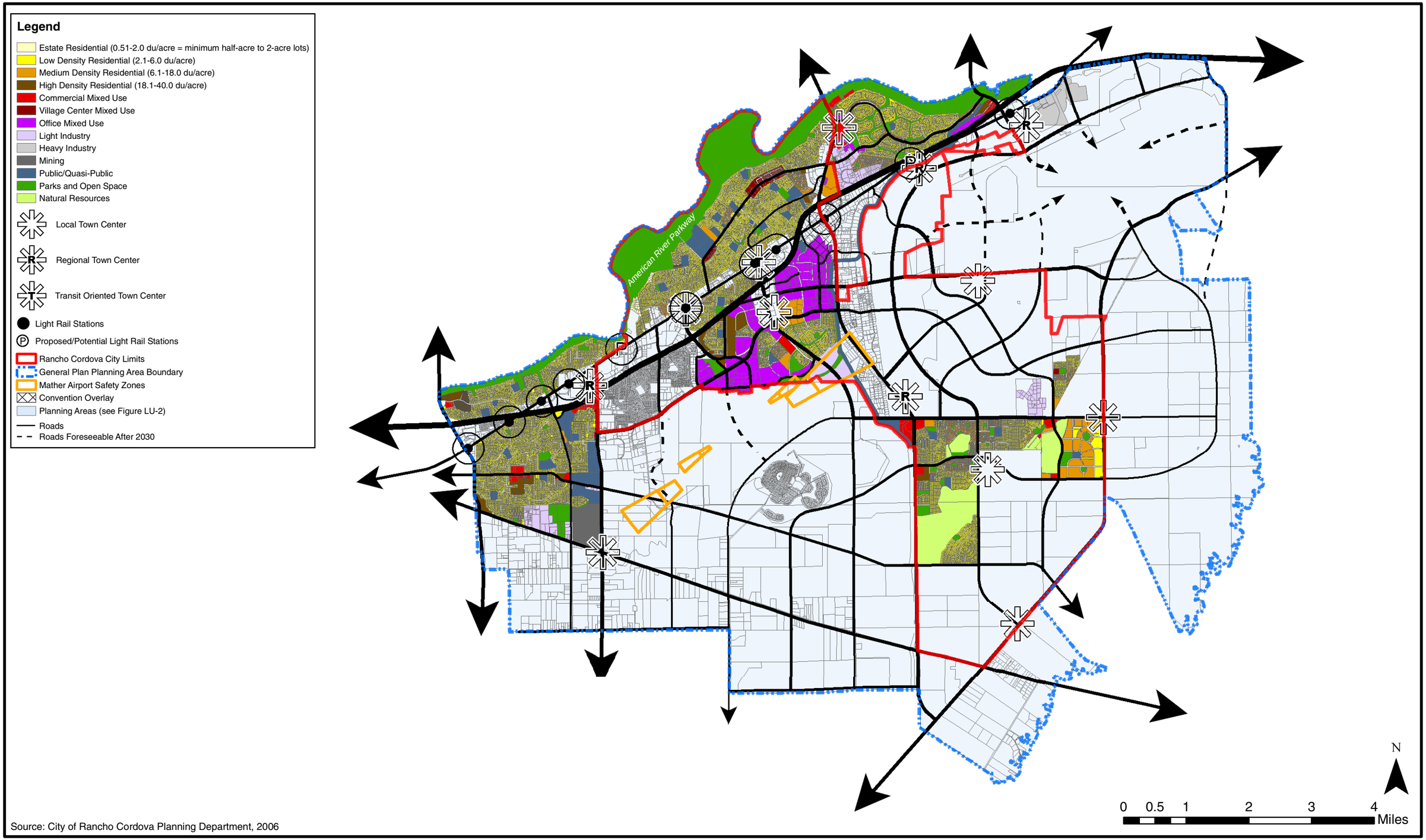
Villages, and Village Center - A cluster of three to four neighborhoods comprise a Village of approximately 750 acres in size. Villages include a mix of housing types, with higher density residential areas in proximity to the Village Center. The Neighborhoods within a Village are connected by a series of trails and pedestrian-friendly streets. With a residential population of between 10,000 and 15,000 persons, this cluster of neighborhoods is supported by a Village Center serving the daily shopping needs of Village residents. Village Centers typically include small and medium size grocery stores, drug stores, restaurants, banks, and other uses that serve the daily shopping needs of local residents. It is the City's intent that Village Centers are sized and distributed to encourage local markets and support services in proximity to every home within the City. Village Centers are smaller, pedestrian-oriented developments, with smaller parking fields and buildings located in proximity to the street. Site visitors can easily move between the different uses and the surrounding residential areas. Village Centers are range in size between five and 15 acres in size with buildings ranging from one to three stories in height.

Districts and Town Centers - Districts are made up of three or four Villages, with a corresponding residential population of approximately 45,000 people and are served by a Town Center. Three distinct types of Town Centers are proposed.

- *Local Town Centers*. Local Town Centers are the most prevalent and fundamental type of Town Center. They provide most of the retail needs of the District and are designed to supplement Village Centers with more significant retail, service, and entertainment needs for a larger population. Local Town Centers would include general retail uses (e.g., basic clothing stores, book/music stores, dry cleaners) and restaurant. This center type also includes residential uses at densities ranging from 8 to 18 dwelling units per acre target density with most of these residential units above commercial activities. The majority of the buildings (two to four stories in height) within Local Town Centers would have their main entrance opening onto a street or square with the provision of pedestrian circulation a key aspect of the Local Town Center design. Local Town Centers are typically between 15 and 30 acres in size.

- *Regional Town Centers*. Regional Town Centers are designed as a much larger developments intended to meet a regional need for shopping, entertainment, and other large destination uses (e.g., sports arena, conference center). These are the strategically located for accessibility, include residential uses at a target density of 20 dwelling units per acre, building heights of two to four stories and range in size from 30 to 80 acres.

- *Transit-Oriented Town Centers.* Transit-Oriented Centers are sited along existing or potential Light Rail or Bus Rapid Transit (BRT) alignments at stations for those services. They are multi-story (three to six stories), mixed-use developments that provide new housing opportunities and practical alternatives to vehicle mobility. The highest residential densities in the City are usually located here, with target density of 40 dwelling units per acre. Office uses may also be located at these sites, attracting people to the center from other areas of the City and region. Structured parking is common for this development type.



Source: City of Rancho Cordova Planning Department, 2006

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City of Rancho Cordova
Planning Department

Figure 3.0-3
Draft General Plan Land Use Map

ELEMENTS OF THE PROPOSED RANCHO CORDOVA GENERAL PLAN

City of Rancho Cordova General Plan Elements

The proposed City of Rancho Cordova General Plan consists of 12 "policy" elements and one implementation element. Each of 12 policy elements identify goals and associated policies with the general intent to assist and promote the furtherance of the ideas and desires established in the Rancho Cordova Vision Book for the City. A brief description of each element, and goals and policies for each element are provided below.

Land Use Element

The purpose of the Land Use Element is to describe existing and future land use activity in the City. The Element identifies the distribution, location, and intensity of all land use types throughout the City and the Planning Area.

Urban Design Element

The Urban Design Element is an optional element that provides policies and design concepts regarding the form and character of new private development (and public improvements), along with focused plans for areas of the City in need of special design attention.

Economic Development Element

This Element is an optional element included in the General Plan for the purpose of continuing to improve the City's prosperity, maintain competitiveness, ensure accessibility to its assets, make sure the market is aware of the City's opportunities, and set fair and equitable rules for development.

Housing Element

The Housing Element is a comprehensive statement by the City of Rancho Cordova of its current and future housing needs at all income levels. The element provides policies related to the provision of housing for all income levels as well as provisions that are state-mandated.

Circulation Element

The Circulation Element identifies the components of the Planning Area circulation system and their general location and role within the community. This includes policies for all types of transportation in the City and Planning Area: vehicles, transit (light rail and other forms of transit opportunities), bicycles and pedestrians. The element also includes level of service standards. **Figure 3.0-19** illustrates the General Plan Roadway System Map that shows proposed roadway and intersection improvements within the City and the Planning Area and delineates improvements that are proposed to be in place after the year 2030. **Figure 3.0-20** shows the proposed General Plan Bikeway and Trails Map, while **Figure 3.0-21** illustrates the General Plan Transit System Map.

Open Space, Parks and Trails Element

This Element provides goals, policies, and actions intended to achieve the City's vision for open spaces that are accessible to the community. The Element also considers the relationship of open space mitigation lands adjacent to urban lands.

Infrastructure, Services, and Finance Element

The Infrastructure, Services, and Finance Element is an optional element that works in combination with the Land Use Element to identify feasible funding options that will ensure the provision of infrastructure and public services in a timely manner to accommodate the development and associated land uses proposed under the General Plan.

Natural Resources Element

The management and protection of the many biological resources, creek corridors, storm drainage, hydrology, water supply and quality, geology and mineral resources, agriculture, and the consumption of energy are the focus of the Natural Resources Element. This Element represents the mandatory conservation element of the General Plan.

Cultural and Historic Resources Element

This optional Element seeks to identify and protect areas, sites, and buildings having architectural, historical or cultural significance. The Element provides goals, policies and actions designed to foster preservation of historic resources in the City and Planning Area.

Safety Element

The Safety Element discusses the human and natural safety concerns in the City and Planning Area. The Safety Element works in conjunction with the Infrastructure, Services and Finance Element and the Land Use Element.

Air Quality Element

This optional Element provides goals, policies, and actions to improve air quality in the region. This Element emphasizes the significance that land use patterns and resulting transportation behavior have on air quality.

Noise Element

This Element defines acceptable noise levels for representative types of land use (residential, office, industrial, etc.) of the City and Planning Area and how those levels will be achieved.

Land Use Map

The proposed City of Rancho Cordova General Plan includes the Land Use Map that combines specific land use designations in some areas of the City and more general descriptions of land uses in special areas planned for future growth referred to as "Planning Areas", which are described in more detail below. **Figure 3.0-3** shows the General Plan Land Use Map. **Figures 3.0-4** through **3.0-18** include actual land use plans and conceptual land use plans for 15 of the City's Planning Areas. A detailed Specific Plan is currently being prepared for the 16th Planning Area, the Folsom Boulevard Planning Area. The Folsom Boulevard Specific Plan will include policy, regulatory, and financial mechanisms for change. The Folsom Boulevard Specific Plan will be completed after the Rancho Cordova General Plan is adopted.

Table 3.0-1 summarizes the proposed buildout projections of the proposed General Plan Planning Area under the General Plan Land Use Map. **Table 3.0-2** summarizes buildout of the proposed General Plan by land use type.

TABLE 3.0-1
SUMMARY OF EXISTING AND GENERAL PLAN BUILDOUT CONDITIONS

Land Uses	City Only			Entire Planning Area		
	Existing	Year 2030	Buildout	Existing	Year 2030	Buildout
Residential Units	22,443	75,957	75,923	41,749	109,884	126,241
Population	54,379	183,362	183,459	102,412	267,275	310,568
Total Employment1	47,679	89,305	102,878	94,771	146,459	195,021
Commercial	7,075	10,603	11,529	15,026	21,123	23,942
Office	25,534	69,573	78,597	45,985	108,369	132,355
Industrial	10,886	9,129	8,297	26,864	16,968	24,381
Total Square Footage2	18,743,319	32,791,241	35,084,629	40,717,601	56,139,386	71,209,788
Commercial	3,537,443	5,300,372	5,764,627	7,513,133	10,560,826	11,971,169
Office	7,491,663	19,132,151	21,614,312	13,551,611	29,801,078	36,397,637
Industrial	7,714,213	8,358,718	7,705,690	19,652,857	15,777,482	22,840,982

Source: City of Rancho Cordova PLACE3S Land Use Model

Note: Buildout projections under the Entire Planning Area include the City.

1 Total employment also includes jobs that are not included under commercial, office and industrial, such as public school employment.

2 Total Square Footage totals only include commercial, office and industrial and do not include other square footage from other uses, such as public and quasi-public uses (e.g., schools and churches).

TABLE 3.0-2
PROPOSED GENERAL PLAN LAND USE DESIGNATION ACREAGES

Land Use	Acreages	
	City Only	Entire Planning Area
Public/Quasi-Public	1,138	4,992
Parks and Open Space	2,392	4,202
Natural Resources	1,864	11,115
Rural Residential	0	1,135
Estate Residential	630	4,579
Low Density Residential	6,156	16,936
Medium Density Residential	3,423	3,689
High Density Residential	450	699
Residential Mixed Use	62	122
Office Mixed Use	1,788	2,906
Commercial Mixed Use	439	791
Village Center	222	447
Local Town Center	68	145

Land Use	Acreages	
	City Only	Entire Planning Area
Regional Town Center	112	286
Transit Oriented Town Center	77	231
Light Industrial	961	3,901
Heavy Industrial	224	1,142
Surface Mining	0	871
TOTAL	**20,006**	**58,189**

Source: City of Rancho Cordova PLACE^{3}S Land Use Model
Note: Totals do not include rights-of-way

As part of the development of the proposed land use mix set forth in the General Plan, the City conducted fiscal and retail/office market demand analyses for the Planning Area (referred to hereafter as the "General Plan Pro-Forma" or "Proforma") to determine if the land use mix, location of uses and intensities proposed in the Draft General Plan Land Use Map adopted in May 2005 would be supportable given projected demands for retail and office uses at buildout. In addition, the Proforma also analyzed revenues and expenditures for future development, capital improvements and needs for the City to accommodate growth and how the rate and form of growth would impact the fiscal viability of the City. The results of the Proforma analysis were used to refine the General Plan Land Use Map to its current proposed form, in terms of total development potential and intensities (as described in this Draft EIR).

General Plan Planning Areas

A total of sixteen individual General Plan Planning Areas are proposed as part of the General Plan. Land uses within these Planning Areas are described in the General Plan and are mapped with either land use plans or conceptual land use plans (see **Figures 3.0-4** through **3.0-18**). Those Planning Areas that are currently not within the existing boundaries of the City are identified as 'conceptual land plans'. Each of the Planning Areas is listed below in **Table 3.0-3**, along with a reference to the corresponding figure and a summary of the ultimate build out assumptions.

- Aerojet Planning Area Conceptual Land Plan - see **Figure 3.0-4**
- Countryside/Lincoln Village Planning Area Land Plan - see **Figure 3.0-5**
- Downtown Planning Area Conceptual Land Plan - see **Figure 3.0-6**
- East Planning Area Conceptual Land Plan - see **Figure 3.0-7**
- Folsom Boulevard Planning Area – A Specific Plan is currently being prepared for this area.
- Glenborough Planning Area Conceptual Land Plan - see **Figure 3.0-8**
- Grant Line North Planning Area Conceptual Land Plan - see **Figure 3.0-9**
- Grant Line South Planning Area Conceptual Land Plan - see **Figure 3.0-10**
- Grant Line West Planning Area Conceptual Land Plan - see **Figure 3.0-11**

- Jackson Planning Area Conceptual Land Plan - see **Figure 3.0-12**
- Mather Planning Area Conceptual Land Plan - see **Figure 3.0-13**
- Rio del Oro Planning Area Conceptual Land Plan - see **Figure 3.0-14**
- Suncreek/Preserve Planning Area Conceptual Land Plan - see **Figure 3.0-15**
- Sunrise Boulevard North Planning Area Land Plan - see **Figure 3.0-16**
- Sunrise Boulevard South Planning Area Land Plan - see **Figure 3.0-17**
- Westborough Planning Area Conceptual Land Plan - see **Figure 3.0-18**

In addition to the Planning Areas, the General Plan also designates a Convention Overlay area that is intended to foster and support a convention center at the intersection of Sunrise Boulevard and Folsom Boulevard, including hotels, restaurants, and meeting spaces (see **Figure 3.0-3**). Subsequent detailed and refined planning (e.g., specific plans) will be required for these planning areas in order to allow substantial development and/or expansion of existing development to proceed. Subsequent development for these Planning Areas will need to demonstrate consistency with the General Plan and the associated Planning Area conceptual land use maps in order to be determined by the City as substantially consistent with the General Plan and programmatically addressed in the environmental analysis provided in this General Plan DRAFT EIR.

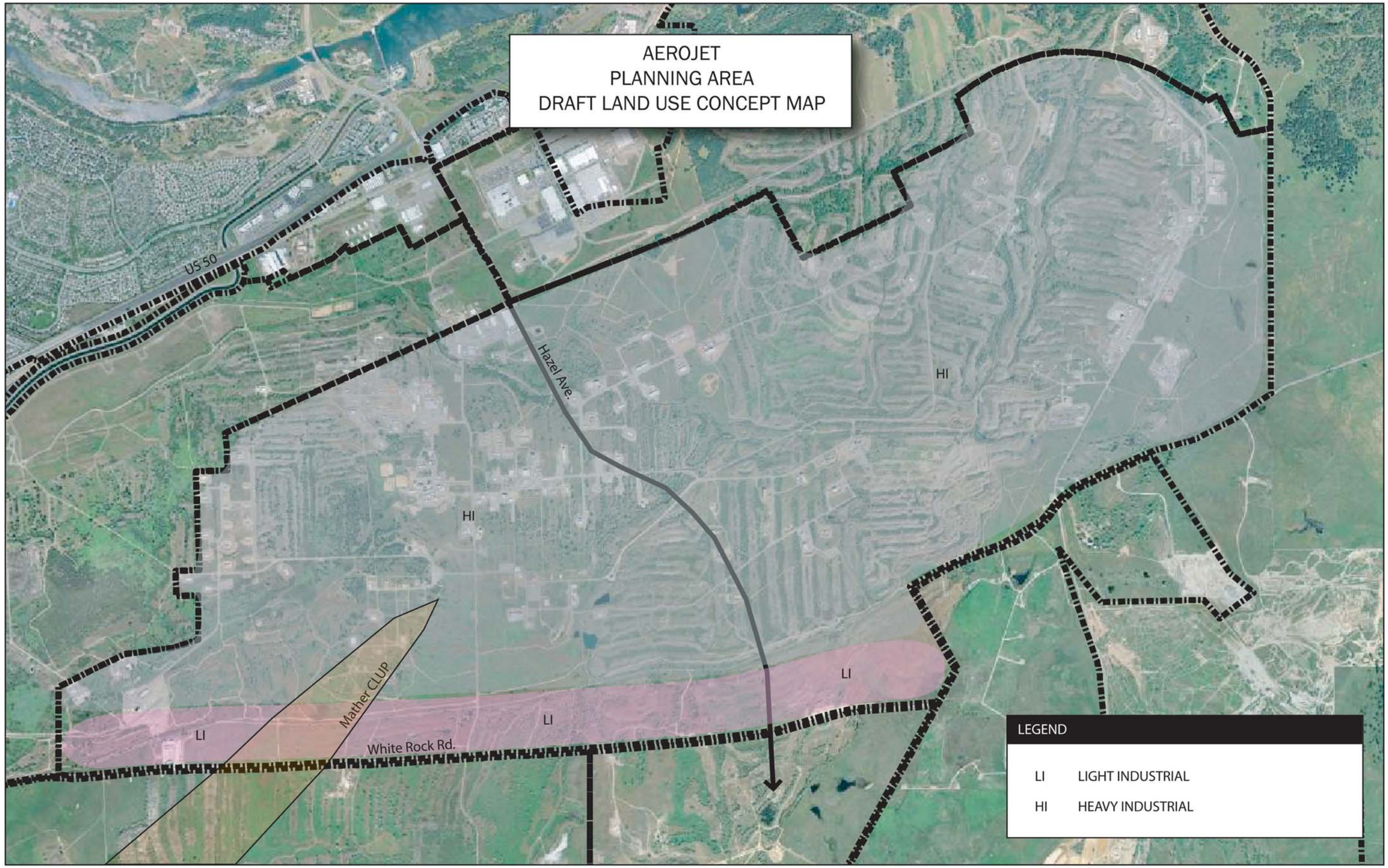
TABLE 3.0-3
SUMMARY OF BUILDOUT CONDITIONS BY PLANNING AREA

				Employment				Square Footage		
Planning Area	Dwelling Units	Population	Total Employment[1]	Commercial	Office	Industrial	Total Square Footage[2]	Commercial	Office	Industrial
Aerojet	0	0	4,570	0	2,078	2,491	2,930,958	0	571,537	2,359,421
Countryside/ Lincoln Village	3,558	8,694	5,715	408	4,880	204	1,729,506	204,179	1,341,988	183,339
Downtown	2,986	6,479	16,000	2,045	13,821	0	4,823,373	1,022,717	3,800,656	0
East	10,390	27,781	5,644	1,328	2,452	485	1,776,060	663,935	674,387	437,738
Folsom Blvd	10,476	22,936	26,704	4,497	21,350	833	8,869,137	2,248,631	5,871,106	749,400
Glenborough	4,434	10,344	9,747	3,971	5,541	5	3,514,669	1,985,370	1,523,859	5,440
Grant Line North	6,916	16,601	3,634	299	3,242	0	1,040,916	149,368	891,548	0
Grant Line South	3,667	9,816	3,235	263	2,594	0	844,822	131,585	713,237	0
Grant Line West	3,393	9,043	1,747	1,006	522	0	646,577	502,893	143,684	0
Jackson	5,806	15,457	10,753	411	6,834	3,156	5,148,609	205,424	1,879,425	3,063,760
Mather	1,982	5,175	15,841	197	8,011	3,449	5,405,896	98,638	2,202,951	3,104,307
Rio del Oro	11,366	27,987	12,067	2,425	6,422	2,393	5,132,642	1,212,657	1,766,146	2,153,839
Suncreek/ Preserve	9,263	21,236	1,331	423	449	0	334,754	211,522	123,232	0
Sunrise Blvd North	630	1,367	1,561	432	1,129	0	526,528	216,014	310,514	0
Sunrise Blvd South	0	0	14,436	1,045	8,004	5,387	7,809,716	522,440	2,201,125	5,086,151
Westborough	6,078	15,714	5,521	1,701	3,434	193	1,968,928	850,540	944,359	174,029

Source: City of Rancho Cordova PLACE^{3}S Land Use Model

[1] *Total employment also includes jobs that are not included under commercial, office and industrial, such as public school employment.*

[2] *Total Square Footage totals only include commercial, office and industrial and do not include square footage from other uses, such as public and quasi-public uses (e.g., schools and churches).*



Source: AirPhoto USA, 2004

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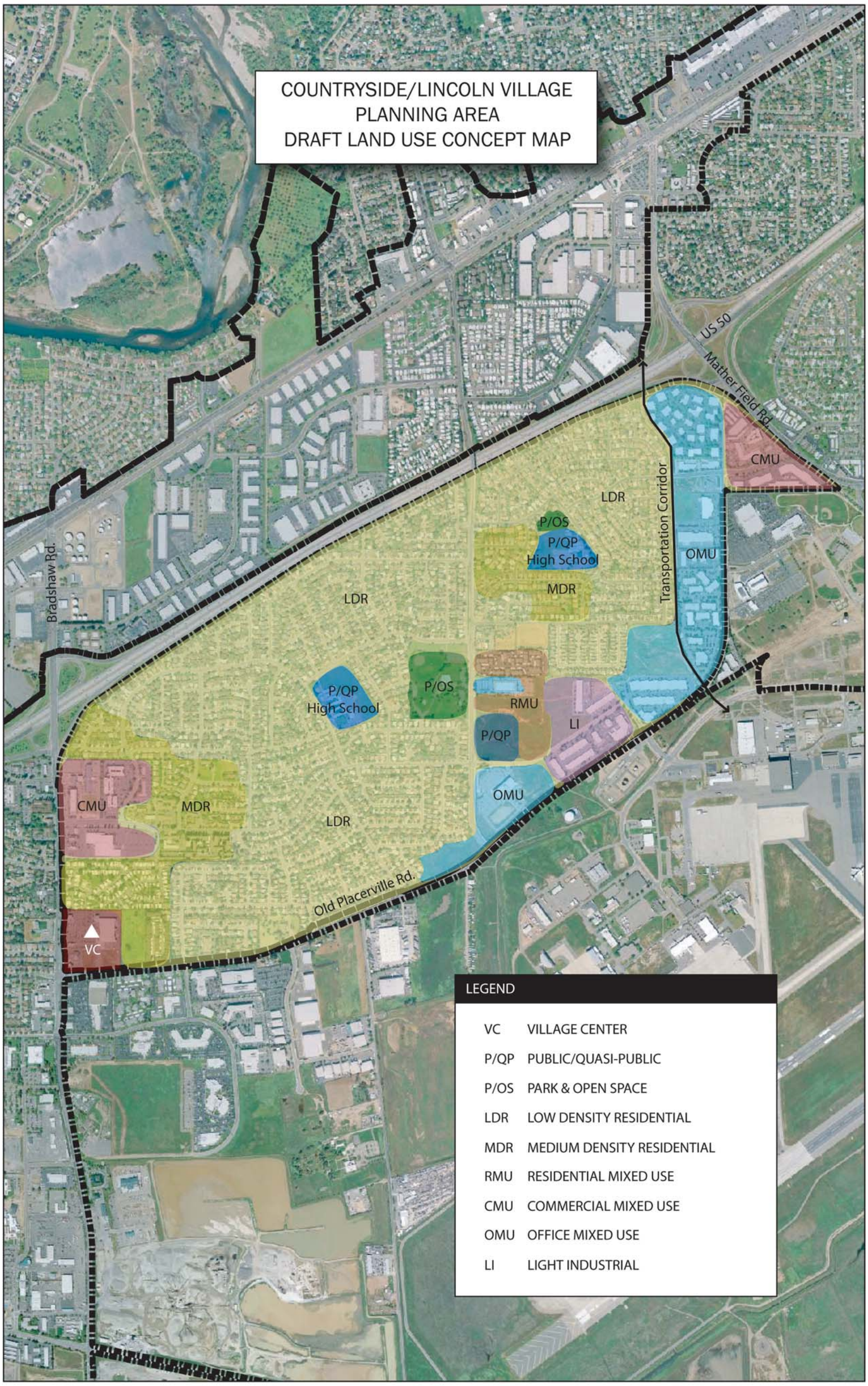
Figure 3.0-4
Aerojet Planning Area



Source: AirPhoto USA, 2004

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City of Rancho Cordova
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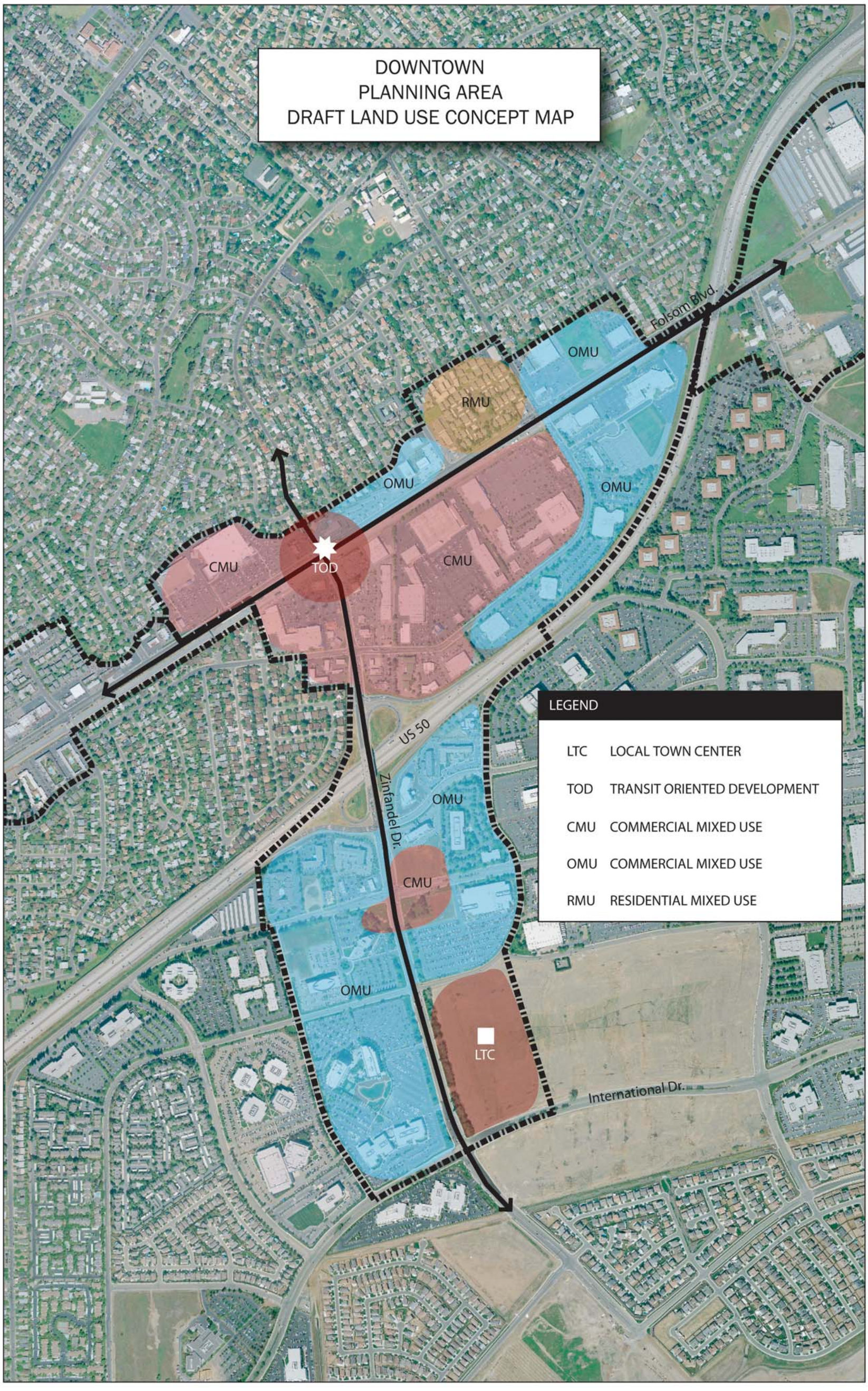
Figure 3.0-5
Countryside/Lincoln Village Planning Area



Source: AirPhoto USA, 2004

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City of Rancho Cordova
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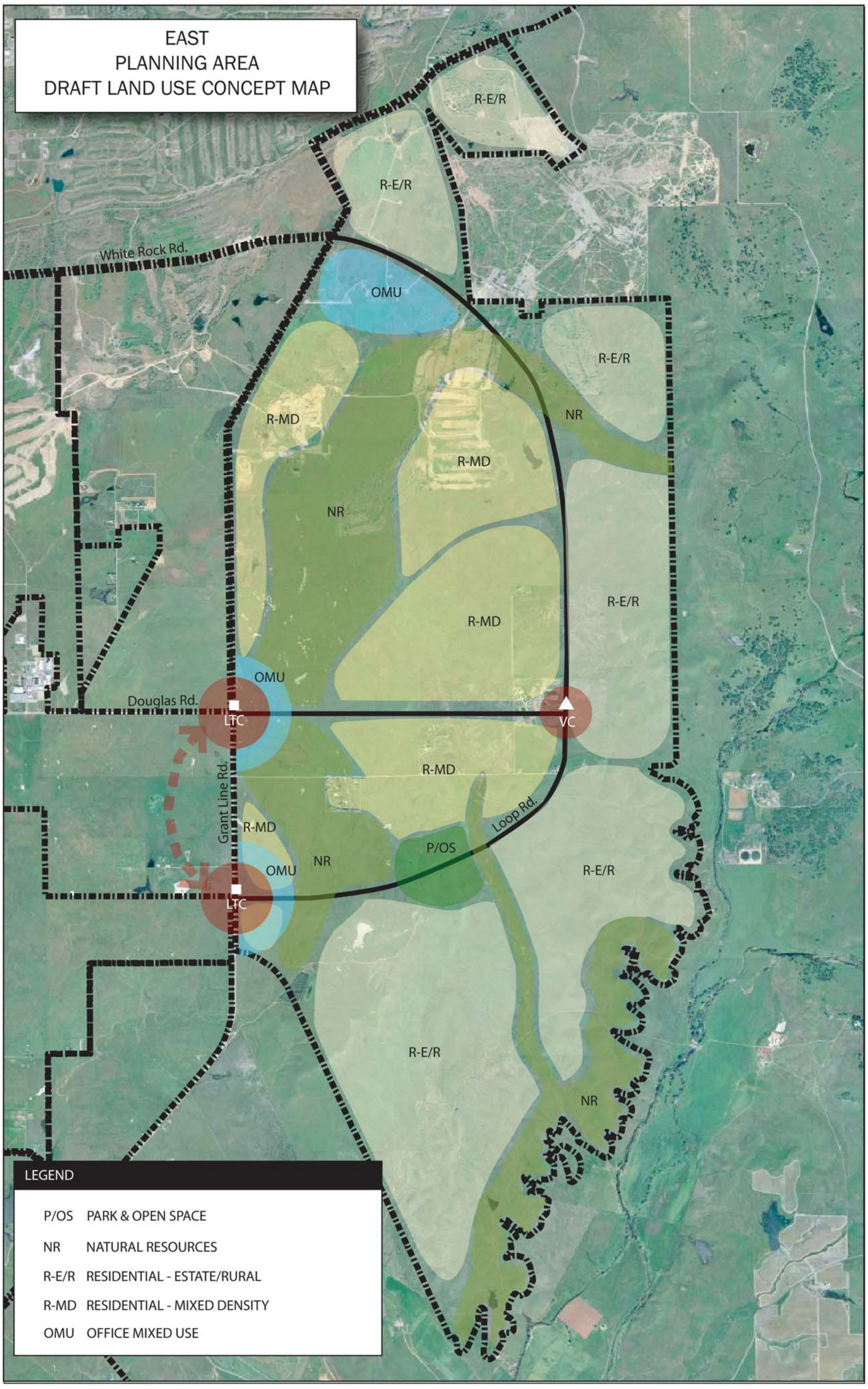
Figure 3.0-6
Downtown Planning Area



Source: AirPhoto USA, 2004

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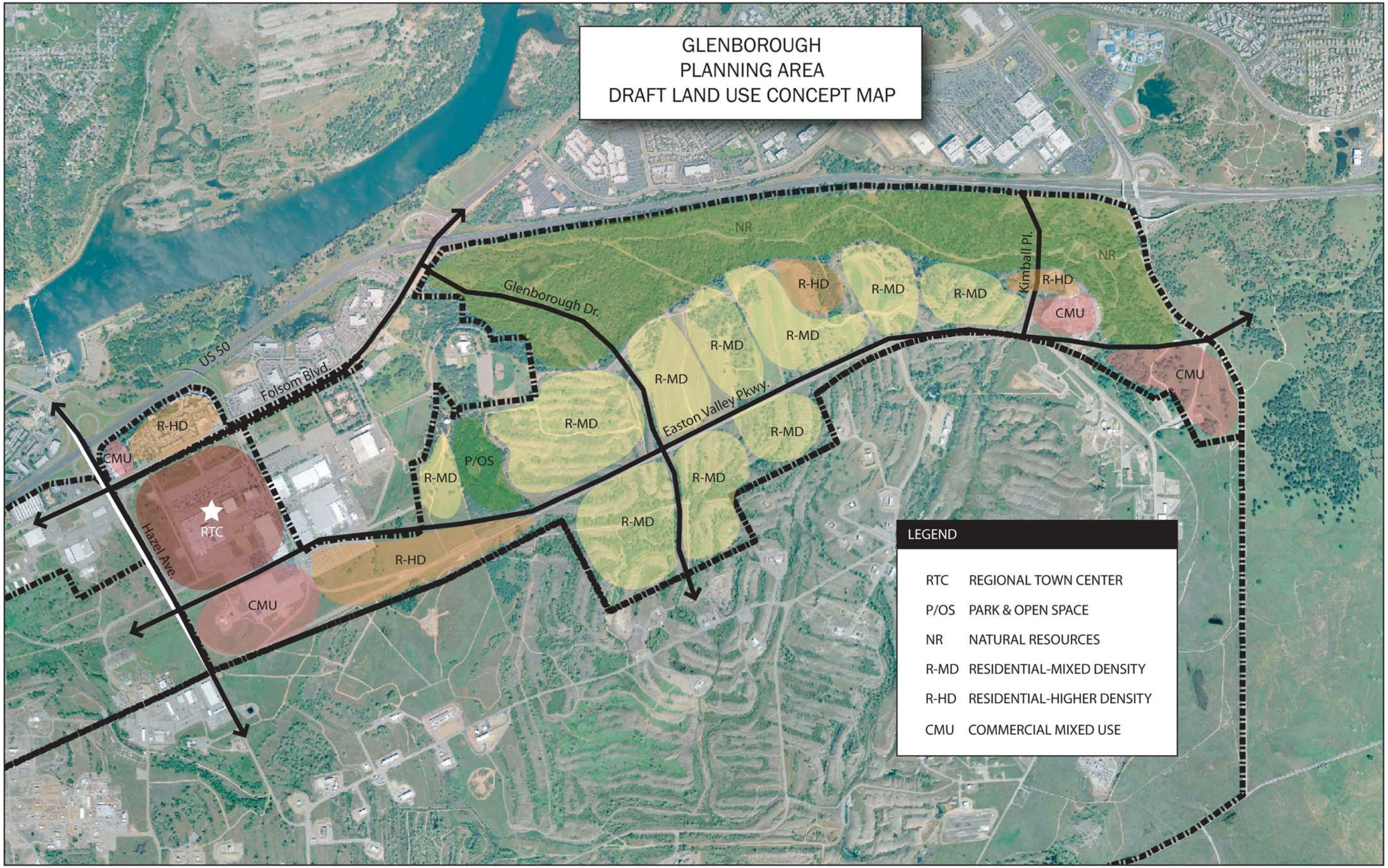
City of Rancho Cordova
Planning Department

Figure 3.0-7
East Planning Area



Source: AirPhoto USA, 2004

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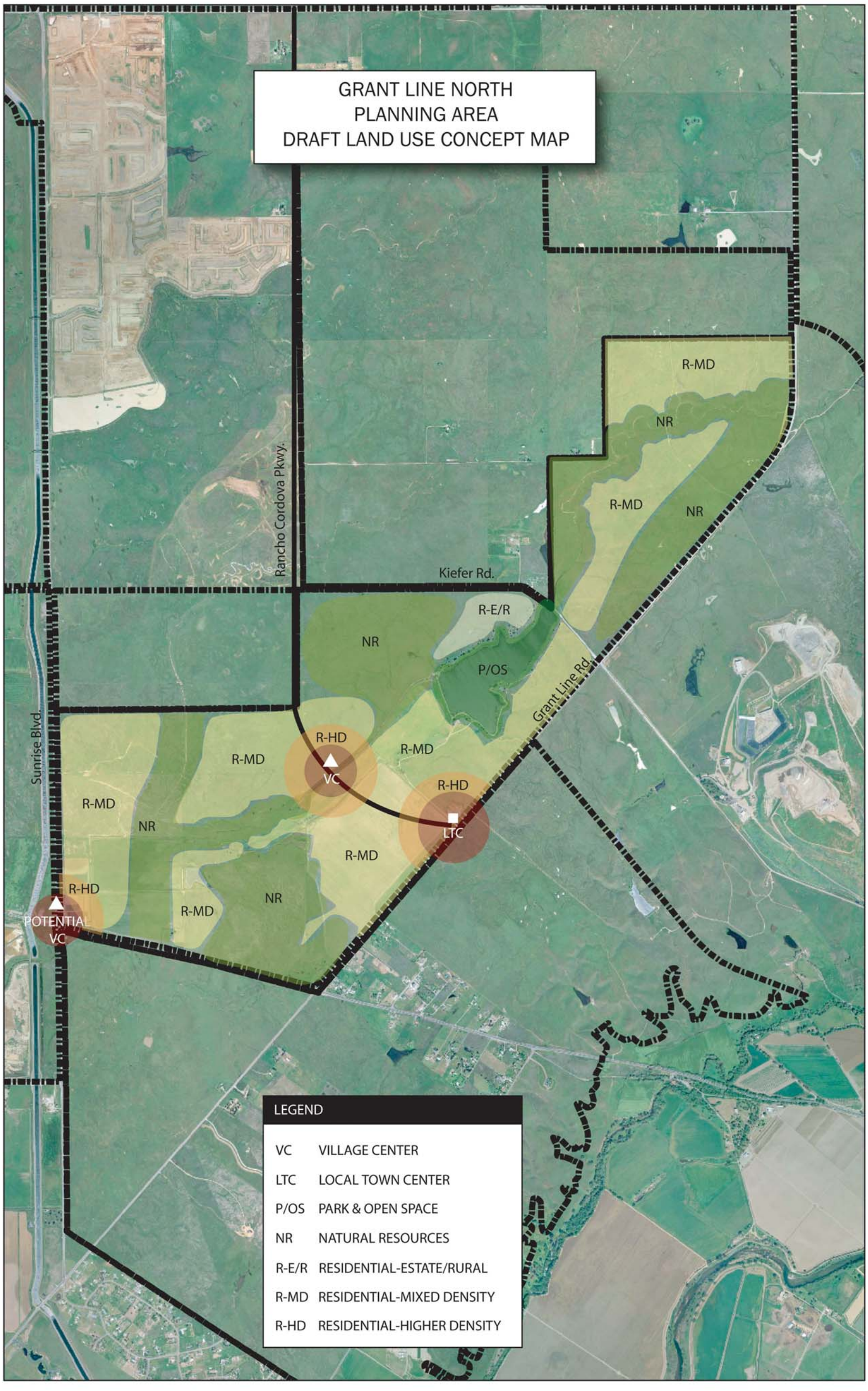
City of Rancho Cordova
Planning Department

Figure 3.0-8
Glenborough Planning Area



Source: AirPhoto USA, 2004

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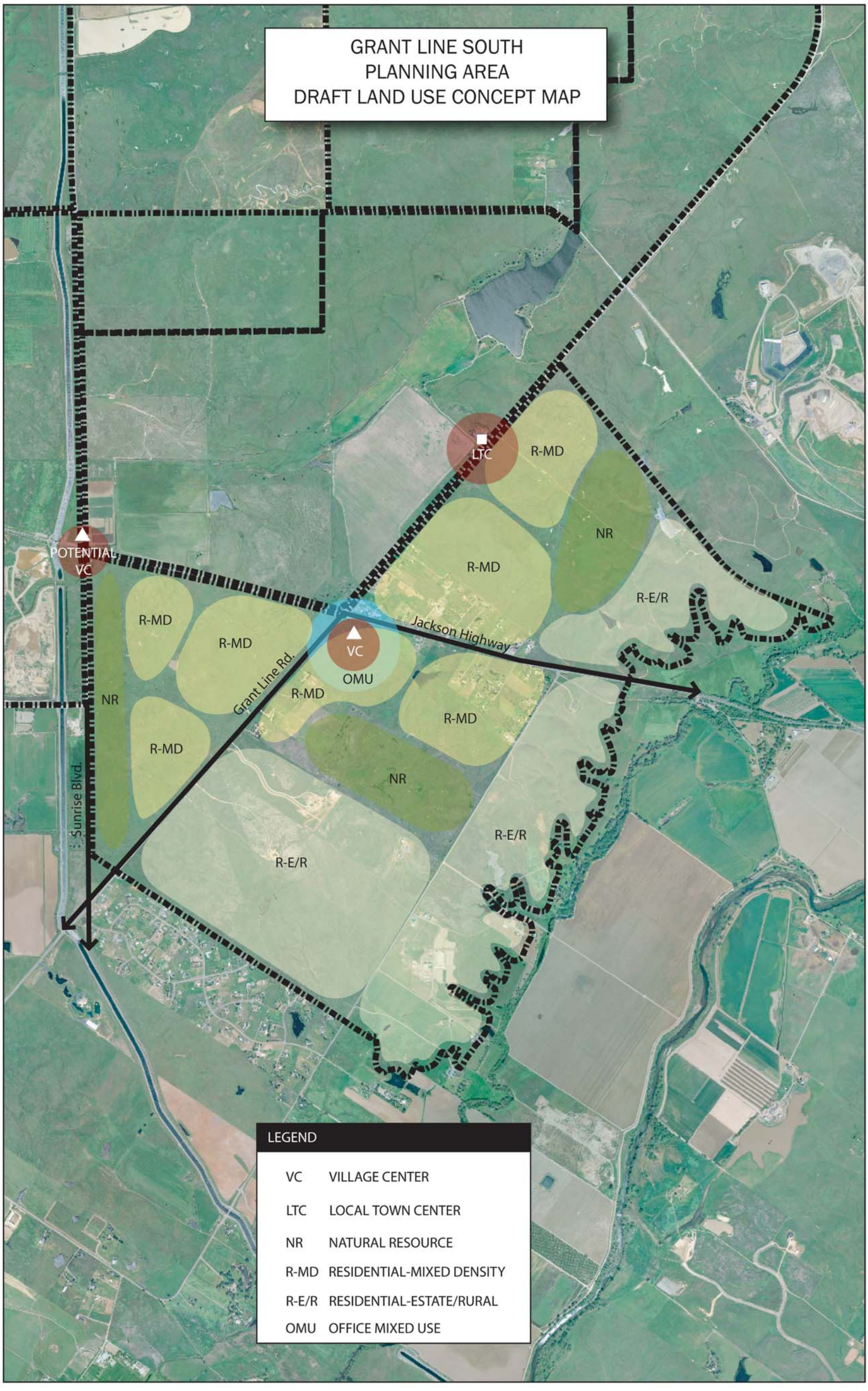
City of Rancho Cordova
Planning Department

Figure 3.0-9
Grant Line North Planning Area



Source: AirPhoto USA, 2004

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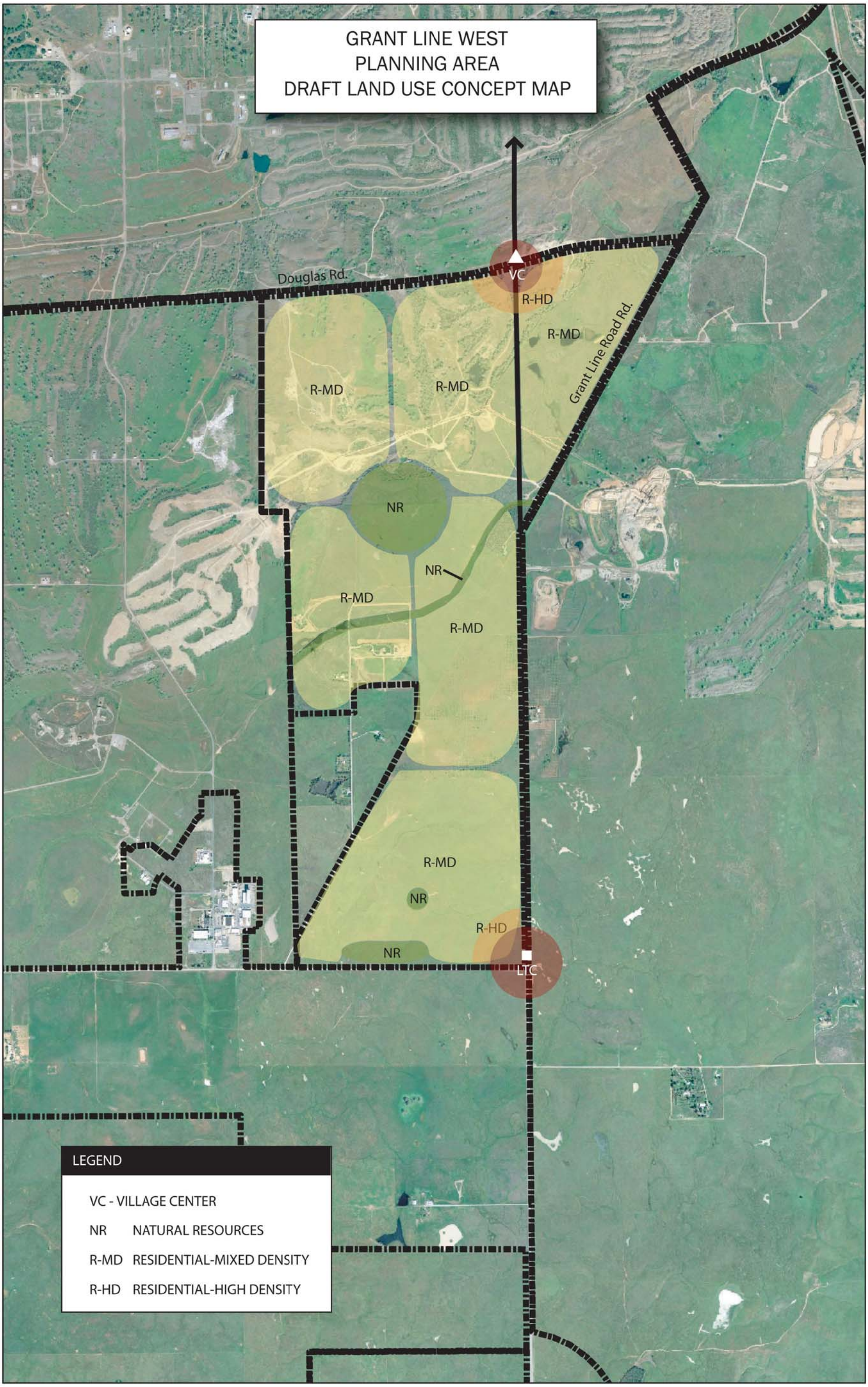
City of Rancho Cordova
Planning Department

Figure 3.0-10
Grant Line South Planning Area



Source: AirPhoto USA, 2004

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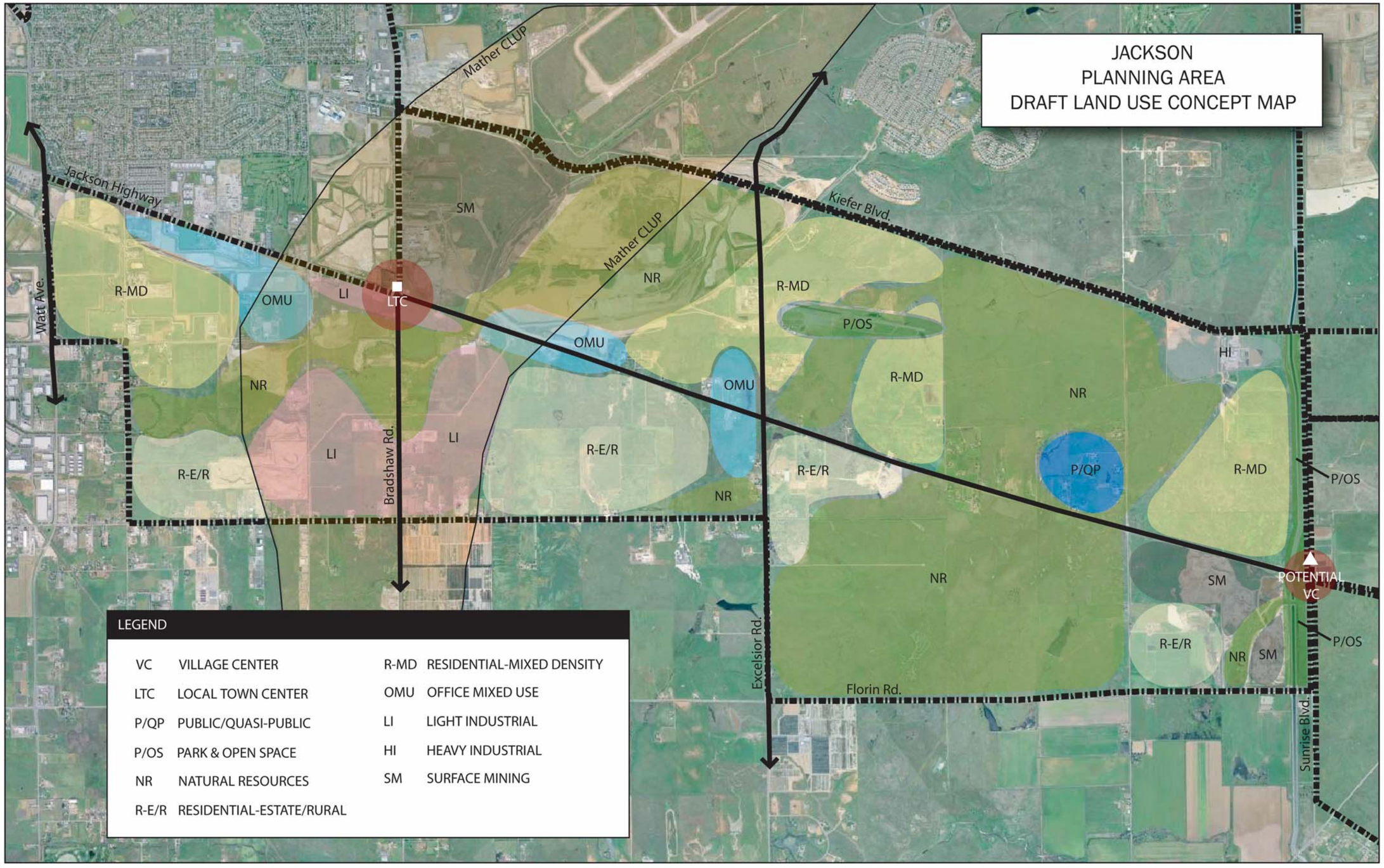
Figure 3.0-11
Grant Line West Planning Area

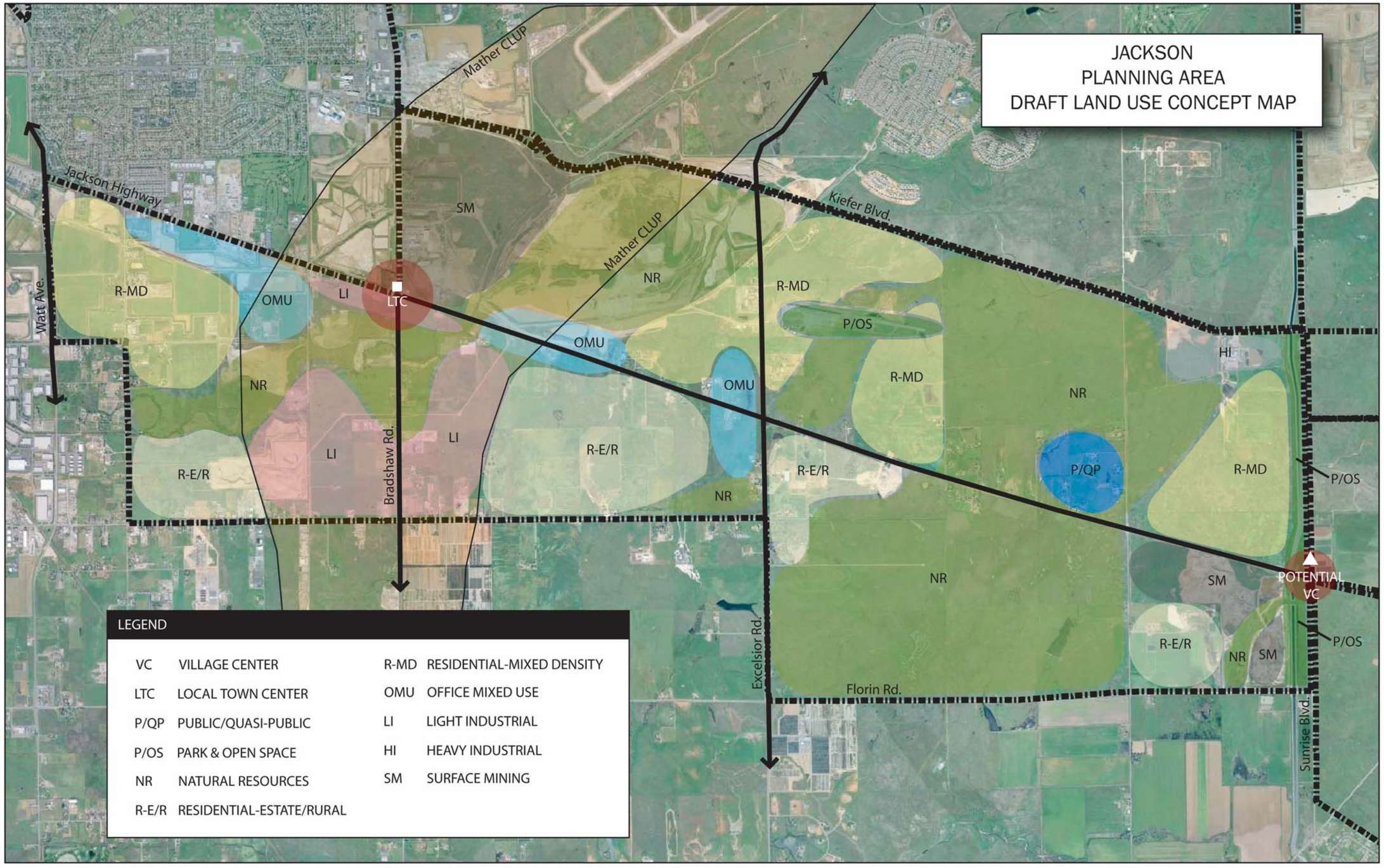


Source: AirPhoto USA, 2004

T:\Rancho Cordova\General Plan EIR\AI Files\Figure 3.0-12.ai, February 2006

City of Rancho Cordova
Planning Department

Figure 3.0-12
Jackson Planning Area

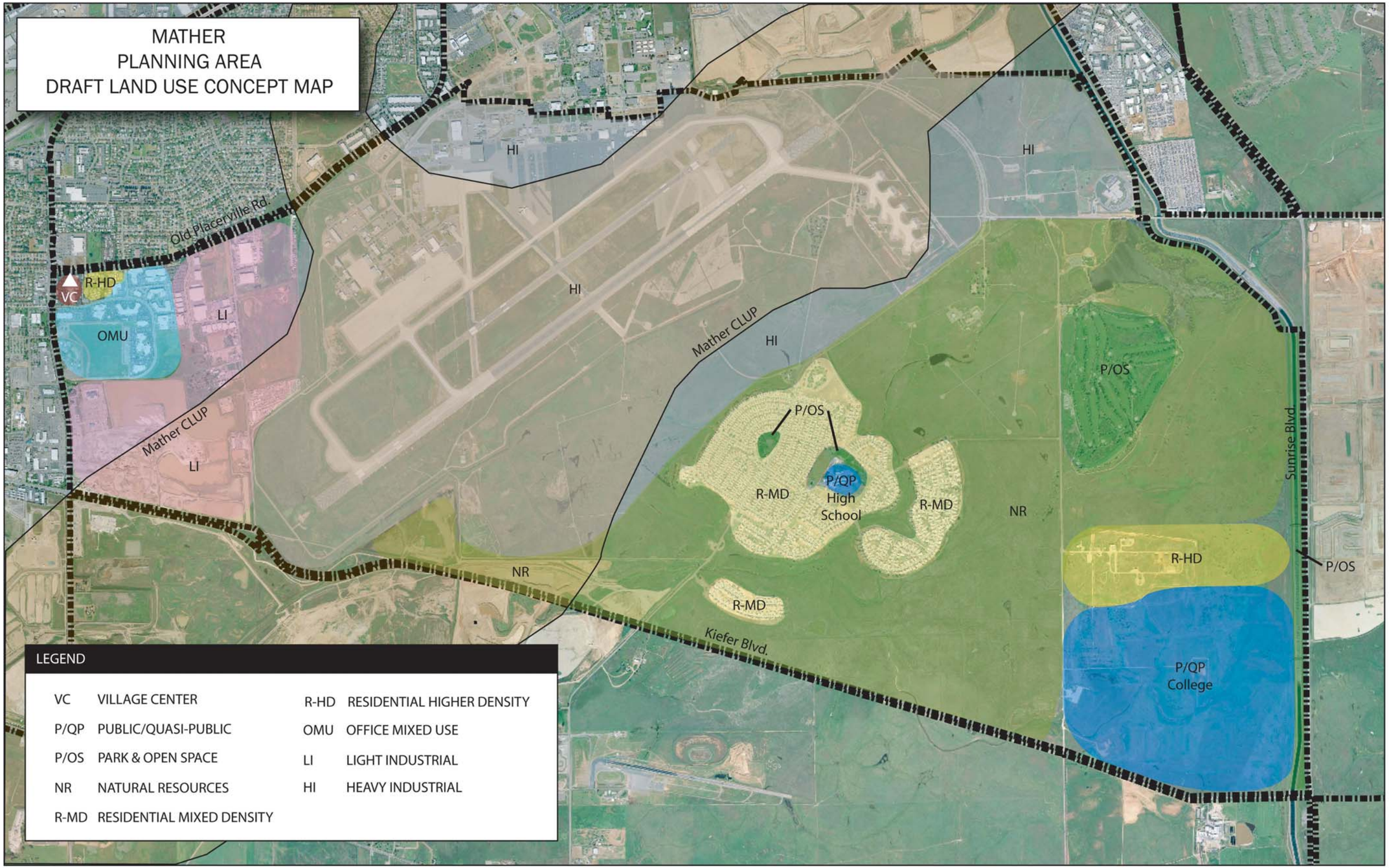


Source: AirPhoto USA, 2004

T:\Rancho Cordova\General Plan EIR\AI Files\Figure 3.0-12.ai, February 2006

City of Rancho Cordova
Planning Department

Figure 3.0-12
Jackson Planning Area

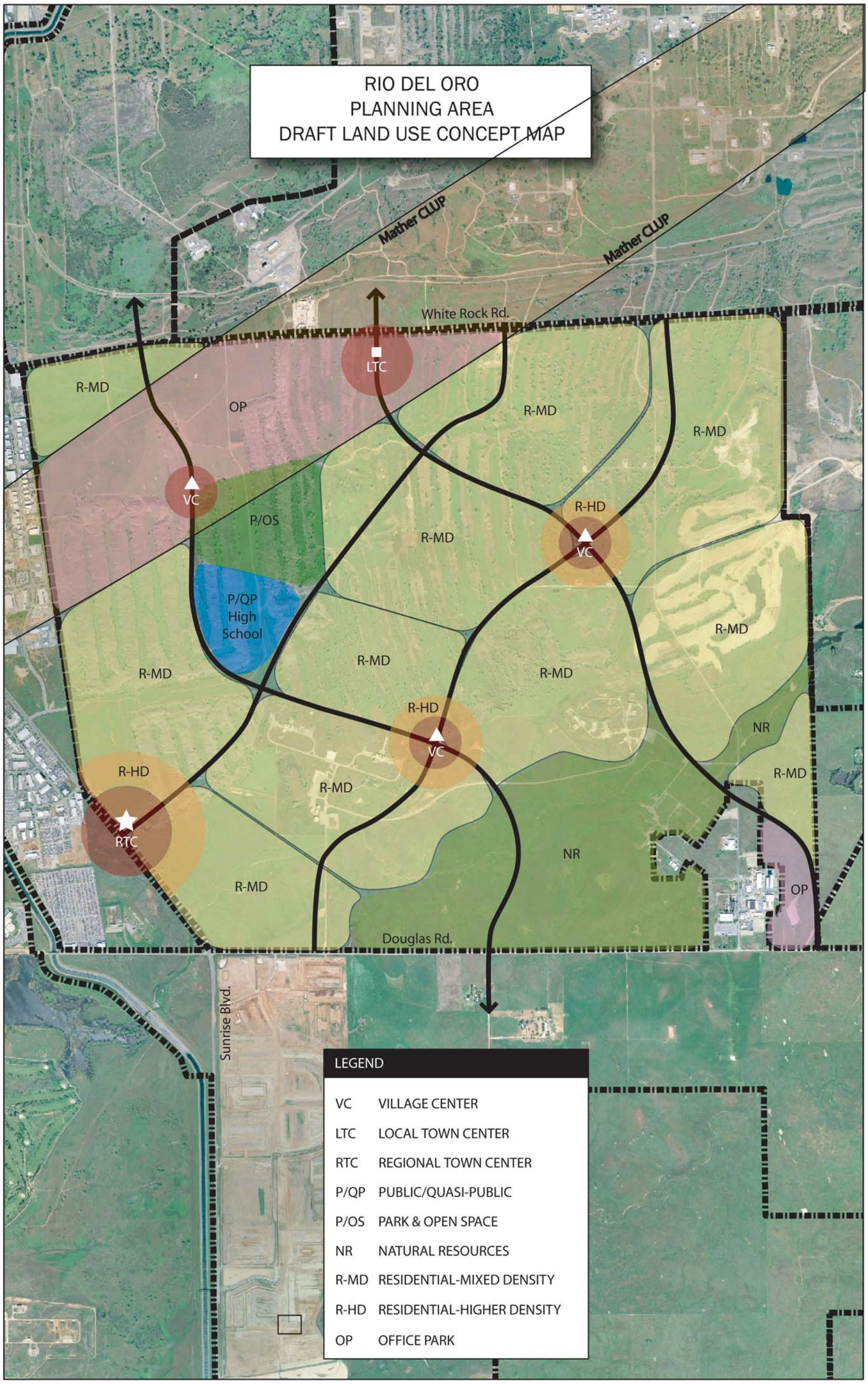


Source: AirPhoto USA, 2004

T:\Rancho Cordova\General Plan EIR\AI Files\Figure 3.0-13.ai, February 2006

City of Rancho Cordova
Planning Department

Figure 3.0-13
Mather Planning Area

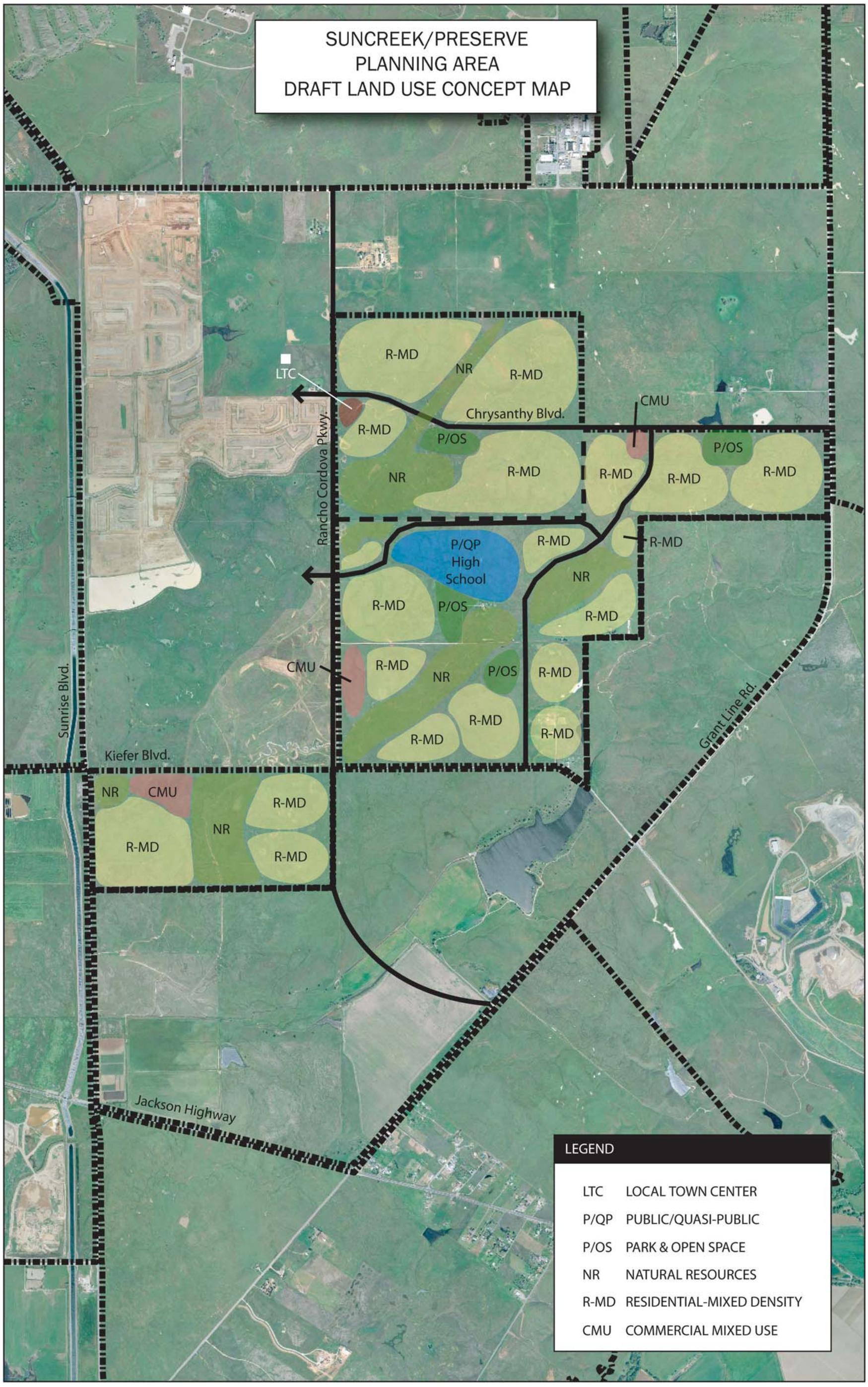


Source: AirPhoto USA, 2004

T:\Rancho Cordova\General Plan EIR\AI Files\Figure 3.0-14.ai, February 2006

City of Rancho Cordova
Planning Department

Figure 3.0-14
Rio del Oro Planning Area

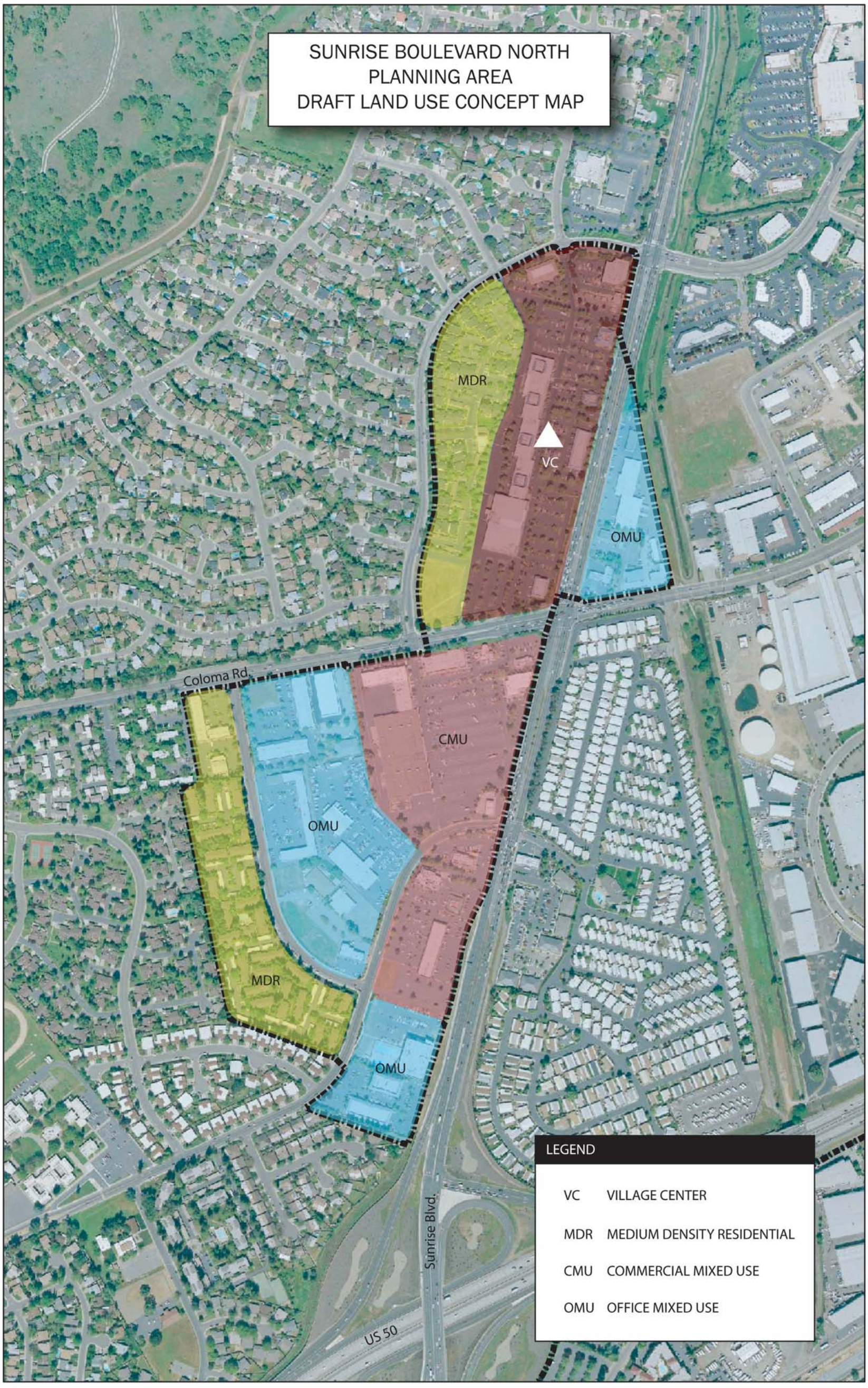


Source: AirPhoto USA, 2004

T:\Rancho Cordova\General Plan EIR\AI Files\Figure 3.0-15.ai, February 2006

City of Rancho Cordova
Planning Department

Figure 3.0-15
Suncreek/Preserve Planning Area

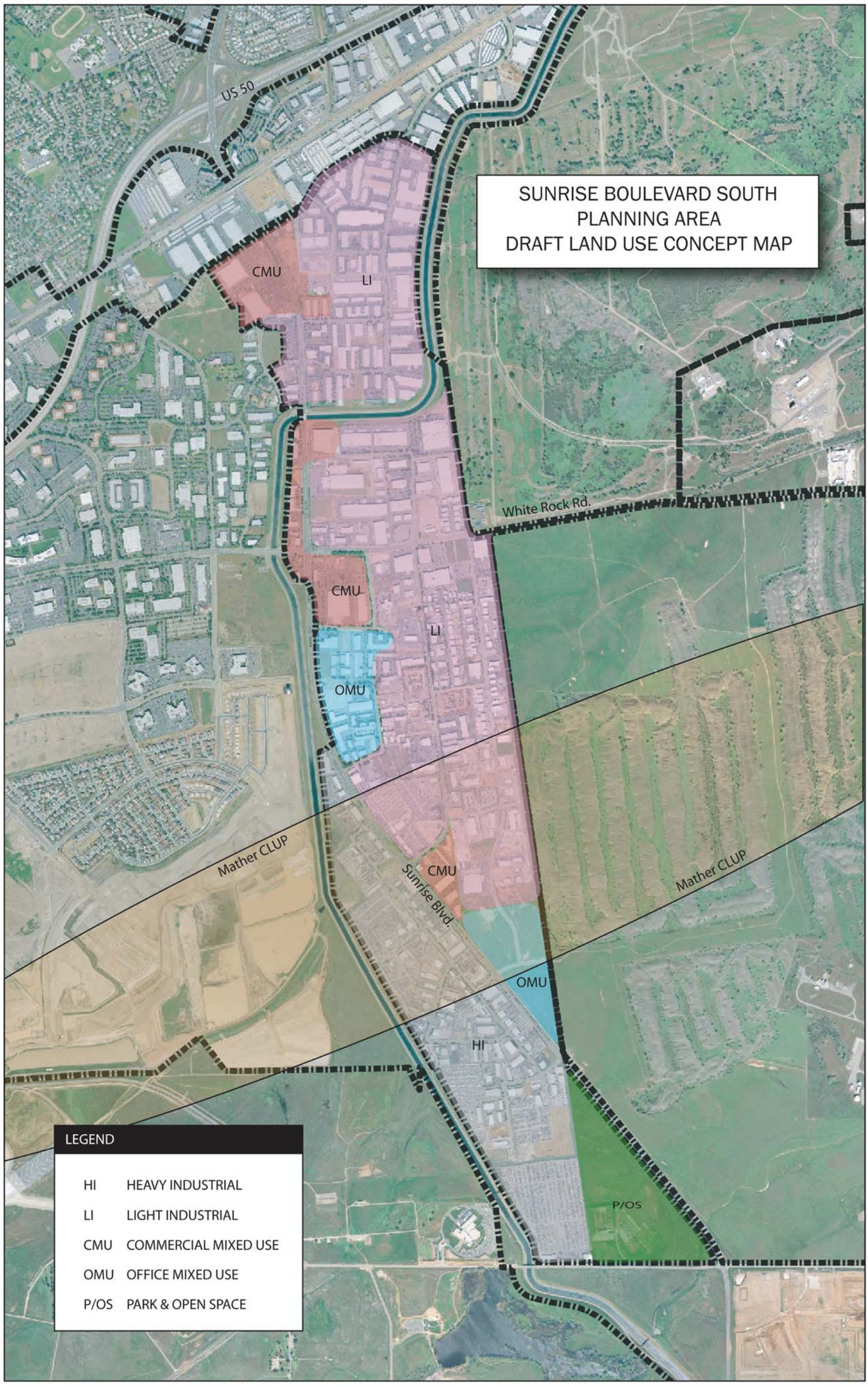


Source: AirPhoto USA, 2004

T:\Rancho Cordova\General Plan EIR\AI Files\Figure 3.0-9.ai, February 2006

City of Rancho Cordova
Planning Department

Figure 3.0-16
Sunrise Boulevard North Planning Area

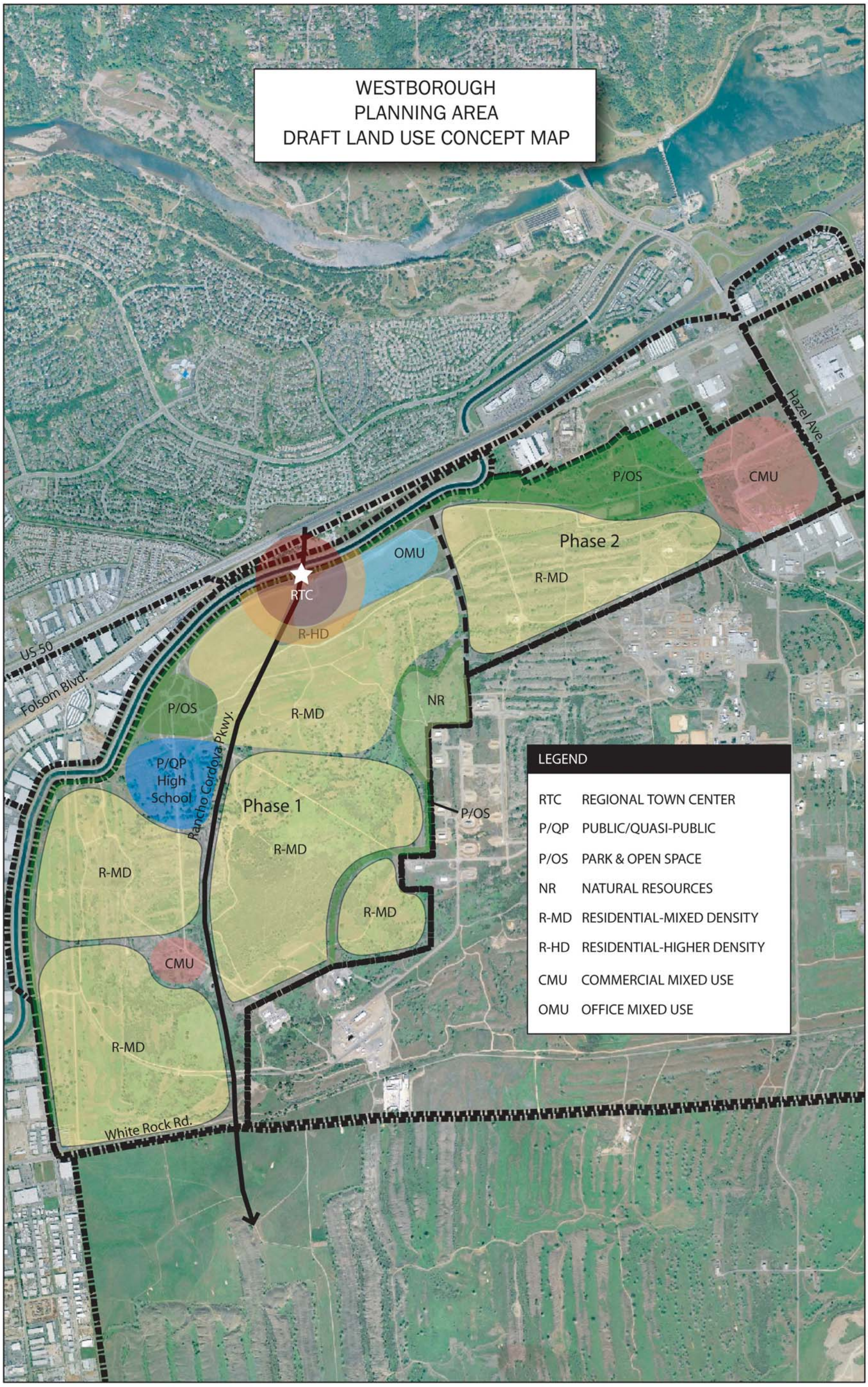


Source: AirPhoto USA, 2004

T:\Rancho Cordova\General Plan EIR\AI Files\Figure 3.0-17.ai, February 2006

City of Rancho Cordova
Planning Department

Figure 3.0-17
Sunrise Boulevard South Planning Area

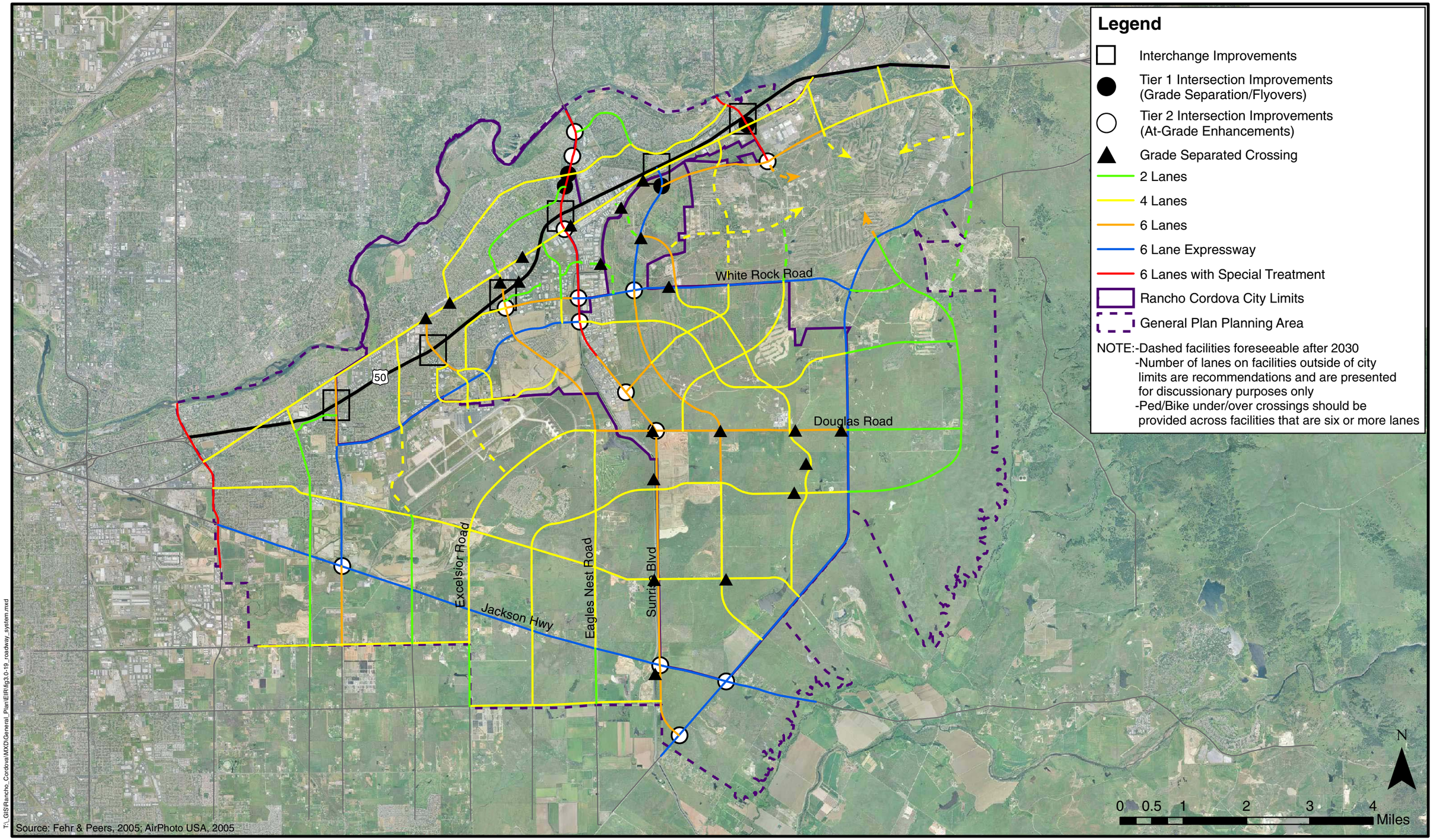


Source: AirPhoto USA, 2004

T:\Rancho Cordova\General Plan EIR\AI Files\Figure 3.0-18.ai, February 2006

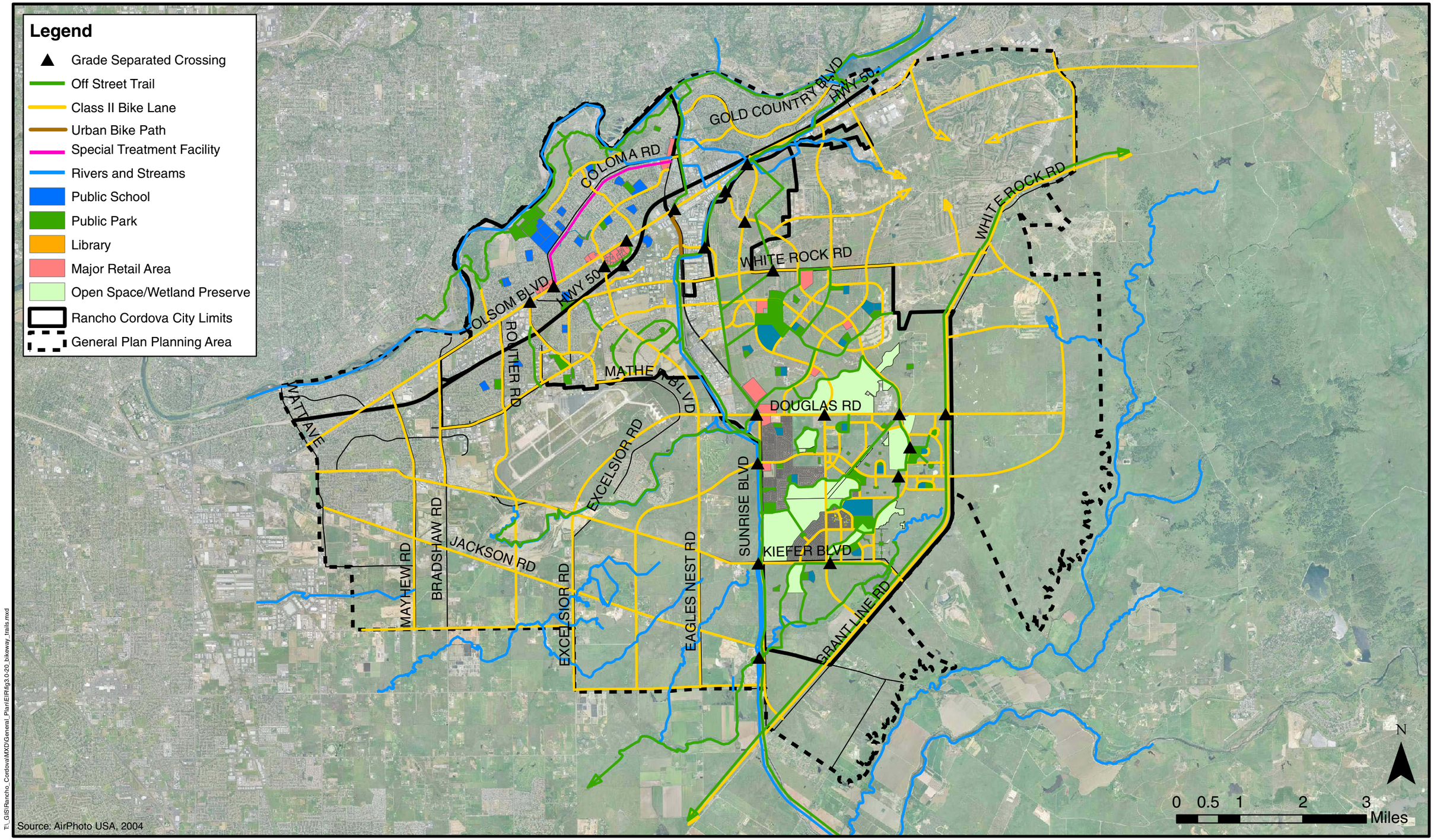
City of Rancho Cordova
Planning Department

Figure 3.0-18
Westborough Planning Area



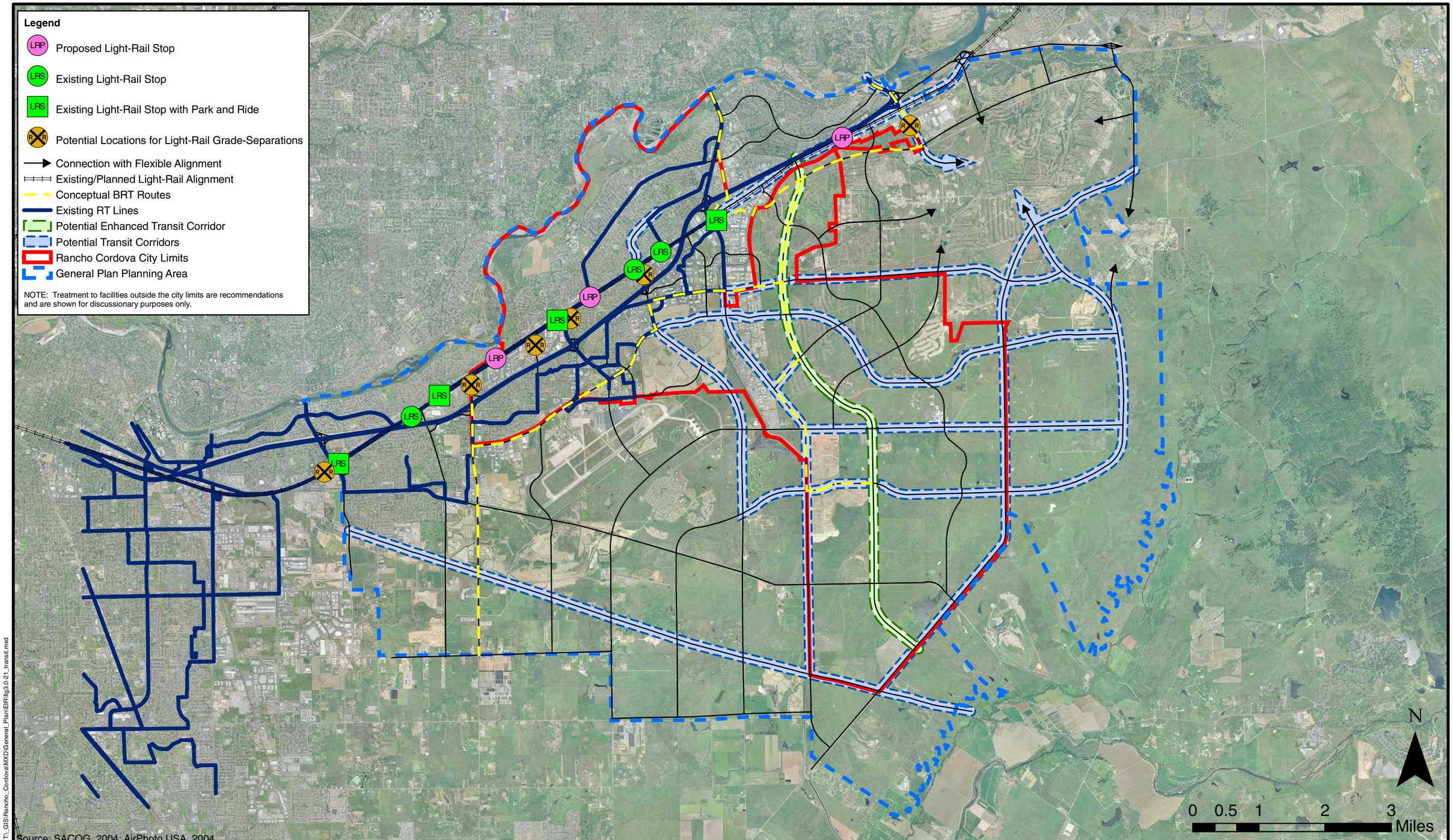
City of Rancho Cordova
Planning Department

Figure 3.0-19
Roadway System Map



City of Rancho Cordova
Planning Department

Figure 3.0-20
Draft City Trails and Bikeways Plan



City of Rancho Cordova
Planning Department

Figure 3.0-21
Transit System Map

3.4 INTENDED USE OF THE EIR AND APPROVAL PROCESS

This EIR may be used for the following direct and indirect actions regarding the Planning Area:

INTENDED USE OF THE EIR

This EIR provides a programmatic environmental review of implementation of the General Plan. Subsequent activities under the General Plan would utilize this EIR as the basis in determining whether the later activity may have any significant effects, to focus the environmental review of the subsequent activity, and the conclusions of this EIR can be incorporated where factors apply to the program as a whole.

Following adoption of the General Plan and certification of the EIR by the City Council, all subsequent activities and development within the City will be guided by the goals and policies set forth in the new General Plan. The City Council is anticipated to conduct the following subsequent activities to implement the General Plan:

- The City would initiate a comprehensive amendment of the City of Rancho Cordova Zoning Ordinance 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 establish the land use entitlement process applicable to the land use designations.
- The City would adopt financing programs or fee programs for public infrastructure.
- The City would plan, finance and construct public infrastructure projects or consider private development requests for infrastructure projects such as roadway improvements consistent with the General Plan Roadway System Map, construction of parks, trails, infrastructure improvements (e.g., water distribution and treatment facilities, wastewater facilities, drainage improvements), other capital improvements (e.g., construction of a new City Hall and civic center) natural resource preservation and/or restoration, and redevelopment and/or revitalization efforts of the City and Community Redevelopment Agency of the City of Rancho Cordova.
- The City may conduct or consider further focused planning studies.
- 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.

The City has already initiated some of the above activities. These activities include the adoption the City of Rancho Cordova Design Guidelines, adoption of a traffic impact fee program to support planned roadway improvements identified on the General Plan Roadway System Map, initiation of the development of the City of Rancho Cordova Redevelopment Plan and other associated transportation and planning activities.

CITY OF RANCHO CORDOVA CERTIFICATION OF THE EIR

The City of Rancho Cordova General Plan will be presented to the City of Rancho Cordova Planning Commission for review, comment and recommendations. The City of Rancho Cordova City Council, as the City's legislative body, is the approving authority for the City of Rancho Cordova General Plan. In order to approve the General Plan, the City Council would have to take the following actions:

- Certification of the City of Rancho Cordova General Plan EIR.
- Adoption of required findings for the above actions, including required findings under the State CEQA Guidelines, Sections 15090, 15091 and 15093.
- Adoption of the City of Rancho Cordova General Plan.

OTHER GOVERNMENTAL AGENCY APPROVALS

Additional subsequent approvals and permits that may be required from local, regional, state and federal agencies in the processing of subsequent development permits include, but are not limited to, the following:

- Sacramento County Local Agency Formation Commission (LAFCo) approval of future requests to annex land into the City would require approval of LAFCo. LAFCo must also approve the formation, reorganization, incorporation, or consolidation of special districts that provide services within the City.
- Sacramento Metropolitan Air Quality Management District (SMAQMD) approval of dust control plans and other permits for subsequent projects.
- California Department of Transportation (Caltrans) approval of improvements and/or funding for future improvements on U.S. Highway 50 or State Route 16.
- Extension of service and/or expansion of infrastructure facilities by area service districts (Sacramento County Water Agency, Sacramento Metropolitan Utility District, Pacific Gas & Electric, County Sanitation District-1, Sacramento Metropolitan Fire District, Folsom Cordova Unified School District, Elk Grove Unified School District, Sacramento City Unified School District).
- State Office of Historic Preservation (SHPO) consultation for impacts to historic or cultural resources.
- California Department of Fish and Game approval of potential future streambed alteration agreements, pursuant to the Fish and Game Code. Approval of any future potential take of state-listed wildlife and plant species covered under the California Endangered Species Act.
- Central Valley Regional Water Quality Control Board (RWQCB) and State Water Resources Control Board (SWRCB) review and/or approval of any activity impacting Planning Area water features, pursuant to the California Clean Water Act and RWQCB standards.

- U.S. Army Corps of Engineers (COE) approval of any future wetland fill activities, pursuant to the federal Clean Water Act.

- U.S. Fish and Wildlife Service (USFWS) approvals involving any future potential take of federally listed wildlife and plant species and their habitats covered under the federal Endangered Species Act.

- U.S. Environmental Protection Agency (USEPA) concurrence with Section 404 of the Clean Water Act permit.

4.0 – Environmental Setting, Impacts and Mitigation Measures

The following is an introduction to the environmental analysis of the project-specific and cumulative impacts resulting from implementation of the proposed General Plan. This introduction describes the general assumptions used in the analysis. The reader is referred to the individual technical sections of the Draft EIR (Sections 4.1 to 4.13) regarding the specific assumptions and methodologies used in the analysis for that particular technical subject.

ANALYSIS ASSUMPTIONS GENERALLY USED TO EVALUATE THE IMPACTS OF THE CITY OF RANCHO CORDOVA GENERAL PLAN

BASELINE ENVIRONMENTAL CONDITIONS ASSUMED IN THE DRAFT EIR

Section 15125(a) of the State CEQA Guidelines requires that an EIR include a description of the physical environmental conditions in the vicinity of a project, as they exist at the time the Notice of Preparation (NOP) is published. The CEQA Guidelines also specify that this description of the physical environmental conditions should serve as the baseline physical conditions by which a lead agency determines whether the impacts of a project are considered significant.

The environmental setting conditions of the City of Rancho Cordova and the surrounding area are described in detail in the individual technical sections of the Draft EIR (see Sections 4.1 through 4.13). In general, these sections describe the setting conditions of the City of Rancho Cordova and the surrounding area, as they existed when the NOP for the project was released on February 25, 2005. In addition, the Draft EIR also includes setting information that has been updated since release of the NOP, such as the status of large-scale development projects in the General Plan Planning Area (see **Table 4.0-1**).

BUILDOUT ASSUMPTIONS UNDER THE GENERAL PLAN ASSOCIATED WITH THE PLANNING AREA

Future growth in the General Plan Planning Area is guided by the land uses identified in the General Plan Land Use Map (see **Figures 3.0-3** through **3.0-18**). The Draft EIR impact analysis (both temporary [i.e. construction-related] and operational effects) is based on these proposed land use patterns, including proposed transportation improvements identified in the proposed Circulation Plan (and shown in **Figures 3.0-19** through **3.0-21)**. The Draft EIR also evaluates the indirect environmental effects of construction and operation of the land uses and transportation improvements in the proposed General Plan.

Table 3.0-1 and **3.0-2** specifically identify post-2030 maximum buildout conditions of the City and Planning Area under the proposed General Plan, which consists of 126,241 residential units (resulting in a projected population of 310,568) and total employment of 195,021 (71,209,788 square feet of associated commercial, office and industrial development projected). This buildout condition has been applied to the Planning Areas and is identified in **Table 3.0-3**. As noted in Section 3.0 (Project Description), these buildout projections are based on detailed land use modeling (City of Rancho Cordova PLACE^{3}S Land Use Model*)* and were refined by fiscal and retail/office market demand analyses for the Planning Area (referred to hereafter as the "Proforma") (see City of Rancho Cordova City Council Staff Reports – Findings of the Market Analysis/Retail Strategy, December 19, 2005, Revisions to the Draft General Plan Land Use Map, January 3, 2006 and Adoption of Revised Land Use Map Book, January 17, 2006). The Proforma also analyzed projected revenues and expenditures related to future development, capital improvements and services needed for the City to accommodate growth, and how the rate and form of growth would impact the fiscal viability of the City.

PLACE^{3}S is a geographic information system (GIS) software tool developed by the State of California Energy Commission in partnership with the Oregon Department of Energy and the Washington State Energy Office. PLACE^{3}S stands for Planning for Community Energy, Economic, and Environmental Sustainability. The system was originally designed to help jurisdictions enhance the sustainability of their communities, but in recent years, as the software has been further developed and refined, local and regional agencies have been using it to evaluate growth scenarios and the associated impacts. PLACE^{3}S is unique from other GIS mapping tools (including the City's existing GIS system) in that the data is dynamic. When land use categories are applied to a parcel, development characteristics, including dwelling units per acre and employees per acre are also applied. PLACE^{3}S then runs a detailed set of calculations on every parcel in the project to determine the total number of dwelling units, jobs per sector, and building square footage by sector. Because PLACES is geographically based, data can be summarized for sub-areas within the Planning Area (i.e. Folsom Boulevard).

The Draft EIR analysis is based on these buildout projections. Subsequent requests for increases in development potential beyond what is set forth in the General Plan would require approval of an amendment to the General Plan, and is outside the scope of the analysis of this EIR.

In addition to consideration of buildout potential under the proposed General Plan, this Draft EIR evaluates the following development scenarios for the General Plan:

Year 2030 Conditions. This development scenario is based on expected development levels within the Rancho Cordova Planning Area, as proposed by the General Plan, and within the Sacramento region by year 2030. This scenario corresponds to near buildout within the current City limits. (Buildout of residential areas is expected to be complete by 2050.) This analysis incorporates the roadway system identified in the proposed General Plan as being implemented by year 2030 (see **Figure 3.0-19**).

Buildout of the Entire Planning Area With General Plan Roadway Improvements for Year 2030. This development scenario assumes full buildout of the Rancho Cordova Planning Area, as proposed by the General Plan, and assuming year 2030 levels of development within the remainder of the Sacramento region. This analysis incorporates the roadway system identified in the proposed General Plan as being implemented by year 2030 (see **Figure 3.0-19**).

Buildout of the Entire Planning Area With Complete General Plan Roadway Improvements. This development scenario assumes full buildout of the Rancho Cordova Planning Area, as proposed by the General Plan, and assuming year 2030 levels of development within the remainder of the Sacramento region. This analysis incorporates the ultimate roadway system (roadway improvements identified beyond year 2030) identified in the proposed General Plan (see **Figure 3.0-19**).

STRUCTURE OF THE ENVIRONMENTAL IMPACT ANALYSIS

Sections 4.1 through 4.13 of this Draft EIR contain a detailed description of current setting conditions (including applicable regulatory setting), an evaluation of the direct and indirect environmental effects resulting from the implementation of the proposed General Plan, identification of proposed General Plan policies and actions items that mitigate the environmental effect, additional feasible mitigation measures, and identification of whether significant environmental effects of the General Plan would remain after application of proposed policies and action items, and feasible mitigation measures. The individual technical sections of the Draft EIR follow the following format.

Existing Setting

This sub-section includes a description of the physical setting conditions associated with the technical area of discussion, consistent with State CEQA Guidelines Section 15125. As previously identified above, the existing setting is based on conditions as they existed when the NOP for the project was released on February 25, 2005.

Regulatory Framework

This sub-section consists of the identification of applicable federal, state, regional and local plans, policies, laws and regulations that apply to the technical area of discussion.

Impacts and Mitigation Measures

The Impacts and Mitigation Measures sub-section identifies direct and indirect environmental effects associated with implementation of the proposed General Plan and identifies those proposed General Plan policies and action items that mitigate the environmental effect. Standards of significance are identified and utilized to determine whether identified environmental effects are considered "significant" and require the application of mitigation measures. Each environmental impact analysis is identified numerically (e.g., Impact 4.1.1 – Division of Established Communities) and is support by substantial evidence included in the discussion.

Mitigation measures for the proposed General Plan were developed through a thorough review of the environmental effects of the General Plan by consultants with technical expertise as well as by environmental professionals. After identification of proposed General Plan policies and action items that mitigate the environmental impact being discussed, any additional feasible mitigation measures that could minimize significant adverse impacts are discussed, after which, the impact discussion notes whether the impact has been mitigated to a less than significant level or remains significant and unavoidable.

Cumulative Setting, Impacts, and Mitigation Measures

This sub-section is an analysis of the proposed General Plan's contribution to cumulative impacts to the environment. The analysis focuses on whether the General Plan's contribution is "cumulatively considerable" (State CEQA Guidelines Section 15130; see also the following subsection: Approach to the Cumulative Impact Analysis and Section 5.0 Cumulative Impact Summary. A cumulative impact occurs from the change in the environment that results fro the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time CEQA Guidelines Section 15355(b). Accordingly, the cumulative setting includes related past, present, and reasonably foreseeable projects in the region.

TABLE 4.0-1
PROPOSED AND APPROVED LARGE-SCALE RESIDENTIAL AND COMMERCIAL PROJECTS

Project Name	Residential Acres	Commercial Acres	Total Acres*	Residential Units	County/City General Plan Land Use Designation	County/City Zoning Designation	Current Status
Approved Projects							
Sunridge Park (Phase I and Phase II) (Part of Specific Plan)	203.4	32.3	244.2	953	Low Density Residential	RD-4, RD-5, RD-7, CMU, O	CEQA complete/ Under Construction
Anatolia I (Part of Specific Plan)	163.5	14.5	229.8	1,038	Residential, commercial, park, elementary school	RD-5, RD-7, RD-10	CEQA complete/ 392 units under construction as of 9/30/05
Anatolia II (Part of Specific Plan)	150.7	11.1	298	955	Residential, commercial, recreation center, park, school	RD-4, RD-5, RD-7, RD-10	CEQA complete/ 339 units under construction as of 9/30/05
Anatolia III (Part of Specific Plan)	208	N/A	208	879	Low Density Residential, Open Space	RD-4, RD-5, O	CEQA complete/site preparation and grading activities currently underway
Anatolia IV (Part of Specific Plan)	25	N/A	25	203	Residential	RD-5, RD-10	Public review complete MND Has not gone to City Council On hold for SB610 and water issues

Project Name	Residential Acres	Commercial Acres	Total Acres*	Residential Units	County/City General Plan Land Use Designation	County/City Zoning Designation	Current Status
Mather East (Part of Specific Plan)	11.9	29.1	44.56	129	Commercial, Multi-family, open space	RD-10, LC	CEQA complete/ Not under Construction
Sunrise Douglas Shopping Center	N/A	14	14	N/A	Commercial	LC	CEQA complete/ Not under Construction
Villages of Zinfandel – Stone Creek Condos	17.08	N/A	17.08	214	Multi-Family Residential	Medium Density	CEQA complete/ Not under Construction
Villages of Zinfandel GPA	527	18	823	1,833	Residential, Commercial, Public, Recreation	SPA	CEQA complete/ Under construction (822 units remaining to be built as of 9/30/05)
North Douglas (Part of Specific Plan)	120.9	N/A	130.3	680	Low Density Residential, Park	RD-5, RD-7, RD-10, Park	CEQA complete/ Not under Construction
Capital Village	71.7	32	117	827	Mixed Use	SPA	CEQA complete/ Under Construction
Proposed Projects							
Rio del Oro	1,931	137	3,828.5	11,601	Mixed-use development, which will include a General Plan Amendment and Amendment of the Aerojet SPA Ordinance.	SPA (AG-80), SPA (M-2), SPA (IR) Industrial Reserve, M-2	CEQA/NEPA being completed

Project Name	Residential Acres	Commercial Acres	Total Acres*	Residential Units	County/City General Plan Land Use Designation	County/City Zoning Designation	Current Status
Suncreek	2,901	306	3,410	5,459	Low density Residential, Medium density Residential, Commercial, Recreation, Open Space, Schools	SPA	CEQA/NEPA being completed
The Preserve at Sunridge	303.5	N/A	530	2,624	Residential, village center, parks, wetland preserve	RD-5, RD-7, RD-10, 5D-15, RD-30	CEQA complete/ Awaiting discretionary action
Sunridge East (approved portion of a specific plan)	363.7	24	640	3,042	Residential, commercial, office, and natural preserve	RD-5, RD-7, RD-10, RD-15 LC	CEQA complete/ Approved
Montelena (approved part of a specific plan)	158.3	N/A	251.9	879	Residential, wetland preserve, parks, fire station.	RD-4, RD-5, RD-7, RD-10, RD-20, O	CEQA complete/ Awaiting discretionary action
Westborough	1,000	274	1,518	6,000	Residential, business, community and recreational uses	RD-5, RD-10, RD-30, LC, CMU, VCMU, OMU	In preliminary planning stages
Glenborough	801	178	1,366	4,810	Residential, commercial and recreational uses	RD-5, RD-10, RD-30, LC, CMU, O	County Project

Project Name	Residential Acres	Commercial Acres	Total Acres*	Residential Units	County/City General Plan Land Use Designation	County/City Zoning Designation	Current Status
Bradshaw Landing	N/A	N/A	40.5	N/A	360,000-square-foot theater and retail commercial use	LC	Revised and now called "The Landing" Notice of Intent to prepare an EIR released by Sacramento County
Legion of Christ Catholic College	N/A	N/A	300	N/A	Full-service residential campus by 2008 for 7,000 students and nearly 600 faculty members	N/A	County Project
Rancho Cordova Gateway	33,600 sq. ft.	63,230 sq. ft.	3.1	40	Retail, restaurant, high density residential	CMU	MND is being prepared
Major Development Projects in the Region							
South Mather Master Plan (Sacramento County)	N/A	Undefined development opportunities for economic development, airport commercial development and airport operations	1,070	N/A	Undefined development opportunities for economic development, airport commercial development, airport operations and wetland preserve	Multiple	Proposed
Laguna Ridge Specific Plan (City of Elk Grove)	1,203	196	1,900	7,762	Residential, commercial, office, public, open space	multiple	Approved and under construction.

Project Name	Residential Acres	Commercial Acres	Total Acres*	Residential Units	County/City General Plan Land Use Designation	County/City Zoning Designation	Current Status
Elk Grove Promenade (formerly Lent Ranch Marketplace) (City of Elk Grove)	N/A	1.3 million square feet of retail uses		N/A	Commercial	Special Planning Area	Proposed
Palladio (City of Folsom)	N/A	50 400,000 square feet of retail uses	50	N/A	Commercial		Approved
Metre Planned Unit Development (City of Sacramento – North Natomas Community)	366	31	594	2,977	Residential, commercial, public, parks and open space	multiple	Proposed
Placer Vineyards Specific Plan (Placer County)	2,391	281	5,148	14,132	Residential, commercial, office, industrial, parks and open space	multiple	Proposed
Promontory Specific Plan (El Dorado County)	850	7	993	1,097	Residential, commercial, parks and open space	multiple	Approved and under construction.
Carson Creek Specific Plan (El Dorado County)	369	5	711	1,470	Residential, commercial, industrial, parks and open space	multiple	Approved
Valley View Specific Plan (El Dorado County)	1,271	40	2,038	2,837	Residential, commercial, parks and open space	Multiple	Approved and under construction.

Source: City of Rancho Cordova
*Note: *Total acres also include acreage for residential and commercial and other land uses such as parks, schools, recreation centers, etc.*

APPROACH TO THE CUMULATIVE IMPACT ANALYSIS

Definition of Cumulative Setting

State CEQA Guidelines Section 15130 requires that EIRs include an analysis of the cumulative impacts of a project when the project's effect is considered cumulatively considerable. In general, the cumulative setting conditions considered in this Draft EIR are based on:

- **SACOG Sacramento Region Blueprint and Preferred Blueprint Scenario.** The Sacramento Region Blueprint depicts a way (in terms of land uses and transportation improvements) for the region to grow through the year 2050, during which time the region is expected to witness growth in its current population of 2 million, to include more than 3.8 million people; in job increases from 921,000 to 1.9 million; and housing increases from 713,000 to 1.5 million units. The SACOG Board of Directors adopted the *Preferred Blueprint Scenario* in December 2004, a vision for growth that promotes compact, mixed-use development and more transit choices as an alternative to sprawling low-density development, which would consume more land for an equivalent number of housing units and result in a number of corresponding adverse environmental impacts. The Preferred Blueprint Scenario predicts long-term environmental benefits from undertaking a realistic long-term planning process, and these benefits are intended to minimize the extent of the inevitable physical expansion of the overall regional urban areas. The results would be greater protection of natural resources because less land would be required for urban uses and less agricultural land converted. In addition, the Preferred Blueprint Scenario predicts less time devoted to travel, fewer car trips, and fewer miles traveled to work and local businesses. The reduction in traffic would improve air quality in the region by reducing carbon monoxide and particulate matter produced by car exhaust. While only advisory, the Blueprint is the most authoritative policy guidance in the Sacramento region for long-term regional land use and transportation planning.

- **Local Adopted General Plans.** The existing land use plans in the Sacramento region consisting of Sacramento County, El Dorado County, Placer County and the cities of Sacramento, Folsom, Rancho Cordova, Galt, Citrus Heights, Roseville and Rocklin.

- **City of Folsom Sphere of Influence.** The City of Folsom is proposing a mix of land uses in the 3,584-acre SOI annexation area, including: 1,800 acres of residential (mix of small lot, large lot, executive, walkable community, and high density); 100 acres of commercial; 70 acres of business/professional; 125 acres of retail/office; 10 acres of public/quasi public; 297 acres of schools and city parks; 1,075 acres of open space; and 107 acres of roads.

- **Large-Scale Development Projects.** Consideration of large-scale proposed and approved development projects listed in **Table 4.0-1**. This list of projects is intended to describe large-scale past, present, and reasonably foreseeable future development activities in the Sacramento region that, when considered with the proposed General Plan, have the potential to have cumulatively considerable impacts. It is not intended to be an all-inclusive list of projects in the Sacramento region.

- **Effect of Regional Conditions.** This consists of consideration of background traffic volumes and patterns on state highways (e.g., US 50 and SR 16), background air quality conditions and other associated environmental conditions that occur within the Sacramento region, both within and outside of the Planning Area.

- **Consideration of Existing Development Patterns.** This consists of consideration of the current environmental conditions of existing development and past land use activities in the region. This includes major land use activities in area such as operation of Mather Air Force Base and Aerojet, agricultural activities and conversion of open space and agricultural lands from existing development patterns and mining activities in the region.

Each technical section of the Draft EIR includes a description of the geographic extent of the cumulative setting based on the characteristics of the environmental issue under consideration as set forth in Section 15130(b) of the State CEQA Guidelines.

Consideration of Cumulative Impacts

Each technical section in the Draft EIR considers whether the project's effect on anticipated cumulative setting conditions is cumulatively considerable (i.e., a significant effect). "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects (CEQA Guidelines, Section 15065(a)(3)). The determination of whether the project's impact on cumulative conditions is considerable is based on a number of factors including: consideration of applicable public agency standards, consultation with public agencies and expert opinion. The environmental effects of potential development of the individual Planning Areas within the General Plan Planning Area are incorporated in the cumulative impact analysis. Section 5.0 (Cumulative Impacts Summary) provides a summary of the cumulative impacts associated with the General Plan.

ENVIRONMENTAL IMPACT REPORTS UTILIZED IN THIS EIR

This Draft EIR utilizes technical information and analyses from previously prepared EIRs that are relevant to the consideration of environmental effects of the proposed General Plan, which is supported by the State CEQA Guidelines (see Sections 15148 [Citation] and 15150 [Incorporation by Reference]). In addition to materials cited, the following EIRs have been utilized in this Draft EIR:

- The Preserve at Sunridge Draft EIR (State Clearinghouse No. 2004092051)
- Sunrise Douglas Community Plan/Sun Ridge Specific Plan EIR (State Clearinghouse No. 97022055)
- Sacramento County Water Agency Zone 40 Water Supply Master Plan EIR (State Clearinghouse No. 2002122068)
- Water Forum Agreement EIR (State Clearinghouse No. 95082041)
- Sacramento Regional County Sanitation District Regional Interceptor Master Plan EIR (State Clearinghouse No. 200112085)
- Sacramento County Sanitation District 1 Sewerage Facilities Master Plan EIR (State Clearinghouse No. 200112085)
- Sacramento Regional Wastewater Treatment Plant 2020 Master Plan EIR

By utilizing these provisions of the State CEQA Guidelines, the City, in preparing this Draft EIR, has been able to make maximum feasible and appropriate use of the technical information in these EIRs. These EIRs and other referenced materials are available for review upon request at the City of Rancho Cordova City Hall located at 2729 Prospect Park Drive, Rancho Cordova, CA 95670.

TERMINOLOGY USED IN THE DRAFT EIR

This Draft EIR uses the following terminology:

Rancho Cordova General Plan Planning Area: This land area consists of land areas inside and outside the current incorporation boundaries of the City of Rancho Cordova for which the City anticipates it will annex during the planning horizon of the proposed General Plan, as a logical extension of city boundaries and services (see **Figure 3.0-3**). This area is also referred to as the "Planning Area" and the "Rancho Cordova Planning Area" in the Draft EIR.

Cumulatively Considerable: A cumulative significant impact would result when the project would contribute considerably to a significant physical impact on the environment expected under cumulative conditions.

Less Than Significant Impact: A less than significant impact would cause no substantial change in the physical condition of the environment. (No mitigation would be required for project effects found to be less than significant.)

Significant Impact: A significant impact would cause (or would potentially cause) a substantial adverse change in the physical conditions of the environment. Significant impacts are identified by the evaluation of project effects using specified standards of significance provided in each technical section of the EIR. Identified "significant" impacts are those where the project would result in an impact that can be measured or quantified, while identified "potentially significant" impacts are those impacts where an exact measurement of the project's effect cannot be made but substantial evidence indicates that the impact could exceed standards of significance. A potentially significant impact may also be an impact that may or may not occur and where a definite determination cannot be made. Mitigation measures and/or project alternatives are identified to avoid or reduce to a less than significant level project effects to the environment.

Potentially Significant: a potentially significant impact is one that may or may not occur and where a definite determination cannot be made. Feasible mitigation measures and/or project alternatives are identified to avoid or reduce the project's effects on the environment to a less than significant level.

Significant and Unavoidable Impact: A significant and unavoidable impact would result in a substantial change in the environment that cannot feasibly be avoided or mitigated to a less than significant level if the project is implemented.

Standards of Significance: A set of significance criteria used by the CEQA lead agency (Rancho Cordova) as well as by other public agencies with regulatory jurisdiction over the project to determine at what level or "threshold" an impact would be considered significant. Significance criteria used in this EIR are derived from the following: the State CEQA Guidelines; factual or scientific information; regulatory performance standards of local, state, and federal agencies; and, goals, objectives, and policies of the proposed General Plan. Specified significance criteria are identified at the beginning of the impact analyses in each technical section of the EIR.

Subsequent Projects/Activities: Anticipated development projects (e.g., residential, commercial, park, recreational) that would occur in the future and would implement the General Plan. This would include public infrastructure and utility extension projects including, but not limited to, roadway widenings and extensions, intersection improvements, and water, stormwater, and wastewater distribution improvements.

4.1 – Land Use

This section describes the existing land uses in the City of Rancho Cordova General Plan Planning Area ("Planning Area"), characterizes surrounding land uses, and discusses adopted and relevant draft plans and policies pertinent to the area. As referenced occasionally in this section, environmental impacts are discussed and analyzed in greater detail in the section relating specifically to that particular issue area (i.e., Sections 4.2 through 4.13). Refer to Section 4.2 (Agricultural Resources) of this EIR for a discussion of impacts to agricultural land uses.

4.1.1. EXISTING SETTING

REGIONAL SETTING

The Planning Area is located entirely within Sacramento County, California. Sacramento County is bounded by Placer and Sutter counties to the north, San Joaquin County to the south, Yolo and Solano counties to the west, and El Dorado, and Amador counties to the east. Sacramento County covers approximately 1,015 square miles of land, the majority of which consists of flat grassland and oak woodlands with foothill areas to the west and east of the County line. The land uses in the surrounding counties vary from flat agricultural lands in Yolo, Solano, and San Joaquin counties, to foothill areas in Sutter and Amador counties, and mountain terrains in Placer and El Dorado counties.

LOCAL SETTING

The Planning Area is located approximately nine miles east of Downtown Sacramento in Eastern Sacramento County. The Planning Area covers approximately 58,190 acres, with the current City limits encompassing approximately 20,000 acres or approximately 35 percent of the area. The Planning Area is generally bordered by the American River on the north, Prairie City Road and the boundary of the 100-year floodplain for the Cosumnes River on the east, Jackson Highway on the south, and Watt Avenue and the City of Sacramento on the west. The most southern portion of the Planning Area (i.e., south of SR 16) is characterized with rural residential, agricultural operations and industrial land uses. The rest of the Planning Area is generally bounded by residential, commercial, and industrial uses, and undeveloped agricultural land.

EXISTING LAND USE

The City of Rancho Cordova contains a wide range of existing land uses, including approximately 2,600 acres of residential developments, 454 acres of commercial/retail uses, 972 acres of office uses, and approximately 835 acres of industrial uses within the City limits. In addition, there are approximately 12,888 acres of agricultural (vacant) uses, and over 296 acres of public/private recreation and natural preserve uses. Institutional uses such as schools, churches, and other public entities also serve as major land uses (refer to **Table 4.1-1** below).

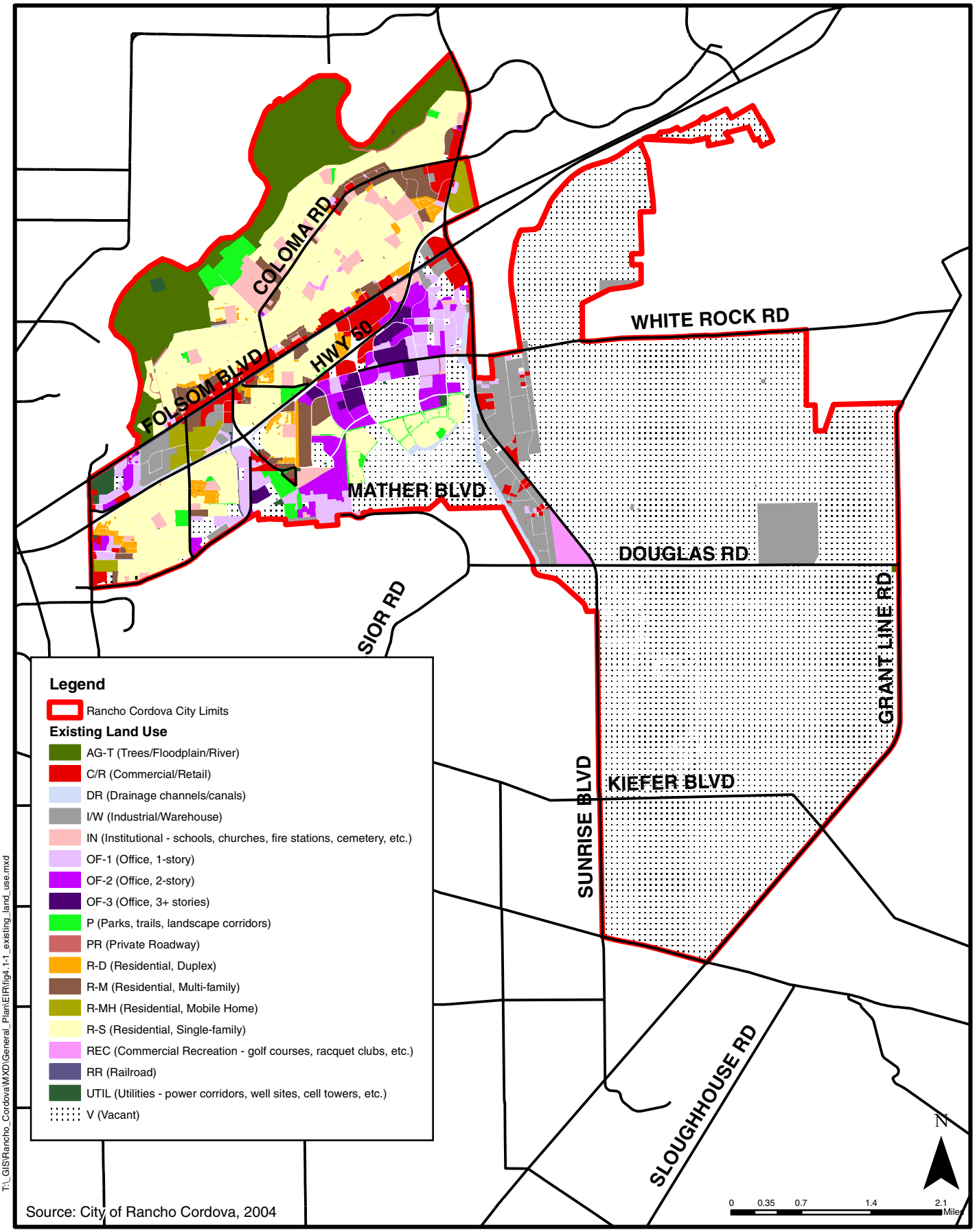
TABLE 4.1-1
EXISTING CITY OF RANCHO CORDOVA LAND USES

Land Use	Land Use Description	Acres	% of Total
AG-T	Trees/Floodplain/River	1271.3	6.3%
C/R	Commercial/Retail	454.3	2.5%
DR	Drainage channels/canals, etc. and associated levees	240.5	1.2%
I/W	Industrial/warehouse	835.2	4.2%

Land Use	Land Use Description	Acres	% of Total
IN	Institutional (churches, schools, fire stations, cemetery, etc.)	376.1	1.9%
OF-1	Office, 1-story	424.2	2.0%
OF-2	Office, 2-story	405.9	2.0%
OF-3	Office, 3+ stories	142.8	0.7%
P	Parks, trails, landscape corridors, lakes	216.1	1.0%
PR	Private roadway	19.4	0.1%
R-D	Duplex	146	0.7%
R-M	Multi-family (triplex or larger)	335.3	1.7%
R-MH	Mobile home	163.6	0.8%
R-S	Single family	1955.1	9.7%
REC	Commercial recreation (public or private golf course, racquet clubs, etc.)	80.4	0.4%
RR	Railroad	57.8	0.3%
UTIL	Utility: power corridors, well sites, cell towers, etc.	58.8	0.3%
V	Vacant (Undeveloped Agricultural Land)	12,888.4	64.2%
Total		20,071.2	100%

Source: City of Rancho Cordova General Plan Existing Conditions Analysis, May 2004

The Planning Area is characterized by a wide range of existing land uses, including residential developments, commercial/retail/office uses, industrial uses, institutional uses (i.e., churches, schools, etc.), Mather Airport operations, natural features, open space, parks, and vacant land (**Figure 4.1-1**). The majority of the commercial, office and retail uses are located along the Sunrise Boulevard and Folsom Boulevard corridors. Industrial, manufacturing and distribution facilities are located throughout the Planning Area, primarily along Sunrise Boulevard, Jackson Highway, Bradshaw Road, and Folsom Boulevard. The majority of manufacturing and distribution outlets are located along Folsom Boulevard, Bradshaw Road and Sunrise Boulevard. The Gencorp/Aerojet operations are located south of US 50 and east of Sunrise Boulevard. Teichert and Granite have active mining operations north of Jackson Highway between Bradshaw Road and Excelsior Road in the Mather Planning Area. Teichert also has operations south of US 50 along Grant Line Road. The County Branch Center Complex, which contains many Sacramento County departments and agencies, is located near the intersection of Bradshaw Road and Kiefer Boulevard. Mather Airport is a former Air Force Base that has been converted to civilian use. The Sacramento County Airport System now operates the airport. Flight facilities include: two parallel runways, an integrated system of taxiways, aprons, a 24-hour control tower, and parking aprons. Mather Airport is primarily used by air cargo carriers and general aviation (small, private aircraft). Mather Airport is also a major maintenance facility and houses the California Department of Forestry administrative and maintenance facilities. Other land uses in Mather include a general aviation (small, private aircraft) airport, public and private recreation (e.g., golf courses, racquet clubs, etc.), utility and power corridors, well sites, cell towers, drainage channels, and canals.



Source: City of Rancho Cordova, 2004

City of Rancho Cordova
Planning Department

Figure 4.1-1
Existing Land Uses
Within the City of Rancho Cordova

A number of large projects are approved or proposed that would increase the acreage of residential, commercial, school and park uses in the Planning Area. The Sunrise Douglas Community Plan/Sunridge Specific Plan (SDCP/SRSP) and the Cordova Community Plan were approved by Sacramento County prior to incorporation of the City of Rancho Cordova. The SDCP/SRSP area is largely undeveloped. Refer to **Table 4.0-1** in Section 4.0 for a more complete list and description of these projects and other approved and proposed large-scale projects in the Planning Area.

Located within the Planning Area are various creeks, tributaries, drainage basins and surface waterways including: the American River; Morrison Creek; Laguna Creek; Elder Creek; Buffalo Creek; and the Folsom South Canal. The American River makes up the Planning Area's northern boundary. The American River parkway is an open space greenbelt adjacent to the American River that provides flood protection and recreational opportunities and extends approximately 29 miles from the Folsom Dam to the American River's confluence with the Sacramento River near Discovery Park. The floodplain of the Cosumnes River makes up the Planning Area's southeastern boundary.

The Morrison Creek drainage basin includes Morrison Creek and covers approximately 192 square miles and has nine tributaries. Morrison Creek starts near the intersection of Douglas Road and Mather Boulevard and flows southwest and eventually drains into the Beach Stone Lakes area west of Interstate 5, eventually draining into the Sacramento River.

Laguna Creek starts near the eastern portion of the Sunrise Douglas Community Plan (SDCP) area and drains into Blodgett Reservoir, located north of Grant Line Road in the Grant Line North Planning Area. Laguna Creek flows southward to its confluence with the Cosumnes River, near Twin Cities Road and Highway 99. Laguna Creek has been substantially altered by various channels, levees, and culverts, which were primarily constructed to alleviate potential flooding hazards.

Elder Creek starts near the southern boundary of the Planning Area and drains into Morrison Creek, west of Highway 99, and ultimately into the Beach Stone Lakes area.

Buffalo Creek runs through the Westborough Planning Area in an east to west direction and flows north across the Folsom South Canal in an overchute, through the Gold River community, and then drains into the American River. Buffalo Creek was modified historically to accommodate storm events on the Aerojet property within the Westborough Planning Area.

The Folsom South Canal is owned and maintained by the U.S. Bureau of Reclamation. The Folsom South Canal was originally designed to convey industrial, municipal, and irrigation water from Lake Natoma to San Joaquin Valley counties and customers in the East Bay. However, the original plan for the canal was never completed. The portion of the Folsom South Canal that has been completed starts at the Nimbus dam and extends southward for approximately 27 miles past the community of Wilton.

Annual grassland is the prevalent vegetation type throughout the undeveloped (vacant) portion of the Planning Area, comprises approximately 12,888 acres. The majority of the vacant land is located in the southeastern portion of the Planning Area (i.e., the Rio del Oro Planning Area and the Sunrise Douglas Community Plan area), and the area east of Hazel Avenue and south of US 50 (i.e., Glenborough and Westborough Planning Areas).

4.1.2 REGULATORY FRAMEWORK

FEDERAL

U.S. Fish and Wildlife Service Vernal Pool Recovery Plan

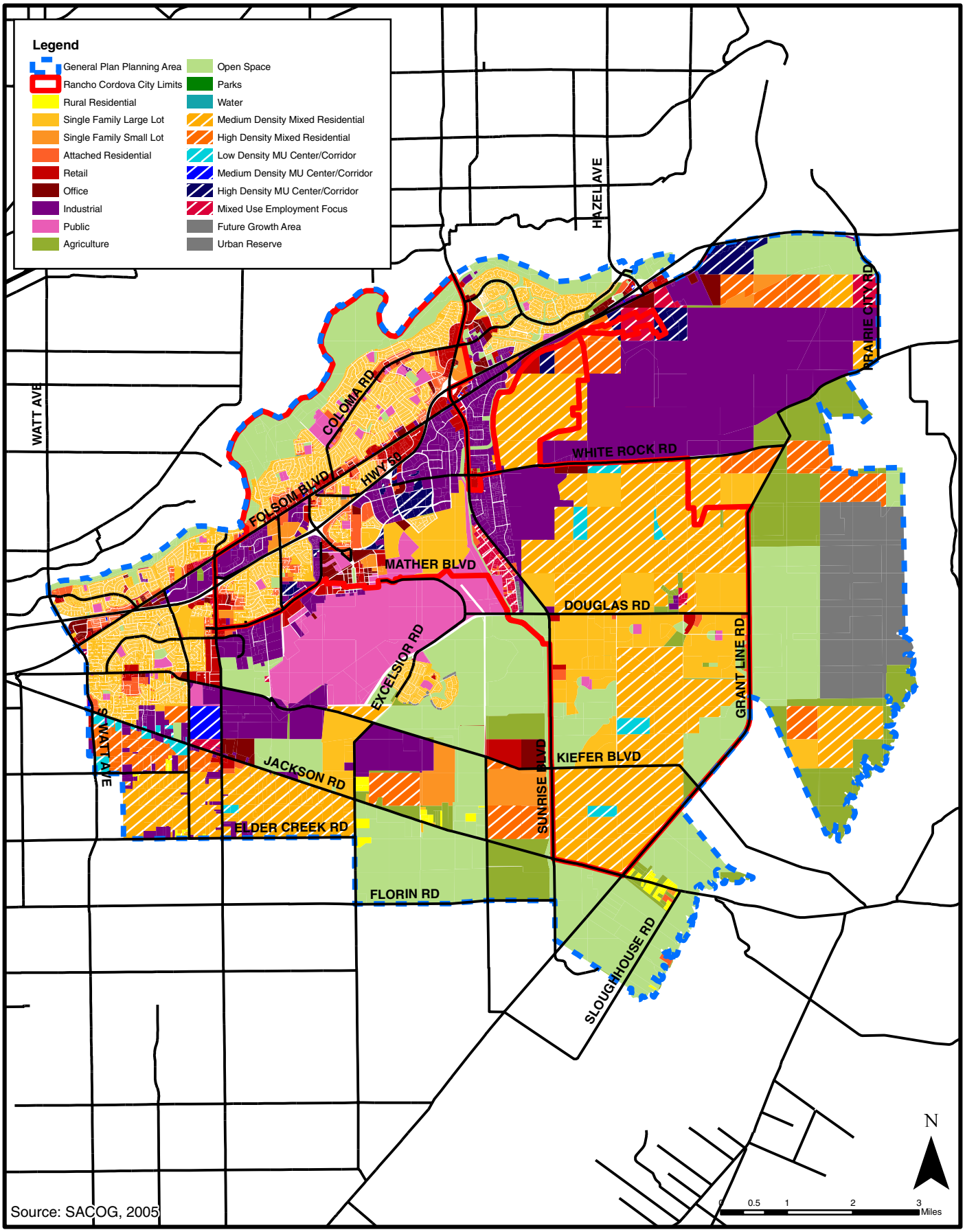
The U.S. Fish and Wildlife Service (USFWS) designated critical habitat for certain vernal pool crustaceans and plants in 34 counties in California, including Sacramento County, and identified such habitat in its final rule of the vernal pool recovery plan on February 10, 2006, entitled, "Endangered and Threatened Wildlife and Plants; *Final Designation of Critical Habitat for Four Vernal Pool Crustaceans and Eleven Vernal Pool Plants in California and Southern Oregon; Evaluation of Economic Exclusions From August 2003 Final Designation.*" 71 Fed. Reg. 28 (2006) (to be codified at 50 CFR Part 17). The Recovery Plan identifies a five-part strategy to ameliorate or eliminate threats to affected species and to preserve intact vernal pools. The five key elements of the Recovery Plan are: habitat protection; adaptive habitat management, restoration, and monitoring; status surveys; research; and participation and outreach. The Recovery Plan identifies habitat loss, fragmentation, and isolation of functional vernal pool ecosystems as the greatest threat to the survival and recovery of listed species and species of concern that are found in vernal pools. According to the Recovery Plan, habitat loss is generally the result of urbanization, agricultural conversion, and mining. Habitat loss may also occur from habitat alteration and degradation as a result of changes to natural hydrology; invasive species; incompatible grazing regimes, including insufficient grazing for prolonged periods; and infrastructure projects such as roads, water storage and conveyance, and utilities. In addition, recreational activities such as off-highway vehicles and hiking, erosion, contamination, and inadequate management and monitoring may result in habitat loss. Habitat fragmentation is generally the result of activities associated with habitat loss due to road and other infrastructure projects that contribute to the isolation and fragmentation of vernal pool habitats. Impacts associated with the USFWS Vernal Pool Recovery Plan are described in the Biological Resources section (Section 4.10) of this EIR.

LOCAL

Sacramento Area Council of Governments (SACOG) Blueprint Plan

The Sacramento Area Council of Governments (SACOG) adopted its Preferred Blueprint Scenario ("Scenario C" or "Blueprint Plan") in December 2004. The Blueprint process is a regional vision to accommodate the projected growth and long-term needs of the region over the next 50 years. **Figure 4.1-2** illustrates Scenario C's treatment of the Planning Area. The Blueprint Plan is intended to guide land use and transportation choices through the year 2050, during which time the region's population is projected to grow from its current population of 2 million to over 3.8 million, and the amount of jobs is projected to double, to nearly 1.9 million. The Blueprint Plan proposes a concentrated, compact development pattern in the region with a balance of employment, residential, shopping, and recreational uses linked to transportation system improvements. Based on the growth projections, SACOG has concluded that unless higher density developments are implemented, the region will consume an additional 400,000 acres under current development patterns.

The Blueprint process depicts a way for the region to grow through the year 2050 generally consistent with seven principles of "Smart Growth" (i.e. increasing compact land use patterns, a mix of residential densities, mixed-use projects, transportation choices, a variety of housing choices and density, encouraging infill, quality design, and natural resource conservation).



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City of Rancho Cordova
Planning Department

Figure 4.1-2
Blueprint Scenario
For the General Plan Planning Area

The Blueprint Plan predicts long-term environmental benefits from undertaking a realistic long-term planning process, and these benefits are intended to minimize the extent of the inevitable physical expansion of the overall regional urban areas. The Blueprint Plan, if followed, would be expected to result in additional mixed-use communities, provide a greater number of small-lot, single-family detached homes, develop more attached homes, reinvest in existing business and residential areas, and create more pedestrian-friendly neighborhoods.

The results of implementing these principles would be the protection of natural resources (because less land would be required for urban uses) and less agricultural land conversion. In addition, the Blueprint Plan predicts that individuals within the region will devote less time to travel, take fewer car trips, and travel fewer miles to work, as compared with development under the "Base Case Scenario", another SACOG planning scenario, under which future development within the region would continue similar to current growth trends (i.e., lower density within the Planning Area, as compared to Scenario C). Reduction in traffic would result in improved air quality in the region by reducing carbon monoxide and particulate matter produced by car exhaust.

The Blueprint process received broad support from most of its member agencies, although the Blueprint itself is advisory, and does not establish actual land use restrictions for the City. However, although it is only advisory, the Blueprint is the most authoritative policy guidance in the Sacramento region for long-term regional land use and transportation planning. A number of jurisdictions either are adopting the Blueprint concepts or are considering and encouraging projects consistent with the Blueprint. During initial stage of development of the City's general plan process, the Rancho Cordova City Council endorsed the SACOG Blueprint process and the preferred Blueprint Scenario C. In addition, the City's adopted Vision Book states that land uses in the City should generally reflect the types and intensity of land uses shown in Scenario C.

South Sacramento Habitat Conservation Plan

The draft South Sacramento County Habitat Conservation Plan (SSHCP), which is managed by the Sacramento County Planning and Community Development Department, is a long-term conservation plan that seeks strategies that allow commercial, residential, and other development, while balancing the needs of sensitive plant and animal species and the preservation of agricultural operations. The SSHCP is currently being developed by several public agencies and other interested stakeholders. The City of Rancho Cordova is a participating agency in the SSHCP. The geographic scope of the SSHCP includes approximately 340,000 acres in the unincorporated County area bounded by US 50 to the north, the County line to the east and south; excluding the Delta, and Interstate 5 to the west. The SSHCP covers land within the cities of Rancho Cordova, Elk Grove and Galt.

The SSHCP is intended to consolidate environmental efforts to protect and enhance wetlands (primarily vernal pools) and upland habitats to provide ecologically viable conservation areas. The SSHCP will also minimize regulatory hurdles and streamline the development permit process for projects that are consistent with the HCP. The SSHCP will be an agreement between state/federal wildlife and wetland regulators (e.g., USFWS and the USACE) and the County to allow land owners to engage in "incidental take" of listed species (i.e., destruction or degradation of habitat in connection with economic based activities) in return for conservation commitments. The stakeholder goals of the SSHCP pertain to long-term viability to aid and enhance recovery of sensitive species in the study area, accommodate development in appropriate sites with fair and reasonable mitigation cost structure, protect agricultural lands and operations, gain the trust of all stakeholders in the permitting process, rely on voluntary participation through incentives, provide a streamlined permitting process that reduces

permitting cost to developers and taxpayers, and provide a comprehensive framework for use in linking plant and animal conservation with local land use programs consistent with the Sacramento County General Plan. Funding for the SSHCP is expected to come from a per-acre fee levied on new developments to mitigate associated habitat impacts.

An adaptive management program will be implemented in conjunction with the SSHCP so that mitigation measures that do not meet their goals or are not applicable to an individual can be modified to address project- and site-specific environmental impacts. The critical future steps to be taken in completion of the SSHCP include the: completion of species account documents; preparation of habitat account; and completion of draft chapters of the SSHCP (land use, physical resources, biological resources, and cultural resources). The County is making progress towards the goal of acquiring a Clean Water Act Section 404 permit. The County will collaborate with five other counties in the region to lobby Congress for appropriations.

Sacramento County General Plan and Land Use Map

The Sacramento County General Plan is used as the "blueprint" to guide future development in unincorporated portions of the County; it will continue to be the blueprint for those sections of the Planning Area that are outside the current city limits, unless and until such areas are annexed into the City, sometime during the planning horizon of the proposed General Plan.

Upon incorporation in 2003, the City adopted the Sacramento County General Plan. Soon thereafter, the City (i.e., City Council, Planning Department and General Plan Advisory Committee) took a number of actions in preparation of its own General Plan. On May 16, 2005, the City Council adopted Resolution No. 57-2005, which established that the interim General Plan policies and diagrams associated with the development of the City's new General Plan would guide land use and circulation in the City until adoption of its new General Plan as provided for under California Government Code Section 65360(b)(1)1. Thus, the City's current guide for the physical use of the City's land and resources consists of the Draft Land Use Map Book, Circulation Plan and draft General Plan elements.

The Sacramento County General Plan land use designations for the Planning Area are illustrated in **Figure 4.1-3.** The 1993 Sacramento County General Plan Land Use Diagram has the following land use designations for land that is within the Rancho Cordova General Plan Planning Area:

- **Jackson Highway** (north and south sides): General Agriculture (20 acre);
- **Mather**: industrial, recreation, low-density residential, and public/quasi-public;
- **Grant Line Road** (south of S.R. 16 and east of Sunrise Boulevard): General Agriculture (20 acre);
- **Grant Line Road** (north of S.R. 16 and east of Sunrise Boulevard): General Agriculture (80 acre) and medium-density residential;

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1 Government Code Section 65360 requires a newly-incorporated city that has not yet prepared a General Plan to make certain findings prior to approving projects, issuing building permits and taking other actions, including a finding that:

"There is a reasonable probability that the land uses or action proposed will be consistent with the general plan proposal being considered or studied or which will be studied within a reasonable time." (Gov. Code Section 65360 (b)(1)).

- **Grant Line Road** (east side) north of the Kiefer Landfill and south of White Rock Road: General Agriculture (80 acre);

- **Aerojet land** (including Rio del Oro, Westborough and Glenborough sites): Extensive Industrial and areas with Intensive Industrial;

- **Sunrise Boulevard** (between U.S. 50 and Douglas Road): industrial with limited areas of commercial;

- **Bradshaw Road** (between S.R. 16 and Old Placerville Road): Extensive Industrial, commercial at Old Placerville Road, and public/quasi-public along the west side of Bradshaw Road south of Old Placerville Road.

Sacramento County is required to maintain a supply of land within the Urban Policy Area (UPA) to accommodate urban activity and growth for the unincorporated areas, which includes the portion of the Planning Area located outside the existing city limits. The UPA is sub-area of the ultimate growth area - the Urban Services Boundary (USB) where the majority of growth is anticipated to occur and is designated for urbanized uses. The UPA encompasses those areas in the County that are most likely to be developed during the current planning horizon of the County's existing General Plan (2010). The intent of the UPA is to provide a 20-year supply of developable land sufficient to accommodate projected growth. Several of the sub-Planning Areas in the proposed Rancho Cordova General Plan (listed below) are located outside of the County UPA including: Jackson Planning Area; Grant Line North Planning Area; Grant Line South Planning Area; East Planning Area; Rio del Oro Planning Area; Aerojet Planning Area; Westborough Planning Area and Glenborough Planning Area.

The Land Use Element within the Sacramento County General Plan contains land use policies related to encouraging specific land use types, determining appropriate locations for uses, and access to new development within Sacramento County. General Plan policies that are of particular note include:

- LU-2 and LU-7 providing priority to projects on vacant or underutilized sites within existing urban areas and avoiding leapfrog development;

- LU-10, LU-11, and LU-12 promoting mixed-use projects that result in a better balance of employment, neighborhood services, and different housing types;

- LU-13 pertaining to pedestrian movement through direct, safe, and pleasant routes that connect destinations inside and outside plan or project areas;

- LU-14 and LU-17 pertaining to locating higher density, mixed-use projects within ½ mile of transit stops;

- LU-19 pertaining to buffering incompatible land uses without restricting pedestrian access;

- LU-20 pertaining to preserving/creating community character and neighborhood identify in existing and new areas;

- LU-31 and LU-35 ensuring adequate road access, high frequency transit service and an adequate but efficient supply of parking to regionally-oriented commercial, office uses, and employment intensive offices;

- LU-37 and LU-39 pertaining to supplying adequate industrial land and locating new industrial uses along transit routes if environmental impacts can be mitigated;

- LU-42 and LU-43 pertaining to locating future agricultural-residential development in designated areas within the existing buffer along the USB, and in other areas if they can be functionally integrated with other urban uses;

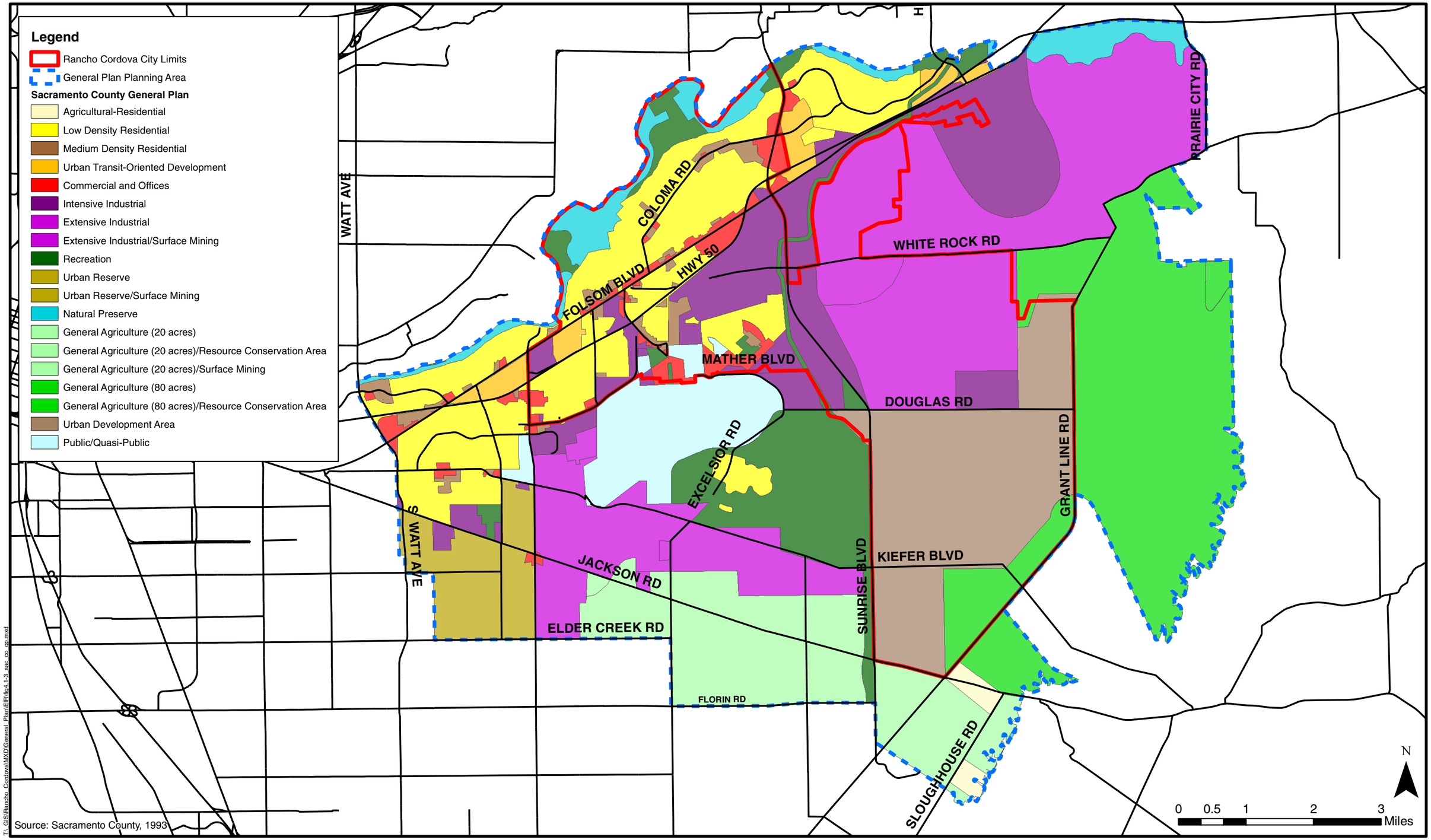
- LU-57 limiting provision of urban services to areas within the UPA, except as needed for health and safety purposes; and

- LU-72 pertaining to coordination with regional planning agencies on land use and environmental policies/programs, and implementation of programs.

Sacramento County is currently in the process of updating its General Plan. This will be the first update since 1993. According to the County's website, "the General Plan update is necessary to plan for growth in the next planning cycle (2005-2030) as well as to address new emerging planning issues." The County General Plan Update (Update) will focus on the revitalization of key commercial corridors, an Economic Development Element, holding capacity, policy analysis, mature communities, and implementing smart growth planning principles. The overall concepts and objectives of the 1993 Plan will be retained; however, the Update will reflect changing conditions, requirements, and the desired direction of redevelopment and future growth through 2030. Since the projected allocation of dwelling units exceeds the current residential holding capacity of the existing General Plan, the County developed the following four strategies, which comprise the County's Growth Management Strategy for the unincorporated portions of the County:

- Buildout of Vacant and Underutilized Infill Parcels;
- Planned Communities;
- Commercial Corridor Planning; and
- Expansion of the Urban Policy Area.

Sacramento County is considering changing land use designations along Jackson Highway and within Mather on their new General Plan Land Use Map to reflect existing land uses and proposed uses. The County will only designate areas as natural resources if they have already been designated as a preserve or mitigation land for natural resources. There is an active application with Sacramento County called "Glenborough" to develop the land with a mix of residential, commercial, office and related uses, including 450 acres of parks and open space, approximately 4,400 dwelling units and 9,700 jobs. The Glenborough community will also include a 100-acre regional town center at the southern side of the Hazel-Folsom Boulevard-Highway 50 interchange that will be oriented to take advantage of its proximity to light rail. There is also an active application for an auto mall called the "Folsom Boulevard Auto Mall Expansion," which would be located on the south side of Folsom Boulevard and the east side of Aerojet Road. The auto mall would include 13 auto mall lots and two remainder lots on 29 acres in the greater Aerojet site.



City of Rancho Cordova
Planning Department

Figure 4.1-3
Sacramento County General Plan Land Use Desigations
Within the General Plan Planning Area

Sacramento County Zoning Code

Upon incorporation, Rancho Cordova adopted the existing Sacramento County Zoning Code to guide development in the City until the formal adoption of its own Zoning Code. The purpose of the Zoning Code is to regulate the use of buildings, structures and land. The Zoning Code contains provisions for the placement of signs and billboards, the location, height, bulk, number of stories, and size of buildings and structures, and the size and use of lots, yards, courts and other open spaces. In addition, the Zoning Code regulates the percentage of developable land and intensity of land use on particular parcels and establishes requirements for off-street parking and loading. There are specific regulations to maintain appropriate building setback lines. The Sacramento County Zoning Code applies to the unincorporated area of Sacramento County that is outside the Rancho Cordova existing city limits, which includes the Planning Area.

Mather Field Specific Plan and Community Plan Amendment for Mather Field

Sacramento County adopted the Mather Field Specific Plan and Community Plan Amendment in May 1997. The Mather Field Specific Plan is intended to provide guidance on the conversion of land uses in Mather Field from military to civilian uses. The Mather Field Specific Plan implements previous County planning efforts through specific requirements for private and public development in Mather Field. The Mather Field Specific Plan also establishes the location, intensity and character of land uses in Mather Field, circulation patterns, necessary infrastructure improvements, the location and general configuration of parks, as well as open space and community facilities necessary to support new development (Sacramento County, May 1997). The Mather Field Specific Plan covers three subareas, including: (1) the Airport Subarea (Airifield, North and South Airport areas); (2) Main Base Subarea (Main Base and campus areas); and (3) South Base Area (Independence at Mather, Mather Regional Park, etc.). According to the Land Use Plan in the Mather Field Specific Plan, the Airfield is designated as public/quasi-public, the Independence at Mather community is designated as low density residential, the land at the corner of Zinfandel Drive/Eagles Nest Road/Douglas Road is designated as industrial-intensive, the Mather Golf Course, regional park and surrounding land is designated as recreation, and the Main Base and campus is designated as commercial & office, public/quasi-public, and recreation. The Mather Field Specific Plan and Community Plan Amendment contain text, policies, permitted uses, development standards, design guidelines, and implementing actions. The Mather Field Specific Plan contains land use policies related to aviation support and development potential. Specific Plan policies that are of particular note include: M-LU-5 pertaining to creating new development potential for major industrial and distribution uses desiring airport and freeway access on 120 acres along the south side of Old Placerville Road near Routier Road; M-LU-9 pertaining to maximizing opportunities for major public and private sector aviation and industrial uses along the southern edge of the airfield; M-LU-10 and M-LU-15 pertaining to preserving, protecting and utilizing the natural resources within the Airport area and west of Eagles Nest Road (e.g., vernal pools and Morrison Creek); M-LU-16 pertaining to concentrating active recreational uses east of Eagles Nest Road; M-LU-18 pertaining to introducing local-serving convenience retail to serve residents and employees; and M-LU-19 pertaining to allowing a major visitor destination or institutional use in the southeastern portion of Mather Field.

Sacramento County is proceeding with a General Plan Amendment and amendments to the Mather Specific Plan and Mather Special Planning Area that will change land uses in South Mather, including: new boundaries for a 1,070-acre wetlands preserve; designating vernal pools for protection; providing new routes for the extensions of Douglas Road and Eagles Nest Road; and allowing future development that may support a university. The GPA for South Mather would change the designation from recreation to commercial-office for the area east of Eagles

Nest road, which would allow a university. The Mather Field Specific Plan amendment would move the boundary of the Commercial-Recreation District to the northern edge of the munitions area and changing the land use designation to commercial-office. The SPA amendment would allow mixed-use development in the Commercial-Recreation District, which would allow a university use without conditional use permits. On February 22, 2006, the Sacramento County Board of Supervisors adopted a resolution initiating General Plan, Mather Specific Plan and Mather Special Planning Area amendments and directed staff to proceed with the CEQA analysis of the proposed amendments.

Folsom Boulevard Special Planning Area

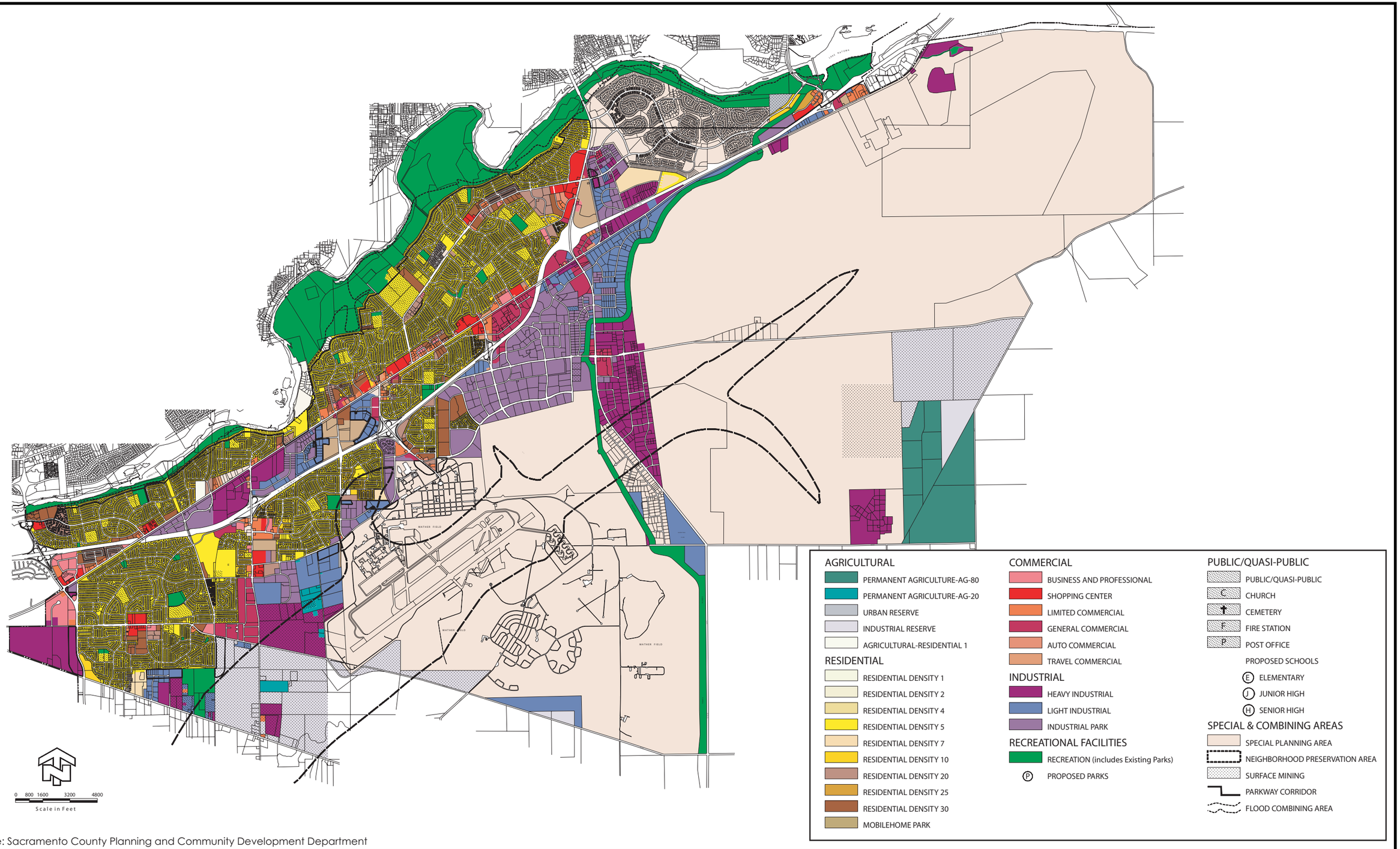
Sacramento County drafted the Folsom Boulevard Special Planning Area (SPA) in September 2002 as an ordinance to amend the Zoning Code. The ordinance was not adopted. The Folsom Boulevard SPA was "intended to provide greater flexibility in permitted and conditionally permitted uses and in applicable development standards to promote private revitalization and reuse of many of the older commercial and residential uses along the Folsom Boulevard Corridor." It contained a design review component (including exception procedures) that would have been used to improve the streetscape and create a unifying theme and design guidelines for transit supportive uses and building facade. The Folsom Boulevard SPA also contained development incentives (e.g., fee reduction, priority processing, tax credits, etc.).

Folsom Boulevard & Mather Field Road Streetscape Enhancement Master Plan

Sacramento County prepared the Folsom Boulevard & Mather Field Road Streetscape Enhancement Master Plan. While the Master Plan has not yet been formally adopted, the City of Rancho Cordova and Sacramento County are working together to implement the first phase of the Master Plan. The Master Plan contains objectives for beautification, identify, traffic calming, and connectivity. It is intended to serve as an improvement plan for public right of way. The Master Plan contains design themes (e.g., Mather Field, Vineyard, Gateway) and design features such as medians, landscape, street furniture, and signage. The most recent draft is dated May 2005.

Cordova Community Plan

Prior to the incorporation of Rancho Cordova, Sacramento County completed a lengthy process preparing the Cordova Community Plan (CCP), which it ultimately adopted in 2003. The boundaries for the CCP are described as the area bordered by the American River and the City of Folsom on the north; Prairie City Road, Grant Line Road, and White Rock Road on the east; Douglas Road, Kiefer Boulevard, and Jackson Highway on the south; and the City of Sacramento and Watt Avenue on the west (see **Figure 4.1-4**). The CCP area covers approximately 37,650 acres, including a portion of the Rancho Cordova city limits and areas outside the current city limits but within the Planning Area boundaries. The CCP is a policy document that implements the County's General Plan at a more detailed and specific level. The CCP does not address the entire General Plan Planning Area and in particular did not cover the area south of Douglas Road (including the Sunrise Douglas Community Plan Area) where much of the future development in the City will occur.



Source: Sacramento County Planning and Community Development Department

T:\Rancho Cordova\General Plan EIR\AI Files\Figure 4.1-4.ai, February 2006

City of Rancho Cordova
Planning Department

Figure 4.1-4
Cordova Community Land Use Map

The following statements have been identified as guiding visions for the CCP:

- Overcoming obstacles created by physical, neighborhood, and jurisdictional boundaries;
- Redesigning Folsom Boulevard to be more pedestrian friendly;
- Creating a better balance of housing and jobs;
- Revitalizing the community's older neighborhoods; and
- Creating more diversity in the community's housing stock, in particular, through the development of more "move-up" housing choices.

The vision statements in the CCP reflect the concepts that will be used as the basis for preparing the proposed Rancho Cordova General Plan. The Cordova Community Plan includes land use objectives and implementation actions relevant to land use impacts within Rancho Cordova. CCP policies that are of particular note include:

- LU-1 pertaining to improving the existing development through revitalization efforts;
- LU-2 and LU-3 pertaining to land uses in Mather;
- LU-4 pertaining to connections to light rail stations and adjacent land uses within ¼-mile of stations;
- LU-5 and LU-6 pertaining to promoting high-quality, efficient and cohesive mixed-use development projects minimizing impacts on adjacent uses and traffic; and
- LU-9 pertaining to promoting a "town center" concept for Folsom Boulevard.

Sunrise Douglas Community Plan

The Sunrise Douglas Community Plan (SDCP), which was approved by the Sacramento County Board of Supervisors on July 17, 2002, established the overall conceptual framework and policy direction for the urbanization of the approximately 6,015-acre Community Plan area. Development of the SDCP area is anticipated to result in the construction of approximately 22,503 dwelling units, 479 acres of supporting commercial and mixed uses, 177 acres of parkland, and 148 acres designated for elementary, middle, and high school sites. The SDCP is consistent with the general growth policies of the existing Sacramento County General Plan and was designated as an Urban Growth Area, which indicates the County's intention to allow for urbanized land uses in the area during the current planning horizon. The SDCP contains key guiding principles related to land use including LU-2 and LU-6 pertaining to providing an urban core area with regional access and a bicycle and pedestrian circulation system that encourages alternative modes of transportation, LU-4 pertaining to providing shopping, recreation and services within the SDCP area to minimize travel outside of the plan area, and LU-7 pertaining to providing appropriate buffers between incompatible land uses. The entire Suncreek/Preserve Planning Area of the proposed General Plan is located within the SDCP area. The environmental impacts associated with implementation of the SDCP were addressed in the SDCP/SRSP EIR (SCH No. 97022055), which was certified by the Sacramento County Board of Supervisors in July 2002.

Sunridge Specific Plan

The Sunridge Specific Plan (SRSP) was the first Specific Plan area within the SDCP and was approved concurrently with the SDCP by the Sacramento County Board of Supervisors in July of 2002. The SRSP encompasses approximately 2,605-acres, or 43.3 percent of the SDCP area. The SRSP area was allocated 1,904 acres of low density residential, 45 acres of medium density residential, 174 acres of commercial and office, and 482 acres of open space/natural preserve. The maximum residential allocation in the SRSP area was 9,886 dwelling units. The SRSP provided a detailed framework for development of the specific plan area and implementation of the guiding principles and policies in the SDCP. The SRSP also incorporates land use, circulation, resources management, and public facilities and infrastructure master plans. The SRSP contains key policies related to land use including LU-2 and LU-5 pertaining to providing an urban core area with regional access and a bicycle and pedestrian circulation system that encourages alternative modes of transportation, LU-4 pertaining to providing shopping, recreation and services within the SDCP area to minimize travel outside of the plan area, and LU-6 pertaining to providing appropriate buffers between incompatible land uses. All the projects within the SRSP area have either been approved or will be approved prior to adoption of the General Plan. These projects, which include North Douglas, Anatolia I, II, III & IV, Montelena, Sunridge Lot J, Sunridge Park, and the Sunridge East projects (formerly known as Grant Line 208, Douglas 103, Douglas 98, and Arista del Sol), are in various stages of development. The environmental impacts associated with implementation of the SRSP were addressed in the SDCP/SRSP EIR (SCH No. 97022055), which was certified by the Sacramento County Board of Supervisors in July 2002.

City of Rancho Cordova Revised Draft Land Use Map Book

The Revised Draft Land Use Map (as amended January 17, 2006) reflects an approach that combines specific land use designations in some areas of the City and more general descriptions of land uses in areas planned for future growth—i.e., the "Planning Areas" shown on the Draft Land Use Map (and described below). It is anticipated that more detailed planning will be required for most of the Planning Areas after adoption of the General Plan, such as the adoption of Specific Plans (as has already occurred for the Sunridge Specific Plan area). The reader is referred to Section 3.0 (Project Description) for a detailed discussion on the City of Rancho Cordova Land Use Map Book.

A variety of new land use designations are established with the Draft Land Use Map to reflect the more mixed and (in many cases) more intense land uses envisioned for the City. These "mixed use" categories provide the opportunity for combining of residential, commercial, and office uses on a single site (depending on the designation). In some cases, the mixing may be "horizontal" (for example, residential uses next to commercial uses); in others, the mixing may be "vertical" (residential uses over commercial or office in multi-story buildings). The City anticipates that compact mixed-use developments will be the standard pattern for future development and redevelopment proposed under the General Plan. The Draft Land Use Map also designates the general location of several "Town Centers" of varying size and intensity. The locations are conceptual, but illustrate the City's intent to provide for a variety of shopping, working, and living opportunities throughout the city, and to take advantage of the opportunities provided by Highway 50, light rail, and other major access points to build regionally-oriented commercial centers.

There are 16 individual Planning Areas identified in the Rancho Cordova Revised Draft Land Use Map Book and the associated Land Use Map. Land uses within these Planning Areas are described in general and mapped with conceptual land use plans. It is anticipated that more detailed planning (e.g., Specific Plans) will be required for most of the Planning Areas after

adoption of the General Plan. Additional analysis (e.g., additional consideration of land uses) will be conducted for the Planning Areas prior to consideration of a Final General Plan Land Use Map and useful information in the form of more detailed descriptions will be incorporated into each of the Planning Areas as appropriate. (The reader is referred to the General Plan Land Use Element for a detailed description of Planning Areas.)

There are portions of the Rancho Cordova General Plan Planning Area that are not within one of the 16 Planning Areas. These areas include established neighborhoods along Folsom Boulevard, Coloma Road, Zinfandel Drive, and Mather Field Road, the Gold River, Rosemont, and Villages of Zinfandel neighborhoods, as well as the American River Parkway, the office park area along International Drive, and the Sunridge Specific Plan area.

The sixteen Planning Areas within the City of Rancho Cordova General Plan Planning Area are:

- Aerojet
- Countryside/Lincoln Village
- Downtown
- East
- Folsom Boulevard
- Glenborough
- Grant Line North
- Grant Line South
- Grant Line West
- Jackson
- Mather
- Rio del Oro
- Suncreek/Preserve
- Sunrise Boulevard North
- Sunrise Boulevard South
- Westborough

A description of the conceptual land uses, circulation and transit network, environmental each of the 16 Planning Areas is provided below. See **Figures 3.0-4** through **3.0-18** regarding conceptual land use plans and **Table 3.0-3** regarding buildout of the Planning Areas.

Aerojet

The Aerojet Planning Area is the site of the Aerojet/GenCorp operations. The historic and ongoing uses of the site necessitate the requirement for soil remediation and other toxic cleanup activities that will not be completed during the lifetime of this Plan. Portions of the area are ideal for continued industrial, research and development, and mining operations in the near term. Intense development (i.e., offices, research and development activities, light industrial uses) will probably be located near the center of the Planning area along an extension of Hazel Avenue.

If the Aerojet operations ever require less land area, then some portions of the Planning Area that border onto other Planning Areas where medium to high intensity development is proposed (i.e. Easton, Westborough, and Rio del Oro) may be developed in a manner similar to those areas, but at decreased densities. The conceptual land use plan for the Aerojet Planning Area shows the area designated for light and heavy industrial uses.

Countryside/Lincoln Village

Unlike other Planning Areas in the City, this Planning Area is almost entirely developed and includes primarily residential development. Existing residential development contains a high concentration of low and moderate-income households with limited east-west connectivity. This Planning Area establishes the priority for reinvestment, enhancement, and improved connectivity of this existing community. Within the residential neighborhoods, the goal is to improve the property values and maintenance, while encouraging home ownership for a full range of income levels. The community supports the integration of new public and quasi-public uses into the park site on Routier. Along Old Placerville Road and Rockingham Drives, target land uses include a variety of office and commercial mixed-use developments.

The Land Use Plan for Countryside-Lincoln Village shows a Village Center development on the northeast corner of Bradshaw and Old Placerville Road. Further north along Bradshaw Road, there are several commercial mixed-use sites intended for smaller, neighborhood serving commercial, office, and residential uses. A new Residential Mixed Use designation is shown along Routier surrounding the new school site. At the intersection of Routier and Old Placerville Road, the new office mixed use designation will allow for existing and new offices to be developed with commercial and/or residential uses integrated horizontally or vertically. Finally, the commercial mixed-use designation along Mather Field Road and Rockingham Drive is intended to expand development opportunities for existing low density commercial and office sites.

Downtown

The Downtown is the center and "heart" of Rancho Cordova. The area provides a significant connection between existing residential and commercial areas in the northern portion of the City with existing employment areas and future residents to the south. This location in the core of the community will serve to link the community both east-west and north-south. Its proximity to Highway 50 and Light Rail make it a prime location in the region for locating uses and tenants that benefit from that level of visual exposure. It is the City's intent that the Downtown become a vibrant place to live, work, play, and shop. It is a walkable area with wide urban sidewalks that connect to plazas and other gathering areas that are part of individual projects. The vision is for a pedestrian-friendly gathering place for both daytime and nighttime activities (e.g., farmers markets, concerts, and sporting events). The tallest buildings in the City will be located in the Downtown.

East

Since the East Planning Area borders on the County's Urban Services Boundary and the adopted 100 year floodplain, and contains many vernal pools and critical habitat for various threatened and endangered species, the East Planning Area will have a very dynamic mix of residential densities. Residential development near Grant Line Road and the proposed loop road should develop at densities similar to Grant Line West and Suncreek/Preserve (8 dwelling units per acre), but will reduce in density as it approaches the eastern boundaries of the General Plan Planning Area (probably averaging four units per acre and as low as one unit per two acres). This land use transition from urban to rural uses will help to define the City's "edge."

The conceptual land plan shows approximately 9 neighborhoods served by at least one Village Center and one Local Town Center. It is also anticipated that the East Planning Area will include additional employment opportunities. Given the number of significant natural resources in this area of the City, the Planning Area should include a regional attraction that can integrate or take advantage of proximity to these natural resources (e.g., zoo, nature preserve with information/training center, natural resource museum, active/passive recreational center).

Folsom Boulevard

The Folsom Boulevard Planning Area will serve as the high-intensity development center of the City. This area encompasses approximately 1,652 acres and may accommodate a residential population of 22,936 people. Target land uses for this area include a series of Transit-Oriented and Regional Town Centers strategically located at light rail stations and freeway interchanges. These designations, along with other commercial nodes along Folsom Boulevard will serve as catalysts for redevelopment of this corridor. Residential and Office Mixed Use designations will provide additional housing opportunities and developments that support transit ridership. The

Folsom Boulevard Planning Area is fully urbanized with revitalization efforts required by both the City and private landowners to create the vibrant mixed-use corridor envisioned by the City. This process may take somewhere between ten and twenty years to accomplish and will require significant investment by various service providers.

Glenborough

While currently under development review by the County, the Glenborough Planning Area will likely contain a mix of residential, commercial, office, and related uses in a Neighborhood-Village-District setting. Included in the proposal is a Regional Town Center at the Southern side of the Hazel-Folsom Boulevard-Highway 50 interchange. This Town Center will probably be about 100 acres in size. It will also be oriented to take advantage of the connection with Light Rail. The conceptual land plan reflects the current application with Sacramento County.

The site will also feature over 450 acres of parks and open spaces that will connect the developed areas together and with the natural features.

Grant Line North

The Grant Line North Planning Area is within the existing city limits and is a greenfield site with planned land uses including a mix of low, medium, and high-density residential units with an average density of approximately eight units per acre, as well as mixed use areas consisting of commercial/residential units. This Planning Area encompasses approximately 1,847 acres and proposed development could result in up to 6,916 dwelling units, a residential population of over 16,600 people, and generate over 3,634 employment opportunities. One Village Town Center, one Town Center, and between five and seven neighborhood centers could be developed throughout the planning area. Employment opportunities would be provided in the Village Centers and office mixed-use areas. While the County-owned property in the northern portion of the site may not be developed within the horizon of the General Plan, assumptions for that area include residential neighborhood development in keeping with the "building block" concept, as adopted into the City's interim General Plan (i.e., the Vision Book), whereby future development and redevelopment within the City is comprised of the building blocks of neighborhoods, villages and districts. The anticipation is that this area would integrate seamlessly with other residential areas west of Grant Line Road. Environmental constraints associated with this Planning Area include: vernal pools, Sacramento Orcutt grass, Laguna Creek, and Blodgett Reservoir. The Grant Line North Planning Area will most likely be developed within the time horizon of this Plan.

Grant Line South Planning Area

This Planning Area encompasses approximately 2,549 acres outside the current City limits of Rancho Cordova and consists primarily of open space and abuts areas to the south that are planned to be retained for agricultural uses. Development proposed in this area will serve to transition from urban to rural uses at the City's "edge." Proposed uses include Village Centers consisting of commercial, commercial mixed use, single-family residential/multi family units. Eight to ten neighborhood centers could be developed throughout the planning area, featuring such land uses as public or quasi-public buildings, elementary or middle schools, and neighborhood commercial uses such as markets, coffee shops, and small restaurants. Ultimately, development in this Planning Area could yield up to 3,667 dwelling units

Residential densities, especially along the outlying, southern portions of the Area would be limited in scale and density (approximately four units per acre on average), with most of the

activity centers located at major roadway intersections. Within the triangular-shaped property bound by Sunrise on the west, Jackson Highway to the north, and Grant Line Road to the southeast, target land uses include low-rise office, office mixed-use, and commercial mixed use. The Grant Line South Planning Area contains vernal pools and will probably not begin developing for 30 years, based upon its location and proximity to the rest of the urban areas of the City. This places it outside the timeframe of this Plan. However, development within this Planning Area may occur within the General Plan time horizon if necessary conditions are met (e.g., infrastructure is provided and the City's annexation of this area is approved).

Grant Line West

This Planning Area is located within the existing City Limits. Target uses in the Grant Line West Planning Area include a mix of medium and high-density residential units with an average density of approximately eight units per acre. The residential portion of this Planning Area could include 3,393 dwelling units and a residential population of over 9,043 people. As many as six neighborhoods and two on-site Village Centers could be developed on the approximately 1,306 acre site. The project would also be served by a Local Town Center north of the Planning Area and may include a small amount of business and professional office and generate up to 1,100 jobs. The Grant Line West Planning Area contains mine tailings, Morrison Creek and vernal pools. The Grant Line West Planning Area will likely be developed within the timeframe of this Plan.

Jackson

The Jackson Planning Area is located adjacent to the City's General Plan Planning Area Boundary; therefore, land uses in this area will serve to transition from urban to rural uses at the City's "edge". This Planning Area encompasses nearly 8,730 acres and could result in the construction of 5,806 dwelling units, hold a residential population of 15,457 people and provide up to 10,753 jobs. Developable portions of this area are expected to be developed with a wide range of residential, commercial, office, and light industrial uses. The southern and eastern portions of the Jackson Planning Area will most likely develop as a series of residential neighborhoods with an average density of four dwelling units per acre. Village Centers serving the Area may primarily be located along Bradshaw Road, Kiefer Boulevard, and Jackson Highway. There is a possibility that a Local Town Center may be warranted somewhere along Jackson Highway, depending upon the final size of the buildout.

The Jackson Planning Area contains vernal pools and several streams/creeks, including portions of Frye Creek, Laguna Creek, Morrison Creek, and Elder Creek. This planning area also falls within the 100-year floodplain and within the Mather Airport safety zones and noise contours. The Planning Area includes an existing rendering plant that has incorporated upgrades to address odor issues associated with operations. Because of the required safety zones and the various flight patters into and around Mather Field, in conjunction with the industrial development west of the site, large portions of the central and western Jackson Area will remain undeveloped or in a office mixed use, public/quasi-public, light industrial, or heavy industrial designation with some supporting commercial. Due to its location and proximity to other existing uses (Mather Field, surface mining operations, etc.) the Jackson Planning Area will probably not develop within the timeframe of this General Plan.

Mather

The Mather Planning Area encompasses roughly 6,353 acres outside the existing Rancho Cordova City Limits. Because of the required safety zones and the various flight patters into and around Mather Field, in conjunction with the environmentally sensitive habitat and regional park

site, large portions of the Mather Planning Area will need to remain undeveloped. Areas that have the highest potential for development are those near the intersection of Jackson Highway and Sunrise Boulevard and those north of Kiefer Boulevard along Bradshaw Road. The Mather Planning Area contains Mather Airport with the Mather Airport safety zones and the Mather Airport noise contours, Mather Regional Park with the Mather Golf Course and vernal pool preserve, the Independence at Mather residential community, and Morrison Creek. The Mather Airport safety zones and noise contours restrict the types of uses that can be located within portions of this Planning Area. In the southeast corner of the site, 450 acres are planned for a college (Legionaries of Christ) development with a capacity of approximately 7,000 students. The college would support development of limited on-site residential, office, and commercial uses north of Kiefer Boulevard. Other target uses in the Planning Area include office and light industrial uses west of Mather Field. All new residential development is assumed for proximity to and association with the college development in the southeast and southern portion of the Planning Area. Development along the north side of the Planning Area will probably occur at various stages over the next twenty years as operations at Mather Field expand. Ultimate development in this area could result in 1,982 dwelling units (including 1,200 units from the existing Independence at Mather subdivision). The south portion of this Planning Area will probably remain undeveloped for the timeframe and planning horizon of the Sacramento County and Rancho Cordova General Plans.

Rio Del Oro

This is the largest of all the City's Planning Areas, encompassing over 3,700 acres. Development of this area could result in the generation of up to 11,366 dwelling units, 12,067 jobs, and hold a residential population of over 31,000 people. The Rio del Oro Planning Area would contain a mix of low, medium, and high-density residential units with an average density of approximately 6 - 8 units per acre. Residential areas would be developed as an interconnected series of walkable neighborhoods served by Neighborhood Center and Village Centers. The Area may be served by as many as three Village Centers, which provide the daily commercial needs of the residents. As many as nine neighborhood centers could be developed throughout the Planning Area. A Regional Town Center containing commercial, commercial mixed use, and shopping facilities would also be located in the planning area along Sunrise Boulevard. Additional land uses in the planning area may include office and light industrial uses, public/quasi-public uses, and open spaces. Light industrial uses would be mainly located within the Mather Safety Zone, while office may be clustered closer to residential areas to promote alternative modes of transportation. Environmental constraints include, but are not limited to, mine tailings, vernal pools, Morrison Creek and the Mather Airport safety zones. The Rio del Oro Planning Area will likely be developed within the time horizon of this Plan.

Suncreek/Preserve

The Suncreek/Preserve Planning Area is located within the approved Sunrise Douglas Community Plan area. The Suncreek Specific Plan (SSP) area encompasses 1,762-acres in the southern portion of this Planning Area and will include up to 9,263 dwelling and could result in a residential population of up to 21,236 people. This Planning Area would also include commercial, retail, office, and provide a substantial amount of employment opportunities. A joint Environmental Impact Report/Environmental Impact Statement (EIR/EIS) is currently being prepared for the Suncreek portion of this Planning Area; therefore, it will most likely be developed during the time horizon of this General Plan.

The Preserve at Sunridge is located north of the SSP area and encompasses approximately 530 acres. The EIR for this project is currently undergoing review and anticipated for certification in mid 2006. Land Uses proposed in association with the Preserve SPA include 2,703 dwelling units, a residential population of over 7,200 people and a 17-acre Local Town Center with approximately fifteen commercial building pads ranging from approximately 2,400 square feet to approximately 55,000 square feet for a total of approximately 147,000 to 165,000 commercial square feet. The Town Center portion would include live-work units for on-site employment opportunities. Based on the current processing schedule, it is most likely that the Preserve at Sunridge will be developed over the next 5 to 7 years. Environmental constraints in this Planning Area include: vernal pools, Morrison, Laguna, and Elder Creeks, and two 230-kV electrical transmission lines that run diagonally through the area.

Sunrise Boulevard North

The Sunrise Boulevard North Planning Area is the smallest of all of the City's planning areas, encompassing approximately 88-acres, directly west of Sunrise Boulevard and north of Highway 50. While currently an older retail area with many existing offices, this area should be redesigned with more intensive mixed-use (retail, office, and residential) activities, including a Village Center serving adjacent neighborhoods to the west. Given the commercial concentration in this area, it is estimated that new residential development in the planning area will occur at an average of 14 units per acre and result in up to 630 dwelling units and a residential population of 1,367. This area is also projected to provide approximately 1,561 jobs. The Sunrise Boulevard North Planning Area does not contain any development constraints associated with the environmental conditions as the area is fully urbanized. Development of this Planning Area is anticipated to take between ten and twenty years to accomplish and will require significant investment by various service providers.

Sunrise Boulevard South

The Sunrise Boulevard South Planning Area includes several existing commercial and industrial uses along the Sunrise Boulevard corridor, stretching as far south as Douglas Road. This Planning Area encompasses 916-acres and development could generate over 14,000 jobs. Target uses for this area include industrial, office mixed use, and commercial mixed use. Limited industrial uses will continue to be a viable and appropriate use in some portions of the Planning Area. The City will develop programs/policies to support the natural evolution of this area to ensure the continued economic vitality of this area. Non-conforming provisions for existing uses in this area will allow for the continuation of industrial uses and conditional expansion of industrial uses where mitigation measures ensure compatibility with the evolving nature of this area. Environmental constraints associated with this Planning Area include, but are not limited to, mine tailings, Mather Airport safety zones, and the Folsom South Canal. This Planning Area is fully developed with revitalization efforts required by both the City and private landowners. Redevelopment and revitalization of this area is anticipated to take between ten and twenty years to accomplish and will require significant investment by various service providers.

Westborough

The Westborough Planning Area features primarily residential development focused around a Regional Town Center at the new Rancho Cordova Parkway /Highway 50 interchange. This Planning Area encompasses approximately 1,500 acres and could result in the development of 6,078 dwelling units, a residential population of approximately 15,000 people and provide up to 5,521 employment opportunities. This Planning Area would likely feature a Regional Town Center including retail shopping with other restaurant, service, office, and residential uses at a density of

15 to 25 units per acre. Entertainment venues and/or sports-oriented uses may be a key component of the Town Center. Two Village Centers will serve the daily commercial needs of the future residents of Westborough. The Planning Area will probably be made up of five to six neighborhoods with a wide range of residential densities and corresponding housing types. Environmental constraints associated with this area include: includes main tailings, Buffalo Creek, and the Folsom South Canal. Additionally, this Planning Area is subject to the requirements of the Aerojet General Corp. Superfund site. The Superfund site encompasses groundwater contamination and potential soil contamination associated with past Aerojet operations. The Westborough area will likely be developed in the next five to ten years. Its proximity to existing development and it potential for easy integration into the existing urban framework make it an ideal candidate for City expansion.

City of Rancho Cordova Zoning Code

The City adopted the majority of the Sacramento County Zoning Code upon its incorporation, as required by State law. Cal. Gov't Code § 57376(a). The existing Rancho Cordova Zoning Code will be updated as a subsequent action to the adoption of the new General Plan. The Zoning Code serves as the primary tool for implementing the City's land use policies and, as required by State law, must be consistent with the General Plan. Cal. Gov't Code § 65860(a). Each General Plan land use category must have one or more corresponding zone district, and the development standards and land use regulations contained in the Zoning Ordinance must reflect the policy statements in the Land Use Element. While the General Plan may be somewhat broad in its discussion of permitted land uses and development intensities, zoning provisions identify specific regulations so that property owners and developers can determine how particular properties can be used and developed.

City of Rancho Cordova Design Guidelines

On September 6, 2005, the Rancho Cordova City Council adopted the City's first comprehensive Design Guidelines document. The Design Guidelines reflect the City's desire for quality development and apply to all types of development. The Design Guidelines were created using input and direction from the Urban Design workshops held in the spring/summer of 2004, the visual preference survey and General Plan survey conducted in the summer of 2004, visioning workshops and land use map discussions for the City's General Plan, and the City's guiding principles of the City's Design Review Ordinance. These provisions provide a framework to evaluate new development projects against the City's adopted vision and are intended to reflect the City's desires relative to land planning, as well as individual site design and architecture. The guidelines and standards set forth in Chapter 2 (Community Design) of the Design Guidelines are applicable to all project types and cover a wide range of topics from general circulation and project signage to landscaping and sustainable development. The subsequent chapters provide additional provisions that are applicable to unique project types, including commercial and commercial mixed use, office and office mixed use, residential (all types from single family detached to residential mixed use), community facilities, and industrial. A series of checklists have been created for the implementation of the design guidelines. Each of the 6 checklists corresponds to one of the design guideline chapters in the document. The checklists are intended for use by applicants/designers, staff, and decision makers in the preparation, review, and action of individual projects. Ultimately, it is up to the designated Approving Authority to determine if the project is consistent with the overall intent of the guidelines. The summary language included within the checklists is designed as a reference to the provisions within the document and are not meant to substitute for the actual language of the guidelines.

Folsom Boulevard Specific Plan

The City of Rancho Cordova is currently preparing a Specific Plan for the Folsom Boulevard Corridor. The Folsom Boulevard Specific Plan will include policy, regulatory, and financial mechanisms for change. The Specific Plan will not duplicate past planning efforts for Folsom Boulevard, but incorporate all relevant visions, plans and details, and then focus on the actions, priorities, and associated costs to implement the revitalization effort. The Folsom Boulevard Specific Plan will be completed after the Rancho Cordova General Plan is adopted.

General Plans of Adjacent Jurisdictions

City of Sacramento General Plan

The City of Sacramento is located along the Highway 50 corridor between Highway 99 and Business 80, west of Rancho Cordova, in Sacramento County. The City of Sacramento General Plan, which was adopted in 1988, covers the present 98 square mile area of the City of Sacramento as well as nearby portions of Yolo and Sacramento Counties. The City of Sacramento intended for land use policy for the additional lands in the Sphere of Influence to be amended into the General Plan when those lands become part of the annexation program. A portion of the Rancho Cordova General Plan Planning Area is within the City of Sacramento's Sphere of Influence, which includes the community of Rosemont. Rosemont is already built out with predominantly residential uses and supporting commercial, public/quasi-public, open space, and parks uses. The General Plan contains policies related to their Sphere of Influence. The City of Sacramento is currently updating their General Plan because the last comprehensive update to the City's General Plan was completed in 1988 and covered a planning period through 2006. The current plan has outdated information, assumptions, projections and policies. The City of Sacramento expects to adopt the General Plan Update in late 2007. According to the *General Plan Technical Background Report* (City of Sacramento, June 2005), the City of Sacramento has defined three study area boundaries within the Policy Area (Natomas Join Vision Area, Rosemont Area, and West Sacramento Area) for the 2004-2007 General Plan Update. Development within these areas is currently (2004) governed by several documents including the City of West Sacramento, the 1990 General Plan and the 1993 Sacramento County General Plan.

City of Folsom General Plan

The City of Folsom is located north of Highway 50 in Sacramento County to the east of Rancho Cordova. The City of Folsom General Plan (adopted in October 1988 and updated in January 1993) is strongly oriented toward physical development of land uses, a circulation network, and supporting facilities and services. The General Plan is the primary tool used by the City of Folsom in evaluating public and private building projects and municipal service improvements. The Folsom General Plan Urban Development Policy requires the preparation of area facilities plans to provide a strategy for providing the necessary public facilities and services to existing and newly developing areas within the General Plan area. The City of Folsom General Plan contains key policies related to land use including policies 6.1, 6.2 and 6.3 pertaining to the Sphere of Influence including parcels of land adjacent to the city limit and Folsom's influence over those parcels, considering using existing roads or natural features as the SOI boundary, and including only those lands to which infrastructure can be extended in the next 25 to 30 years, and policies 5.1, 5.2 and 5.3 pertaining to coordinating with other jurisdictions and agencies in land use planning efforts that could affect Folsom. The City of Folsom is proposing a mix of land uses in the 3,584-acre SOI annexation area, including: 1,800 acres of residential (mix of small lot, large lot, executive, walkable community, and high density); 100 acres of commercial; 70 acres of

business/professional; 125 acres of retail/office; 10 acres of public/quasi public; 297 acres of schools and city parks; 1,075 acres of open space; and 107 acres of roads. The area located along the east side of Prairie City Road (bordering the Rancho Cordova General Plan Planning Area) would be predominantly residential with office/professional located near the Highway 50 interchange, and open space located in between the office/professional and residential uses. The City of Folsom will be proceeding with the annexation of their Sphere of Influence area south of US 50 between Prairie City Road and the El Dorado County line in the fiscal year 2005-2006. The environmental review process for the Sphere of Influence annexation will begin later in the fiscal year. Folsom also expects to update their General Plan to ensure a balance between jobs created and the housing needed to serve the new employees.

City of Elk Grove General Plan

The City of Elk Grove is located in the southern portion of Sacramento County halfway between the City of Sacramento and Stockton, south of the City of Rancho Cordova. Elk Grove straddles Highway 99 and is bordered by Interstate 5 to the west. The Elk Grove General Plan, which was adopted in November 2003, addresses the land within the city limits as well as a "Planning Area" outside the city limits that may ultimately be included either in a Sphere of Influence or in the incorporated city limits. For the area outside the city limits and within the Rancho Cordova General Plan Planning Area, the Elk Grove General Plan provides land use designations at a more conceptual level. The area that overlaps with the Rancho Cordova General Plan Planning Area is located east of Bradshaw Road and along the south side of Jackson Highway. The Elk Grove General Plan identifies this area for rural residential uses (2 acre lot size), agricultural and open space uses with limited infrastructure. The General Plan is expected to guide development until the year 2023. The land south of Jackson Highway east of Bradshaw Road is predominantly in agricultural, rural residential and industrial uses.

Other Plans Applicable to Proposed Rancho Cordova General Plan

Mather Airport Comprehensive Land Use Plan and Policy Area

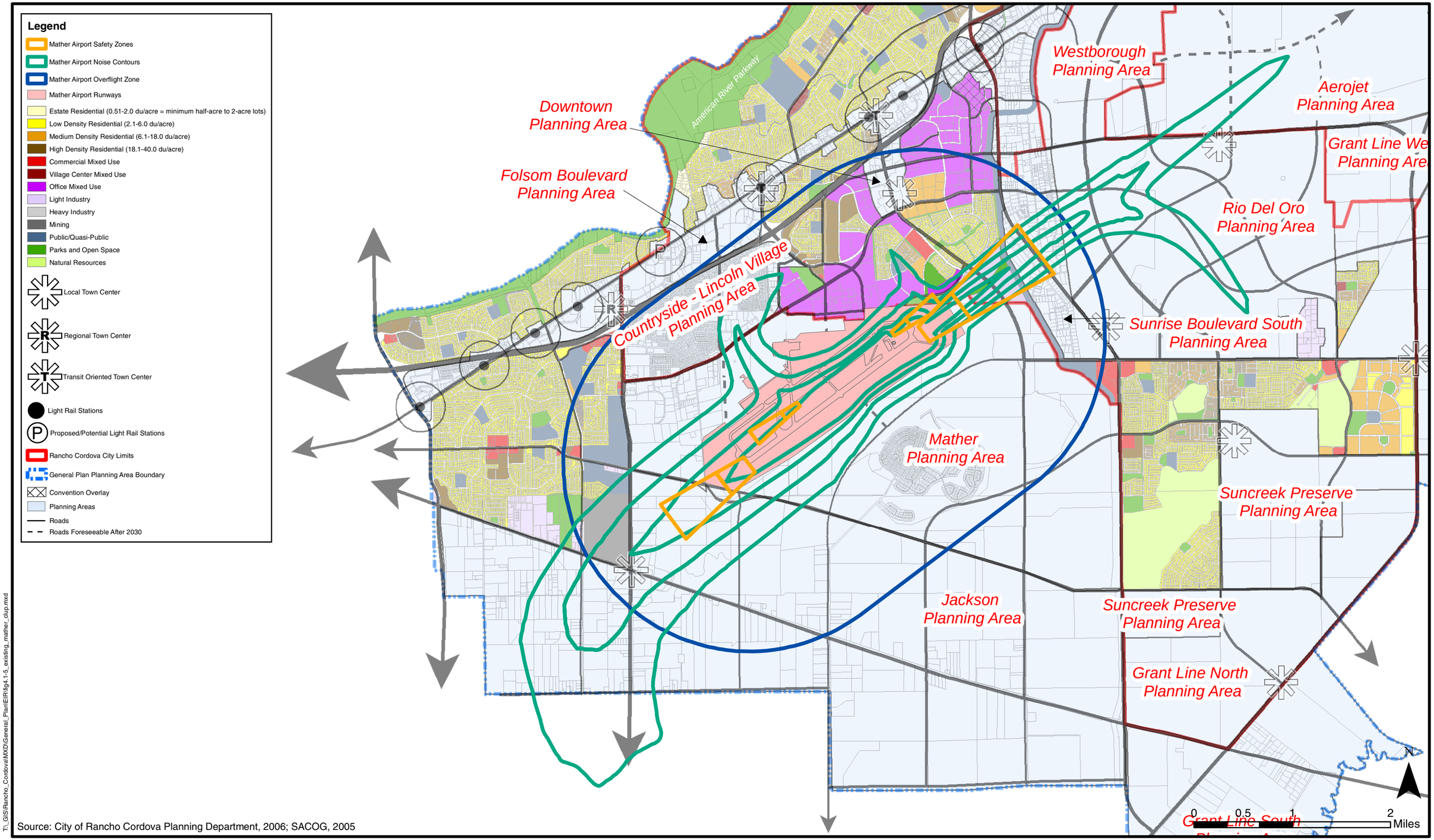
Mather Airport is a former Air Force Base that has been converted to civilian use. The Sacramento County Airport System now operates the airport, which includes two parallel runways, an integrated system of taxiways, aprons, a 24-hour control tower, and parking aprons. Mather Airport is primarily used by air cargo carriers and general aviation (small, private aircraft). Mather Airport is also a major maintenance facility and houses the California Department of Forestry administrative and maintenance facilities. The two primary runways are generally aligned in a northeast-to-southwest direction. The longer runway is 11,300 feet long and the shorter runway is 6,100 feet long. 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. The primary responsibility of the ALUC is to administer the Mather Airport Comprehensive Land Use Plan (CLUP).

The Sacramento County Board of Supervisors adopted the Mather Airport Comprehensive Land Use Plan (CLUP) in May 1997. The Mather Airport CLUP establishes planning boundaries for height, noise and safety around the Mather Airport as well as policies that determine the compatibility of new land uses proposed within each planning area boundary (see **Figure 4.1-5** for the existing CLUP boundaries). The CLUP also determines compatibility of surrounding land uses based upon noise levels associated with the airport operations and exposure of persons to

crash hazards associated with aircraft and height restrictions. The three components of the Mather Airport CLUP include: (1) Airport Height Restrictions (FAR Part 77); (2) Airport Noise Compatibility (Airport Noise Contours and land use compatibility guidelines for noise); and (3) Airport Safety Restriction Area (Clear Zone, Approach-Departure Zone, and Overflight Zone). SACOG is in the process of updating the CLUP and renaming it the Mather Airport Land Use Compatibility Plan (ALUCP). According to SACOG's Overall Work Program FY 2005/2006 (SACOG, May 19, 2005), the Mather ALUCP "will be completed in the future" and "staff will continue to review development proposals for consistency with adopted ALUPs and provide consistency determinations for member cities and counties". The Mather Airport ALUCP won't proceed until the environmental review process has been completed for the Mather Airport Master Plan.

The Airport Height Restrictions in the Mather Airport CLUP are established by the Federal Aviation Administration's (FAA) Federal Aviation Regulation (FAR) Part 77 for Mather Airport, which establishes a series of "imaginary surfaces" around the airport above which hazards to aircraft and surrounding land uses may be considered significant. Imaginary surfaces are established at radiuses from the end of the primary runway surface outward for varying distances and heights above ground. The furthest extent that these surfaces reach is 14,000 feet. **Figure 4.1-6** shows the extent of the 14,000-foot overflight zone in relation to Downtown Rancho Cordova. Additionally, the Federal Aviation Regulations (FAR) Part 77 defines a series of imaginary surfaces surrounding all public use airports. Any proposed object or structure that would penetrate any of these imaginary surfaces as they apply to the affected airport facilities is considered by the Federal Aviation Administration (FAA) to be an obstruction to air navigation. An obstruction to air navigation may not be a hazard to air navigation, however, the FAA presumes it to be a hazard and treats it as such until an FAA aeronautical study had determined that it does not have a substantial adverse effect on the safe use of the navigable airspace by aircraft. The imaginary surfaces the FAA uses to determine whether or not a structure or an object would be an obstruction to air navigation includes the primary surface, approach surface, horizontal surface, conical surface, and transitional surfaces. The primary aircraft hazards in the Planning Area are electrical transmission lines and towers already existing throughout the area.

The Airport Noise Compatibility in the Mather Airport CLUP is based on the Federal Aviation Regulation (FAR) Part 150 Noise Compatibility Study, which was established by the Federal Aviation Study and Noise Abatement Act of 1979. A Noise Compatibility Study includes the development of a Noise Exposure Map and a Noise Compatibility Program, which identify appropriate uses for land surrounding airports and include noise mitigation programs to ensure benefits for the surrounding communities. The Noise Compatibility Study for the Mather Airport will be updated by SACOG after adoption of the final Mather Airport Master Plan by the Sacramento County Board of Supervisors. Land uses that are incompatible with the 65 dB CNEL noise contour are residential dwellings, public and private schools, hospitals and convalescent homes, churches, synagogues, temples and other places of worship. Acceptable land uses within the 65 dB CNEL include manufacturing, transportation/communications/utilities, wholesale trade, retail trade, business/personal services, shopping districts, recreation, agriculture, mining, and public uses if they can achieve interior noise standards of 45 dB CNEL or 50 dB CNEL. CLUP/ALUCP compliance would be further determined on a project-by-project basis. Given that portions of the Planning Area are located within the existing and proposed boundaries of the CLUP/ALUCP, implementation of the General Plan must comply with federal, State and local regulations so as to not conflict with operations of the airport facilities. Additionally, State Airport Land Use Commission (ALUC) law requires a jurisdiction to either amend its General Plan and other land use regulations to achieve consistency with airport CLUPs adopted by the ALUC.

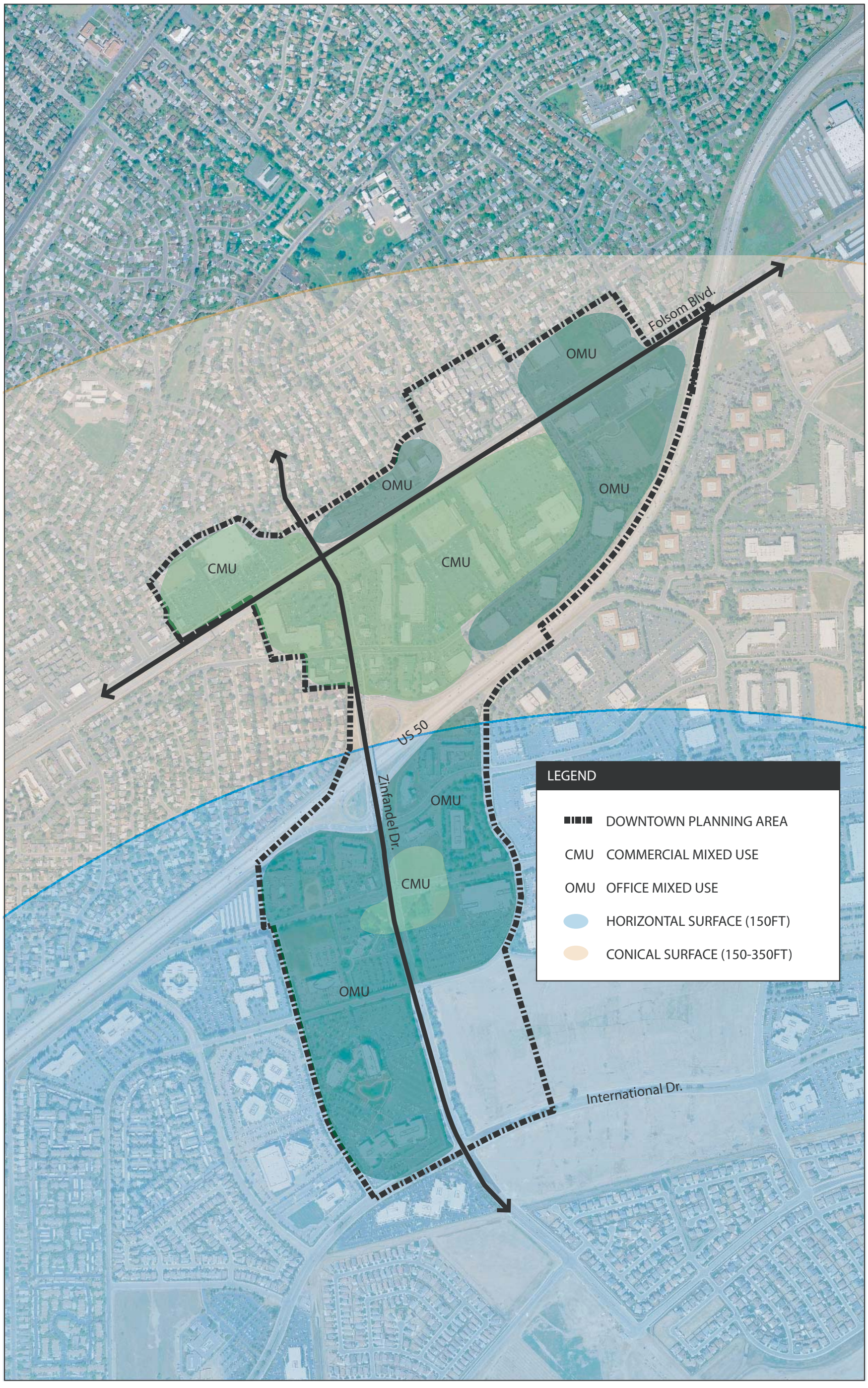


Source: City of Rancho Cordova Planning Department, 2006; SACOG, 2005

T:_GIS\Rancho_Cordova\MXD\General_Plan\EIR\fig4.1-5_existing_mather_clup.mxd

City of Rancho Cordova
Planning Department

Figure 4.1-5
Existing Mather Airport Comprehensive Land Use Plan Boundaries



Source: City of Rancho Cordova, 2006

T:\Rancho Cordova\General Plan EIR\AI Files\Figure 4.1-6.ai, February 2006

City of Rancho Cordova
Planning Department

Figure 4.1-6
Mather Airport Height Restrictions Over
The Downtown Planning Area

The Airport Safety Restriction Area in the Mather Airport CLUP is the area around the airport that is exposed to the possibility of aircraft accidents. The Mather Airport CLUP designates three safety areas including: (1) the Clear Zone; (2) the Approach/Departure Zone; and (3) the Overflight Zone. The Clear Zone for Mather Airport includes the runways and an area immediately surrounding the runways extending out for a length ranging from 1,000 feet to 2,500 feet and an outer width ranging from 450 feet to 1,750 feet. The Approach/Departure zone for Mather Airport begins at the outer end of the Clear Zone and extends outward for a length ranging from 2,000 to 3,250 feet. The Overflight Zone, which coincides with the area under the Horizontal Surface but outside of the Clear and Approach/Departure Zones, is defined by swinging arcs of 10,000-foot radii from the center of each end of the primary surface of all runway ends (SACOG, 1997). The Clear Zone and Approach/Departure Zone only affect land within the Mather boundaries. The Overflight Zone includes the majority of the Downtown Planning Area, the Villages of Zinfandel community, the Capital Center employment area and the approved Capital Village project. Land uses that are not allowable within the Overflight Zone include chemical/allied products, petroleum refining, rubber/plastics, regional shopping centers, colleges/universities, jails/detention centers, movie theater complexes with 3 or more screens, professional sports, stadiums/arenas, auditoriums/amphitheaters/concert halls, fairgrounds/ expositions, racetracks, and theme parks.

The Board of Supervisors adopted the Mather Airport Policy Area (MAPA) in 1998. The MAPA is part of the Sacramento County Noise Element. The MAPA policies place additional development conditions on new residential uses within the geographic boundaries of the MAPA. The MAPA policies are more stringent than the CLUP policies and provide additional protection to the airport and surrounding land uses. The MAPA prohibits new residential development within the CLUP zones that are subject to noise levels of 60 decibels (dB) community noise equivalent level (CNEL) or above. If residential uses are proposed outside the 60 dB CNEL, they must have adequate noise insulation, have proper notification disclosing the location of the property within the MAPA, and establish of an aviation easement.

Mather Airport Master Plan (MAMP)

The Sacramento County Board of Supervisors adopted the Draft Mather Airport Master Plan (MAMP) in February 2004. The MAMP, which was prepared with funding assistance from the Federal Aviation Administration (FAA), is intended to provide the Sacramento County Board of Supervisors with information vital to facilitating the future role of Mather and to identify the facilities necessary to meet near-term and long-term aviation demands. The MAMP outlines the proposed landside, access, and circulation improvements, cargo facilities upgrades, and other flight track policies to guide the Airport's operation for a 20-year planning horizon. The objectives of the MAMP include: (1) assess the market to identify trends in air cargo and general aviation; (2) identify issues and opportunities; (3) coordinate analyses, findings and recommendations; and (4) provide flexible recommendations for facilities, phasing and a financial plan for Mather Airport (Sacramento County, February 2004). The MAMP also contains maps showing existing airport land uses and facilities, as well as recommended development concepts for long-term airport land uses. The MAMP is being updated concurrently with the Mather Airport CLUP. The Sacramento County Department of Environmental Review and Assessment has issued a Request for Qualification (RFQ) for consulting services for the Master Plan Final EIR, which is anticipated for completion in 2008 (Takayama, 2005). The MAMP only applies to land uses and circulation patterns within Mather Airport.

American River Parkway Plan

The American River Parkway Plan (ARPP) was adopted by Sacramento County in 1962 and revised in 1985. The vision of the Plan was to manage the Parkway's natural resources; accommodate the demand for passive, unstructured, river oriented recreational pursuits in a natural environment which are not normally provided by other County recreational facilities, in a manner which minimizes the impact on the environment; limit the use of the Parkway to prevent overuse and preserve environmental quality thereby ensuring the availability of the Parkway for future users; coordinate and cooperate in the Parkway planning and management efforts; and balance the preservation of naturalistic open space and habitat within the urban area with the provision of active recreational facilities to serve the recreational needs of the community.

The concept of the ARPP is to balance the goals of preserving naturalistic open space and protecting environmental quality within the urban environment while contributing to the provision of recreational opportunity in Sacramento. The key policies of the ARPP that relate to land use, non-recreational use of the parkway, and public access, include:

- Policy 6.2 pertaining to requiring mitigation or elimination of uses that adversely affect the Parkway;
- Policy 6.4 pertaining to providing buffers between the Parkway and adjacent uses;
- Policy 6.19 pertaining to prohibiting new aggregate mining within the Parkway; and
- Policy 7.2 pertaining to the location of access points and parking lots in the least environmentally sensitive areas.

Sacramento County is currently working with Update Citizens Advisory Committee and the general public to update the ARPP, which is required because the context and usage of the three areas has changed considerably since the Plan was adopted in 1962 and revised in 1985. The City of Rancho Cordova is participating in the ARPP Update.

4.1.3. IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

This land use analysis evaluates the consistency of the proposed General Plan with the following standards, which are based on State California Environmental Quality Act (CEQA) Guidelines Appendix G. A land use impact is considered significant if implementation of the project would result in any of the following:

1) Physically divide an established community;

2) Create substantial incompatibilities between land uses;

3) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the adopted goals and policies of the Sacramento County General Plan, where applicable to areas outside of City limits, but within the Planning Area, and except where such County General Plan has been superceded by the City's General Plan, zoning ordinance, or other planning program) adopted for the purpose of avoiding or mitigating environmental effects; or

4) Conflict with applicable habitat conservation plan or natural community conservation plan.

METHODOLOGY

An evaluation of the potential land use impacts associated with implementation of the proposed Rancho Cordova General Plan was based on a review of planning documents, including the various components and policies of the City of Rancho Cordova interim General Plan, Rancho Cordova Design Guidelines and other City regulations affecting planning and implementation of the proposed General Plan, the South Sacramento Habitat Conservation Plan, the Cordova Community Plan, the Sacramento County General Plan, and other jurisdictions' general plans, to the extent they are directly or indirectly applicable to the Planning Area or regional impacts, other applicable community plans and specific plans, field reviews of the City and entire General Plan Planning Area, and consultation with appropriate agencies. The analysis contained herein is based on buildout conditions for the Planning Area and does not assess impacts associated with the phasing of individual development projects or interim improvements, except when the timing of such projects and/or improvement create reasonably foreseeable environmental impacts, in which case they are addressed in this EIR.

As discussed in further detail in Section 1.0 (Introduction), this EIR has been prepared as a Program EIR pursuant to CEQA Guidelines Section 15168. Accordingly, this EIR will be used to evaluate subsequent projects and activities under the proposed General Plan. When subsequent individual projects or activities under the General Plan are proposed, the City would evaluate whether their effects were adequately analyzed in this program EIR. If the projects or activities would have no effects beyond those analyzed in this EIR, no further CEQA compliance would be required.

The focus of the land use analysis in this Section 4.1 is on land use impacts that would result from the proposed General Plan—i.e., the policy document, land use map, and other General Plan components. Specific impacts and Plan consistency issues associated with biological resources, visual resources, noise, traffic, public services/utilities, hydrology (including water supply and water quality), cultural resources, agriculture resources, population and housing, and/or geology are addressed in each technical section. The reader is referred to sections 4.2 through 4.13 of this EIR for a detailed analysis of other relevant environmental effects as they relate to a particular issue area. Potential conflicts with the operation of the Kiefer Landfill from implementation of the proposed General Plan are addressed in Section 4.12 (Public Services and Utilities) and conflicts with continued mineral resource recovery is addressed in Section 4.8 (Geology and Soils).

This EIR addresses areas outside of the City limits, both within and outside of the Planning Area. As required by CEQA, this EIR also examines any impacts of the proposed General Plan that may be "cumulatively considerable", when viewed in connection with the effects of past, current, and probable future projects (CEQA Guidelines section 15064(h)(1)). The Sacramento County General Plan, City of Sacramento General Plan, Elk Grove General Plan, Folsom General Plan, and Mather Airport Specific Plan were used to analyze the cumulative land use impacts associated with implementing the City of Rancho Cordova General Plan.

PROJECT IMPACTS AND MITIGATION MEASURES

Division of Established Communities

Impact 4.1.1 Implementation of the Rancho Cordova General Plan would not result in the physical division of established communities because the General Plan was designed to focus on redevelopment of existing urbanized areas and siting new development in vacant portions of the Planning Area, rather than developing in a way that might divide established communities. The "building block" concept in the proposed General Plan, and relevant policies and action items, would ensure that such division does not occur. Accordingly, adoption of the General Plan is considered a **less than significant** impact.

The General Plan Planning Area includes existing urbanized development, generally located along Folsom Boulevard, Sunrise Boulevard, Bradshaw Road, Watt Avenue, and US 50. There are large tracts of undeveloped, vacant land, mostly located east of Sunrise Boulevard and south of US 50, as well as along Grant Line Road and Jackson Highway. The majority of the existing residential developments are located along Gold Country Boulevard, Coloma Road, and Zinfandel Drive, north of Folsom Boulevard and west of Hazel Avenue. Other existing residential developments include, but are not limited to, Countryside/Lincoln Village, the Mather Field Road/International Drive area, the Villages at Zinfandel, Rosemont, and Independence at Mather, as well as the higher density residential areas along the north and south sides of Folsom Boulevard.

The existing Lincoln Village development is part of the Countryside/Lincoln Village Planning Area in the proposed General Plan. The priority goals and objectives for this area are reinvestment, enhancement, improved connectivity within the area's established neighborhoods, improve property values, and encourage homeownership for a full range of income levels. Therefore, development proposed under the General Plan would enhance the visual appearance and character of this area and not divide or otherwise adversely affect existing neighborhoods. The Villages of Zinfandel community is not located within any Planning Area proposed as part of the General Plan because this area is nearing buildout. The Rosemont, Independence at Mather and Gold River communities are located outside of the existing City limits; therefore, these areas are under the policy direction of the Sacramento County General Plan. These residential areas are generally built out and development associated with the Rancho Cordova General Plan would not physically divide these established communities.

The existing residential communities along the Folsom Boulevard corridor will be located within the proposed Folsom Boulevard and Downtown Planning Areas. These residential areas are currently urbanized and are planned for revitalization and redevelopment associated with the General Plan and Rancho Cordova Redevelopment Plan. Proposed improvements and land uses will include new residential uses, Office Mixed Use, Commercial Mixed Use, Regional Town Centers and Transit-Oriented Development. Development within the Folsom Boulevard and Downtown Planning Areas will provide housing and employment opportunities that currently don't exist. The General Plan envisions Transit-Oriented developments and Regional Town Centers strategically located at light-rail stations and freeway interchanges. It is expected that some new residential projects would have up to 80 units per acre and an average of 20 units per acre. Redevelopment and new development in this area will be consistent with the General Plan and the specific plans for Folsom Boulevard and the Downtown. Therefore, implementation of the proposed General Plan would improve the walkability and livability of these areas and will not divide the existing community.

The General Plan also will not impact the new community of Anatolia, which is located east of Sunrise Boulevard and south of Douglas Road in the Sunridge Specific Plan area. The General Plan Land Use Map has taken into account existing, recently approved, and proposed projects within the Planning Area.

New development, reinvestment and infill proposed under the General Plan would not result in adverse environmental impacts or substantial changes in the character of existing communities, because the goals, policies, and actions proposed in the Rancho Cordova General Plan seek to enhance and improve these areas. Therefore, the proposed General Plan would not result in the division of existing communities and this is considered a **less than significant** impact.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and action items are contained in the proposed General Plan Land Use Element, Urban Design Element and Economic Development Element to ensure that proposed land uses associated with General Plan do not adversely affect (i.e., divide) existing communities and developments.

Policy LU.1.4 — *Promote high quality, efficient, and cohesive land utilization that minimizes negative impacts (e.g., traffic congestion and visual blight) and environmental hazards (e.g. flood, soil instability) on adjacent neighborhoods and infrastructure and preserve existing and future residential neighborhoods from encroachment of incompatible activities and land uses.*

Action LU.1.4.1 — *Establish performance and development standards in the Zoning Code and guidelines in the Citywide Design Guidelines to address compability between existing and proposed development and within proposed mixed-use development (vertical and horizontal).*

Action LU.1.4.2 — *Create development standards and design guidelines to specifically address the compatibility of high-rise development in the Downtown Planning Area. Give special consideration to those issues unique to high-rise development, including the following: visual intrusion, distant viewshed, shadowing of adjacent properties, glare, wind tunnel effects, emergency service, interruption of electronic transmissions, traffic and parking, and noise and vibration.*

Action LU.1.4.3 — *Require the disclosure of potential land use compatibility issues in all parts of the City, such as noise, dust, odors, etc., in order to provide potential purchasers with the information necessary to make informed decisions about the property and its future land uses.*

Action LU.1.4.4 — *Develop guidelines for the buffering of incompatible land uses in ways that retain community character but do not consume large land area, create pedestrian barriers, or result in unsafe conditions.*

Action LU.1.4.5 — *Require an urban/agricultural buffer between development and existing agricultural uses. Design each buffer area to match the specific needs of each urban/agricultural interface, and to take into account the specific urban and agricultural uses. Buffers may be established through the use or combination of increased setbacks, roadways, barriers, landscaping or*

	other appropriate methods to avoid conflicts. Development of this buffer must be done in consultation with Sacramento County and will not require the taking of existing agricultural land nor impede agricultural existing uses.
Policy LU.2.2	*Promote new development and redevelopment in accordance with the building blocks concepts of neighborhoods, villages, and districts.*
Action LU.2.2.1	*Identify the building block components of neighborhoods, villages, and districts in the existing areas of the City and encourage redevelopment using the building blocks principles.*
Policy LU.4.1	*Improve the character and quality of existing development through the revitalization of blighted and underutilized development.*
Action LU.4.1.1	*Encourage the upgrading, beautification, revitalization, infill development, and appropriate reuse of existing commercial areas and shopping centers.*
Action LU.4.1.2	*Study, create, and implement streetscape enhancement plans that become catalyst projects for the revitalization of existing development.*
Policy LU.4.2	*Create redevelopment districts to enhance and improve areas of blight and deterioration.*
Actions LU.4.2.1	*Conduct the studies and community input process necessary to determine the location and extent of needed redevelopment districts within the City.*
Policy LU.4.4	*Give priority to residential and mixed-use development on vacant or underutilized sites within existing urban areas that have infrastructure capacity available. Currently targeted areas are some portions of Folsom Boulevard, Olsen Drive, Sunrise Boulevard, Bradshaw Road, and Coloma Road.*
Action LU.4.4.1	*Conduct infrastructure surveys and, where necessary, coordinate with utility providers to create infrastructure enhancement plans, which determine shortcomings in infrastructure that could inhibit the development of mixed-use projects in already developed areas of the City.*
Policy LU.4.9	*Give the highest priority for public funding to projects that facilitate infill, reuse, redevelopment, and rehabilitation, and the lowest priority for projects that do not comply with Public Facilities Master Plan phasing sequences.*
Policy ED.1.1	*Ensure that an adequate supply of land is designated for future development of an economically viable and livable community.*
Action ED.1.1.1	*Identify key locations for conversions of office and retail to mixed-use projects, including residential uses.*

Action ED.1.1.2 *Enhance Rancho Cordova's image and quality of life through investment in the Downtown, neighborhoods, commercial districts, parks, open spaces, community facilities, and services, and creating a high level of perceived safety and a business-friendly government.*

Policy UD.4.3 *Promote infill projects that are designed as catalysts for change in accordance with the desired character of the City.*

Action UD.4.3.3 *Require infill projects to comply with the City's smart growth principles and building blocks concept.*

Action UD.4.3.4 *Review how proposed projects interface with existing development and ensure that the interface is positive and meaningful.*

Implementation of above General Plan policies, associated action items and the provisions set forth in the adopted City of Rancho Cordova Design Guidelines would ensure that impacts to existing communities are **less than significant**.

Mitigation Measures

None required.

Incompatibilities between Land Uses

Impact 4.1.2 Implementation of the General Plan could result in incompatibilities or conflicts between existing and future land uses in the Planning Area, including land located outside of the Rancho Cordova city limits. However, implementation of policy provisions of the General Plan would reduce this potential impact to **less than significant** impact.

As described above, the Rancho Cordova General Plan Planning Area is comprised of 16 individual Planning Areas, ranging from urbanized redevelopment areas (e.g., Folsom Boulevard) to large tracts of undeveloped land (e.g., Rio del Oro and the Sunrise Douglas Community Plan area). Conceptual land use maps have been prepared for these Planning Areas (see **Figures 3.0-4** through **3.0-18**). The General Plan acknowledges existing resources and reserves land for open space, creek corridors and natural resources within the Planning Areas. As discussed previously, the Neighborhoods, Villages, and Districts identified in these Planning Areas and adopted as part of the General Plan Land Use Map Book are the building blocks for redevelopment and future development within the Planning Area boundaries. These building blocks are consistent with the City's vision of creating walkable, livable, and sustainable communities. The General Plan's objective is to establish a conceptual land use pattern, reflecting the more intense and varied mix of land uses envisioned in the Sacramento Area Council of Government's (SACOG) "Blueprint" and more intense than the Sacramento County General Plan.

General Plan Planning Area – Areas outside of Existing City Boundaries

The General Plan increases the intensity of land uses in the following Planning Areas that are located outside of the Rancho Cordova city limits, but within the General Plan Planning Area, and within the jurisdiction of Sacramento County: the East Planning Area, Glenborough Planning Area, Jackson Planning Area, and the Grant Line South Planning Area. While Rancho Cordova does not currently have any land use authority over these Planning Areas, these areas

are anticipated for annexation during the planning horizon of the proposed General Plan. The land uses shown on the General Plan Land Use Map for the Glenborough Planning Area and the East Planning Area are consistent with property owner requests for these areas. GenCorp has an application into Sacramento County for the proposed Glenborough, Easton Place, and the Folsom Boulevard Auto Mall Expansion projects, which are located south of US 50 east of Hazel Avenue on Aerojet land.

The land uses shown for the Grant Line South, Mather and Jackson Planning Areas respect existing preserves and conservation easements, existing land uses at Mather Airport and other environmental and land use constraints. Additionally, the General Plan does not propose to change the land uses in the Rosemont, Independence at Mather, or Gold River communities.

Buildout under the proposed General Plan in the Planning Area could result in land use conflicts between urban uses and existing and potential future aggregate mining operations. However, the proposed General Plan includes policy provisions regarding this compatibility issue.

General Plan Planning Area – Areas within Existing City Boundaries

The proposed Rancho Cordova General Plan land use designations would provide an opportunity for combining residential, commercial, and office uses on a single site. In some cases, the mixing of land uses may be "horizontal" and in other cases "vertical". It is anticipated that the compact mixed-use development will be the standard pattern of development within the Folsom Boulevard and Downtown Planning Areas, Local Town Centers, Transit Oriented Town Centers, Regional Town Centers, and areas within ¼-mile of transit stops. However, it should be noted that the "mixing" of land uses would not locate incompatible land uses together. For example, residential uses would not be mixed with industrial uses unless the potential environmental impacts of the industrial use could be mitigated to a level of less-than-significant (i.e., in the cases where the industrial use is of light intensity). In addition, the Zoning Code and the adopted City of Rancho Cordova Design Guidelines include land use compatibility provisions associated with screening and buffering of project features (e.g., visual, noise, traffic, design, etc.) that could conflict with adjacent land uses. Implementation of the Design Guidelines would occur through subsequent project review as part of the City's design review entitlement process.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and action items are identified in the proposed General Plan Land Use Element, Urban Design Element and Natural Resources Element to reduce conflicts between existing land uses within the Planning Area and land uses proposed in the General Plan Land Use Map.

Policy LU.1.4 *Promote high quality, efficient, and cohesive land utilization that minimizes negative impacts (e.g., traffic congestion and visual blight) and environmental hazards (e.g. flood, soil instability) on adjacent neighborhoods and infrastructure and preserve existing and future residential neighborhoods from encroachment of incompatible activities and land uses.*

Action LU.1.4.1 *Establish performance and development standards in the Zoning Code and guidelines in the Citywide Design Guidelines to address compability between existing and proposed development and within proposed mixed-use development (vertical and horizontal).*

Action LU.1.4.2 *Create development standards and design guidelines to specifically address the compatibility of high-rise development in the Downtown Planning Area. Give special consideration to those issues unique to high-rise development, including the following: visual intrusion, distant viewshed, shadowing of adjacent properties, glare, wind tunnel effects, emergency service, interruption of electronic transmissions, traffic and parking, and noise and vibration.*

Action LU.1.4.3 *Require the disclosure of potential land use compatibility issues in all parts of the City, such as noise, dust, odors, etc., in order to provide potential purchasers with the information necessary to make informed decisions about the property and its future land uses.*

Action LU.1.4.4 *Develop guidelines for the buffering of incompatible land uses in ways that retain community character but do not consume large land area, create pedestrian barriers, or result in unsafe conditions.*

Action LU.1.4.5 *Require an urban/agricultural buffer between development and existing agricultural uses. Design each buffer area to match the specific needs of each urban/agricultural interface, and to take into account the specific urban and agricultural uses. Buffers may be established through the use or combination of increased setbacks, roadways, barriers, landscaping or other appropriate methods to avoid conflicts. Development of this buffer must be done in consultation with Sacramento County and will not require the taking of existing agricultural land nor impede agricultural existing uses.*

Policy LU.2.3 *Encourage the clustering of similar uses into areas or districts that have common needs and that are compatible with one another, in order to maximize their efficiency and identity for Rancho Cordova. Uses to consider clustering include the following:*

- *Performing Arts Center, local theaters, and studios;*
- *Sports/recreation facilities (i.e. bowling alleys and major sports facilities);*
- *Hospitals and other care facilities;*
- *Youth activity centers;*
- *Amphitheatres; and*
- *Regional shopping opportunities.*

Policy LU.2.6 *Discourage the creation of excessive numbers of retail shopping facilities and sensibly locate commercial activities in areas that meet their service requirements yet do not diminish the viability of nearby commercial properties with the same customer base.*

Action LU.2.6.1 *As part of project approval, require market studies that evaluate the impact of proposed commercial projects on their villages and districts to ensure that village centers and district centers do not compete with one another for customers and tenants.*

Policy LU.3.3 *Coordinate with regional planning agencies to set land use and environmental policies and cooperate in the implementation of programs consistent with General Plan policy.*

Action LU.3.3.1 *Establish and maintain agreements or working relationships with Sacramento County and the cities of Folsom, Sacramento, and Elk Grove to facilitate a coordinated approach to land use decisions that affect each jurisdiction.*

Policy LU.3.5 *Consult with state and federal regulatory and resource agencies during initial review of development projects to identify potential environmental conflicts and establish, if appropriate, concurrent application processing schedules.*

Policy LU.3.8 *The following policies shall be applied to potential annexations:*

- *Annexations should include a comprehensive land use plan for the affected territory, including pre-zoning and a plan for infrastructure financing and phasing.*
- *Annexations should accomplish all of the following:*
- *Constitute fiscally sound additions to the existing City;*
- *Be consistent with State law and Local Agency Formation Commission policies, standards, and criteria;*
- *Preserve neighborhood identities;*
- *Ensure the provision of adequate municipal services;*
- *Be consistent with General Plan and Community Plan land use policies;*
- *Incorporate Smart Growth principles for sustainable economic growth while maintaining environmental integrity, and providing for social equity; and*
- *Promote fiscally sound, efficient service boundaries.*

Policy LU.3.9 *Annexations should contribute to the orderly planning of the community, including promoting the City's ultimate community vision and ensuring a well designed circulation system.*

Policy NR.6.1 *Ensure that the environmental effects of mining and reclamation on aquifers, streams, scenic views, and surrounding residential uses are prevented or minimized.*

Action NR.6.1.1 *Regulate surface mining operations as required by California's Surface Mining and Reclamation Act of 1975 ("SMARA"), Public Resources Code Section 2207 (relating to annual reporting requirements), and State Mining and Geology Board regulations for surface mining and reclamation practice.*

Action NR.6.1.2 *Coordinate mining operations and urban development to minimize conflicts between residents and mining, particularly where mining is required before urbanization.*

Action NR.6.1.3	*Require inactive mined lands to be reclaimed to a usable condition that is readily adaptable to the future, anticipated land uses.*
Policy ED.1.1	*Ensure that an adequate supply of land is designated for future development of an economically viable and livable community.*
Action ED.1.1.1	*Identify key locations for conversions of office and retail to mixed-use projects, including residential uses.*
Action ED.1.1.2	*Enhance Rancho Cordova's image and quality of life through investment in the Downtown, neighborhoods, commercial districts, parks, open spaces, community facilities, and services, and creating a high level of perceived safety and a business-friendly government.*
Policy ED.1.3	*Retain and expand the existing industrial and warehouse uses in the City.*
Action ED.1.3.1	*Work with local brokers and developers to establish clusters and districts of similar uses for home improvement centers, specialty building materials show rooms, furniture retail, and manufacturing.*
Action ED.1.3.2	*Develop an attraction and retention program for companies that provide business-to-business (B2B) sales tax revenue to the City (e.g., business services, electronic equipment, light industrial, etc.). These companies are best suited to business parks and areas of the City with industrial and light industrial designations.*
Policy UD.1.6	*Promote increased compatibility, interdependence, and support between commercial and mixed-use centers and the surrounding residential neighborhoods.*
Policy UD.2.3	*Transition the density and intensity of uses from an urban to rural character with a clear City edge and establish a sense of entry and arrival to the City.*
Action UD.2.3.1	*Land uses along the eastern and southern boundaries of the City shall transition down the intensity and density of development from urban to rural at the City edge.*
Action UD.2.3.2	*Establish a gateway program to create a sense of entry at key locations throughout the City. Use creative designs that respond to the character and history of the City to establish a sense of place.*
Action UD.2.3.3	*Consider design standards for pedestrian overcrossings of major roads that contribute to district character and defined gateways.*
Policy UD.3.3	*Promote the incorporation of public spaces and pedestrian amenities into all commercial and mixed-use projects.*
Action UD.3.3.1	*Prepare and adopt guidelines for the design and integration of meaningful public spaces within commercial and mixed-use projects.*
Action UD.3.3.2	*Require landscaping to be meaningful in nature, relating to the style and scale of the development and contributing to the look and feel of the*

City and district. Five consideration to how landscaping will mature over time.

Action UD.3.3.3 *Require site furniture that is uniform across the development and encourage furniture that is consistent across entire districts.*

Action UD.3.3.4 *Prepare and adopt standards for project signage that promote the creation of a unique character for the project while respecting the impact of signage on neighboring properties and uses.*

Policy UD.4.2 *Design new development to be compatible with surrounding development in ways that contribute to the desired character of the City and District.*

Action UD.4.2.1 *Develop standards and guidelines that require and illustrate compatibility between new and existing development.*

Policy UD.4.3 *Promote infill projects that are designed as catalysts for change in accordance with the desired character of the City.*

Action UD.4.3.3 *Require infill projects to comply with the City's smart growth principles and building blocks concept.*

Action UD.4.3.4 *Review how proposed projects interface with existing development and ensure that the interface is positive and meaningful.*

Policy UD.4.4 *Encourage redevelopment projects that promote the City's vision, desired development patterns, and design objectives.*

Action UD.4.4.2 *Work with property owners to coordinate development activities over multiple sites to help create integrated projects with common design features.*

Implementation of the above General Plan policies, associated action items, the adopted City of Rancho Cordova Design Guidelines and subsequent implementation programs (e.g., adoption of a new zoning ordinance for the City) would ensure that conflicts between existing and future land uses are **less than significant**.

Mitigation Measures

None required.

Conflicts with Relevant Land Use Plans, Policies or Regulations

Impact 4.1.3 Implementation of the proposed General Plan has the potential to conflict with applicable land use plans, policies or regulations of agencies with jurisdiction over parts of the Planning Area that provide for environmental protection. This is considered a **significant** impact.

A detailed analysis of the ways that the proposed General Plan is potentially incompatible with relevant land use plans, policies and regulations is provided below.

SACOG Blueprint

Early during the preparation of the City's new General Plan, the Rancho Cordova City Council endorsed the SACOG Blueprint process and the preferred Blueprint land use map (Scenario C) adopted by SACOG. The General Plan Land Use Map is more parcel-specific than the Blueprint Plan and has been refined through the City's General Plan development process including detailed land use modeling (City of Rancho Cordova PLACE^{3}S Land Use Model*)*. This refinement also has included fiscal and retail/office market demand analyses for the Planning Area (referred to hereafter as the "Proforma") (see City of Rancho Cordova City Council Staff Reports – Findings of the Market Analysis/Retail Strategy, December 19, 2005, Revisions to the Draft General Plan Land Use Map, January 3, 2006 and Adoption of Revised Land Use Map Book, January 17, 2006). The Proforma also analyzed projected revenues and expenditures related to future development, capital improvements and services needed for the City to accommodate growth, and how the rate and form of growth would impact the fiscal viability of the City. . The General Plan has applied the "Blueprint" principles at the micro-scale looking at onsite constraints such as vernal pools, creeks, roadways, surface mining, and Mather Airport operation constraints. The SACOG Blueprint Plan looked at land uses for the six-county region at a macro-scale.

The proposed General Plan has been designed to be generally consistent with SACOG's Blueprint Plan design principles. This includes increasing compact land use patterns, a mix of residential densities, mixed-use projects, transportation choices, a variety of housing choices and density, encouraging infill, quality design, and natural resource conservation.

Sacramento County General Plan

As previously discussed, the existing Sacramento County General Plan policies are applicable those areas of the Planning Area currently located outside the city limits but planned for annexation during the planning horizon of the proposed Rancho Cordova General Plan. The County's General Plan Land Use Diagram has the following land use designations for the unincorporated portions of the Planning Area within the current Urban Policy Area (UPA): Low Density Residential; Commercial/Offices; Urban Development Area; Recreation; Cemetery – Public and Public Quasi; Extensive Industrial; Intensive Industrial; High Density Residential; and Aggregate Resource Area. The following Rancho Cordova General Plan Planning Areas are located outside the current city limits but within the current UPA: portions of the Folsom Boulevard Planning Area, east of Watt Avenue to Bradshaw Road and Sunrise Boulevard to Hazel Avenue; portions of the Sunrise Boulevard South Planning Area; the Mather Planning Area; portions of the Jackson Planning Area; and the Countryside/Lincoln Village Planning Area. Therefore, these Planning Areas are subject to policy direction from the Sacramento County General Plan and planned and designated for urbanized land uses until such time as they are annexed by the City.

The proposed General Plan Land Use Map does have potential conflicts with specific planning areas in the existing Sacramento County General Plan—specifically: the Jackson Planning Area, Grant Line South Planning Area, Grant Line North Planning Area, and East Planning Area. Specific conflicts between the proposed General Plan Land Use Map and County General Plan are:

- Sacramento County designates the land along both sides of Jackson Highway as General Agriculture (20 acre) and the land along Bradshaw Road as Intensive Industrial and public/quasi-public, whereas the proposed Rancho Cordova General Plan

designates the area for a mix of natural resources, residential mixed-density, estate residential, office mixed use, light industrial, surface mining and public/quasi-public.

- The Sacramento County General Plan designates the Mather Planning Area for industrial, recreation, low-density residential, and public/quasi-public uses, whereas the Rancho Cordova General Plan designates the area for natural resources, heavy and light industrial, park/open space, public/quasi public, mixed density and higher density residential, office mixed use, and village center.

- The Sacramento County General Plan designates the Grant Line South Planning Area as General Agriculture (20 acre), whereas the Rancho Cordova General Plan designates the area as estate/rural residential, natural resources, mixed density residential, village center, office mixed use and local town center.

- The Sacramento County General Plan designates the Grant Line North Planning Area as General Agriculture (80 acre) and medium-density residential, whereas the Rancho Cordova General Plan designates the area as mixed density residential, higher density residential, natural resources, village center, local town center, park/open space, estate/rural residential.

- The Sacramento County General Plan designates the East Planning Area as General Agriculture (80 acre), whereas the Rancho Cordova General Plan designates the area as mixed density residential, estate/rural residential, natural resources, park/open space, office mixed use, local town center and village center.

- The Sacramento County General Plan designates the Aerojet Planning Area as Extensive Industrial, and Intensive Industrial, which is the same as the Rancho Cordova General Plan designations.

- The Sacramento County General Plan designates the Rio del Oro Planning Area as Intensive Industrial, whereas the Rancho Cordova General Plan designates the area as mixed density residential, public/quasi public, office park, high density residential, natural resources, village center, local town center, and regional town center.

- The Sacramento County General Plan designates the Westborough Planning Area as Intensive Industrial, whereas the Rancho Cordova General Plan designates the area as mixed density residential, commercial mixed use, park/open space, public/quasi public, office mixed use, regional town center, and natural resource.

- The Sacramento County General Plan designates the Glenborough Planning Area as Intensive Industrial, whereas the Rancho Cordova General Plan designates the area as mixed density residential, higher density residential, commercial mixed use, regional town center, park/open space, and natural resource.

- The Sacramento County General Plan designates the Sunrise South Planning Area as industrial with only small areas of commercial at Douglas Road and US 50, whereas the Rancho Cordova General Plan designates the area as light industrial, commercial mixed use, office mixed use and heavy industrial.

- Additionally, the Rancho Cordova General Plan conflicts with the Sacramento County General Plan Open Space Preservation Strategy Land Use Map for land within the Mather and Jackson Planning Areas. The area referred to as "Vineyard/Mather" on the Sacramento County Open Space Preservation Strategy Land Use Map, which comprises

land north of Grant Line Road between Elk Grove-Florin and Sunrise Boulevard. According to the Sacramento County General Plan, the area is planned for major urban growth and the primary natural features of open space significance include the floodplains of Laguna, Morrison and Elder Creeks, as well as a concentration of vernal pools in the vicinity of the Multi-cultural Park site and Mather Lake within the Mather Planning Area. According to the Sacramento County General Plan, "additional vernal pools are located throughout this area but they are generally not in large enough groupings to merit designation for permanent protection." The Rancho Cordova Plan designates more area as open space in the Mather and Jackson Planning Areas than Sacramento County has designated.

- The Sacramento County General Plan Land Use Element addresses development of new urban growth areas and establishes policies to guide development. The County intends to develop land at the edge or fringe of existing urban development if a development project meets four criteria: need for additional land to meet housing and employment demands: ability to provide adequate services and facilities; potential for public transit service; and ability to preserve and conserve natural and environmental features.

- County Policies LU-42 and LU-43 allow for new development to occur within agricultural-residential areas if it supports limited retail and other service needs and results in a contiguous area of similar land use, and in areas along the USB where they are integrated with other uses. The Rancho Cordova General Plan would be consistent with these policies in the Jackson, Grant Line South and East Planning Areas where agricultural land would be converted to urban uses.

- Figure III-1 of the Sacramento County General Plan shows the Mather Air Force Base (Mather Planning Area) and Douglas-Sunrise (Suncreek/Preserve Planning Area) as urban growth areas. Additionally, the Sacramento County General Plan Land Use Element states, "The Plan depicts Mather Air Force Base as an Urban Development Area because the Base will close during the planning period. It is the intent of the County that portions of Mather Air Force Base develop at urban densities and intensities during the planning period. The County will prepare a special study for the Base pursuant to its closure which will determine the feasibility of transit-oriented development and establish the location, densities and intensities of land uses on the Base."

- The Rancho Cordova General Plan would conflict with Sacramento County General Plan Policies LU-42 and LU-43 pertaining to locating future agricultural-residential development in designated areas within the existing buffer along the USB, and in other areas if they can be functionally integrated with other urban uses. The Rancho Cordova General Plan would remove the agricultural lands from these Planning Areas, which is a significant impact. The reader is referred to Impact 4.2.1 (Loss and Conversion of Agricultural Land) in Section 4.2 (Agricultural Resources) of this EIR for a discussion related to the loss and conversion of agricultural land.

- While the Rancho Cordova General Plan does not designate the same areas of land for industrial uses as the Sacramento County General Plan, the General Plan would not conflict with Sacramento County General Plan Policy LU-37 pertaining to supplying adequate industrial land, because the Rancho Cordova General Plan provides for industrial land uses along Sunrise Boulevard, in Aerojet, along Jackson Highway, in Mather, and in areas impacted by land use restriction associated with Mather Airport CLUP/ALUCP.

- The Sacramento County General Plan anticipated some urbanization of portions of the Rancho Cordova Planning Area; however, the Sacramento County General Plan did not anticipate urbanization at the density and intensity proposed by the Rancho Cordova General Plan.

- The Rancho Cordova General Plan would result in more intense uses and more residential units, commercial, office and industrial uses than Sacramento County General Plan anticipated in the Planning Area – particularly in the East, Grant Line South and Glenborough Planning Areas. Additionally, the Rancho Cordova General Plan would remove land from agricultural production and surface mining operations (see Sections 4.2 and 4.8 of this EIR).

- The Rancho Cordova General Plan would result in more environmental effects than the Sacramento County General Plan (e.g., agricultural resources, traffic, air quality, noise, natural resources, public services and utilities, etc.). The environmental effects of the proposed General Plan are addressed in the sections 4.2 through 4.13 of this EIR. It should be noted that the 1993 Sacramento County General Plan was adopted prior to the SACOG Blueprint visioning process and the assessment of land area and densities necessary to accommodate the projected growth in the region. The increased intensity of land uses associated with the Rancho Cordova General Plan would result in more localized environmental effects than the Sacramento General Plan, but would reduce environmental impacts in the Sacramento region associated with anticipated growth and the demand for additional housing. This would be a significant impact.

Mather Field Specific Plan

The Mather Field Specific Plan (MFSP) establishes the location, intensity and character of land uses in Mather Field, circulation patterns, necessary infrastructure improvements, the location and general configuration of parks, as well as open space and community facilities necessary to support new development in Mather Field. The Land Use Plan in the MFSP designates the Airfield as public/quasi-public, the Independence at Mather community as low density residential, the land at the corner of Zinfandel Drive/Eagles Nest Road/Douglas Road as industrial-intensive, the Mather Golf Course, regional park and surrounding land as recreation, and the Main Base and campus as commercial & office, public/quasi-public, and recreation. The MFSP contains policies pertaining to creating new development potential for major industrial and distribution uses desiring airport and freeway access on 120 acres along the south side of Old Placerville Road near Routier Road, maximizing opportunities for major public and private sector aviation and industrial uses along the southern edge of the airfield, preserving, protecting and utilizing the natural resources within the Airport area and west of Eagles Nest Road (e.g., vernal pools and Morrison Creek), concentrating active recreational uses east of Eagles Nest Road; introducing local-serving convenience retail to serve residents and employees, and allowing a major visitor destination or institutional use in the southeastern portion of Mather Field.

The proposed General Plan designates the area along the south side Old Placerville Road near Routier Road as light industrial. This is consistent with the MFSP designation for the area. However, the proposed General Plan designates the Mather Airfield as heavy industrial, whereas the MFSP designates it as public/quasi-public. The proposed General Plan designates the main base and campus as heavy industrial, whereas the MFSP designates it as commercial & office, public/quasi-public and recreation. The proposed General Plan designates the land along the east side of Eagles Nest Road as pubic/quasi-public, residential higher density, parks/open space and natural resources and the land along the west side as natural resource, whereas the MFSP designates the area on both sides of Eagles Nest Road as recreation and designates an

area of 524 acres as Commercial & Recreation District. The proposed General Plan designates the Mather Golf Course as parks/open space, which is consistent with the MFSP. The proposed General Plan designates the land at the north side of the Douglas Road/Eagles Nest Road/Zinfandel Drive intersection as heavy industrial, which is consistent with the MFSP. The proposed General Plan designates less land for parks/open space and significantly more industrial than the MFSP. The designation of the Independence at Mather community is consistent for the two plans, with the exception of the public/quasi-public for the schools in the General Plan and not in the MFSP. The inconsistency between the two plans is a significant impact.

Sacramento County's proposed amendment to the MFSP would move the boundary of the Commercial-Recreation District to the northern edge of the munitions area and changing the land use designation to commercial-office to allow a mixed-use development in the Commercial-Recreation District (e.g., university). It would also modify the boundaries of the wetlands preserve. As discussed above, the proposed General Plan designates an area along the eastern edge of Eagles Nest Road north of Kiefer in anticipation of a college or university. The General Plan would be largely consistent with the MFSP Amendment.

An analysis of consistency of the General Plan with the County's proposed GPA and amendments to the Mather Field Specific Plan and Mather Special Planning Area related to the County's proposed alignments of Douglas Road and Eagles Nest Road is discussed in Section 4.5 (Transportation & Circulation) of this EIR.

Cordova Community Plan

The Cordova Community Plan (CCP) is a policy document that implements the Sacramento County General Plan for a portion of the Rancho Cordova General Plan Planning Area, including the urbanized area bordered by the American River and City of Folsom to the north, Prairie City Road, Grant Line Road and White Rock Road on the east, Douglas Road, Kiefer Boulevard and Jackson Highway on the south and the City of Sacramento and Watt Avenue on the west. The CCP covers the urbanized areas of the General Plan Planning Area and does not cover the area south of Douglas Road (including the SDCP area) where most of the future development in the City will occur. So, even though the Rancho Cordova General Plan would be inconsistent with the Sacramento County General Plan, it would be consistent with the CCP. The CCP contains policies related to improving existing development areas through revitalization efforts, providing connections to light rail stations, creating a better balance of housing and jobs, and providing diversity in the housing stock including move-up housing choices. The proposed General Plan policies are consistent with the CCP policies. Therefore, this would be a less than significant impact.

Folsom Boulevard Folsom Boulevard & Mather Field Road Streetscape Enhancement Master Plan

The Folsom Boulevard & Mather Field Road Streetscape Enhancement Master Plan contains objectives for beautification, identify, traffic calming, and connectivity. It is intended to serve as an improvement plan for public right of way. The Master Plan contains design themes (e.g., Mather Field, Vineyard, Gateway) and design features such as medians, landscape, street furniture, and signage. The Rancho Cordova General Plan land uses, densities and anticipated redevelopment along Folsom Boulevard are consistent with the Folsom Boulevard SPA and the Folsom Boulevard & Mather Field Road Streetscape Enhancement Master Plan. Additionally, the Rancho Cordova General Plan Land Use and Economic Development policies encourage redevelopment and intensification of uses along Folsom Boulevard, as well as beautification efforts, creating an identity along Folsom Boulevard, and providing traffic improvements,

connectivity, improved access and calming measures. The Folsom Boulevard Specific Plan, which will be adopted after the General Plan is complete, will further implement the Master Plan. Therefore, no conflicts would arise between these plans. This would be a less than significant impact.

Sunrise Douglas Community Plan

The Sunrise Douglas Community Plan (SDCP) established the overall conceptual framework and policy direction for the urbanization of approximately 6,015 acres in east Sacramento County. Development of the SDCP area was anticipated to result in the construction of approximately 22,503 dwelling units, 479 acres of supporting commercial and mixed uses, 177 acres of parkland, and 148 acres designated for elementary, middle, and high school sites. The SDCP established a policy framework, land use holding capacity and acreage estimates, and a basic infrastructure framework. The SDCP provided conceptual land uses for six villages, which were assumed in order to evaluate the cumulative impacts of the development of the area. The SDCP document states, "Within the subareas the land use mix should be considered the maximum that will be permitted in the subsequent specific plans." The Rancho Cordova General Plan shows the Sunridge Specific Plan projects as individual projects with lotting and roadway networks, and shows the remainder of the SDCP area (that contains the Preserve at Sunridge and SunCreek projects) with conceptual land uses. The Suncreek/Preserve Planning Area includes Villages G, H, and I, and a portion of Village F of the SDCP. The SDCP allocated a total of 7,835 residential units for Villages G, H and I. Village F was allocated a total of 1,889 residential units. The Rancho Cordova General Plan Suncreek/Preserve Planning Area allocates a total of 9,263 residential units. The proposed mix of land uses for the two projects in the Suncreek/Preserve Planning Area is substantially consistent with the SDCP and the proposed Rancho Cordova General Plan. .

The SDCP also contains key guiding principles related to: providing an urban core area with regional access and a bicycle and pedestrian circulation system that encourages alternative modes of transportation; providing shopping, recreation and services within the SDCP area to minimize travel outside of the plan area; and providing appropriate buffers between incompatible land uses. The Rancho Cordova General Plan policies are consistent with the SDCP guiding principles related to land use. Therefore, these two plans are consistent and the impact would be less than significant.

Sunridge Specific Plan

The Sunridge Specific Plan (SRSP) encompasses 2,632 acres, or approximately 42 percent of the SDCP area. The SRSP area was allocated 1,904 acres of low density residential, 45 acres of medium density residential, 174 acres of commercial and office, and 482 acres of open space/natural preserve. The maximum residential allocation in the SRSP area was 9,886 dwelling units on 1,772 acres and 173.6 acres of commercial mixed use and community commercial. All the projects within the SRSP area have either been approved or are expected to be approved prior to adoption of the General Plan. These projects include North Douglas, Anatolia I, II, III & IV, Montelena, Sunridge Lot J, Sunridge Park, and the Sunridge East projects (formerly known as Grant Line 208, Douglas 103, Douglas 98, and Arista del Sol). Currently, 9,096_residential units on 1,551 acres and 68.8 acres of commercial have been proposed or approved in the SRSP area. Therefore, the Rancho Cordova General Plan is consistent with the SRSP in terms of land uses, as the total units and acreages do not exceed the land uses specified in the SRSP. Additionally, the Rancho Cordova General Plan policies are consistent with the SRSP policies related to land use, including providing an urban core area with regional access and a bicycle and pedestrian circulation system that encourages alternative modes of transportation, providing shopping,

recreation and services within the SDCP area to minimize travel outside of the plan area, and providing appropriate buffers between incompatible land uses. Therefore, these two plans are consistent and the impact would be less than significant.

City of Rancho Cordova Design Guidelines

The City of Rancho Cordova Design Guidelines is an implementation measure of the land use and urban design policy guidance of the proposed General Plan. Therefore, there are no conflicts between the Design Guidelines and General Plan.

Rancho Cordova Zoning Code

As previously discussed, the City adopted the existing Sacramento County Zoning Code upon its incorporation, as required by State law. The Zoning Code ensures the most appropriate and compatible use of land. All redevelopment and future development is subject to provisions of the Zoning Code, which is used in conjunction with the General Plan to ensure redevelopment activities and future development is suitable and compatible with adjacent and nearby land uses, and is protective of the human health, safety, and welfare. While the General Plan and the existing Rancho Cordova Zoning Code are not currently consistent, the City will update its Zoning Code after the General Plan is adopted. Consequently, the inconsistency between the proposed General Plan and the new Rancho Cordova Zoning code will be temporary. The two documents ultimately will be consistent and no environmental impacts are expected from the update of the Zoning Code beyond what is addressed in this EIR. The proposed General Plan's conflicts with the Zoning Code would be less than significant.

City of Sacramento General Plan

While the City of Sacramento General Plan Sphere of Influence falls within the General Plan Planning Area, the policies of the two general plans would not conflict. Therefore, no conflicts exist between the Rancho Cordova General Plan and the City of Sacramento General Plan. Impacts to the City of Sacramento General Plan would be less than significant.

City of Folsom General Plan

The City of Folsom General Plan Sphere of Influence does not overlap with the Rancho Cordova General Plan Planning Area. Additionally, the Rancho Cordova General Plan does not propose to change the land uses in the Folsom Sphere of Influence (south of US 50 and east of Prairie City Road). The policies in the Folsom General Plan focus on the physical development of land uses, a circulation network, and supporting facilities and services. The Folsom General Plan Urban Development Policy requires the preparation of area facilities plans to provide a strategy for providing the necessary public facilities and services to existing and newly developing areas within the General Plan Planning Area. The policies and proposed land uses of the two jurisdictions' General Plans do not conflict. Therefore, impacts to the City of Folsom General Plan would be less than significant.

City of Elk Grove General Plan

The Elk Grove General Plan Planning Area Land Use Concept Plan designates the land south of Jackson Highway between Bradshaw Road and Grant Line Road as rural residential (2-acre lots) with limited infrastructure and a small area of commercial and office at the southeast corner of Bradshaw Road and Jackson Highway. The Concept Plan also shows limited development in the area southeast of Grant Line Road and Jackson Highway, including agricultural, open

space, and rural residential uses. The Rancho Cordova General Plan would conflict with Elk Grove's vision for these Planning Areas; however, neither Elk Grove nor Rancho Cordova currently have jurisdiction in these areas and both cities are only visioning future land uses on land governed by Sacramento County. Additionally, the policies of the two general plans do not conflict. Therefore, impacts to the City of Elk Grove General Plan would be a less than significant.

Mather Airport Comprehensive Land Use Plan and Policy Area

The Mather Airport CLUP establishes planning boundaries for height, noise and safety around each airport as well as policies that determine the compatibility of new land uses proposed within each planning area boundary. The CLUP determines compatibility of surrounding land uses based upon noise levels associated with the airport operations and exposure of persons to crash hazards associated with aircraft and height restrictions. The Planning Areas affected by the existing Mather Airport CLUP boundaries and 60 to 65 dB CNEL contour ranges are the Mather Planning Area, Jackson Planning Area, Sunrise Boulevard South Planning Area, Rio del Oro Planning Area, and the Aerojet Planning Area. With one exception, the proposed General Plan Conceptual Land Plans for these planning areas have land use designations of heavy industrial, light industrial, office park, commercial mixed use, office mixed use, surface mining, regional town center, parks, and natural resources. These uses are consistent with the existing Mather Airport CLUP. All land uses proposed within the 60 to 65 dB CNEL contours are consistent with the current CLUP in that they propose land uses that are allowed within the 65 dB CNEL. The only exception is the Rio del Oro Planning Area, which includes residential uses within the 65 dB CNEL contour. However, the proposed Conceptual Land Plan is consistent with the proposed new noise contours associated with new data on aircraft operations associated with the Mather Airport Master Plan. However, these new noise contours have yet to be adopted by the Airport Land Use Commission. Therefore, the proposed General Plan is not consistent with the existing CLUP. This would be a significant impact.

Any proposed object or structure that would penetrate any of the FAR Part 77 imaginary surfaces as they apply to the affected airport facilities is considered by the Federal Aviation Administration (FAA) to be an obstruction to air navigation. An obstruction to air navigation may not be a hazard to air navigation; however, the FAA presumes it to be a hazard and treats it as such until an FAA aeronautical study had determined that it does not have a substantial adverse effect on the safe use of the navigable airspace by aircraft. The imaginary surfaces the FAA uses to determine whether or not a structure or an object would be an obstruction to air navigation includes the primary surface, approach surface, horizontal surface, conical surface, and transitional surfaces. Within 10,000 feet of the Mather runway, the Horizontal Surface begins at 150 feet above the airport elevation. Mather Airport's established elevation is 96 feet. The Conical Surface extends from the outer edge of the Horizontal Surface and slopes upward from 10,000 feet above the field elevation up at a ratio of 20 to 1 for a horizontal distance of 4,000 feet. Buildings within 14,000 feet of the runways at Mather may require FAA consultation and could potentially face design changes or mitigation in order to prevent hazards to aircraft. Additionally, they are limited to a 150-foot height limit. The Overflight Zone for the Mather Airport extends north from the Airport to US 50, which includes the southern half of the Downtown Planning Area. **Figure 4.1-6** shows the Mather Overflight Zone in relation to the Downtown Planning Area. The Downtown Planning Area is anticipated to have the tallest buildings in the City. While the General Plan has not specifically identified a height limit or desired height for new buildings in the Downtown Planning Area, it is possible that some areas within the Downtown south of US 50 would have their height restricted in order to comply with the FAR Part 77 map for Mather.

The Mather Planning Area is the only General Plan Planning Area within the Clear Zone and Approach/Departure Zone for Mather Airport. The Downtown Planning Area and Mather Planning Area are both within the Overflight Zone. The General Plan Conceptual Land Plan for the Mather Planning Area shows heavy industrial uses in the Clear Zone, and heavy and light industrial uses in the Approach/Departure Zone. The Mather Airport CLUP permits heavy and light industrial uses in the Clear Zone and the Approach/Departure Zone. The General Plan Conceptual Land Plan for the Mather Planning Area shows public/quasi-public, residential mixed density and residential higher density, parks/open space, and natural resources in the Overflight Zone. The General Plan Conceptual land Plan for the Downtown Planning Area shows a mix of local town center, office mixed use, and commercial mixed use in the Overflight Zone. All of the proposed land uses are consistent with the Mather Airport CLUP. Therefore, the General Plan is consistent with the Mather Airport CLUP for Airport Safety Restriction Area. This would be a less than significant impact.

The reader is referred to Section 4.7 (Noise) of this EIR for a discussion related to the noise impacts associated with Mather Airport and the noise contours. The Visual Resources section of this EIR (Section 4.13) addresses visual and aesthetic impacts associated with tall buildings in the Downtown Planning Area.

American River Parkway Plan

The concept of the 1985 American River Parkway Plan is to balance the goals of preserving naturalistic open space and protecting environmental quality within the urban environment along the American River while contributing to the provision of recreational opportunity in Sacramento. The key policies of are related to requiring mitigation or elimination of uses that adversely affect the Parkway, providing buffers between the Parkway and adjacent uses, prohibiting new aggregate mining within the Parkway, and locating access points and parking lots in the least environmentally sensitive areas. The Rancho Cordova General Plan does not propose any new land uses within the American River Parkway. Additionally, the Rancho Cordova General Plan policies do not conflict with the policies in the ARPP. Therefore, this would be a less than significant impact.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and action items are contained in the General Plan Land Use Element are applicable to reduce land use plan conflicts in association with the General Plan Land Use Map.

Policy LU.2.4	*Use Community Plans, Specific Plans, and development projects to promote pedestrian movement via direct, safe, and pleasant routes that connect destinations inside and outside the plan or project area.*
Action LU.2.4.1	*Establish, as a part of design review, a system or mechanism that evaluates the effectiveness of a proposed project in meeting these requirements.*
Policy LU.3.3	*Coordinate with regional planning agencies to set land use and environmental policies and cooperate in the implementation of programs consistent with General Plan policy.*
Action LU.3.3.1	*Establish and maintain agreements or working relationships with Sacramento County and the cities of Folsom, Sacramento, and Elk Grove*

to facilitate a coordinated approach to land use decisions that affect each jurisdiction.

Policy LU.3.4 *Participate in the Sacramento Area Council of Governments' regional planning programs (e.g., Blueprint, Regional Housing Needs Plan, Metropolitan Transportation Plan) and coordinate City plans and programs with those of the Council of Governments.*

Policy LU.3.5 *Consult with state and federal regulatory and resource agencies during initial review of development projects to identify potential environmental conflicts and establish, if appropriate, concurrent application processing schedules.*

Policy LU.3.11 *Ensure that land uses adjacent to or near Mather Airport are subject to the location, use, and height restrictions of the most recently adopted CLUP at the time of development consideration, except when the CLUP is under an update process. In the circumstance of a CLUP update, coordinate with the County in the review of development projects to determine the most appropriate development restrictions for the continued operation of the airport.*

Mitigation Measures

See above.

While adherence to federal regulations, the Mather Airport Comprehensive Land Use Plan guidelines, Mather Airport Planning Area policies, and implementation of the above General Plan policies, action items and mitigation measures would reduce potential consistency issues with the Mather Airport CLUP, the proposed General Plan would still conflict with key provisions of the Sacramento County General Plan, Mather Airport CLUP (Rio del Oro Planning Area) and Mather Field Specific Plan associated with agricultural preservation, aggregate resource preservation and overall land use pattern and intensity. No mitigation is available to fully mitigate this impact. Thus, this impact is **significant and unavoidable**.

Conflict with Applicable Habitat Conservation Plan

Impact 4.1.4 The Rancho Cordova General Plan has the potential to conflict with the South Sacramento Habitat Conservation Plan, which is the only applicable habitat conservation plan in the Planning Area. This is considered a **less than significant** impact.

There are currently no adopted habitat conservation plans or natural community conservation plans in the General Plan Planning Area. The South Sacramento County Habitat Conservation Plan (SSHCP) is currently being developed by several public agencies and other interested stakeholders. The City of Rancho Cordova is a participating agency in the SSHCP. The SSHCP, which is managed by the Sacramento County Planning and Community Development Department, is an environmental study that seeks strategies that allow commercial, residential, and other development, while balancing the needs of sensitive plant and animal species and the preservation of agricultural operations. The geographic scope of the SSHCP includes approximately 340,000 acres in the unincorporated County area bounded by US-50 to the north, the County line to the east and south; excluding the Delta, and Interstate 5 to the west. The SSHCP also covers land within the cities of Rancho Cordova, Elk Grove and Galt.

The SSHCP is intended to consolidate environmental efforts to protect and enhance wetlands (primarily vernal pools) and upland habitats to provide ecologically viable conservation areas. The SSHCP will also minimize regulatory hurdles and streamline the development permit process for projects that are consistent with the HCP and engage in the process. The SSHCP will be an agreement between state/federal wildlife and wetland regulators (e.g., USFWS and the USACE) and the County and other permittees to allow land owners to engage in "incidental take" of listed species (i.e., destruction or degradation of habitat in connection with economic based activities) in return for conservation commitments. Funding for the SSHCP is expected to come from a per-acre fee levied on new developments to mitigate associated habitat impacts.

Biological resource issues associated with implementation of the Rancho Cordova General Plan and habitats and species under consideration in the HCP are addressed in Section 4.10 (Biological Resources) of this document. The SSHCP is not an adopted Plan and has no regulatory standing; however, the Rancho Cordova City Council committed to participate in the SSHCP process.

The goals, policies and actions in the proposed Rancho Cordova General Plan, including the associated Land Use Map, support the efforts of the SSHCP and the need for large, contiguous areas of open space, in addition to smaller preserves throughout the community to provide habitat for species in Rancho Cordova. It should be noted that the SSHCP is only in draft form at the time this EIR was prepared. There is no formal map or mitigation strategy associated the SSHCP at this time. The stakeholder goals of the SSHCP are: establish long-term viability to aid and enhance recovery of sensitive species in the study area, accommodate development in appropriate sites with fair and reasonable mitigation cost structure, protect agricultural lands and operations, gain the trust of all stakeholders in the permitting process, rely on voluntary participation through incentives, provide a streamlined permitting process that reduces permitting cost to developers and taxpayers, and provide a comprehensive framework for use in linking plant and animal conservation with local land use programs consistent with the Sacramento County General Plan. The proposed Rancho Cordova General Plan policies and conceptual land plans are generally consistent with these goals. Therefore, the General Plan would be consistent with the SSHCP and the General Plan would result in less than significant impacts to the SSHCP.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and action items are contained in the General Plan Natural Resource Element are applicable to reduce conflicts between existing and future land uses proposed in association with the General Plan Land Use Map.

Policy NR.1.1	*Incorporate large and interconnected wildlife corridors in new development areas to provide ample space for animal movement.*
Action NR.1.1.1	*Review projects through the entitlement process and CEQA analysis to ensure that they comply with this policy if the site contains unique habitat, creeks and/or wooded corridors.*
Policy NR.1.2	*Conserve Swainson's hawk habitat.*
Action NR.1.2.1	*Establish a Swainson's hawk Ordinance in coordination with the California Department of Fish and Game to help guide the process of mitigating for the loss of Swainson's hawk foraging habitat.*

Policy NR.1.3	*Promote educational programs that inform the public about natural resources.*
Action NR.1.3.1	*Coordinate with non-profit groups, educational institutions, and other agencies to provide environmental education programs that inform the public about the City's natural resources, existing preserve sites, and cohabitation with common urban wildlife populations.*
Policy NR.1.4	*Discourage the planting of invasive species.*
Action NR.1.4.1	*Create an educational leaflet that identifies common invasive species and recommends the planting of non-invasive species.*
Policy NR.1.5	*Ensure the protection of wildlife through the establishment of programs to control feral pet populations.*
Policy NR.2.1	*Require mitigation that provides for "no net loss" of wetlands.*
Policy NR.2.2	*Ensure that direct and indirect effects to wetland habitats are minimized by environmentally sensitive project siting and design, to the maximum extent feasible.*
Action NR.2.2.1	*During the environmental review process, evaluate feasible on-site alternatives that will reduce impacts to wetland resources and effectively preserve these resources.*
Policy NR.2.3	*Works with conservancies to ensure competitive pricing for mitigation bank credits by allowing government agencies, non-profit organizations, and private landowners to establish vernal pool preserves, designate mitigation areas, create and restore vernal pools, and sell credits to developers for off-site mitigation.*
Policy NR.2.4	*Educate the public on the importance and benefit of wetlands areas.*
Action NR.2.4.1	*Develop trails and associated educational facilities (e.g., information kiosks, signage) around wetland and vernal pool preserves, where possible while maintaining the integrity of sensitive natural resources.*
Action NR.2.4.2	*Consider constructing elevated board walkways and other low impact trails interior to preserves, in coordination with the U.S. Fish and Wildlife Service and U.S. Army Corps of Engineers.*
Policy NR.3.1	*Coordinate with groups such as the Sacramento Urban Creeks Council to restore, enhance, and preserve creeks in Rancho Cordova.*
Policy NR.3.2	*Create or retain the natural topographic relief and meandering alignment of natural creek corridors in the construction of new channels and the modification of existing channels, and discourage the placement of concrete within creeks and channels.*
Action NR.3.2.1	*Develop guidelines for channel creation or modification that will ensure channel meander, naturalized side slope, and varied channel bottom elevation are considered in design.*

Action NR.3.2.2 *Adopt and implement improvement standards for soft bottom channels.*

Policy NR.3.3 *Encourage the creation of secondary flood control channels where the existing channel supports extensive riparian vegetation.*

Action NR.3.3.1 *Work with the County's drainage and flood control engineers, and federal and state agencies to determine if natural creek corridors can and should accommodate storm flows or if separate storm water conveyance structures are necessary.*

Policy NR.3.4 *Encourage projects that contain wetland preserves or creeks, or are located adjacent to wetland preserves or creeks, to be designed for maximum visibility and, as appropriate, access.*

Action NR.3.4.1 *Establish performance standards for natural resource preserves that accomplish the following:*

- *Provide sufficient width for a mowed firebreak (where necessary), adjacent passive recreation uses, and access for channel maintenance and flood control.*
- *Offer sufficient width to allow for existing and created wildlife habitat, species sensitive to human disturbance, vegetative filtration for water quality, corridor for wildlife habitat linkage, protection from runoff, and other impacts of urban uses adjacent to the corridor.*
- *Allow for sufficient width adjacent to natural resource preserves to allow for trails and greenbelts.*
- *Do not place water quality treatment structures designed to meet pollutant discharge requirements within the stream buffer zone.*

Action NR.3.4.2 *Establish standards that allow public access in the floodplain and buffers along creek corridors and preserves. Mitigation measures shall be incorporated into environmental documents and conditions of approval that require open-view fencing adjacent to preserves.*

Action NR.3.4.3 *Establish standards and/or guidelines for development adjoining wetland preserves or creeks to maximize visibility by designing the land plan with public streets on at least one side of the corridor or preserve with vertical curbs, gutters, footpath(s), street lighting, and post and cable barriers to prevent unauthorized vehicular entry into creek corridors and preserves.*

Policy NR.4.1 *Conserve native oak and landmark tree resources for their historic, economic, aesthetic, and environmental value.*

Action NR.4.1.1 *Adopt a Tree Preservation Ordinance to establish minimum requirements for preserving native trees and landmark trees in the City, including a definition of the size, species, and age requirements of landmark, oak, and other trees to be protected and/or replaced.*

Action NR.4.1.2 *Where feasible, require underground utility lines that are in close proximity to oaks and other landmark trees to be designed and installed to minimize*

impacts to trees. Work with the utility provider(s) to coordinate transmission line location and other potential impacts associated with the undergrounding of the utilities.

Action NR.4.1.3 *Establish development guidelines that require all oak habitat to be avoided to the maximum extent feasible. When avoidance is not possible, require mitigation efforts that result in preservation of in-kind habitat in the Planning Area.*

Policy NR.4.2 *Improve overall landscaping quality and sustainability in all areas visible to the public.*

Action NR.4.2.1 *Create development guidelines to establish minimum planting standards and require appropriate tree species and planting densities within newly landscaped areas that are visible to or shared by the public. An adopted Tree List should be used as a guideline for all tree plantings within the City.*

Action NR.4.2.2 *Create development guidelines that address landscaping standards and that require appropriate tree species and densities in buffer areas. The guidelines should also ensure that medians will include native plantings and trees, and will be wide enough to support the long-term viability of the plantings.*

Action NR.4.2.3 *Provide leaflets and planting guides that promote the use of drought-tolerant native vegetation in home landscaping.*

Policy NR.4.3 *Promote trees as economic and environmental resources for the use, education, and enjoyment of current and future generations.*

Action NR.4.3.1 *Achieve "Tree City USA" status. This will require the City to adopt a tree ordinance, appoint a board, department or commission to advise the city on tree issues, spend two dollars per capita on community forestry activities, and hold an Arbor Day celebration.*

Action NR.4.3.2 *Designate local funds to educate the public on tree planting and preservation.*

Action NR.4.3.3 *Offer programs or other resources to provide property owners with information on proper tree selection, planting, and maintenance.*

Action NR.4.3.4 *Actively participate in the Sacramento County Greenprint Program.*

Policy NR.5.1 *Promote water conservation within existing and future urban uses.*

Action NR.5.1.1 *Install water-conserving landscaping and irrigation on City-owned and operated facilities.*

Action NR.5.1.2 *Require development project approvals to include a finding that all feasible and cost-effective options for conservation and water reuse are incorporated into project design.*

Action NR.5.1.3 *Establish a program that requires per capita water consumption to be reduced by at least 20 percent by 2030. The program shall include the following measures:*

- *Restrict water usage through metering or establishing designated watering days for the City's residences and businesses.*
- *Promote water conservation efforts through education.*
- *Implement standards that require low-flow appliances and fixtures in all new development.*
- *Work with water providers and water conservation agencies to create an incentive program that encourages retrofitting existing development with low-flow water fixtures.*
- *Require new development to utilize state-of-the-art irrigation systems that reduce water consumption (e.g., drip irrigation, gray-water systems).*
- *Encourage drought-tolerant vegetation and use water-efficient irrigation systems in landscaped public areas.*

Policy NR.5.2 *Encourage the use of treated wastewater to irrigate parks, golf courses, and landscaping.*

Action NR.5.2.1 *Establish a Large-Scale Recycled Water Program and Citywide Recycled Water Distribution System Ordinance.*

Action NR.5.2.2 *Coordinate with the City's water purveyors to establish a connected "purple pipe" system throughout the City's new development areas that uses recycled water.*

Policy NR.5.3 *Protect surface and ground water from major sources of pollution, including hazardous materials contamination and urban runoff.*

Action NR.5.3.1 *Restrict hazardous materials storage in the 100-year floodplain to prevent surface water contamination.*

Action NR.5.3.2 *Educate the community on laws governing the proper handling of hazardous materials, especially those laws which pertain to discharging materials into creeks.*

Action NR.5.3.3 *Install appropriate signage to deter the discharge of hazardous materials into storm drains.*

Policy NR.5.4 *Prevent contamination of the groundwater table and surface water, and remedy existing contamination to the extent practicable.*

Action NR.5.4.1 *Provide information on pollution prevention, disposal of hazardous waste and chemicals, liability and clean-up on the City's website and in educational materials and brochures.*

Action NR.5.4.2 *Require clean-up of contaminated ground and surface water by current and/or past owners or polluters.*

Action NR.5.4.3 *Encourage pollutant cleansing companies to use the latest technologies available in order to expedite the cleansing process and do the least harm to the environment.*

Policy NR.5.5 *Minimize erosion to stream channels resulting from new development in urban areas.*

Action NR.5.5.1 *Require community and specific plans to contain urban runoff control strategies and requirements that are consistent with Master Drainage Plans and the City's urban runoff management program.*

Action NR.5.5.2 *Require development within newly urbanizing areas to incorporate runoff control measures into their site design or to participate in an area-wide runoff control management effort consistent with standards developed by the Public Works Department.*

Action NR.5.5.3 *Encourage new development to incorporate features such as grassy swales, multi-use retention or detention basins, and integrated drainage systems to enhance water quality. Work with the Cordova Recreation and Park District to establish standards for integrating retention/detention basins into park sites and create examples of desirable and innovative natural drainage features.*

Action NR.5.5.4 *Establish and require the use of best management practices to protect receiving waters from the adverse effects of construction activities, sediment and urban runoff.*

Implementation of the above General Plan policies and associated action items would ensure that conflicts with applicable habitat conservation plan impacts are **less than significant**.

Mitigation Measures

None required.

4.1.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

The setting for this cumulative analysis includes existing, proposed, planned and approved projects in the City of Rancho Cordova General Planning Area and the southeastern portion of Sacramento County. The cumulative setting for land use also assumes anticipated and planned development within the City of Sacramento's Sphere of Influence, the City of Folsom's Sphere of Influence, and City of Elk Grove's Sphere of Influence as well as growth planned for under the general plans, community plans and specific plans for Sacramento, El Dorado and Placer counties, cities of Sacramento, Folsom, Elk Grove and Roseville. Development in the region identified in Section 4.0, would change the intensity of land uses in the region and increase housing, employment, shopping and recreational opportunities (the physical effects of providing new housing, employment, shopping and recreation within the Planning Area and the region are addressed in other sections of this EIR).

Environmental effects associated with cumulative land use conditions for the region are considered in Sections 4.2 through 4.13 of this Draft EIR and generally consist of the following:

- *Aesthetics* – Further conversion of rural, agricultural and natural open space landscape characteristics to urban conditions.
- *Agricultural Resources* – Continued loss of farmland to urban uses as well as increased conflicts with agricultural operations and urban uses.
- *Air Quality* – Increases in air pollutant emissions potentially conflicting with air quality attainment efforts under state and federal Clean Air Acts. Also increased potential for the exposure to toxic air contaminants.
- *Biological Resources* – Loss of special-status plant and animal species habitats, degradation of habitats and loss of special-status species.
- *Cultural Resources* – Impacts to known and unknown archaeological and historic resources in the region.
- *Geology and Soils* – Loss of access to known valuable mineral resources.
- *Hydrology and Water Quality* – Additional sources of point and non-point sources of surface water quality pollutants to region waterways. Further demand on groundwater resources and potential overdraft issues.
- *Noise* – Increased transportation noise levels from increased traffic volumes.
- *Public Services and Utilities* – Increased demand for the development and expansion of public services and facilities and associated environmental issues.
- *Traffic* – Increased traffic volumes on the region's highways and regional roadways resulting in deficient levels of service of operation.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Land Use Effects

Impact 4.1.5 When considered with existing, proposed, planned and approved development in the region, implementation of the Rancho Cordova General Plan has the potential to result to contribute cumulative land use conditions in the region that result in significant impacts to the physical environment. This is considered a **cumulatively considerable** impact.

The land use patterns and development within the Rancho Cordova General Plan Planning Area would contribute to the environmental effects of growth expected to occur in the region over the next 50 years. The proposed General Plan does provide environmental benefits by accommodating a larger population and employment base within the Planning Area through the intensification of development using smart growth principals (as promoted through the SACOG Blueprint), as compared to the existing Sacramento County General Plan in the same land area. This would reduce the conversion of additional land area under lower development intensities. However, the proposed General Plan land use pattern and development intensity would still substantially contribute to land use conversion in the region resulting in significant

effects to the environment, which are discussed and analyzed in greater detail in the sections relating specifically to those particular issue areas (see Sections 4.2 through 4.13 of the Draft EIR).

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and action items are contained in the General Plan Land Use Element are applicable to reduce land use plan conflicts in association with the General Plan Land Use Map.

Policy LU.2.4 — *Use Community Plans, Specific Plans, and development projects to promote pedestrian movement via direct, safe, and pleasant routes that connect destinations inside and outside the plan or project area.*

Action LU.2.4.1 — *Establish, as a part of design review, a system or mechanism that evaluates the effectiveness of a proposed project in meeting these requirements.*

Policy LU.3.3 — *Coordinate with regional planning agencies to set land use and environmental policies and cooperate in the implementation of programs consistent with General Plan policy.*

Action LU.3.3.1 — *Establish and maintain agreements or working relationships with Sacramento County and the cities of Folsom, Sacramento, and Elk Grove to facilitate a coordinated approach to land use decisions that affect each jurisdiction.*

Policy LU.3.4 — *Participate in the Sacramento Area Council of Governments' regional planning programs (e.g., Blueprint, Regional Housing Needs Plan, Metropolitan Transportation Plan) and coordinate City plans and programs with those of the Council of Governments.*

Policy LU.3.5 — *Consult with state and federal regulatory and resource agencies during initial review of development projects to identify potential environmental conflicts and establish, if appropriate, concurrent application processing schedules.*

Policy LU.3.11 — *Ensure that land uses adjacent to or near Mather Airport are subject to the location, use, and height restrictions of the most recently adopted CLUP at the time of development consideration, except when the CLUP is under an update process. In the circumstance of a CLUP update, coordinate with the County in the review of development projects to determine the most appropriate development restrictions for the continued operation of the airport.*

Mitigation Measures

Implementation of the above proposed General Plan policies and action items would assist in reducing the environmental effects of the proposed development under the General Plan. However, this impact would still be considered **cumulatively considerable** and a **significant and unavoidable impact**. The reader is referred to Sections 4.2 through 4.13 for proposed policies and mitigation regarding environmental issue areas impacted by growth.

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4.2 – Agriculture

This section of the General Plan EIR describes the existing agricultural resources within the City of Rancho Cordova Planning Area and appropriate General Plan policies to reduce identified impacts, where necessary. Sources utilized in this section to assess impacts of the General Plan include the current City of Rancho Cordova General Plan Conservation Element, the Sacramento County General Plan Update and EIR, the California Department of Conservation Farmland Conversion Report (2002), the California Department of Conservation Important Farmlands Map, and the Soil Survey of Sacramento County, California (April 1993).

4.2.1 EXISTING SETTING

EXISTING SACRAMENTO COUNTY AGRICULTURAL OPERATIONS

Sacramento County ranked 24th of the 58 California counties in agricultural production in 2004, producing $325.5 million in revenue. The most lucrative commodities were wine grapes followed by milk, nursery stock, pears, and poultry (see **Table 4.2-1**).

TABLE 4.2-1
SACRAMENTO LEADING FARM COMMODITIES, 2004

Commodity	Value
Grapes, (Wine)	$74 million
Milk	$55 million
Nursery Stock	$35 million
Pears, (Bartlett)	$24 million
Poultry	$17.5 million

Source: Sacramento County 2004 Crop & Livestock Report

Dry beans was the highest grossing field crop yielding $609 per ton, followed by safflower at 227 per ton, rice at $199 per ton, hay/alfalfa at $107 per ton, and barley at $105 per ton. Livestock and poultry produced revenues of $37,214,000, which was slightly lower than 37,777,000 totals for 2003. Milk production saw considerable gains in 2004 producing $55,475,00 in revenue, a 45% increase over 2003 totals. The leading fruit/nut and vegetable crops included cherries at $1,897 per ton and asparagus at $2,820 per ton, which produced $4,642,000 in revenues in 2004. Farmers markets are an important aspect of Sacramento County agriculture with 67 County certified seasonal/weekly markets being held at various locations through the County. There are not any farmers markets currently held within the Planning Area boundaries.

Agricultural related operations represented 0.4% of the County's employment force, providing nearly 23,000 jobs in 2004. Due to rapid development in the County, agricultural, manufacturing, and mining related jobs were the only industries that showed a decline between 2000-2004, with agriculture losing approximately 700 jobs during the last five years (Sacramento County Farm Bureau, 2005).

Planning Area

There are approximately 29,712.97 acres of agricultural land within the General Plan Planning Area boundaries, with 8,811.55 acres existing within the current City limits. Much of this agricultural land is grazing land (26,326.53 acres). There are no major intensive agricultural activities in the Planning Area (though small family farms and medium size (less than 150 acres) farms still operate in the area between Grant Line Road and the Cosumnes River). These

farming operations are outside the existing City limits. The majority of the agricultural land in the Planning Area was historically used for row crops, field crops, orchards, small vineyards, and livestock grazing. The majority of agricultural land consists of non-native annual grasslands and was used primarily for dry crop farming and cattle grazing. The majority of this land is considered fallow (vacant or underutilized). See **Table 4.2-4** for a complete inventory of farmland in the Planning Area.

FARMLAND CLASSIFICATIONS AND RATING SYSTEM

Farmland classification programs are used to determine the agricultural productivity of a soil. The two systems used by the United States Department of Agriculture (USDA) and the Natural Resource Conservation Service (NRCS) to determine a soil's agricultural productivity include the Soil Capability Classification System and the Storie Index Rating System. The Soil Capability Classification System takes into consideration soil limitations, the risk of damage when the soils are used, and the way in which soils respond to treatment; whereas, the Storie Index Rating System ranks soils based on their suitability for agriculture.

Storie Index Rating System

The Storie Index Rating System ranks soil characteristics according to their suitability for agriculture. Ratings range from Grade 1 soils (80 to 100 rating), which have few or no limitations for agricultural production to Grade 6 soils (less than 10), which are not suitable for agriculture. Under this system, soils deemed less than prime can function as prime soils when limitations such as poor drainage, slopes, or soil nutrient deficiencies are partially or entirely removed. The six grades, ranges in index rating, and definition of grades, as defined by the NRCS, are provided below in **Table 4.2-2**.

TABLE 4.2-2
STORIE INDEX RATING SYSTEM

Grade	Index Rating	Definition
1 – Excellent	80 through 100	Soils are well suited to intensive use for growing irrigated crops that are climatically suited to the region.
2 – Good	60 through 79	Soils are good agricultural soils, although they may not be so desirable as Grade 1 because of moderately coarse, coarse, or gravelly surface soil texture; somewhat less permeable subsoil; lower plant available water holding capacity, fair fertility; less well drained conditions, or slight to moderate flood hazards, all acting separately or in combination.
3 – Fair	40 through 59	Soils are only fairly well suited to general agricultural use and are limited in their use because of moderate slopes; moderate soil depths; less permeable subsoil; fine, moderately fine or gravelly surface soil textures; poor drainage; moderate flood hazards; or fair to poor fertility levels, all acting alone or in combination.
4 – Poor	20 through 39	Soils are poorly suited. They are severely limited in their agricultural potential because of shallow soil depths; less permeable subsoil; steeper slope; or more clayey or gravelly surface soil textures than Grade 3 soils, as well as poor drainage; greater flood hazards; hummocky micro-relief; salinity; or fair to poor fertility levels, all acting alone or in combination.
5 – Very Poor	10 through 19	Soils are very poorly suited for agriculture, are seldom cultivated and are more commonly used for range, pasture, or woodland.
6 – Nonagricultural	Less than 10	Soils are not suited for agriculture at all due to very severe to extreme physical limitations, or because of urbanization.

Source: USDA Soil Conservation Service, Soil Survey of Sacramento County, April 1993.

The "prime" soil classifications of both systems indicate the absence of soil limitations, which if present, would require the application of management techniques (e.g., drainage, leveling, special fertilizing practices) to enhance production.

The Planning Area contains 59 separate soil groups. **Table 4.2-3** identifies each soil group, erosion and runoff potential, permeability, slope, water-holding capacity and Storie Index Rating associated with each group.

TABLE 4.2-3
ONSITE SOIL CAPABILITY CLASSIFICATION AND STORIE INDEX RATING

Map Unit Name	Erosion Potential	Runoff	Subsoil Permeability (inches)	Slopes	Water Holding Capacity	Storie Index Rating
(101) Amador-Gillender complex	Slight to moderate	Very slow to medium	4 to 20	2 to 15%	Very low to low	4
(102) Americanos-Urban land complex	Slight	Slow	60+	0 to 2%	High	6
(112) Bruella sandy loam	Slight	Slow	60+	0 to 2%	High	2
(118) Columbia sandy loam	Slight	Very slow to slow	60+	0 to 2%	Moderate	2
(125) Corning complex	Slight to moderate	Very slow to medium	60+	0 to 8%	Low to moderate	4
(126) Corning-Redding complex	Moderate to severe	Medium to rapid	20 to 60+	8 to 30%	Low to moderate	4
(132) Creviscreek sandy loam	Slight	Slow	40+	0 to 3%	Moderate	2
(135) Dierssen clay loam	Slight to none	Very slow	40 to 60	0 to 2%	Moderate	5
(137) Durixeralfs	Slight to none	Very slow	10 to 30	0 to 1%	Very low to low	5
(145) Fiddyment fine sandy loam	Slight	Slow to medium	20 to 40	0 to 1%	Low	4
(156) Hadselvillee-Pentz complex	Slight to moderate	Very slow to medium	4 to 20	2 to 30%	Very low to low	4
(157) Hedge loam	Slight	Slow	20 to 40	0 to 2%	Low to moderate	4
(158) Hicksville loam	Slight	Slow	60+	0 to 2%	Very high	2
(159) Hicksville gravelly loam	Slight	Slow	60+	0 to 2%	High	3
(160) Hicksville sandy clay loam	Slight	Slow	40 to 60	0 to 2%	Moderate	3
(162) Kaseberg-Fiddyment-Urban land complex	Slight to moderate	Slow to medium	14 to 40	2 to 15%	Low	6
(163) Keyes sandy loam	Slight to moderate	Slow to medium	13 to 20	2 to 15%	Very low	5
(164) Kimball silt loam	Slight	Slow	60+	0 to 2%	Moderate	3
(165) Kimball silt loam	Moderate	Medium	60+	2 to 8%	Moderate	3
(166) Kimball-Urban land complex	Slight	Slow	60+	0 to 2%	Moderate	6

Map Unit Name	Erosion Potential	Runoff	Subsoil Permeability (inches)	Slopes	Water Holding Capacity	Storie Index Rating
(175) Madera loam	Moderate	Medium	20 to 40	0 to 8%	Low	5
(181) Natomas loam	Slight	Slow	60+	0 to 2%	Very high	1
(182) Natomas-Xerorthents, Dredge tailings complex	Slight to none	Very slow to slow	60+	0 to 50%	Very low to very high	5
(187) Pardee-Ranchoseco complex	Slight to moderate	Very slow to medium	4 to 20	3 to 15%	Very low	5
(188) Pentz-Lithic xerorthents complex	Severe	Rapid	1 to 20	30 to 50%	Very low to low	5
(189) Peter's Clay	Slight	Very slow to medium	10 to 20	1 to 8%	Low	4
(190) PITS	--	--	--	1 to 8%	--	---
(191) Red Bluff loam	Slight	Slow	60+	0 to 2%	High	3
(192) Red Bluff loam	Slight to moderate	Slow to medium	60+	2 to 5%	High	3
(193) Red Bluff-Redding complex	Slight to moderate	Very slow to medium	20 to 60+	0 to 5%	Low to high	4
(194) Red Bluff-Urban land complex	Slight to moderate	Slow to medium	60+	0 to 5%	Moderate to high	6
(195) Red Bluff-Xerarents complex	Slight	Slow	60+	0 to 2%	Moderate to high	5
(196) Red Bluff-Xerorthents, Dredge tailing complex	Slight to moderate	Very slow to medium	60+	2 to 50%	Very low to high	5
(197) Redding loam	Slight to moderate	Slow to medium	23 to 40	2 to 8%	Low	4
(198) Redding gravelly loam	Slight to moderate	Very slow to medium	20 to 40	0 to 8%	Low	5
(199) Reiff fine sandy loam	Slight	Slow	60+	0 to 2%	High	2
(203) Riverwash	--	--	--	--	--	6
(204) Rossmoor-Fine sandy loam	Slight	Slow	60+	0 to 2%	High	1
(205) Rossmoor-Urban land complex	Slight	Slow	60+	0 to 2%	High	6
(213) San Joaquin silt loam	Slight to none	Very slow	23 to 40	0 to 1%	Low	4
(214) San Joaquin silt loam	Slight	Slow	23 to 40	0 to 3%	Low	4
(215) San Joaquin silt loam	Moderate	Medium	23 to 40	3 to 8%	Low	4
(216) San Joaquin-Durixeralfs complex	Slight to none	Very slow	10 to 40	0 to 1%	Very low to low	4
(218) San Joaquin-Galt complex	Slight to none	Slow to ponded	20 to 40	0 to 3%	Low	4
(219) San Joaquin-Urban land complex	Slight	Slow	23 to 40	0 to 2%	Low	6
(221) San Joaquin-Xerarents complex	Slight to none	Very slow	23 to 60+	0 to 1%	Low to high	4

Map Unit Name	Erosion Potential	Runoff	Subsoil Permeability (inches)	Slopes	Water Holding Capacity	Storie Index Rating
(223) Slickens	Slight	Slow to ponded	--	0 to 3%	Very high to high	5
(227) Urban Land	--	--	--	--	--	-
(228) Urban land-Natomas	Slight	Slow	60+	0 to 2%	Very high	6
(229) Urban Land-Xerarents-Fiddyment complex	Slight to moderate	Slow to medium	20 to 80	0 to 8%	Low to high	6
(234) Vina fine sandy loam	Slight	Slow	60+	0 to 2%	High	1
(235) Vleck gravelly loam	Slight to moderate	Slow to medium	20 to 40	2 to 15%	Low	5
(238) Xerarents-Redding complex	Slight to none	Very slow to slow	23 to 60+	0 to 1%	Low to high	4
(239) Xerarents-Redding complex	Slight	Very slow to slow	23 to 60+	0 to 2%	Low to high	4
(240) Xerarents-Urban land-San Joaquin complex	Slight	Very slow to slow	23 to 60+	0 to 5%	Low to high	6
(242) Xerofluvents	Slight to moderate	Very slow to slow	60+	0 to 2%	Very low to low	6
(243) Xerolls	Severe	Rapid to very rapid	10 to 80+	30 to 70%	Very low to high	5
(245) Xerothents, Dredge tailings	Slight to none	Very slow to slow	60+	2 to 50%	Very low to low	6
(246) Xerorthents, Dredge tailings-Urban land complex	Slight	Very slow	60+	0 to 2%	Very low to low	6
(247) Water	--	--	--	--	--	-

Source: Soil Survey of Sacramento County, California, 1993; Soil Candidate Listing for Prime Farmland and Farmland of Statewide Importance, Sacramento County, California Department of Conservation, 1993.

As indicated in **Table 4.2-3**, there are few soils groups in the Planning Area having a Storie Index Rating of one and two or having little or no agricultural related limitations. Soils with a Storie Index rating of one or two are generally located in areas adjacent to the American River, in areas surrounding Mather Field, and in areas south of Grant Line Road adjacent to the Folsom South Canal. The majority of the Planning Area is composed of soils having a Storie Index Rating of three through six, which indicates soils with moderate to severe agricultural constraints and very low cultivation potential.

FARMLAND MAPPING AND MONITORING PROGRAM

The Farmland Mapping and Monitoring Program maps out agricultural areas based on soil quality and land use. The Farmland Mapping and Monitoring Program (FMMP) was established in 1982 to continue the important Farmland mapping efforts begun in 1975 by the U.S. Department of Agriculture, Soil Conservation Service (USDA-SCS). The intent of the USDA-SCS was to produce agricultural resource maps based on soil quality and land use across the nation. As part of the nationwide agricultural land use mapping effort, the USDA-SCS developed a series of definitions known as Land Inventory and Monitoring (LIM) criteria. The LIM criteria classified land's suitability for agricultural production; suitability included both the physical and chemical

characteristics of soils and the actual land use. Important Farmland Maps are derived from the USDA-SCS soil survey maps using the LIM criteria.

Since 1980, the State of California has assisted the USDA-SCS with completing its mapping in the state. The FMMP was created within the California Department of Conservation (DOC) to carry on the mapping activity on a continuing basis, and with a greater level of detail. The DOC applied a greater level of detail by modifying the LIM criteria for use in California utilizing the SCS and Storie Index Rating Systems, but also consider physical conditions such as a dependable water supply for agricultural production, soil temperature range, depth of the ground water table, flooding potential, rock fragment content, and rooting depth.

Important Farmland Maps for California are compiled using the modified LIM criteria and current land use information. The Important Farmland Maps identify five agriculture-related categories: Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, and Grazing land. Each is summarized below, based on *A Guide to the Farmland Mapping and Monitoring Program (1994)*, prepared by the Department of Conservation.

The DOC has classified Important Farmland in Sacramento County by the following categories:

- *Prime Farmland* - Farmland with the best combination of physical and chemical features able to sustain long-term production of agricultural crops.
- *Farmland of Statewide Importance* - Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or with less ability to hold and store moisture.
- *Unique Farmland* - Farmland of lesser quality soils used for the production of the state's leading agricultural crops.
- *Farmland of Local Importance* - Land of importance to the local agricultural economy, as determined by each county's Board of Supervisors and a local advisory committee.
- *Grazing Land* - Land on which the existing vegetation is suited to the grazing of livestock.
- *Urban and Built-up Land* - Land occupied by structures with a building density of at least one unit to one and one-half acres, or approximately six structures to a ten-acre parcel.
- *Other Land* - Land not included in any other mapping category is included as other land. Common examples include low density rural developments; brush, 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.

Important Farmland Maps

Sacramento County Farm Bureau monitors all types of farmland within the County and produces the Sacramento Important Farmland Map. The Important Farmland Map for the Planning Area is based on the County's Important Farmland Map and is depicted in **Figure 4.2-1. Table 4.2-4** illustrates the important farmland categories and associated acreages within the Planning Area boundaries.

TABLE 4.2-4
PLANNING AREA IMPORTANT FARMLAND INVENTORY (IN ACRES)

Land Use Category	City of Rancho Cordova	Planning Area (Unincorporated Portion)	Total Planning Area
Prime Farmland	154.93	70.72	225.65
Farmland of Statewide Importance	18.80	871.49	890.29
Farmland of Local Importance	404.65	1,589.29	1,993.94
Unique Farmland	250.62	25.94	276.56
Grazing Land	7,982.55	18,343.98	26,326.53
Urban and Built-up Land	6,950.59	8,589.55	15,540.14
Other	5,393.49	10,223.54	15,617.03

Source: California Department of Conservation, 2004; City of Rancho Cordova.

As indicated in **Figure 4.2-1** and **Table 4.2-4**, Grazing land represents the majority of agricultural resources in the Planning Area, with approximately 46 percent designated for grazing and livestock uses. The grazing resources are generally located north of Florin Road, east of Bradshaw Road, and south of White Rock Road. **Table 4.2-4** shows the Planning Area contains small sections and swaths of Prime Farmland soils. The largest concentration of Prime Farmland is located north of SR-16 and east of Grant Line Road, near Blodgett Reservoir. A lesser concentration of Prime Farmland is located between Bradshaw and Excelsior Roads, south of SR-16. There is also a sizable section containing Farmland of Local Importance, approximately 1,500 acres, near Mayhew Road and south of SR-16. The Planning Area also contains approximately 871 acres of Farmland of Statewide Importance, which is generally located adjacent to those areas containing Prime Farmland.

FARMLAND CONVERSION

Farmland conversion is monitored on a countywide basis; as such this discussion reflects conversion of farmland in Sacramento County (of which a portion is in the General Plan Planning Area). The County's rate of land use conversion reflected that of California's due to a strong economy and specific agricultural trends of the late 1990's and the huge increase in urbanization over the past five years. The conversion of farmland in Sacramento County from years 2000 to 2002 is presented in **Table 4.2-5**. The conversion totals for 2002 through 2004 are not yet available from the Sacramento County Farm Bureau.

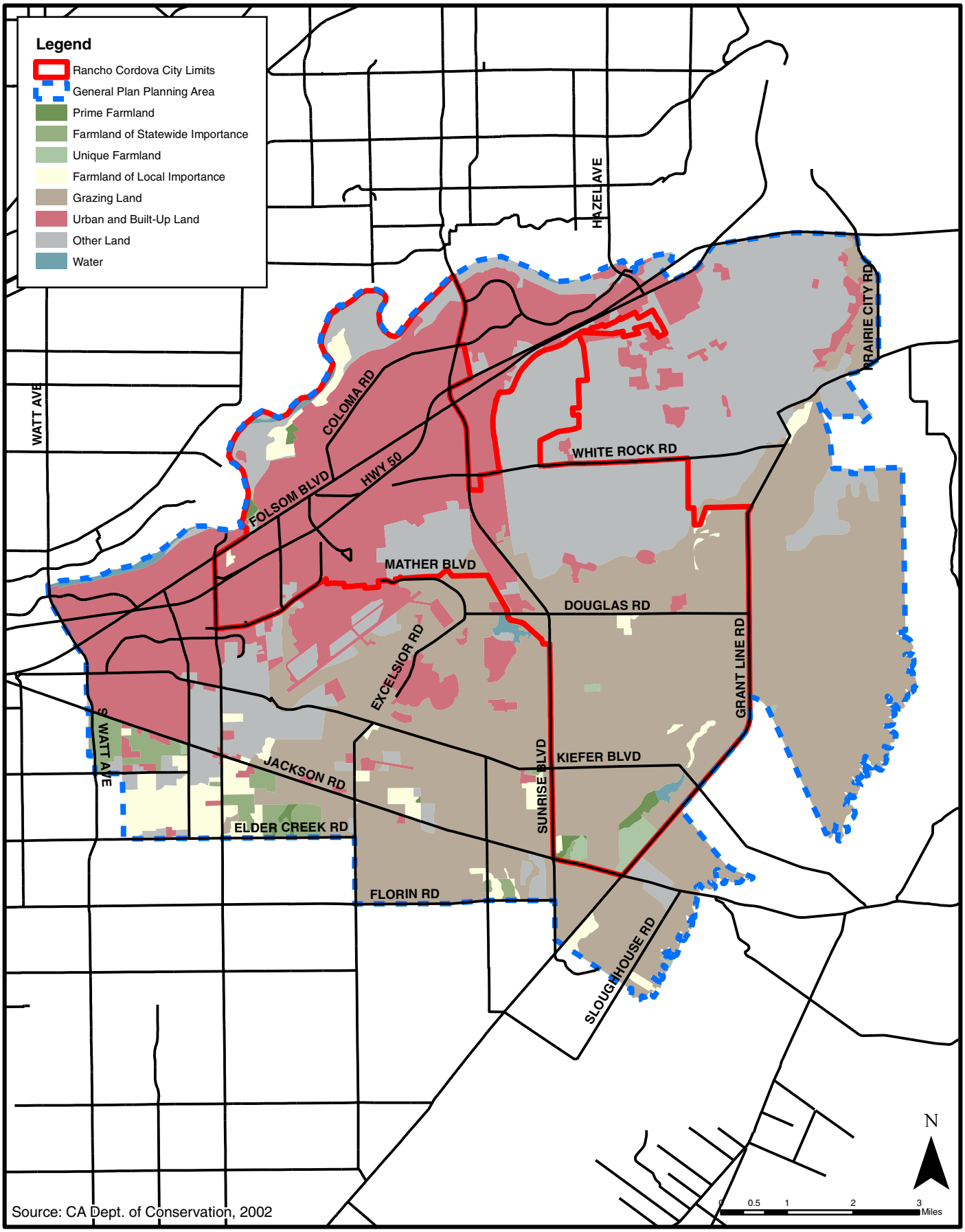
TABLE 4.2-5
SACRAMENTO COUNTY FARM LAND CONVERSION – YEAR 2000-2002

Land Use Category	Total Acreage Inventoried		2000-2002 Acreage Changes			
	2000-2001	2002	Acres Lost (-)	Acres Gained (+)	Total Acreage Change	Net Acreage Change
Prime Farmland	115,389	111,984	3,824	419	4,243	-3,405
Farmland of	63,536	60,773	3,395	632	4,027	-2,763

Land Use Category	Total Acreage Inventoried		2000-2002 Acreage Changes			
	2000-2001	2002	Acres Lost (-)	Acres Gained (+)	Total Acreage Change	Net Acreage Change
Statewide Importance						
Unique Farmland	15,476	15,834	363	721	1,084	+358
Farmland of Local Importance	33,530	37,885	1,756	6,111	7,867	+4,355
Important Farmland Subtotals	227,931	226,476	9,338	7,883	17,221	-1,445
Grazing	168,144	165,048	4,045	949	4,994	-3,096
Agricultural Land Subtotal	396,075	391,524	13,383	8,832	22,215	-4,551
Urban and Built-up Land	157,162	159,903	1,751	4,492	6,243	2,741
Other Land	64,593	66,403	2,965	4,775	7,740	1,810
Water Land	18,253	18,253	0	0	0	0
Total Area Inventoried	**636,083**	**636,083**	**18,099**	**18,099**	**36,198**	**0**

Source: California Department of Conservation, 2004.

As indicated in **Table 4.2-5,** Sacramento County experienced a loss of approximately 6,168 acres of Prime Farmland and Farmland of Statewide Importance from 2000 through 2002, or approximately 3% of these farmland categories were converted to other uses. In contrast, the County actually showed an increase in *Unique Farmland* and *Farmland of Local Importance*, with approximately 4,713 more acres in the County than prior to 2000. The increases in these categories are due to changes in the development of low-density residential projects, increased irrigation practices, and large set-asides of wetland preserves and other mitigation programs (Saunders, 2005).



City of Rancho Cordova
Planning Department

Figure 4.2-1
Important Farmland
Within the General Plan Planning Area

4.2.2 REGULATORY FRAMEWORK

FEDERAL

Farmland Protection Policy Act

The Natural Resources Conservation Service (NRCS), a federal agency within the U.S. Department of Agriculture, is the agency primarily responsible for implementation of the Farmland Protection Policy Act (FPPA). The purpose of the FPPA is to minimize federal programs' contribution to the conversion of farmland to nonagricultural uses by ensuring that federal programs are administered in a manner that is compatible with state, local, and private programs designed to protect farmland. NRCS provides technical assistance to federal agencies, state and local governments, tribes, or nonprofit organizations that desire to develop farmland protection programs and policies.

NRCS summarizes FPPA implementation in an annual report to Congress. The FPPA also established the Farmland Protection Program and the Land Evaluation and Site Assessment (LESA), which are discussed below.

Farmland Protection Program

NRCS administers the Farmland Protection Program (FPP), which is a voluntary program aimed at keeping productive farmland in agricultural uses. Under the FPP, NRCS provides matching funds to state, local, or tribal government entities and nonprofit organizations with existing farmland protection programs to purchase conservation easements. The goal of the program is to protect between 170,000 and 340,000 acres of farmland per year (U.S. Natural Resources Conservation Service 2002). Participating landowners agree not to convert the land to nonagricultural use and retain all rights to use the property for agriculture. A conservation plan must be developed for all lands enrolled based upon the standards contained in the NRCS Field Office Technical Guide. A minimum of 30 years is required for conservation easements and priority is given to applications with perpetual easements. NRCS provides up to 50% of the fair market value of the easement being conserved (U.S. Natural Resources Conservation Service 2002).

To qualify for a conservation easement, farmland must meet several criteria. The land must be:

- Prime, Unique, or other productive soil, as defined by NRCS based on factors such as water moisture regimes, available water capacity, developed irrigation water supply, soil temperature range, acid-alkali balance, water table, soil sodium content, potential for flooding, erodibility, permeability rate, rock fragment content, and soil rooting depth;
- included in a pending offer to be managed by a nonprofit organization, state, tribal, or local farmland protection program;
- privately owned;
- placed under a conservation plan;
- large enough to sustain agricultural production;
- accessible to markets for the crop that the land produces; and
- surrounded by parcels of land that can support long-term agricultural production

In Sacramento County, the FPP is supplemented by the DOC's Important Farmland Inventory System and Farmland Mapping and Monitoring Program, which is discussed in further detail under "State Regulatory Programs" below.

Land Evaluation and Site Assessment

The LESA system ranks lands for suitability and inclusion in the FPP. LESA evaluates several factors, including soil potential for agricultural use, location, market access, and adjacent land use. These factors are used to numerically rank the suitability of parcels based on local resource evaluation and site considerations (U.S. Natural Resources Conservation Service 2002). The LESA system has spawned many variations, including the California LESA model, described below.

STATE

California Department of Conservation

The DOC administers and supports a number of programs, including the Williamson Act, the California Farmland Conservancy Program (CFCP), the Williamson Act Easement Exchange Program (WAEEP) and the Farmland Mapping and Monitoring Program. These programs are designed to preserve agricultural land and provide data on conversion of agricultural land to urban use. The DOC has authority for the approval of agreements entered into under (WAEEP). The population of California is expected to grow from its current 34 million to 50 million by 2025. This population growth and the need for new homes will put strain on the nation's leading agricultural economy. Key DOC tools available for land conservation planning are conservation easement grants, tax incentives to keep land in agriculture or open space, and farmland mapping and monitoring.

Important Farmland Inventory System and Farmland Mapping and Monitoring Program

As discussed above, the Important Farmland Inventory System initiated in 1975 by the U.S. Soil Conservation Service (now NRCS) classifies land based on 10 soil and climatic characteristics. The DOC started another similar system of mapping and monitoring for California in 1980, known as the Farmland Mapping and Monitoring Program (FMMP). The DOC system was designed to document how much agricultural land in California was being converted to nonagricultural land or transferred into Williamson Act contracts. The DOC's definitions of Important Farmland types are provided under "Development Pressures" above. To be shown on the FMMP's Important Farmland Maps as Prime Farmland or Farmland of Statewide Importance, a piece of land must meet both of the following criteria:

- **Land Use:** The land must have been used for production of irrigated crops at some time during the 4 years before the Important Farmland Map date, as determined by FMMP staff during examination of current aerial photos, local comment letters, and field verification; and

- **Soil:** The soil must meet the physical and chemical criteria for Prime Farmland or Farmland of Statewide Importance as determined by NRCS.

Land Evaluation and Site Assessment Model

The California LESA model was developed in 1997 and was designed based on the federal LESA system and can be used to rank the relative importance of farmland and the potential significance of its conversion on a site-by-site basis. The California LESA model considers the

following factors: land capability, Storie index, water availability (drought and non-drought conditions), land uses within 1/4 mile, and "protected resource lands" (e.g., Williamson Act lands) surrounding the property. A score can be derived and used to determine if the conversion of a property would be significant under CEQA. The LESA model provides a broad range of scores and other factors that can be considered in determining impact significance.

Farmland Security Zones

Farmland Security Zones (FSZs) were established by the legislature in 1998. FSZs are meant to protect participating Important Farmland from development pressure. An FSZ must be located within an agricultural preserve (area designated as eligible for a Williamson Act contract) and designated as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance. The agricultural and open space lands enrolled in the program are protected for a minimum of a 20-year term under an FSZ and are offered an even greater property tax reduction than land under a Williamson Act contract.

Land protected in an FSZ cannot be annexed by a city or county government or school district (which would result in cancellation of a Williamson Act contract) (California Department of Conservation 2001). Nonrenewal and cancellation procedures are similar to those for Williamson Act contracts.

Williamson Act

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, is a non-mandated State program, administered by counties and cities to preserve agricultural land, and discourage the premature conversion of agricultural land to urban uses. The Act authorizes local governments and property owners to (voluntarily) enter into contracts to commit agricultural land to specified uses for ten or more years. Once enforceably restricted, the land is valued for taxation based on its agricultural income rather than unrestricted market value. This results in a lower tax rate for owners. In return, the owners guarantee that these properties remain under agricultural production for an initial ten-year period. The contract is renewed automatically unless the owner files a notice of non-renewal thereby maintaining a constant ten-year contract. Currently, approximately 70 percent of the state's prime agricultural land is protected under this act. Prime farmland under Williamson Act includes land that qualifies as Class I and II in the Soil Conservation Service (SCS) classification of land that qualifies for rating 80 to 100 in the Storie index rating. Participation is on a voluntary basis by both landowners and local governments and is implemented through the establishment of Agricultural Preserves and the execution of Williamson Act contracts.

Termination of a Williamson Act contract through the nonrenewal process is the preferred method to remove the enforceable restriction of the contract. Cancellation is not appropriate when objectives served by cancellation could be served by nonrenewal. Cancellation is reserved for unusual, "emergency" situations. In order to approve tentative cancellation, a board or council must make specific findings based on substantial evidence that a cancellation is consistent with the purposes of the Act or in the public interest. Contracts can specify that both findings must be made in Order to approve tentative cancellation. The contract on the Schilling Property, (Resolution No. 70-185, page 5) dated December 7, 1970 requires that both consistency and public interest findings must be made. **Figure 4.2-2** illustrates the location of properties within the Rancho Cordova Planning Area that are currently under Williamson Act contracts. As illustrated, there are approximately 24 parcels (five only partially within the Planning Area) with Williamson Act contracts within the Planning Area (approximately 3,794.78 non-prime acres, 181.44 prime areas and 325.29 acres in nonrenewal), one of which is in existing city boundaries (120 acres). A Notice of Nonrenewal has been filed on one of the contracts.

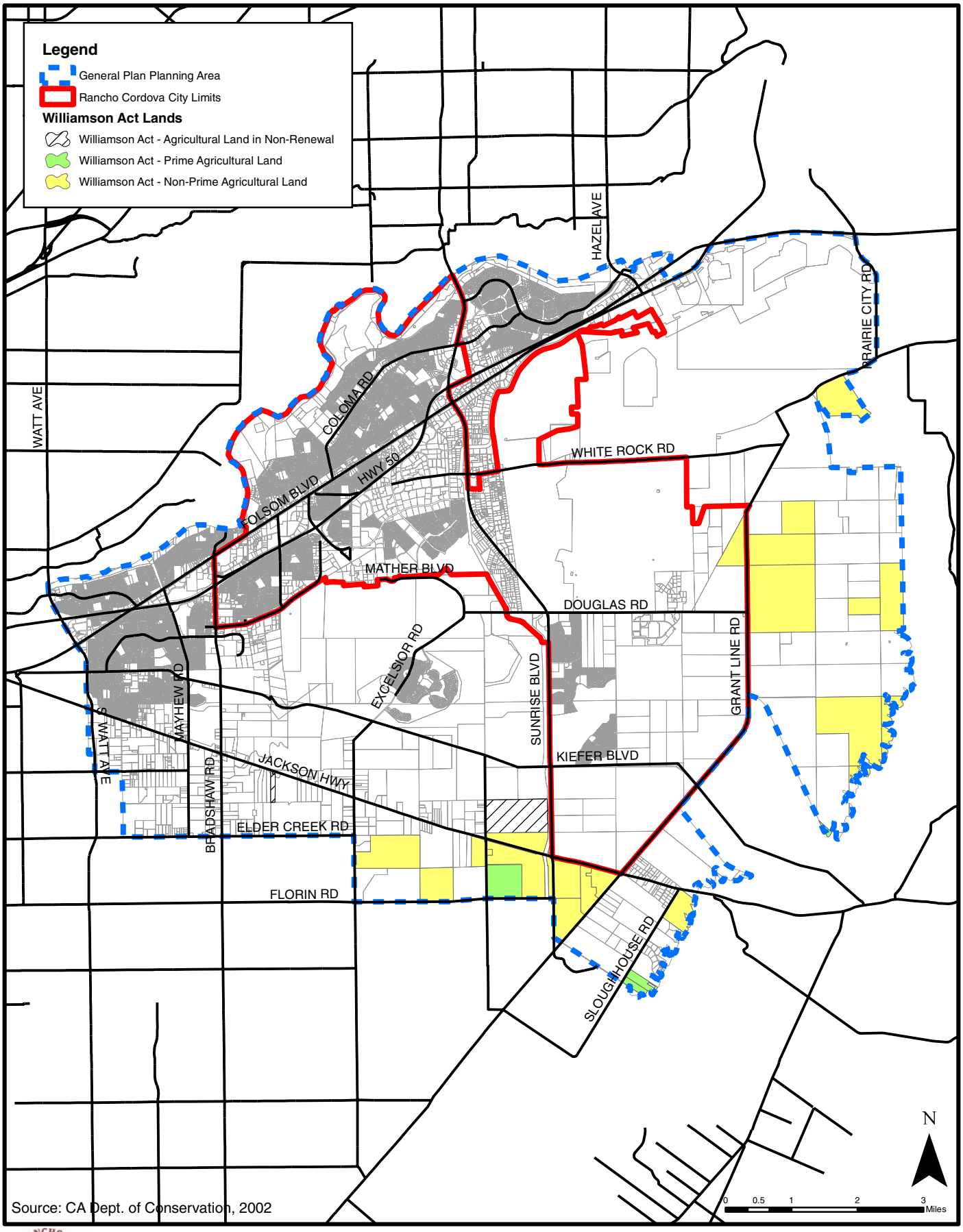
LOCAL

City of Rancho Cordova Right-to-Farm Ordinance

The Sacramento County Board of Supervisors passed the Right-to-Farm Ordinance on July 10, 1990. This Ordinance was adopted by the City of Rancho Cordova upon incorporation in July 2003. The ordinance was established provide legal assurance that established agricultural operations are allowed to continue, and to inform residents of areas zoned or designated for agriculture that they may be subject to inconvenience or discomfort resulting from accepted agricultural operations. Those residents that choose to reside adjacent to these uses must be prepared to accept such inconveniences when they occur. Only in the event that an agricultural production does not appear to be consistent with accepted standard practices, then any person may file a complaint with the Agricultural Commissioner.

Sacramento County General Plan

The Sacramento County General Plan is used to guide future development in unincorporated areas of the County, including sections of the Planning Area that are outside the Rancho Cordova city limits. County General Plan is currently applicable to the Planning Area outside the existing city limits of Rancho Cordova and will remain so until annexed by the City. Key Agricultural Element policies include AG-1, which calls for the protection of intensive agricultural investments from urban encroachments, AG-2, which prohibits the conversion of prime farmlands or lands with intensive agricultural investments to other uses (with exceptions), AG-3, which allows agricultural uses on buffers between agricultural and urban uses, AG-5, which requires the mitigation of lost farmland through in-kind protection nearby, AG-9, which calls for a balance of farmland and the preservation of natural habitat and AG-22, which requires the County to actively encourage enrollment into the County's Williamson Act program. Additionally, the Conservation Element includes policies (CO-54 and CO-55) for the protection of Prime Farmland or Farmland of Statewide Importance.



City of Rancho Cordova
Planning Department

Figure 4.2-2
Williamson Act Contracts
in the General Plan Planning Area

4.2.3. IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

For purposes of this EIR, the following criteria were used in determining whether the implementation of the proposed General Plan would result in a significant impact:

1) Conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.

2) Involve other changes in the existing environment which due to their location or nature, could result in conversion of Farmland to non-agricultural uses.

3) Conflict with existing zoning for agricultural use, or a Williamson Act contract

METHODOLOGY

Evaluation of potential agricultural impacts of the proposed City of Rancho Cordova General Plan and Planning Area was based on review of the Sacramento County General Plan and Zoning Code, and a field review of the city. The agricultural analysis is based on information gathered from the Sacramento County Agricultural and Conservation Elements, the Sacramento County General Plan Update EIR, the California Department of Conservation Farmland Conversion Report 2000 – 2002, the California Department of Conservation Important Farmlands Map, the Soil Survey of Sacramento County, California (April 1993), and the Sacramento County Agricultural Commissioner's Report (2000). The proposed project is then compared to the existing conditions to determine the impacts due to loss of agricultural resources.

An attempt was made to use the California LESA model to determine the relative importance of farmland and the potential significance of its conversion. However, after further investigation into the use of this modeling tool it was determined that the LESA model is not designed for projects the size and scale of the General Plan. While the identification of acreage of important farmland within the Planning Area was available, determining the water availability, land uses within 1/4 mile, and "protected resource lands" surrounding the Planning Area was impractical due to the size of the project. Therefore, using the LESA model to determine the impact of implementation of the General Plan would have on farmland is considered inappropriate and was rejected as a possible impact determination source.

PROJECT IMPACTS AND MITIGATION MEASURES

Loss and Conversion of Agricultural Land

Impact 4.2.1 Implementation of the proposed General Plan would result in the loss of important farmlands (Prime Farmland, Unique Farmland, and Farmland of Statewide Importance, etc) as designated by the Farmland Mapping and Monitoring Program. This is considered a **significant** impact.

According to the California State Department of Conservation Important Farmland Map (2000) as indicated in **Table 4.2-4** and depicted in **Figure 4.2-1**, the Planning Area contains approximately 225.65 acres of Prime Farmland and 890.29 acres of Farmland of Statewide Importance. The Planning Area also contains approximately 1,993.94 acres of Farmland of

Local Importance, 276.56 acres of Unique Farmland, and approximately 26,326.53 acres of Grazing Land.

General Plan Planning Area – Areas Outside of Existing City Boundaries

Within the General Plan Planning Area outside of existing City boundaries is approximately 20,900 acres of agricultural land. This consist of approximately 70.72 acres of Prime Farmland, 871.49 acres of Farmland of Statewide Importance, 1,589.29 acres of Farmland of Local Importance, 25.94 acres of Unique Farmland and 18,343.98 areas of Grazing Land.

The majority of the Prime Farmland, Farmland of Statewide Importance and Unique Farmland in the Planning Area outside of existing City limits is located within the proposed Jackson Planning Area and Grant Line South Planning Area. Proposed land uses in the Jackson Planning Area include Village Centers, employment centers, and mixed-use commercial, and residential neighborhoods. The Jackson Planning Area does not include areas reserved for agricultural lands.

The Grant Line South Planning Area currently consists primarily of open space and abuts areas to the south that are planned to be retained by Sacramento County for agricultural uses. Located along the perimeter of the City's General Plan Planning Area boundary, land uses in this Grant Line South Planning Area is anticipated to serve as a transition area from urban to rural uses at the City's "edge". As with the Jackson Planning Area, the Grant Line South Planning Area, proposed land uses include Village Centers, employment centers, and mixed-use commercial, and residential neighborhoods. The Planning Area does not include areas reserved for agricultural lands.

Therefore, implementation of the General Plan Land Use Map would result in the conversion of approximately 1,392.50 acres of important farmland (225.65-acres of Prime Farmland and 890.9 acres of Farmland of Statewide Importance and 276.56 acres of Unique Farmland). Loss of this farmland is considered a significant impact.

General Plan Planning Area – Areas within Existing City Boundaries

As indicated in **Table 4.2-4**, the City contains approximately 154.93 acres of Prime Farmland and 18.80 acres of Farmland of Statewide Importance. The City also contains approximately 404.65 acres of Farmland of Local Importance, 250.62 acres of Unique Farmland and approximately 7,982.55 acres of Grazing Land.

Within the City's current boundaries, the majority of the Prime Farmland, Farmland of Statewide Importance and Unique Farmland is located within the proposed Grant Line North Planning Area. There are also two areas of Prime Farmland and two areas of Farmland of Local Importance located adjacent to the American River Parkway, which is managed by Sacramento County. These areas have been historically and are currently under agricultural production and the proposed General Plan does not proposed any development of areas within the American River Parkway. Proposed land uses in the Grant Line North Planning Area include Village Centers, employment centers, and mixed-use commercial, and residential neighborhoods. Agricultural land is not anticipated to be included as a land use designation when the Planning Area land uses are finalized.

Agricultural land is not identified as a land use in the General Plan and is therefore assumed to result in a loss of this land use type. Therefore, implementation of the General Plan would result in the conversion of farmland and this impact is considered a significant.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policy is included in the General Plan Urban Design Element to ensure that proposed land uses associated with General Plan do not conflict with existing or future agricultural practices:

Policy UD.2.3 *Transition the density and intensity of uses from an urban to rural character with a clear city edge and establish a sense of entry and arrival to the City.*

Action UD.2.3.1 *Land uses along the eastern and southern boundaries of the City shall transition down the intensity and density of development from urban to rural at the City edge.*

Mitigation Measures

MM 4.2.1a The following shall be added as policies to the Land Use Element under Goal LU.1:

While agricultural uses are anticipated to be phased out within the City Limits, the City recognizes the right of these uses to continue as long as individual owners/farmers desire.

The City shall require development to protect one acre of existing farmland of equal or higher quality for each acre of Prime Farmland, Unique Farmland or Farmland of Statewide Importance that would be converted to non-agricultural uses. This protection may consist of the establishment of farmland conservation easement, farmland deed restriction, or other appropriate farmland conversion in perpetuity, but may also be utilized for compatible wildlife conservation efforts. The farmland to be preserved shall be located within Sacramento County and must have adequate water supply to support agricultural use. As part of the consideration of land areas proposed to be protected, the City shall consider the benefits of preserving farmlands in proximity to other protected lands.

MM 4.2.1b The following shall be added an action item to the Land Use Element under Goal LU.1:

The City shall ensure that the following standards are met regarding agricultural conservation easement content:

- Provisions of an accurate legal document that prohibits any activity that substantially impairs or diminishes the agricultural productivity of the land.
- Protection of any existing water rights necessary to maintain agricultural uses and retain such water rights for on-going use on the agricultural land.
- Interests in the agricultural land shall be held in trust by an entity acceptable to the City and/or the City in perpetuity.

While implementation of above mitigation measures would reduce General Plan impacts to agricultural land conversion, it would not fully avoid conservation of important farmlands. Thus, this impact is **significant and unavoidable**.

Agricultural/Urban Interface Conflicts

Impact 4.2.2 Implementation of the proposed General Plan could result in the placement of urban uses adjacent to agricultural uses within and adjacent to the City. This is considered a **significant** impact.

Implementation of the proposed City of Rancho Cordova General Plan Land Use Map would place urbanized land uses adjacent to and would replace existing agricultural uses. It is anticipated that as the City builds out, agriculture/urban interface conflicts may occur.

Agricultural and urban land use conflicts are expected to be limited to types of inconveniences or discomforts associated with small and medium owner-occupied farms that generally include, but are not limited to, the following:

- Inconveniences or discomforts associated with dust, smoke, noise, and odor from agricultural operations;
- Restrictions on agricultural operations (such as pesticide application) along interfaces with urban uses;
- Conflicts with farm equipment and vehicles using roadways;
- Trespassing and vandalism on active farmlands; and
- Farmland proximity to urban areas can place growth pressure to convert land to urban uses as a result of above mentioned conflicts and increases in property value.

General Plan Planning Area – Areas outside of Existing City Boundaries

As discussed previously, the General Plan Planning Area has approximately 29,713 acres of agricultural land including approximately 20,901 acres within the Planning Area outside existing City limits. Urban development adjacent to this farmland while under production result in agricultural/urban interface conflicts, until such time that the agricultural land is developed for urban uses.

Additionally, areas within Sacramento County adjacent to the General Plan Planning Area are anticipated to remain in agricultural use for the long-term. **Figure 4.2-1** illustrates that there are important farmland areas adjacent to or near the Planning Area boundaries however, these areas exist beyond the General Plan Planning Area and are located within the jurisdiction of Sacramento County and have the Sacramento County land use designation of General Agriculture and Agricultural Cropland. Additionally, these areas are located outside of the Urban Services Boundary for Sacramento County. Agricultural uses in these areas may become more intensive over time, which may increase agriculture/urban conflicts in these portions of the Planning Area.

General Plan Planning Area – Areas within Existing City Boundaries

There are 8,811.55 acres of farmland currently within the City boundaries. Urban development adjacent to this farmland while under production result in agricultural/urban interface conflicts, until such time that the agricultural land is developed for urban uses. Additionally, until such time that agricultural lands outside of the existing city limit are developed for urban uses, the potential for agricultural/urban conflicts exist.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and action items are contained in the General Plan Land Use and Urban Design Element to ensure that proposed land uses associated with General Plan do not conflict with existing or future agricultural practices:

Policy LU.1.4 *Promote high quality, efficient, and cohesive land utilization that minimizes negative impacts (e.g., traffic congestion and visual blight) and environmental hazards (e.g. flood, soil instability) on adjacent neighborhoods and infrastructure and preserve existing and future residential neighborhoods from encroachment of incompatible activities and land uses.*

Action LU.1.4.3 *Require the disclosure of potential land use compatibility issues in all parts of the City, such as noise, dust, odors, etc., in order to provide potential purchasers with the information necessary to make informed decisions about the property and its future land uses.*

Action LU 1.4.4 *Develop guidelines for the buffering of incompatible land uses in ways that retain community character but do not consume large land area, create pedestrian barriers, or result in unsafe conditions.*

Action LU 1.4.5 *Require an urban/agricultural buffer between development and existing agricultural uses. Design each buffer area to match the specific needs of each urban/agricultural interface, and to take into account the specific urban and agricultural uses. Buffers may be established through the use or combination of increased setbacks, roadways, barriers, landscaping or other appropriate methods to avoid conflicts. Development of this buffer must be done in consultation with Sacramento County and will not require the taking of existing agricultural land nor impede agricultural existing uses.*

Policy LU.2.1 *Ensure future land use and growth within the Planning Area adheres to the City's eight smart growth principles, as described as follows:*

- *Provide a variety of Transportation Choices*
- *Offer Housing Choices and Opportunities*
- *Encourage a Mix of Land Uses*
- *Promote Compact Urban Development*
- *Create Walkable Neighborhoods*

- *Promote Integration of Natural Resources with Urban Land Uses*
- *Foster Attractive Communities with Quality Design and a Strong Sense of Place*
- *Encourage Regeneration/Infill in Existing Developed Areas*

Action LU.2.1.1 *Amend the Zoning Code and Citywide Design Guidelines to include the City's smart growth principles as appropriate.*

Policy UD.2.3 *Transition the density and intensity of uses from an urban to rural character with a clear city edge and establish a sense of entry and arrival to the City.*

Action UD.2.3.1 *Land uses along the eastern and southern boundaries of the City shall transition down the intensity and density of development from urban to rural at the City edge.*

Policy UD.4.2 *Design new development to be compatible with surrounding development in ways that contribute to the desired character of the City and District.*

Mitigation Measures

Implementation of the above General Plan policies and associated action items would assist in reducing agriculture/urban interface, and zoning conflicts within and adjacent to the City's associated nuisance effects (dust, smoke, noise, odor), and restrictions on agricultural operations from interfaces with urban uses. However, implementation of these policies would not fully mitigate agriculture/urban interface conflicts, especially in regards to farm equipment and vehicle conflicts on area roadways, potential trespassing and vandalism to active farmlands, and growth pressures on farmland in proximity to urban uses in the City. Therefore, this impact is considered **significant and unavoidable.**

Williamson Act Contracts

Impact 4.2.3 Implementation of the proposed General Plan could result in a conflict with existing Williamson Act contracts. This is considered a **significant** impact.

Pursuant to Government Code Section 51243, the City is required to provide for the exclusion of uses other than agricultural, and other than those compatible with agricultural uses, for the duration of a Williamson Act contract. If a city annexes land under Williamson Act contract, the city must succeed to all rights, duties and powers of the county unless conditions in Government Code Section 512343.5 apply to give the city the option to not succeed the contract. However, these stipulations do not apply to those lands within the General Plan Planning Area because all lands under Williamson Act contract were contracted prior to city incorporation. Therefore the City must allow agricultural uses to continue on lands under Williamson Act contracts until those contracts are removed.

As previously discussed and indicated in **Figure 4.2-2**, the Planning Area contains 24 parcels (five only partially within the Planning Area) with Williamson Act contracts (approximately 3,794.78 non-prime acres, 181.44 prime areas and 325.29 acres in nonrenewal), one of which is in existing city boundaries (120 acres). A Notice of Nonrenewal has been filed on one of the contracts.

General Plan Planning Area – Areas outside of Existing City Boundaries

Located within the Planning Area currently beyond of existing City limits are 23 of the 24 parcel with Williamson Act contracts (4,181.51 acres). The California Department of Conservation has identified three of these parcels as Prime Agricultural Land, while the other 20 are considered Non-Prime. One of these parcels has had a Notice of Non-Renewal filed on it.

The majority of agricultural lands under Williamson Act contract are located in the Jackson, Grant Line South, and East Planning Areas (see **Figure 4.2-2**).

As discussed under **Impact 4.2.1,** all agricultural lands within the General Plan Planning Area would be converted to urban uses under the proposed General Plan. As the General Plan does not identify agricultural land use designation it is assumed that these lands will be converted to urban uses including those areas surrounding an existing Williamson Act contract. This urban development may impede the ability for the landowner to farm his or her land according to the Williamson Act contract and therefore be in violation of that contract.

While currently only one parcel under Williamson Act contract has a Notice of Non-Renewal filed on it, as the Planning Area develops, it is anticipated that most, if not all, lands under Williamson Act contacts will be converted to urban uses.

General Plan Planning Area – Areas inside of Existing City Boundaries

As previously stated, there is only one parcel within the existing city limits under a Williamson Act contract. This parcel, 120 acres, is located within the Grant Line West Planning Area adjacent to Grant Line Road. The parcel is identified as Grazing Land in the Important Farmland Map, **Figure 4.2-1**. The Grant Line West Planning Area will contain a mix of medium and high-density residential units with an average density of approximately 8 units per acre. The Grant Line West Planning Area may include as many as six neighborhoods could be developed with up to two on-site village centers. The Planning Area may include a small amount of business and professional office uses. Agricultural uses are not identified for the Grant Line West Planning Area.

Development of this type may impede the ability for the landowner to farm his or her land according to the Williamson Act contract and therefore be in violation of that contract.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and action items are contained in the General Plan Land Use and Urban Design Element to ensure that proposed land uses associated with General Plan do not conflict with existing or future agricultural practices.

Action LU 1.4.4 *Develop guidelines for the buffering of incompatible land uses in ways that retain community character but do not consume large land area, create pedestrian barriers, or result in unsafe conditions.*

Action LU 1.4.5 *Require an urban/agricultural buffer between development and existing agricultural uses. Design each buffer area to match the specific needs of each urban/agricultural interface, and to take into account the specific urban and agricultural uses. Buffers may be established through the use or combination of increased setbacks, roadways, barriers, landscaping or other appropriate methods to avoid conflicts. Development of this buffer must be done in consultation with Sacramento County and will not require*

the taking of existing agricultural land nor impede agricultural existing uses.

Policy UD.2.3 *Transition the density and intensity of uses from an urban to rural character with a clear city edge and establish a sense of entry and arrival to the City.*

Action UD.2.3.1 *Land uses along the eastern and southern boundaries of the City shall transition down the intensity and density of development from urban to rural at the City edge.*

Mitigation Measures

Implementation of the above General Plan policies and action items as well as mitigation measures **MM 4.2.1a through b** would assist in reducing this impact, it would not completely avoid conflicts with Williamson Act contract lands. Thus, this impact is considered **significant and unavoidable**.

4.2.4. CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

As discussed in Section 4.2.1 Farmland Conversion, the existing and projected future urban development throughout the state is expected to further contribute to the loss of important farmlands. The cumulative impact takes into account planned and proposed development anticipated in Sacramento County (see Section 4.0 for a further description of cumulative growth conditions); however, it is acknowledged that cumulative important farmland conversion contributions by the proposed General Plan are of a statewide concern.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Impacts to Agricultural Resources

Impact 4.2.4 Implementation of the General Plan Land Use Map Book along, with other proposed development in Sacramento County, would contribute to the additional conversion of important farmlands to other uses and may increase agriculture/urban interface conflicts. This is a **cumulatively considerable** impact.

As previously discussed, implementation of the City of Rancho Cordova General Plan would result in the conversion and/or conflict with agricultural resources in and adjacent to the Planning Area. Important farmland and grazing land conversions within the Planning Area would represent approximately seven percent of the total important farmland and grazing acreage inventoried in Sacramento County in 2002 (approximately 391,524 acres).

It is important to note, that farm/grazing land conversion associated with implementation of the General Plan planned land uses would be in addition to important farmland conversions associated with development anticipated under the applicable land use plans of Sacramento County and the cities of Sacramento, Folsom (Sphere of Influence), Galt and the City of Elk Grove. Urban development within Sacramento County resulted in the loss of approximately 6,168 acres of Prime Farmland and Farmland of Statewide Importance between 2002-2002. Several thousand additional agricultural acres have been converted to other uses since 2002;

however, specific conversion acreages are not yet available from the Sacramento County Farm Bureau (Saunders, 2005).

Proposed General Plan Policies and Action Items That Provide Mitigation

Policy UD.2.3 *Transition the density and intensity of uses from an urban to rural character with a clear city edge and establish a sense of entry and arrival to the City.*

Policy LU.1.4 *Promote high quality, efficient, and cohesive land utilization that minimizes negative impacts (e.g., traffic congestion and visual blight) and environmental hazards (e.g. flood, soil instability) on adjacent neighborhoods and infrastructure and preserve existing and future residential neighborhoods from encroachment of incompatible activities and land uses.*

Action LU.1.4.3 *Require the disclosure of potential land use compatibility issues in all parts of the City, such as noise, dust, odors, etc., in order to provide potential purchasers with the information necessary to make informed decisions about the property and its future land uses.*

Action LU 1.4.4 *Develop guidelines for the buffering of incompatible land uses in ways that retain community character but do not consume large land area, create pedestrian barriers, or result in unsafe conditions.*

Action LU 1.4.5 *Require an urban/agricultural buffer between development and existing agricultural uses. Design each buffer area to match the specific needs of each urban/agricultural interface, and to take into account the specific urban and agricultural uses. Buffers may be established through the use or combination of increased setbacks, roadways, barriers, landscaping or other appropriate methods to avoid conflicts. Development of this buffer must be done in consultation with Sacramento County and will not require the taking of existing agricultural land nor impede agricultural existing uses.*

Policy LU.2.1 *Ensure future land use and growth within the Planning Area adheres to the City's eight smart growth principles, as described as follows:*

- *Provide a variety of Transportation Choices*
- *Offer Housing Choices and Opportunities*
- *Encourage a Mix of Land Uses*
- *Promote Compact Urban Development*
- *Create Walkable Neighborhoods*
- *Promote Integration of Natural Resources with Urban Land Uses*
- *Foster Attractive Communities with Quality Design and a Strong Sense of Place*

- *Encourage Regeneration/Infill in Existing Developed Areas*

Policy LU.1.5 *Maintain consistency between the land use categories of this General Plan and the City Zoning Code.*

Action LU.2.1.1 *Amend the Zoning Code and Citywide Design Guidelines to include the City's smart growth principles as appropriate.*

Policy UD.2.3 *Transition the density and intensity of uses from an urban to rural character with a clear city edge and establish a sense of entry and arrival to the City.*

Action UD.2.3.1 *Land uses along the eastern and southern boundaries of the City shall transition down the intensity and density of development from urban to rural at the City edge.*

Policy UD.2.3 *Transition the density and intensity of uses from an urban to rural character with a clear City edge and establish a sense of entry and arrival to the City.*

Policy UD.4.2 *New development should be designed to be compatible with surrounding development in ways that contribute to the desired character of the City and District.*

Mitigation Measures

Implementation of the above General Plan policies and action items as well as mitigation measures **MM 4.2.1a through b** would reduce the General Plan's contribution to cumulative impacts to agricultural resources. However, implementation of the General Plan Land Use Map would still substantially contribute to cumulative impacts on agricultural resources as a result of adjacent urban development and this impact is **cumulatively considerable** and is considered a **significant and unavoidable** impact.

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4.3 – Population/Housing/Employment

This section discusses the current population characteristics, housing, and employment conditions within the Plan area and analyzes the potential changes and employment opportunities within the Planning Area.

4.3.1 EXISTING SETTING

CITY OF RANCHO CORDOVA PLANNING AREA PROJECTED HOLDING CAPACITY

Holding capacity is expressed as the total number of people that would be accommodated within a geographical or planning area if the land within that area were developed to the maximum potential allowed by land use designations in the General Plan. The total amount of dwelling units at buildout are used to determine a Planning area's ultimate holding capacity.

Based on the Draft General Plan Land Use Map (see Section 3.0, Project Description) the City Planning Area is anticipated to have a buildout capacity of 126,241 housing units and 310,568 persons. **Table 3.0-3** identifies buildout conditions by Planning Area.

REGIONAL SETTING/LOCAL SETTING

Geographic Area

Census 2000 was conducted prior to the City's incorporation in July 2003; therefore, the City's population and housing characteristics were included in the unincorporated portions of Sacramento County. A Census Designated Place (CDP) is a statistical entity, defined for each decennial census according to Census Bureau guidelines, comprising a densely settled concentration of population that is not within an incorporated place, but is locally identified by a name. CDP's are based on Census guidelines and are delineated cooperatively by state, local and Census Bureau officials, whereas, a census tract is a statistical subdivision of a county delineated by a local committee of census data users for the purpose of presenting data. Census tract boundaries normally follow visible features, but may follow governmental unit boundaries and other non-visible features in some cases. The city limits of Rancho Cordova are included under the Rancho Cordova Census Designated Place (CDP) and census Tract 87.01 BG 2 (CT 87.01). In addition, the portions of the Plan area located outside the current city limits are within the La Riviera and Rosemont areas and are designated by the U.S. Census Bureau as Census Tracts No. 91.03, 91.12, 98.04, 90.05, 88, 91.08, and 86. Therefore, City staff performed a special aggregation of the 2000 Census data to determine the demographic information provided herein. Other sources of statistical information were used as appropriate and are listed at the bottom of each table.

DEMOGRAPHICS

Population Trends

The Sacramento Area Council of Governments (SACOG) is an association of Sacramento Valley governments formed from the six regional counties - El Dorado, Placer, Sacramento, Sutter, Yolo and Yuba - and 22 member cities. SACOG's primary charge is to provide regional transportation planning and funding, as well as a forum for the study and resolution of regional population and housing issues. SACOG prepares the region's long-range transportation plan and approves the distribution of affordable housing in the region. SACOG and the U.S. Census Bureau (Census 2000) prepare population projections for the greater Sacramento region. According to current data, the County of Sacramento has experienced substantial amounts of growth of the past decade and is projected for continued growth through 2020. The County had a population of

approximately 1,223,000 in 2000. By 2020, the population in the County is projected to be 1,646,045. The population of unincorporated Sacramento County is projected to have approximately 755,697 persons by 2020.

In 2000, the approximate population in the City of Rancho Cordova was 53,065. As indicated in **Table 4.3-1**, the City of Rancho Cordova increased by three percent from 1990 to 2000. In 1990 the City had approximately 51,322 persons and increased to approximately 53,065 in 2000. In 2005, the State of California Department of Finance (DOF) estimates a City population of 55,109. In addition, the City is projected to have an approximate population of 169,081 through the General Plan timeframe of 2025, which is an increase of more than 207 percent over the City's 2005 population.

TABLE 4.3-1
CITY OF RANCHO CORDOVA POPULATION TRENDS

Year	Population	Change	% Change	Annual % Change
1990	51,322[1]			
2000	53,065[1]	1,743	3%	0.3%
2005	55,109[2]	2,044	4%	0.8%
2025	169,081[3]	74,289	78%	3.9%

Source: 1990 Census, 2000 Census, 2005 DOF estimates and SACOG Projections
Note: (1) 1990 and 2000 Census estimates were based on Census Tracks not City of Rancho Cordova boundaries, as the City was not incorporated until 2003 and therefore not recognized the U.S. Census as a city.
(2) DOF estimates
(3) SACOG population estimates based on a DOF 2005 population of 74,558.

Table 4.3-2 illustrates the Census 2000 populations for the General Plan Planning Area. The majority of the Planning Area's population is located within the current city limits, with approximately 67 percent of the overall population. CT 87.01 had approximately 6 percent of the total population is anticipated to experience the greatest population increases due to planned and approved development projects.

TABLE 4.3-2
2000 POPULATION FOR GENERAL PLAN PLANNING AREA

Census Tract or CDP	Population	% of Total Population
CT 86	5,412	6.6%
CT 88	914	1.1%
CT 90.05	3,258	4.0%
CT 91.03	3,235	4.0%
CT 91.08	3,684	4.5%
CT 91.12	3,573	4.4%
CT 98	1,934	2.4%
Rancho CDP	55,060	67.3%
CT 87.01	4,751	5.8%
Total Population	**81,821**	100.0%

Source: 2000 Census

Household Trends and Demographics

Households

Based on Census 2000 data, there were a total of 19,918 occupied housing units in the City of Rancho Cordova in 2000. According to DOF estimates, the City of Rancho Cordova has 20,638 households in 2005. **Table 4.3-3** shows the number of households in the City for 2000 and 2005 as well as SACOG household projections for the City through 2025. Although, the City will steadily add more housing units, it is projected to gradually decline in annual growth rates to 2.8 percent between 2015 and 2020 and again to 2.4 percent between 2020 and 2025.

TABLE 4.3-3
CITY OF RANCHO CORDOVA HOUSEHOLD PROJECTIONS

Year	HOUSEHOLDS	Change	%Change	Annual % Change
2000	19,918			
2005	20,638	720	4%	0.7%
2010	22,156	1,518	7%	1.5%
2020	29,201	3,523	14%	2.8%
2025	32,891	3,690	12%	2.4%

Source: City of Rancho Cordova; 2000 Census; 2005 DOF estimates

Households by Type

Table 4.3-4 shows housing characteristics of households in the City, the total number of households, and the percentage of each type of household. Approximately 66 percent of the households in the City are family households.

TABLE 4.3-4
CITY OF RANCHO CORDOVA HOUSEHOLDS BY TYPE

Household Type	Number	Percentage of Total Households
1-Person Household	5,071	25.4%
2 or More Person Household	14,847	74.5%
Family Households	13,221	66.4%
Married Couple Family	9,969	50.1%
Male householder, no wife present	1,120	5.6%
Female householder, no husband present	3,317	16.7%
Non-Family Households	1,625	8.2%
Total	19,918	100.0%

Source: Census 2000.
Notes: 1. Total include both owner occupied and rental occupied housing units.

As indicated in **Table 4.3-4**, family households make majority of households in the City, representing approximately 67 percent of occupied housing units. Married couple family households represent the largest percentage of all household types, approximately 46 percent while non-family households, account for 33 percent of all occupied housing units. Male and female households with the occupants living alone represent approximately 16 and 17 percent of all occupied units, respectively.

Household Size

Household size refers to the number of persons in a household. The average household size for Rancho Cordova is 2.68 persons per household versus 2.64 persons per household for Sacramento County. **Table 4.3-5** displays the household size, number of households and percentage of each household size within the City of Rancho Cordova. Two-person households represent the largest proportion of households in the City representing 32 percent of the City's households. One-person households are the second largest proportion, representing 26 percent of the City's households.

TABLE 4.3-5
CITY OF RANCHO CORDOVA HOUSEHOLD SIZE

Household Size	Rancho Cordova	Percentage	Sacramento County	Percentage
1 Person	5,108	26%	120,985	26%
2 Person	6,379	32%	143,307	32%
3 Person	3,383	17%	73,210	16%
4 Person	2,523	13%	61,249	14%
5 Person	1,318	7%	29,529	7%
6 Person	644	3%	13,465	3%
7+ Person	563	3%	11,857	2%
Total	**19,918**	**100%**	**453,602**	**100%**
Average Household Size	**2.68**	**-**	**2.64**	**-**

Source: 2000 Census

Household Income

On average, the household incomes for Rancho Cordova are lower compared to household incomes for Sacramento County. According to the 2000 Census, the household median income for the Rancho Cordova Census Designated Place (CDP) was $40,095. For comparison, the median income in Sacramento County in the 2000 Census was $43,816. The median income for Rancho Cordova was nine percent lower than that of Sacramento County.

Tenure

Housing Tenure refers to the proportion of households occupied by renters and those occupied by owners. The tenure of housing in the City of Rancho Cordova is displayed in **Table 4.3-6.** As indicated, the City had a total of 19,918 occupied housing units in 2000. Of the available housing units, 49.3 percent were owner occupied and the remaining 50.7 percent were rental households. The 50.7 percent housing rental rate in the City, is higher that than Sacramento

County as a whole, which has an approximate 41.8 percent of all households, occupied by a renter.

TABLE 4.3-6
CITY OF RANCHO CORDOVA HOUSEHOLD TENURE

Housing Units	City of Rancho Cordova		Sacramento County	
Total Occupied	19,918	100.0%	453,602	100.0%
Owner Occupied	9,820	49.3%	263,819	58.2%
Renter Occupied	10,098	50.7%	189,783	41.8%

Source: Census 2000

Housing Units

According to the City of Rancho Cordova Building Department, a total of 808 dwelling units were permitted between 2000 and January 2005. As of April 2005, the City had 22,425 housing units either built or permitted.

The largest percentage of Rancho Cordova's housing stock, 30.0 percent, was built between 1970 and 1979 (see **Table 4.3-7**). Approximately 31.2 percent of Rancho Cordova's housing stock has been built since 1980.

TABLE 4.3-7
CITY OF RANCHO CORDOVA AGE OF HOUSING

Year	Number	Percent	Accumulated Percent
1939 or earlier	106	0.5%	0.5%
1940-1959	3,570	15.9%	16.4%
1960-1969	5,040	22.5%	38.9%
1970-1979	6,726	30.0%	68.9%
1980-1989	3,807	17.0%	85.8%
1990-1998	2,035	9.1%	94.9%
1999-2000	333	1.5%	96.4%
2001 - January 2005	808	3.6%	100.0%
Total	22,425	100.0%	

Source: 1990, 2000 Census; City of Rancho Cordova Building Department

Housing Unit Vacancy

Vacancy trends in housing are analyzed using a "vacancy rate," which establishes the relationship between housing supply and demand. If the demand for housing units is greater than the available supply, then the vacancy rate is low and the price of housing will most likely increase. According to "Raising the Roof, California Housing Development Projections and Constraints, 1997-2020", the desirable vacancy rate in a community is considered to be 5 percent. Generally, when the vacancy rate drops below 5 percent, the demand for housing exceeds the supply of housing. Subsequently, there is an increase in both rental and homeowner ships housing costs.

According to the 2000 Census, the vacancy rate for Rancho Cordova was 2.2 percent for owner housing units and 3.8 percent for rental housing units. Generally, the vacancy rates for Rancho Cordova are low. The Sacramento metropolitan area had a 4.8 percent vacancy rate for rental housing units at the end of 2001. In addition, average rents for the Sacramento metropolitan area have increased 9.6 percent annually for the past four years. **Table 4.3-8** shows the vacancy rates by type of housing in Rancho Cordova.

TABLE 4.3-8
HOUSEHOLD VACANCY STATUS

Housing Units	Rancho Cordova		Sacramento County	
Total Vacant	544	100.0%	21,212	100.0%
For rent	175	32.2%	9,534	44.9%
For sale only	196	36.0%	3,875	18.3%
Rented or sold, not occupied	44	8.1%	1,770	8.3%
For seasonal, recreational, or occasional use	30	5.5%	1,621	7.6%
For migrant workers	1	0.2%	32	0.2%
Other vacant	98	18.0%	4,380	20.6%

Source: 2000 Census

Employment

The work force in the Sacramento metropolitan area encompasses educational, professional, technical, production, transportation, and service occupations. The region's manufacturing sector has grown steadily since the late 1970's, spurred by the expansion of high-technology industries. The major employers in Rancho Cordova and in the vicinity of the City represent a wide range of employment sectors.

TABLE 4.3-9
RANCHO CORDOVA PLANNING AREA LARGEST EMPLOYERS

100-299 Employees	
Acordia of CA Insurance Services, Inc.	Guardsmark, Inc.
Aerojet Fine Chemicals	Home Depot
Automotive Importing Manufacturing, Inc.	Kaiser Permanente
Beck's Furniture	Karsten Homes
Bel-Air Markets	Maximus, Inc.
BFI Waste	Marriott
C.C. Myers, Inc.	McKesson Corporation
Casa Coloma Health Care	Old Spaghetti Factory
Claims Management, Inc.	Pacific Coast Building Products

100-299 Employees	
Cordova Recreation and Park District	Reserve America
Costco Wholesale	School Innovations and Advocacy
Encompass Insurance	Sutter Health @ Work
Franklin Templeton Group	Target
300+ Employees	
Aerojet - General Corp.	GenCorp
Catholic Health Care West	Mercy Health Care
Cedar Valley Concrete	Motion Control Engineering
Delta Dental	Sunworld Landscape
Electronic Data Systems Corp.	Volcano Therapeutics, Inc.
E*TRADE Securities	Wal-Mart Stores, Inc.

Source: City of Rancho Cordova Chamber of Commerce and Sacramento Regional Research Institute

The 2000 Census identifies the educational, health and social services as the largest employment sector in the City, employing 15 percent of all residents, or 3,663 persons. The Professional sector was the second largest employer, employing 11.2 percent, or 2,712 persons.

TABLE 4.3-10
EMPLOYMENT BY INDUSTRY - RANCHO CORDOVA CDP

Sector	2000	
	Number	Percent
Agriculture, Forestry, Fishing, Hunting, and Mining	59	0.2%
Construction	1,781	7.3%
Manufacturing	2,301	9.5%
Transportation and Public Facilities	1,114	4.6%
Wholesale Trade	713	2.9%
Information	1,012	4.2%
Retail Trade	2,674	11.0%
Finance, Insurance, Real Estate	2,494	10.3%
Professional	2,712	11.2%
Educational	3,663	15.1%
Arts and Entertainment	2,010	8.3%
Other Services	1,288	5.3%
Public Administration	2,498	10.3%

Source: 2000 Census

4.3.2 REGULATORY FRAMEWORK

FEDERAL

Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970

The Uniform Act, passed by Congress in 1970, is a federal law that establishes minimum standards for federally funded programs and projects that require the acquisition of real property (real estate) or displace persons from their homes, businesses, or farms. The Uniform Act's protections and assistance apply to the acquisition, rehabilitation, or demolition of real property for federal or federally funded projects. 49 CFR Part 24 is the government-wide regulation that implements the URA

Title 24–Housing and Urban Development Part 42

Displacement, Relocation Assistance, and Real Property Acquisition for HUD And HUD-Assisted Programs

Section 104(d) of the Housing and Community Development Act (HCD) provides minimum requirements for federally funded programs or projects when units that are part of a community's low-income housing supply are demolished or converted to a use other than low- or moderate-income dwellings.

Section 104(d) requirements include:

- Replacement, on a one-for-one basis, of all occupied and vacant occupiable low- or moderate-income dwelling units that are demolished or converted to a use other than low- or moderate-income housing in connection with an activity assisted under the HCD Act, and
- Provision of certain relocation assistance to any lower income person displaced as a direct result of the following activities in connection with federal assistance:
    - Demolition of any dwelling unit, or
    - Conversion of a low- or moderate-income dwelling unit to a use other than a low- or moderate-income residence.

Section 104(d) requirements are triggered by the use of HOME, CDBG, Section 108 Loan Guarantee, or UDAG funding in a project involving the demolition or conversion of low- or moderate-income housing.

STATE

California Relocation Statute - Government Code Section 7260

The California Relocation Statue is a California law that establishes minimum standards for state funded programs and projects that require the acquisition of real property (real estate) or displace persons from their homes, businesses, or farms. The Statute's protections and assistance apply to the acquisition, rehabilitation, or demolition of real property for state funded projects. The Statute is intended for the benefit of displaced persons, to ensure that such persons receive fair and equitable treatment and do not suffer disproportionate injuries as the result of programs

designed for the benefit of the public as a whole. Title 25, Division 1, Chapter 6 of the California Code of Regulations provides the regulatory guidelines to enforce the Statute.

Title 25 Division 1 Chapter 6 Subchapter 1- Relocation Assistance and Real Property Acquisition

This section of Title 25 provides guidelines to assist public entities in the development of regulations and procedures implementing GC Section 7260. The guidelines are designed to carry out the following policies of Section 7260:

1) To ensure that uniform, fair and equitable treatment is afforded persons displaced from their homes, businesses or farms as a result of the actions of a public entity in order that such persons shall not suffer disproportionate injury as a result of action taken for the benefit of the public as a whole; and

2) In the acquisition of real property by a public entity, to ensure consistent and fair treatment for owners of real property to be acquired, to encourage and expedite acquisition by agreement with owners of such property in order to avoid litigation and relieve congestion in courts, and to promote confidence in public land acquisition.

LOCAL

Sacramento County General Plan

The Sacramento County Housing Element (revised 5/2/97) includes policies which are designed to promote the production of housing for all income ranges and ensure adequate site for housing. The County General Plan is currently applicable to the Planning Area outside the existing city limits of Rancho Cordova and will remain so until annexed by the City. Key General Plan housing policies include HE-1 and HE-3 requiring the County to maintain an adequate supply of properly zone land to accommodate future housing need, HE-4 restricting the use of multifamily zoning for any use other than multifamily development (with conditions), HE-5 ensuring the provision of adequate sites for affordable housing development, and HE-6 supporting the development of market rate multifamily units within transportation corridors. Policies HE-7 and HE-39 support the construction of affordable housing and the use of federal, state and local programs for the construction of this housing. Finally, Policy HE-8 promotes the buildout of vacant urban land through infill, reuse and redevelopment activities.

Cordova Community Plan

This document, adopted by the Sacramento County Board of Supervisors on May 21, 2003, is an extension of the Sacramento County General Plan, but is much more specific in terms of the objectives and implementation strategies; and is intended to address issues that are most important to this community. It includes several elements (e.g., land use, circulation, and housing), that are similar to those contained in the County's General Plan and provides goals, objectives and implementation actions for the Plan area. Key objectives include H-1: the promotion of a jobs/housing balance, H-4: the promotion of housing near employment centers, H-7: the promotion of a revitalized existing substandard housing, H-9: ensuring an adequate mix of affordable housing, H-10: the encouragement of a variety of lot sizes to promote social and economic diversity, and H-11: promoting of duplexes on corner lots in new subdivisions.

4.3.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

According to the CEQA Guidelines Section 15131(a), economic or social effects of a project are not treated as significant effects on the environment. If the proposed project were to cause physical changes as a result of economic or social changes, then the physical effects (such as the destruction of habitat resulting from housing construction to accommodate increased population) could be considered a significant environmental effect. A population and housing impact is considered significant if implementation of the project would result in any of the following:

1) Induce substantial growth or concentration of population in an area either directly or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure) that results in a physical effect on the environment.

2) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

3) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

Growth inducement effects are specifically addressed in Section 7.0 of this document.

METHODOLOGY

This section was prepared using Sacramento County Area Council of Governments (SACOG) existing and projected demographic, housing and employment information. Demographic Information and data was obtained from various governmental agencies through their World Wide Web sites and discussions with agency staff members. Agencies and websites consulted included the U.S. Bureau of the Census, the California Department of Finance, Sacramento Area Council of Governments, and the California Employment Development Department.

PROJECT IMPACTS AND MITIGATION MEASURES

Population, Housing and Employment Increases

Impact 4.3.1 Implementation of the proposed General Plan Land Use Map would include land uses that promote the increase in population, housing, and employment to the area, and thus induce substantial growth. This is a **significant** impact.

When considering the potential impacts a project may have on the physical environment, the existing conditions must be compared to the expected outcome the project may produce and the potential environmental impacts this change may cause. The projected increase in the City of Rancho Cordova General Plan Planning Area population and housing units would result in direct and indirect environmental effects such as noise, demand for services and utilities, traffic, and air quality. These effects associated with buildout of the General Plan are discussed in the relevant chapters of this EIR. The following is a discussion of implementation of the General Plan and its potential to induce substantial growth.

General Plan Planning Area – Areas Outside of Existing City Boundaries

Table 4.3-11 below identifies the General Plan Planning Area buildout population, housing units and employment for those areas that are currently outside the existing city limits. These buildout projections are based on anticipated land use designations for eight individual Planning Areas (Jackson, Mather, Grant Line South, East, Aerojet, Glenborough and portions of Westborough and Folsom Planning Areas), which exist outside of current city boundaries, and other areas within the General Plan Planning Area but outside of current city boundaries.

At buildout (currently projected to occur beyond year 2030), a population of 127,109 persons, 50,318 housing units and 92,143 jobs are anticipated for the area within the General Plan Planning Area but outside existing city limits. Buildout population and the number of housing units will increase by more than 160 percent over the current levels. This represents substantial growth in the area and will have a potentially significant physical effect on the environment. Implementation of the Rancho Cordova General Plan and the associated land use designations would directly cause growth into areas that are currently rural in nature by allowing urban development. Therefore, this is considered a significant impact.

Table 4.3-11
GENERAL PLAN PLANNING AREA - AREA OUTSIDE OF EXISTING CITY LIMITS

	Existing	Buildout	% Change
Residential Units	19,306	50,318	161%
Population	48,033	127,109	165%
Employment	47,092	92,143	96%

General Plan Planning Area – Areas within Existing City Boundaries

The City is anticipated to have substantial growth in population, housing and employment based on the proposed Rancho Cordova General Plan land uses. An expected population of approximately 183,459 under buildout conditions is anticipated which is an increase of 233 percent. Employment and the number of housing units are also anticipated to increase as well. See **Table 4.3-12** for buildout projections. This represents substantial growth in the area and will have a potentially significant physical effect on the environment. Implementation of the Rancho Cordova General Plan and the associated land use designations would directly cause growth. Therefore, this is considered a significant impact.

TABLE 4.3-12
GENERAL PLAN PLANNING AREA – AREA WITHIN EXISTING CITY LIMITS

	Existing	Buildout	% Change
Residential Units	22,443	75,923	238%
Population	55,109	183,459	233%
Employment	47,679	102,878	116%

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies are contained in the General Plan Housing Element and the Land Use Element, to ensure that proposed land uses associated with the General Plan provide for growth in the City that would have the least affect on the natural environment:

Policy H.1.2 *Maintain adequate sites that support a range of housing types appropriate for the city's housing needs, taking into account employment projections, household growth, and the City's share of regional housing needs.*

Policy H.1.5 *Promote higher density housing in close proximity to transit, employment, and appropriate services, such as transit-oriented development*

Policy H.2.2 *Provide neighborhood revitalization in existing areas through housing rehabilitation (owner- and renter-occupied units), and infill reuse/conversion.*

Action H.2.2.2 *Identify the most troubled multifamily projects (in terms of law enforcement, code enforcement, and blight conditions) and aggressively pursue the transformation or conversion of such properties into uses that move the community into a more balanced community.*

Policy H.2.4 *Develop and implement standards applicable to all infill and additions/renovations to existing residential projects aimed at improving the personal security of residents and maintaining the units.*

Policy H.2.5 *Pursue potential reuse and conversion opportunities for additional housing along Folsom Boulevard.*

Action H.2.5.1 *Rehabilitate old, underutilized, blighted, and/or vacant shopping centers on Folsom Boulevard to increase mixed-use and reuse in that corridor.*

Action H.2.5.2 *Identify opportunities in the Redevelopment Area for use of redevelopment tools and tax-increment funding that will improve the Folsom Boulevard corridor, specially targeting residential reuse of old motels along Folsom Boulevard.*

Policy H.2.6 *Ensure that existing housing stock within the City is maintained and remains habitable in order to assist in meeting the housing needs of the community.*

Policy H.2.7 *Preserve housing units at risk of losing affordability status.*

Policy H.3.2 *Work with interested individuals, non-profit housing corporations, and for-profit developers to acquire rental housing projects in need of rehabilitation, and transfer ownership, when necessary, to maintain the affordability of the units to low-income households.*

Policy H.4.1 *Ensure that neighborhoods are developed in a balanced, sustainable manner, avoiding over-concentration of affordable housing or over-sized rental complexes and providing a range of housing prices and rents.*

Policy H.6.2 *Encourage participation in SMUD's energy efficiency, photovoltaic, solar, and other comparable programs.*

Policy H.6.3 *Require all new development to provide bicycle and pedestrian access, thereby facilitating the reduction of automobile air quality impacts in the area.*

Policy LU.1.3 *Maintain a strong jobs-housing ratio, with a diverse job base and corresponding housing stock, within the Planning Area. Improve the relationship and proximity of jobs to housing and commercial services.*

Policy LU.1.4 *Promote high quality, efficient, and cohesive land utilization that minimizes negative impacts (e.g., traffic congestion and visual blight) and environmental hazards (e.g. flood, soil instability) on adjacent neighborhoods and infrastructure and preserve existing and future residential neighborhoods from encroachment of incompatible activities and land uses. [Cross reference Economic Development, ED.2.6]*

Action LU.1.4.1 *Establish performance and development standards in the Zoning Code and guidelines in the Citywide Design Guidelines to address compability between existing and proposed development and within proposed mixed-use development (vertical and horizontal).*

Policy LU.2.3 *Encourage the clustering of similar uses into areas or districts that have common needs and that are compatible with one another, in order to maximize their efficiency and identity for Rancho Cordova. Uses to consider clustering include the following:*

Performing Arts Center, local theaters, and studios;

- Sports/recreation facilities (i.e. bowling alleys and major sports facilities);
- Hospitals and other care facilities;
- Youth activity centers;
- Amphitheatres; and
- Regional shopping opportunities.

Policy LU.2.4 *Use Community Plans, Specific Plans, and development projects to promote pedestrian movement via direct, safe, and pleasant routes that connect destinations inside and outside the plan or project area.*

Policy LU.2.7 *Promote sustainable development that reduces the impact of projects on energy, water, and transportation systems. Encourage sustainable development to occur in ways that complement the built form.*

Action LU.2.7.1 *Develop and adopt energy conservation performance standards that apply to new construction and focus on cost-effective measures that exceed minimum federal and state requirements, in recognition and support of the Sacramento Municipal Utility District's "Conservation Power" goals.*

Action LU.2.7.2 *Create programs that educate developers and property owners about the advantages of "green design" on their property and within the City, and inform them on how they can incorporate such design elements into their projects. Develop incentives, such as grants, financing programs, or other mechanisms that help make "green design" realistic.*

Policy LU.4.1 *Improve the character and quality of existing development through the revitalization of blighted and underutilized development. [Cross reference Economic Development, ED.5 and ED.6]*

Mitigation Measures

Implementation of the above General Plan policies and associated action items provide for the rehabilitation of existing housing units and/or the re-use of vacant businesses for housing. This would allow for the continuation of housing/buildings that may have been lost due to substandard conditions. The re-use/rehabilitation of these units would not require the development of vacant land and therefore assist in the reduction of impacts to the environment. These policies also provide for housing in close proximity to employment centers and or transit, therefore reducing the increase in vehicle traffic and its associated air and noise impacts associated with the proposed General Plan, as well as assist in the reduction of traffic, air and noise impacts by providing for community design that promotes alternative transportation resources. All of these policies and actions would aid in the reduction of impacts to the environment, nevertheless, implementation of the General Plan would allow for a substantial increase in population, housing units, and employment in the City and Planning Area, as illustrated in **Table 4.3-11** and **Table 4.3-12**, which would have a considerable impact on the surrounding environmental regardless of the above listed policies and actions. As noted in Section 7.0, implementation of the General Plan and its associated growth is expected to result in several significant and avoidable effects to the environment. Therefore, this impact is considered **significant and unavoidable.**

Displacement of a Substantial Number of Persons or Housing

Impact 4.3.2 Implementation of the General Plan may result in the displacement of housing and/or persons due to the construction of infrastructure necessary to serve new development or revitalization efforts. This is considered a **less than significant** impact.

While implementation of the General Plan does not, in and of itself, provide for the construction of any new development, it would change land use designations in areas thereby allowing future growth that may require additional and/or enlargement of infrastructure such as roadways and pipelines. Additionally, the General Plan identifies a circulation system that would require the construction of new roadways within the Planning Area. Construction of these roadways may be the impetus for the removal of some housing units and/or businesses, thereby displacing persons. However, such displacement is expected to be minor, given that roadway sizing and alignment set forth in the General Plan was designed to largely avoid impacts to existing development areas (see **Figure 3.0-19**).

Implementation of the General Plan would not, in and of itself, displace substantial numbers of housing units or people. State and federal law require due compensation for persons required to relocate as a result of redevelopment projects carried out by the City or any projects that use federal or state funding. Any private development that may occur would pay the fair market price for any land/housing acquired as a result of project development. Therefore, although displacement of persons or housing may result, due compensation offsets any cost related effects. Therefore, impacts related to a substantial displacement of housing units or people as a result of implementation of the General plan are **less than significant**.

Mitigation Measures

None required.

4.3.4 CUMULATIVE SETTING, IMPACTS AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative setting included in the Sacramento region includes El Dorado, Placer, and Sacramento, Sutter, Yolo and Yuba counties. SACOG is an association of local governments in the six-county Sacramento Region. Its members include the counties of El Dorado, Placer, and Sacramento, Sutter, Yolo and Yuba, as well as the 22 cities within those counties.

SACOG provides growth projections for the six county area to the year 2025 and are illustrated in **Table 4.3-13** below. As identified in the table, the Sacramento region is anticipated to 2,864,387 persons, 1,147,212 households, and 1,435,875 jobs by 2025.

TABLE 4.3-13
CUMULATIVE PROJECTIONS - 2025

County	Population	Households	Jobs
El Dorado	197,875	78,990	69,669
Placer	422,741	175,339	231,308
Sacramento	1,725,710	691,548	854,804
Sutter	137,108	52,830	48,135
Yolo	271,078	106,167	186,972
Yuba	109,875	42,338	44,987
Regional Total	2,864,387	1,147,212	1,435,875

Source: SACOG Projections

The City of Rancho Cordova is expected to experience a substantial amount of growth during the General Plan planning timeframe.

In addition to growth anticipated within the current city boundaries, the General Plan identifies a Planning Area. The Planning Area includes possible future City annexation areas. The Planning Area has a projected buildout of 126,241 housing units for a buildout population of 310,568 persons.

SACOG's Blueprint has projected population of 332,000 persons, 112,290 housing units, and 144,406 jobs for the region by the year 2050. While the area defined as the Rancho Cordova Community by SACOG does not precisely match the General Plan Planning Area, it is within range to approximate the SACOG anticipated growth for the area.

Using the 1990 Census information and 2000 as the base year, SACOG projects that housing within the Rancho Cordova Community will increase from 37,757 dwellings to 54,148 by 2020. Population within the area is projected to increase from 96,099 to 136,284 by 2020. And finally, employment within the area is projected to increase from 87,093 to 125,954 by 2020. The increase in these numbers is largely attributable to new development that would occur on lands east of Sunrise Boulevard and south of Highway 50.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Population and Housing Increases

Impact 4.3.3 Buildout in the planning area, under the proposed General Plan Land Use Map, would include substantial population, housing unit and employment increases. This is considered a **cumulatively considerable** impact.

Proposed development under the proposed General Plan Land Use Policy Map is slightly larger, in terms of residential units and jobs, and smaller, in terms of population, than the growth assumed in the Sacramento County General Plan, the Cordova Community Plan, and SACOG's *Sacramento Region Blueprint: Transportation/Land Use Study*. While SACOG's projections anticipate a total of 112,290 housing units in 2050, the City's Planning Area is projected to have 126,241 housing units at buildout (approximately 2050). Projected population is slightly less in the City's Planning Area under buildout conditions than the projected Blueprint population. Employment is much greater in the General Plan Planning Area buildout projections with 195,021 jobs compared to 144,406 jobs. See **Table 4.3-14.**

TABLE 4.3-14
CUMULATIVE PROJECTIONS

Land Uses	SACOG Blueprint Rancho Cordova Community	General Plan Planning Area
	2050	Buildout (2050)
Residential Units	112,290	126,241
Population	332,000	310,568
Employment	144,406	195,021

Source: SACOG Blueprint; City of Rancho Cordova

In the late 1990s, the Sacramento region added only one dwelling unit for every three new jobs. SACOG anticipates that if the current trend were continued, there would be a shortage of over 500,000 dwelling units in the County by 2050. The region has been matching job growth for the past couple of years, but ensuring the right amount and diversity of housing to meet future employment growth is essential to the region's and City of Rancho Cordova's future. Based on SACOG projections, the coming generations will shift in household type, average age and other housing related characteristics.

Sacramento County had an approximate population of 1,335,283 in 2005 and is projected to have approximately 1,695,498 people by 2025. The County had approximately 518,430 housing units in 2005 and is expected to add 143,574 by 2025 for a total of 662,004 units. Subsequently, large increases in employment are anticipated. There were approximately 633,584 jobs in the County in 2005 and an additional 180,636 new jobs are expected for a total of 814,220 jobs by 2025.

The impacts of population and housing growth in the region are both direct and indirect, and include the following:

- Aesthetics – Further conversion of rural, agricultural and natural open space landscape characteristics to urban conditions.

- Agricultural Resources – Continued loss of farmland to urban uses as well as increased conflicts with agricultural operations and urban uses.

- Air Quality – Increases in air pollutant emissions potentially conflicting with air quality attainment efforts under state and federal Clean Air Acts. Also increased potential for the exposure to toxic air contaminants.

- Biological Resources – Loss of special-status plant and animal species habitats, degradation of habitats and loss of special-status species.

- Cultural Resources – Impacts to known and unknown archaeological and historic resources in the region.

- Geology and Soils – Loss of access to known valuable mineral resources.

- Hydrology and Water Quality – Additional sources of point and non-point sources of surface water quality pollutants to region waterways. Further demand on groundwater resources and potential overdraft issues.

- Noise – Increased transportation noise levels from increased traffic volumes.

- Public Services and Utilities – Increased demand for the development and expansion of public services and facilities and associated environmental issues.

- Traffic – Increased traffic volumes on the region's highways and regional roadways resulting in deficient levels of service of operation.

These effects, associated with development under the General Plan, have been identified and considered within relevant sections of this document. However, it should be noted that the implementation of General Plan's growth strategy of increased development intensities to accommodate growth efficiently (in regards to the utilization of land area) would provide environmental benefits to the region by minimizing further conversion of land to urban uses (sprawl) based on current land use patterns of the region as promoted by the Blueprint. The Rancho Cordova General Plan includes policies and actions that serve to mitigate the impact of development and population growth and the related demand for jobs and a variety of housing types that accompany a larger population. However, these policies and actions do not restrict the growth in the area nor remove the potential environmental impacts due to a substantial population, housing and employment increase in the Planning Area, or the General Plan's contribution to the cumulative environmental effects noted above. Therefore, the General Plan's contribution to cumulative impacts is considered cumulatively considerable.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies are contained in the General Plan Housing Element and the Land Use Element, to ensure that proposed land uses associated with the General Plan provide for growth in the City that would have the least affect on the natural environment:

Policy H.1.2 *Maintain adequate sites that support a range of housing types appropriate for the city's housing needs, taking into account employment projections, household growth, and the City's share of regional housing needs.*

Policy H.1.5 *Promote higher density housing in close proximity to transit, employment, and appropriate services, such as transit-oriented development*

Policy H.2.2 *Provide neighborhood revitalization in existing areas through housing rehabilitation (owner- and renter-occupied units), and infill reuse/conversion.*

Action H.2.2.2 *Identify the most troubled multifamily projects (in terms of law enforcement, code enforcement, and blight conditions) and aggressively pursue the transformation or conversion of such properties into uses that move the community into a more balanced community.*

Policy H.2.4 *Develop and implement standards applicable to all infill and additions/renovations to existing residential projects aimed at improving the personal security of residents and maintaining the units.*

Policy H.2.5 *Pursue potential reuse and conversion opportunities for additional housing along Folsom Boulevard.*

Action H.2.5.1 *Rehabilitate old, underutilized, blighted, and/or vacant shopping centers on Folsom Boulevard to increase mixed-use and reuse in that corridor.*

Action H.2.5.2 *Identify opportunities in the Redevelopment Area for use of redevelopment tools and tax-increment funding that will improve the Folsom Boulevard corridor, specially targeting residential reuse of old motels along Folsom Boulevard.*

Policy H.2.6 *Ensure that existing housing stock within the City is maintained and remains habitable in order to assist in meeting the housing needs of the community.*

Policy H.2.7 *Preserve housing units at risk of losing affordability status.*

Policy H.3.2 *Work with interested individuals, non-profit housing corporations, and for-profit developers to acquire rental housing projects in need of rehabilitation, and transfer ownership, when necessary, to maintain the affordability of the units to low-income households.*

Policy H.4.1 *Ensure that neighborhoods are developed in a balanced, sustainable manner, avoiding over-concentration of affordable housing or over-sized rental complexes and providing a range of housing prices and rents.*

Policy H.6.2 *Encourage participation in SMUD's energy efficiency, photovoltaic, solar, and other comparable programs.*

Policy H.6.3 *Require all new development to provide bicycle and pedestrian access, thereby facilitating the reduction of automobile air quality impacts in the area.*

Policy LU.1.4 *Promote high quality, efficient, and cohesive land utilization that minimizes negative impacts (e.g., traffic congestion and visual blight) and environmental hazards (e.g. flood, soil instability) on adjacent neighborhoods and infrastructure and preserve existing and future residential neighborhoods from encroachment of incompatible activities and land uses. [Cross reference Economic Development, ED.2.6]*

Action LU.1.4.1 *Establish performance and development standards in the Zoning Code and guidelines in the Citywide Design Guidelines to address compability between*

existing and proposed development and within proposed mixed-use development (vertical and horizontal).

Policy LU.2.3 *Encourage the clustering of similar uses into areas or districts that have common needs and that are compatible with one another, in order to maximize their efficiency and identity for Rancho Cordova. Uses to consider clustering include the following:*

Performing Arts Center, local theaters, and studios;

- *Sports/recreation facilities (i.e. bowling alleys and major sports facilities);*
- *Hospitals and other care facilities;*
- *Youth activity centers;*
- *Amphitheatres; and*
- *Regional shopping opportunities.*

Policy LU.2.4 *Use Community Plans, Specific Plans, and development projects to promote pedestrian movement via direct, safe, and pleasant routes that connect destinations inside and outside the plan or project area.*

Policy LU.2.7 *Promote sustainable development that reduces the impact of projects on energy, water, and transportation systems. Encourage sustainable development to occur in ways that complement the built form.*

Action LU.2.7.1 *Develop and adopt energy conservation performance standards that apply to new construction and focus on cost-effective measures that exceed minimum federal and state requirements, in recognition and support of the Sacramento Municipal Utility District's "Conservation Power" goals.*

Action LU.2.7.2 *Create programs that educate developers and property owners about the advantages of "green design" on their property and within the City, and inform them on how they can incorporate such design elements into their projects. Develop incentives, such as grants, financing programs, or other mechanisms that help make "green design" realistic.*

Policy LU.4.1 *Improve the character and quality of existing development through the revitalization of blighted and underutilized development. [Cross reference Economic Development, ED.5 and ED.6]*

Mitigation Measures

Implementation of the above-noted General Plan policies and associated Action Items provide for the rehabilitation of existing housing units and/or the re-use of vacant businesses for housing. This would allow for the continuation of housing/buildings that may have been lost due to substandard conditions. The re-use/rehabilitation of these units would not require the development of vacant land and would therefore assist in reducing increased impacts to the environment from implementation of the proposed General Plan. These policies also provide for housing in close proximity to employment centers and or transit, therefore reducing the vehicle traffic and its associated air and noise impacts, as well as assist in the reduction of traffic, air and

noise impacts by providing for alternative transportation resources. General Plan policies help to reduce environmental impacts due to substantial growth by requiring energy and water efficient developments. All of these policies and actions would aid in the reduction of increased impacts to the environment. Nevertheless, implementation of the General Plan would allow for a substantial increase in population, housing units, and employment in the City and Planning Area, as illustrated in **Table 4.3-11** and **Table 4.3-12**, which would have a considerable impact on the surrounding environment regardless of the above listed policies and actions. Therefore, this impact is **cumulatively considerable** and a **significant and unavoidable** impact**.**

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California Department of Housing and Community Development. May 2000. *Raising the Roof, California Housing Development Projections and Constraints 1997-2020*. Sacramento, CA.

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4.4 – Hazards and Human Health

This section describes the existing environmental conditions of the General Plan Planning Area and identifies the methods used in analyzing the General Plan's potential to create hazards to the public health or the environment related to hazardous materials, substances, or waste and also identifies other potential hazards that may impact public safety. Appropriate mitigation measures are identified to reduce, lessen, or eliminate the General Plan's impacts. For impacts related to flood hazards, the reader is referred to Section 4.9, Hydrology and Water Quality. For impacts related to fire hazards, the reader is referred to Section 4.12, Public Services and Utilities.

4.4.1 EXISTING SETTING

HAZARDOUS MATERIALS DEFINED

Under Title 22 of the California Code of Regulations (CCR), the term hazardous substance refers to both hazardous materials and hazardous wastes and both are classified according to four properties: toxicity, ignitability, corrosiveness, and reactivity (CCR Title 22, Chapter 11, Article 3). A hazardous material is defined as a substance or combination of substances that may cause or significantly contribute to an increase in serious, irreversible, or incapacitating illness, or may pose a substantial presence or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed. Hazardous wastes are hazardous substances that no longer have practical use, such as materials that have been discarded, discharged, spilled, or contaminated or are being stored until they can be disposed of properly (CCR Title 22, Chapter 11, Article 2, Section 66261.10). Soil that is excavated from a site containing hazardous materials is a hazardous waste if it exceeds specific CCR Title 22 criteria. While hazardous substances are regulated by multiple agencies, as described below in Section 4.4.2, Regulatory Framework, cleanup requirements of hazardous wastes are determined on a case-by-case basis according to the agency with lead jurisdiction over the project.

Public health is potentially at risk whenever hazardous materials are, or will, be used. It is necessary to differentiate between the "hazard" of these materials and the acceptability of the "risk" they pose to human health and the environment. A hazard is any situation that has the potential to cause damage to human health and the environment. The risk to health and public safety is determined by the probability of exposure, in addition to the inherent toxicity of a material (California Department of Toxic Substances Control, http://www.dtsc.ca.gov/).

Factors that can influence the health effects when human beings are exposed to hazardous materials include: the dose the person is exposed to, the frequency of exposure, the duration of exposure, the exposure pathway (route by which a chemical enters a person's body), and the individual's unique biological susceptibility.

Transportation of Hazardous Materials

The transportation of hazardous materials within the General Plan Planning Area is subject to various federal, state, and local regulations, as described in Section 4.4.2, Regulatory Framework. According to the California Highway Patrol (CHP), US 50 and State Route 16 (Jackson Road) are the only approved transportation routes in the Planning Area for the transportation of explosives. It is illegal to transport explosives or inhalation hazards on any public highway not designated for that purpose, unless the use of the highway is required to permit delivery, or the loading of such materials (California Vehicle Code §§ 31602(b), 32104(a)).

The California Highway Patrol also designates through routes to be used for the transportation of inhalation hazards and may designate separate through routes for the transportation of

inhalation hazards composed of any chemical rocket propellant (California Vehicle Code, Section 32100 and Section 32102(b)). US 50 east to Prairie City Road is the only approved transportation route in the Planning Area for the transportation of poisonous inhalation hazards. These materials are highly toxic, spread rapidly, and require rapid and widespread evacuation if there is loss of containment or a fire. These inhalation hazards and poisonous gases are subject to additional safeguards.

There are no approved transportation routes within the Planning Area for the transportation of radioactive materials. However, Highway 80, located over 5 miles northwest of the Planning Area, has been approved for the transportation of radioactive materials, as well as explosives and poisonous inhalation hazards (CHP, pers. comm., 2006).

Light Rail Transit (LRT) service is provided from Downtown Sacramento along the US-50 corridor to the Sunrise Boulevard Station. For further discussion on light rail transportation, the reader is referred to Section 4.5, Transportation and Circulation. The Union Pacific Railway maintains a freight line that runs through the proposed Planning Area and is co-located with LRT, serving spurs between Sunrise Boulevard and Aerojet to the east. This railway line could potentially serve as transportation for hazardous materials. However, any such transportation would be required to remain in compliance with State and Federal laws for the transportation of hazardous materials on railroads.

HAZARDOUS MATERIAL AND WASTE SITES

The State of California Hazardous Waste and Substances Site List (also known as the "Cortese List") is a planning document used by state, local agencies, and developers to comply with the California Environmental Quality Act (CEQA) requirements in providing information about the location of hazardous materials sites. California Government Code Section 65962.5 requires the California Environmental Protection Agency (CAL-EPA) to annually update the Cortese List. The CAL-EPA Department of Toxic Substances Control (DTSC) is responsible for preparing a portion of the information that comprises the Cortese List. Other state and local government agencies are required to provide additional hazardous material release information that is part of the complete list. DTSC's Site Mitigation and Brownfields Reuse Program EnviroStor database provides DTSC's component of Cortese List data by identifying State Response and/or Federal Superfund and backlog sites listed under Health and Safety Code section 25356. In addition, DTSC's Cortese List includes Certified with Operation and Maintenance sites. Following is the DTSC Site Mitigation and Brownfields Reuse Program information for the Rancho Cordova General Plan Planning Area, also included in DTSC's component of the Cortese List and available in EnviroStor:

1) Aerojet General Corporation, Federal Superfund Site and Active

2) E & J Manufacturing, State Response and Certified

3) ESS Laboratory, State Response and Certified

4) Golden West Homes (GPM), State Response and Certified

5) Hazel Avenue Ponds, State Response and De-Listed

6) Mather Air Force Base, Federal Superfund Site and Active

7) McDonnell Douglas Inactive Test Site (also known as the Inactive Rancho Cordova Test Site or IRCTS), State Response and Active

8) Pittsburg Des Moines Steel, State Response

9) Purity Oil Sales- Delta Gunite, State Response and Active

10) Sunrise River Industrial Park, State Response and Certified

11) Village of Zinfandel, Voluntary Cleanup and No Further Action

Locations of the above active sites are illustrated in **Figure 4.4-1**, State and Federal Hazardous Waste Sites and Areas of Contamination within the General Plan Planning Area. Mather Air Force Base, Aerojet General Corporation facilities, as well as the IRCTS facilities are areas of primary concern within the Planning Area and thus discussed in greater detail below.

In addition to EnviroStor, the CAL-SITES Abandoned Sites Information System (ASPIS) database, compiled by CAL-EPA, can also be used to identify and track potential hazardous waste sites. In addition, the County of Sacramento's Department of Environmental Health maintains lists of hazardous material sites, releases, and accident occurrences. Both sources of information are regularly uploaded to the State's Geographic Environmental Information Management System (GEIMS) so that agencies and the general public can access information regarding a specific site. GEIMS, a data warehouse which tracks regulatory data regarding leaking underground fuel tanks (LUFTs), other contaminant release sites, water quality information, water use information, and infrastructure data, can be used to identify properties that are known or have had contaminant spills. GeoTracker, the interface to GEIMS, uses commercially available software to allow users to access data from GEIMS over the Internet. According to the GEIMS database, there are approximately 150 leaking underground fuel tanks (LUFTs) and 2 SLIC (Spills, Leaks, Investigations, and Clean-Up) sites within the Planning Area. **Figure 4.4-2** illustrates the locations of these contaminant sources. The GEIMS file is included in **Appendix 4.4.**

Mather Air Force Base

Mather Air Force Base (AFB), comprised of approximately 5,845 acres within the south-central portion of the Rancho Cordova General Plan Planning Area, was established in 1918. Starting in 1941, its primary mission was to train navigators to operate advanced navigation, bombing, missile and electronic warfare systems. The Air Force Base's industrial activities included vehicle, aircraft, and weapons maintenance. Mather Air Force Base was decommissioned by the federal government and officially closed in September 1993. At the time of decommission, the runways and associated facilities became Mather Airport.

A total of 89 potentially contaminated sites have been identified. These sites include: landfills, fire training areas, fuel spill areas, fuel storage areas, sewage treatment areas, firing ranges, drainage areas, and an area associated with the Air Force Base dry cleaning facility. Soil and groundwater are contaminated with volatile organic compounds (VOCs), including trichloroethylene (TCE) and tetrachloroethylene (PCE), and hydrocarbons associated with fuels.

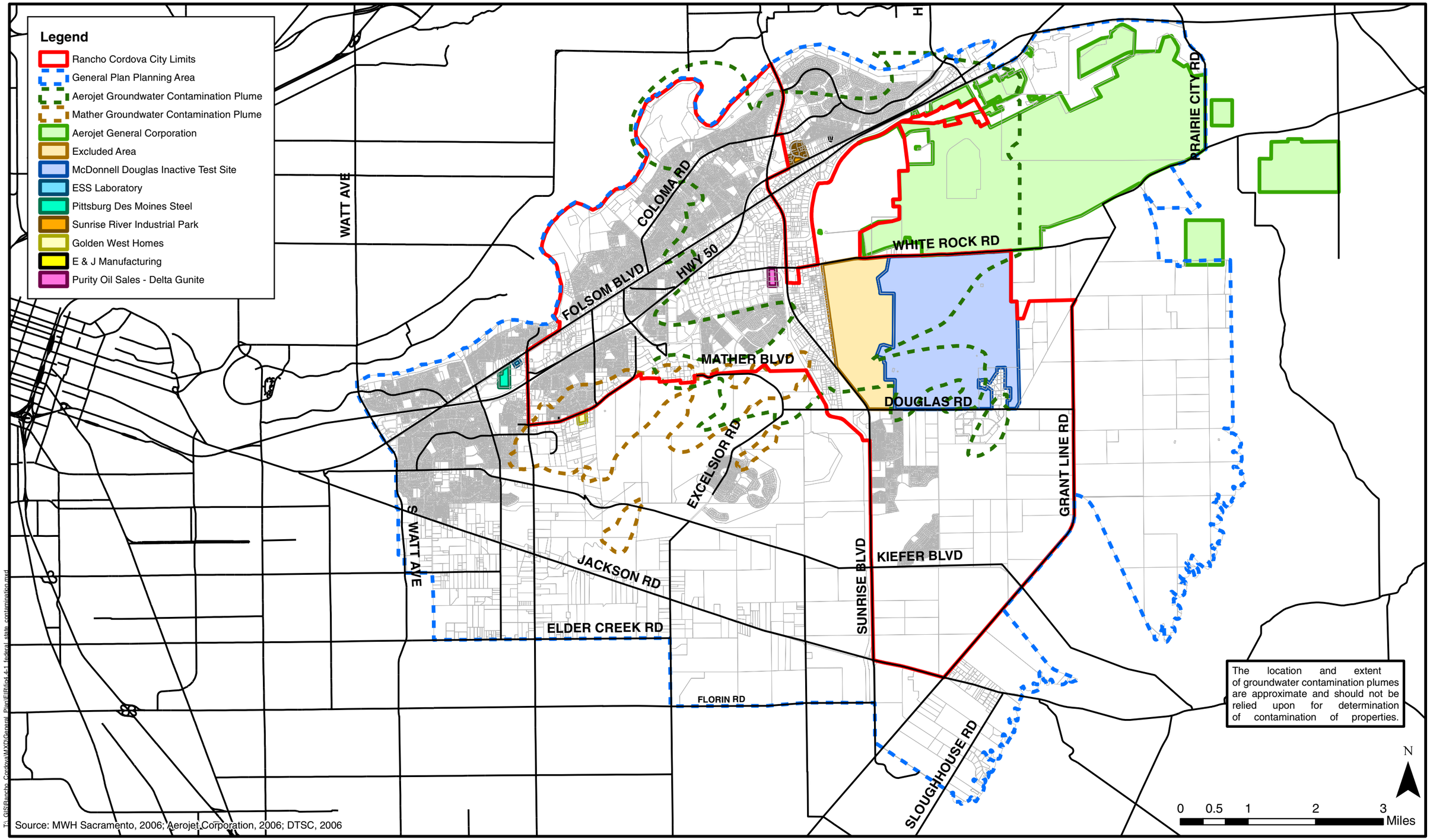
In October 1989, the U.S. Air Force, EPA and DTSC entered into a Federal Facilities Agreement (FFA) for Mather AFB. The FFA allows for state oversight at contaminated sites. Since the closure of Mather in 1993, approximately 1300 acres have been transferred under state oversight. The Agency for Toxic Substances and Disease Registry (ATSDR), an agency of the U.S. Department of Health and Human Services, concluded under the Comprehensive Environmental Response,

Compensation, and Liability Act (CERCLA), commonly known as "the Superfund Act", that the exposure situations at Mather Air Force Base pose no apparent public health hazards. Mather Air Force Base was divided into six Operable Units (OUs). The U.S. Air Force and community water suppliers have closed contaminated wells, installed treatment systems, and currently monitor active wells regularly. Regular monitoring includes collecting quarterly samples from on-base supply systems, off-base community supply systems, and private wells to the west and south and analyzing the samples for VOCs and/or perchlorate. The U.S. Air Force also connected homes and businesses with private wells on the west to the community water supply system. These measures are being used to prevent current and future exposures to contaminants that may pose potential public health hazards. In order to prevent current and future exposures to contaminants at levels of health concern in surface waters and sediment, the U.S. Air Force is completing remedial actions with oversight by the U.S. EPA and CAL-EPA (DTSC Report on Mather Air Force Base, http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=34970003).

Aerojet General Corporation Site

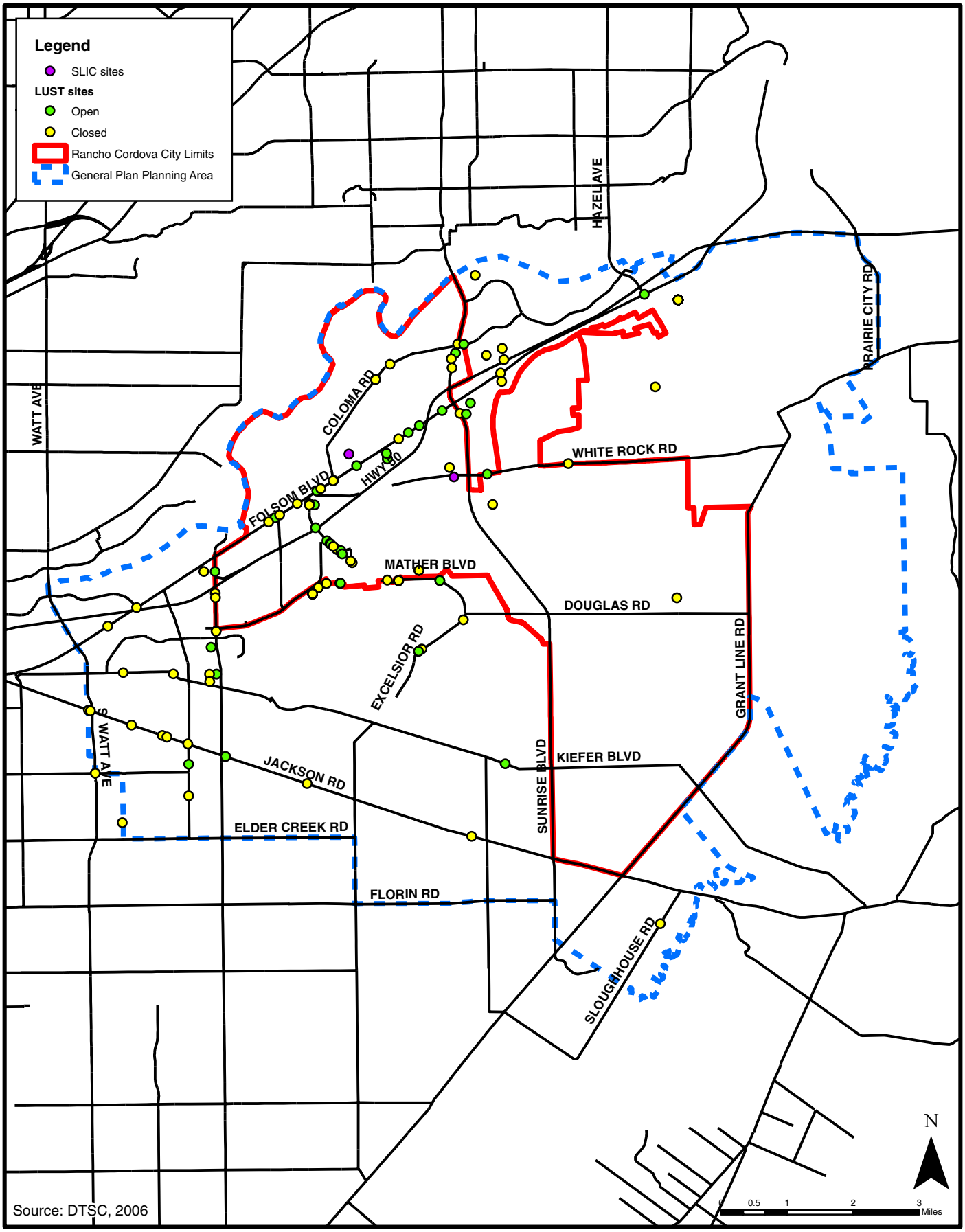
The Aerojet General Corporation site covers approximately 5,900 acres within the northeastern section of the Planning Area (see **Figure 4.4-1**). The northeastern edge of the site is about 1/2 mile from the American River. Since 1953, Aerojet and its subsidiaries have manufactured liquid and solid propellant rocket engines for military and commercial applications and have formulated a number of chemicals, including: rocket propellant agents, agricultural, pharmaceutical, and other industrial chemicals. In addition, the Cordova Chemical Company operated chemical manufacturing facilities on the Aerojet complex from 1974 to 1979. Both companies disposed of unknown quantities of hazardous waste chemicals, including TCE and other chemicals associated with rocket propellants, as well as various chemical processing wastes. Some wastes were disposed of in surface impoundments, landfills, deep injection wells, leachate fields, and some were disposed of by open burning. Underlying the site are extensive 40 to 100 foot-deep dredge tailings, a remnant of past gold mining operations (DTSC Report on Aerojet General Corporation, http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=34370002).

Environmental investigations at the site began in 1979. There is soil contamination, both onsite and in areas east of the site. Groundwater contamination has been defined in a number of discrete plumes that move out radially to the north, west, and south of the site. The site is fenced and access is controlled. The major contaminants found both onsite and offsite are solvents such as TCE and chloroform and rocket fuel by-products such as N-Nitrosodimethylamine (NDMA) and perchlorate. Contaminants at the site are present in a wide range of concentrations. Aerojet installed and is operating six groundwater extraction and treatment (GET) systems at the site boundaries to prevent further offsite migration. In addition, Aerojet has conducted a number of removal actions for onsite soils, liquids, and sludges. In 1989, Aerojet, EPA, the Regional Water Quality Control Board (RWQCB) and DTSC signed a Partial Consent Decree to complete a comprehensive Remedial Investigation/ Feasibility Study (RI/FS), maintain the current GET systems, and take any necessary removal actions. In July of 1998, the Partial Consent Decree was modified to include monitoring public water supplies for the chemical perchlorate, replacing water supplies impacted by perchlorate, annual updates to the monitoring plan for public water supplies, and reducing the discharge limit for N-nitrosodimethylamine at currently operating groundwater extraction and treatment facilities (DTSC Report on Aerojet General Corporation, http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=34370002).



City of Rancho Cordova
Planning Department

Figure 4.4-1
State and Federal Hazardous Waste Sites and Areas of Contamination
Within the General Plan Planning Area



Source: DTSC, 2006

T:_GIS\Rancho_Cordova\MXD\General_Plan\EIR\fig4.4-2_lust_and_slic_sites.mxd

City of Rancho Cordova
Planning Department

Figure 4.4-2
Leaking Underground Storage Tanks and SLIC Sites
Within the General Plan Planning Area

The Inactive Rancho Cordova Test Site and Excluded Area

The approximately 2,728 acres of land referred to as the Inactive Rancho Cordova Test Site (IRCTS), also known as the McDonnell Douglas Facilities, along with approximately 1,100 acres of land referred to as the "Excluded Area", are located between White Rock Road and Douglas Boulevard and between Sunrise Boulevard and west of Grant Line Road within the Rio del Oro Planning Area. Gold dredging activities took place over approximately 70% of the area from the early 1900s until 1962. During the later years, from 1940 to 1962, these operations were conducted by the Natomas Company. In 1956, Aerojet purchased the project site from the Natomas Company and leased half of it to the Douglas Aircraft Company (DAC). In 1961, DAC purchased the entire property from Aerojet and established a static rocket assembly and testing facility known as the Sacramento Test Center. DAC merged with the McDonnell Aircraft Corporation in 1967 to become the McDonnell Douglas Corporation (MDC). During this time, from approximately 1956 to 1972, the site was utilized for the assembly and testing of rocket systems and rocket components. The last static rocket test occurred in 1969. The site consisted of seven areas, six utilized as test areas and one area serving for engineering and administration (now known as "Security Park"). Several areas of contamination have been identified at the site, including: landfills, propellant burn areas, and a rice hull burn area. During the processes involved in cleaning tested materials and maintaining test areas, numerous solvents including chlorinated solvents, were utilized. Fuels utilized in testing included: RP-1, hydrazine, ammonium perchlorate, and liquid hydrogen/oxygen. Releases to soil, surface water, and groundwater of chlorinated solvents and fuels were detected during the Preliminary Endangerment Assessment (PEA).

The Sacramento Test Center was deactivated between 1972 and 1977, which included demolition of the test stand superstructures. In 1984, Aerojet reacquired the 3,828-acre property from MDC and used a small area for the discharge of treated groundwater. The total area actually used by MDC and Aerojet included less than 350 acres of the 3,828-acre property. More than 90% of the 3,828-acre site served as a passive buffer on which no operations took place.

In 1979, TCE and other VOCs were detected in the groundwater on and surrounding the Aerojet National Priorities List (NPL) Site north of the IRCTS and north of White Rock Road, outside of the Rio del Oro Planning Area. Investigations indicated that part of the contaminant plume was migrating southwest toward the IRCTS. In addition, soil at the IRCTS has been shown to be contaminated with TCE, freon, methylene chloride, kerosene, perchlorate, dioxins and furans, lead, and other metals.

In November 1991, DTSC issued an Imminent and Substantial Endangerment Order (ISEO) to Aerojet and MDC to address the issue of TCE in a well located west of the IRCTS. Issuance of the ISEO established the IRCTS as a State Superfund site. Under the ISEO, MDC is responsible for evaluating the potential release of hazardous substances at the IRCTS due to MDC historical activities; and Aerojet is responsible due to its ownership of the property. Under the provisions of the 1989 Partial Consent Decree (PCD) between Aerojet, the U.S. EPA, and state regulatory agencies, Aerojet is required to address the potential release of hazardous substances at all areas where Aerojet conducted operations.

In 1994, a second ISEO was negotiated with the DTSC that superseded the 1991 ISEO. In June 1997, the Central Valley Regional Water Quality Control Board (CVRWQCB) issued Cleanup and Abatement Order (CAO) No. 97-093 to Aerojet and MDC for the investigation of perchlorate in groundwater beneath and downgradient of the IRCTS. In addition, the Abatement Order

requires implementation of corrective action for the perchlorate plume, and monthly sampling of municipal water supply wells at Mather Field for perchlorate analysis.

Since 1997, the Boeing Company purchased the McDonnell Douglas Corporation and has since become responsible for completing MDC's portion of the remedial action work. Aerojet and Boeing have constructed numerous monitoring wells throughout the Rio del Oro Planning Area, within roadways west of Rio del Oro, on private land south of Rio del Oro, and throughout the eastern half of Mather Field. In 2000, the RWQCB revised the original CAO to implement the recommendations for remedial action as a result of the ongoing investigation of Mather Field. Aerojet and Boeing are required to monitor select municipal wells on a quarterly basis, and to provide replacement water for affected wells.

To structure the study of soil and groundwater within the IRCTS, Aerojet and MDC divided the IRCTS into sub-areas that are identified as Operable Units (OUs). The OU designations define each study area boundary for the purpose of investigating the presence of chemical contaminants. Soil investigations at each of the Operable Units include the collection of soil, soil vapor, and/or sediment samples. The samples are analyzed for: VOCs, metals, hydrazine, NDMA, polychlorinated biphenyls (PCBs), perchlorate, and/or kerosene. For specific information regarding the IRCTS Operable Units, the reader is referred to the Rio del Oro Specific Plan Project Draft Environmental Impact Report/ Draft Environmental Impact Statement, available at the City of Rancho Cordova located at 2729 Prospect Park Drive, Rancho Cordova, California 95670. Since the identification of these Operable Units, one report has been submitted recognizing two new problem areas located on the west side of the By-Dry Operable Unit that consist of burn residuals in soil samples, including heavy metals. Remediation plans for these two new areas are planned for the summer of 2006 (pers. comm., Fricke, 2006).

The Excluded Area, which served as a buffer zone and was not used for aerospace testing or other industrial activities, encompasses approximately 1,100 acres immediately west of the IRCTS. Aerojet completed an extensive study of the Excluded Area in search of evidence that historic aerospace/industrial activities (post gold mining via dredging) may have resulted in chemical contaminants being released to soil within the area. Findings from the study concluded that the Excluded Area did not contain sources of chemical contamination as a result of aerospace/industrial activities. However, evidence of trash from illegal dumping activities (trash and junk cars), empty drums, and oily/tarry soils were encountered at various locations around the perimeter of readily accessible dredge tailings and at a former ranch site. The oily soils were located at the ranch site and contained diesel fuel and motor oil and trace amounts of polychlorinated biphenyls (PCBs). The tarry soils were located along Sunrise Boulevard. Following cleanup activities that included removal of the contaminated soil, trash, junk cars, and drums, DTSC issued a determination in 1997 to redefine the IRCTS to remove the 1,100-acre Excluded Area from the 1994 ISEO. The Excluded Area was purchased by Elliott Homes, Inc. in 2001.

Although the soils beneath the Excluded Area are considered clean, groundwater beneath the Excluded Area, which is between 100 and 150 feet below the ground surface, is contaminated primarily with VOCs (primarily TCE), and perchlorate. To address DTSC concerns about the contaminated groundwater, Aerojet reserved all rights to water lying below the surface of the Excluded Area and granted easements to Aerojet and DTSC for the installation of monitoring wells, extraction wells, and pipelines in order to address the remediation of the contaminated groundwater. These deed restrictions prohibit use of this groundwater for potable or irrigation water supply wells without DTSC approval.

GROUNDWATER REMEDIATION

In November 2000, the EPA proposed a plan to clean up the plume of groundwater contamination to the west of the Aerojet property and to ensure continued safe water supplies for area residents. The EPA signed a Record of Decision in July 2001 to formally approve the cleanup plan for the former Aerojet site, called the Western Groundwater Operable Unit. Part of the cleanup plan includes both short- and long-term contingency planning for drinking water supply wells. Aerojet has installed wells, pipelines, and in treatment systems for the first phase of this effort. In June 2003, Aerojet sampled groundwater at Rossmoor Bar Park at the known edge of the contamination plume, to investigate a potential site for a new drinking water well to replace wells already lost to contamination in the Western Groundwater area. Analysis revealed that the groundwater is contaminated with NDMA, trichloroethane or TCE, and perchlorate. Further sampling of existing wells showed that that the NDMA plume extends northwest underneath the American River and below the southern edge of Carmichael. Historical research indicates that the source of this contamination plume may be from past discharge via Buffalo Creek into former sand-mining pits just south of the American River.

In an effort to contain the contamination plume, MDC is constructing a Groundwater Treatment and Extraction (GET) system consisting of wells and conveyance pipelines to pump groundwater from the leading edge of the contamination plume to a central treatment plant. The ultimate discharge locations of the treated groundwater are currently being evaluated. In accordance with RWQCB requirements, Aerojet has submitted an Operation, Maintenance, and Monitoring Plan for the GET system to the City of Rancho Cordova for review. The proposed project includes sixteen groundwater monitoring wells and two groundwater extraction wells, which are part of the GET system. The on-site monitoring and extraction wells will convey the contaminated water to the main treatment plant, which will be located off of Sunrise Boulevard, east of the Folsom South Canal. The EPA has also directed Aerojet to install monitoring wells and treat the contamination plume that exists in Carmichael, north of the American River. The main treatment facility is anticipated to treat approximately 6,000 gallons per minute of contaminated groundwater. The reader is referred to Section 4.9 (Hydrology and Water Quality) regarding the proposed Eastern County Replacement Water Supply Project that would utilize remediated water.

RESIDUAL AGRICULTURAL CHEMICALS

Portions of the Planning Area, generally in the southeastern portion, have been used for dry farming and livestock grazing. Persistent residual chemicals are not typically associated with these types of agricultural activities as irrigated pasture and natural grasses typically require little to no application of pesticides. However, persistent residual chemicals may be present at differing levels within the Planning Area, including over-the-counter insecticides and herbicides as well as chemicals that were banned years ago.

Orchards, especially, are often associated with the repeated application of herbicides and/or pesticides to fruit or nut trees. Various fruit orchard operations that were once located within the Planning Area may have used residual agricultural related chemicals, potentially affecting the on-site soils. The two fruit orchards of most concern are located north of Douglas Road, within the Sunrise Douglas Community Plan area.

Waterways within the Planning Area that are included on the RWQCB 303(d) list of Impaired Waterbodies are due to concerns over the pollutants diazinon and chlorpyrifos, both of which are insecticides used to control pests on crops as well as individual home use.

Diazinon is a nonsystemic organophosphate insecticide classified as a Restricted Use Pesticide (RUP) and is for professional pest control operator use only. In 1988, EPA canceled registration of diazinon for use on golf courses and sod farms because of die offs of birds that often congregated in these areas. Diazinon is used to control cockroaches, silverfish, ants, and fleas in residential, non-food buildings. Bait is used to control scavenger yellow jackets in the western U.S. It is used on home gardens and farms to control a wide variety of sucking and leaf eating insects. It is also used on rice, fruit trees, sugarcane, corn, tobacco, potatoes and on horticultural plants and used as an ingredient in pest strips. Diazinon may be found in formulations with a variety of other pesticides, including pyrethrins, lindane, and disulfoton. Birds are significantly more susceptible to diazinon poisoning than other wildlife and it is highly toxic to fish and to bees. Diazinon has a low persistence in soil. Diazinon seldom migrates below the top half inch in soil, but in some instances it may contaminate groundwater. Diazinon is absorbed by plant roots when applied to the soil and translocated to other parts of the plant.

Chlorpyrifos is a broad-spectrum organophosphate insecticide classified as a General Use Pesticide. While originally used primarily to kill mosquitoes, it is no longer registered for this use. Chlorpyrifos is effective in controlling cutworms, corn rootworms, cockroaches, grubs, flea beetles, flies, termites, fire ants, and lice. It is used as an insecticide on grain, cotton, field, fruit, nut and vegetable crops, and well as on lawns and ornamental plants. It is also registered for direct use on sheep and turkeys, for horse site treatment, dog kennels, domestic dwellings, farm buildings, storage bins, and commercial establishments. Chlorpyrifos acts on pests primarily as a contact poison, with some action as a stomach poison. Chlorpyrifos is moderately to very highly toxic to birds and highly toxic to freshwater fish, aquatic invertebrates, and estuarine and marine organisms. Due to its high acute toxicity and its persistence in sediments, chlorpyrifos may represent a hazard to smaller organisms. Aquatic and general agricultural uses of chlorpyrifos pose a serious hazard to wildlife and honeybees.

Additional persistent chemicals that may be found within the Planning Area include toxaphene and lead arsenate. Toxaphene is an insecticide containing over 670 chemicals, also known as camphechlor, chlorocamphene, polychlorocamphene, or chlorinated camphene. It is usually found as a solid or gas, and in its original form is a yellow to amber waxy solid that smells like turpentine. Toxaphene was one of the most heavily used insecticides in the United States until 1982, when it was canceled for most uses; all uses were banned in 1990. Toxaphene was used primarily to control insect pests on cotton and other crops. It was also used to control insect pests on livestock and to kill unwanted fish in lakes.

Lead arsenate is a form of inorganic arsenic (22% arsenic) that normally exists as white crystals with no discernible odor. Associated with row crops and orchards, lead arsenate is currently used as a growth regulator on 17% of the U.S. grapefruit crop and 10,000 pounds of lead arsenate are used annually to control cockroaches, silverfish and crickets, according to the Environmental Protection Agency. Frequent applications of lead arsenate, at increasing rates over time, eventually caused lead and arsenic to accumulate in the topsoil.

NATURALLY OCCURRING ASBESTOS AND ASBESTOS CONTAINING MATERIALS

Asbestiform minerals are found in many geologic settings worldwide, and adverse health effects are attributable to them in a wide variety of circumstances. Asbestiform minerals are generally associated with the metamorphism of ultramafic rocks, but the various asbestiform minerals can be found in association with a wide variety of geological environments, including sedimentary and igneous. According to the California Geological Survey's Mineral Hazards Mapping Program, and given the geological conditions of the Planning Area, the issue of naturally occurring asbestos is not expected to be an issue of concern. The reader is referred to Section

4.8, Geology and Soils, for further discussion of the geologic and soils conditions within the Planning Area.

Although still in legal production, the Clean Air Act (CAA) requires EPA to develop and enforce regulations to protect the general public from exposure to airborne contaminants that are known to be hazardous to human health. In accordance with Section 112 of the CAA, EPA established National Emission Standards for Hazardous Air Pollutants (NESHAP). Asbestos was one of the first hazardous air pollutants regulated under Section 112. The Asbestos NESHAP is intended to minimize the release of asbestos fibers during activities involving the handling of asbestos. Accordingly, it specifies removal of asbestos and work practices to be followed prior to renovations and demolitions of buildings that contain a certain threshold amount of friable asbestos. The Asbestos NESHAP also regulates asbestos waste handling and disposal.

More than likely, there are several structures within the General Plan Planning Area that contain asbestos and asbestos containing building materials. IRCTS facilities, discussed previously, contain numerous concrete, steel, and wood structures that supported the historic rocket testing and assembly activities. These structures were constructed at a time when asbestos containing materials and lead-based paints were used.

The presence of asbestos containing materials in existing buildings poses a threat due to inhalation only if the material is found to be in a friable state. Emissions of asbestos fiber to the ambient air, which can occur during activities such as renovation or demolition of structures made with asbestos containing materials (such as insulation), are regulated in accordance with Section 112 of the Federal Clean Air Act. According to EPA's National Emission Standard for Hazardous Air Pollutants for Asbestos and according to the Sacramento Metropolitan Air Quality Management District (SMAQMD) Rule 902, individual asbestos abatement surveys and appropriate removal and disposal are required for most renovation projects.

Lead Based Materials

Lead is a highly toxic metal that was used for many years in products found in and around homes, including paint and fuels. Although lead-based paints were phased out of production in the early 1970s, exposure to lead from older vintage paint is possible, when the paint is in poor condition, or during paint removal. Workers are exposed to airborne lead during construction, demolition, renovation, and site preparation activities. Children under the age of six are most at risk, the primary sources of lead exposure for most children being deteriorating lead-based paint, lead-contaminated dust, and residential soils containing lead. Lead has been linked to a wide range of health effects, from behavioral problems and learning disabilities, to seizures and death.

The proper handling and disposal of lead based materials can significantly reduce potential safety and health related impacts. The presence of lead based paint and other lead containing building materials in the Planning Area is considered high. Aerially deposited lead, primarily due to vehicle and aircraft emissions, may also be present along major roadways, unpaved areas, and formerly unpaved areas. One major concern for aerially deposited lead within the Planning Area is along US 50, where there are substantial amounts of traffic.

Demolition of structures containing lead-based paint requires specific remediation activities regulated by federal, state, and local laws.

Radon

Radon isotope-22 is a colorless, odorless, tasteless radioactive gas that is a natural decay product of uranium. Uranium and radon are present in varying amounts in rocks and soil, and radon is present in background concentrations in the atmosphere. Current evidence indicates that increased lung cancer risk is directly related to radon-decay products. Radon potential of rocks and soils and indoor radon exposure levels in the United States are currently areas of intense research by governmental regulators as well as the geoscience and medical communities. At this time, the EPA has recommended an "action" level for indoor radon concentrations at or exceeding 4 pico-curies per liter of air (pCi/l). The EPA has extrapolated a one percent to three percent lung cancer mortality rate due to a lifetime exposure at 4 pCi/l; that is, one to three persons per 100 exposed to this concentration for life will die of lung cancer induced by radon.

The California Statewide Radon Survey Interim Results, based on the EPA/State Department of Health Services State Radon Survey, predicts that only 3.6 percent of homes in Sacramento County would exceed the EPA's recommended level of 4 pCi/l. Of the 33 states participating in the study, California ranks as the third lowest for percentage of homes exceeding 4 pCi/l. Specific indoor radon information is not available as the presence of radon can only be obtained through a sampling and testing program for existing or future buildings. Based on the soil composition and topography of the Planning Area, however, the potential for radon concentrations exceeding 4 pCi/l is estimated to be very low.

Electrical Facilities and Electromagnetic Fields

Pacific Gas and Electric Company and the Sacramento Metropolitan Utility District (SMUD) own and operate the existing electrical facilities within the Planning Area. However, SMUD is the exclusive electrical service provider to the City of Rancho Cordova and will be providing service to the entire Planning Area.

There are several 12-kilovolt (kV) and 69 kV transmission lines throughout the Planning Area, but only two 230 kV lines that pass through the southeastern portion of the Planning Area. The majority of the 230-kV transmission corridor runs diagonally through the Sunrise Douglas Community Plan area. One of the lines is owned and maintained by SMUD, while the other is owned and maintained by PG&E. These transmission lines are located within a 350-foot wide easement corridor. Land use restrictions within this easement include the prohibition against buildings and structures, swimming pools, wells, or other bodies of water, height limitations for lighting and landscaping, and minimum ground to conductor clearances.

Electromagnetic Fields (EMF) are invisible lines of force surrounding any electrical wire or device. They consist of two components — the electric field, which is the result of voltage, and the magnetic field, which is the result of current flow. Ordinary every day use of electricity produces magnetic and electric fields. These 60 Hertz fields (fields that go back and forth 60 times a second) are associated with electrical appliances, power lines, and wiring in buildings. EMF health and safety issues from power lines are preempted by the Public Utilities Commission and therefore typically not addressed in General Plans. Although a point of concern, the evidence that electromagnetic fields from high voltage power lines can be hazardous to human health is not quantifiable and remains unresolved. Federal agencies working on establishing limits and health standards related to EMF include the following: National Institute for Occupational Safety and Health, Environmental Protection Agency, Federal Communications Commission, Occupational Safety and Health Administration, National Telecommunications and Information Administration, and the National Institutes of Health.

PCB Transformers

In 1976, the United States Congress enacted the Toxic Substances Control Act (TSCA), which gave the U.S. EPA the ability to track all industrial chemicals imported into and used in the U.S. The EPA repeatedly screens these chemicals and can require reporting or testing of chemicals that may pose an environmental or human health hazard. The EPA can ban the manufacture and import of those chemicals that pose an unreasonable risk. The TSCA directed the EPA to ban the manufacture of polychlorinated biphenyls (PCBs) and regulated their use and disposal. The EPA accomplished this by the issuance of regulation in 1978. Primary sources of PCBs include flourescent light ballast and electrical transformers. The Environmental Protection Agency (EPA) maintains the PCB Activity Database (PADS) that identifies generators, transporters, commercial storers, and brokers and disposers of PCBs. Electrical facilities developed after 1979 are unlikely to be associated with PCB-containing transformers. The actual levels of PCBs in specific equipment can only be confirmed by sampling and analysis of the mineral oil coolant within the actual pieces of equipment under consideration. The Planning Area may have transformers with PCBs; however, SMUD is responsible for all transformers within its service area boundaries and is subject to EPA regulations regarding PCB transformers. The Sacramento Metropolitan Utility District is required to notify EPA of any activities or incidences involving PCBs. In addition, SMUD routinely identifies and replaces all leaking transformers and transformers containing PCBs within its service area boundaries.

Buried Natural Gas Pipelines

The Pacific Gas and Electric Company (PG&E) provides natural gas service to the City of Rancho Cordova and will provide service to the entire Planning Area. PG&E owns and operates an 8-inch feeder line natural gas main that is located in the frontage of Sunrise Boulevard and runs throughout the Planning Area. This feeder main is currently operating at 60 pounds per square inch (psi); however, this line is intended to be a future high pressure main to serve the projected growth in the southeastern portion of the Planning Area. There have been no reported leaks, ruptures, or other problems associated with the existing feeder line and this section of buried pipeline has not been identified on any of the regulatory agency database searches as a source of contamination, hazardous materials release, or accident site. PG&E has indicated that extensive system modifications, improvements, and upgrades will be required to serve the estimated demand from development associated with the General Plan. New natural gas facilities are generally located in previously disturbed rights-of-way; therefore, no additional environmental effects are expected beyond specific site development improvements. For further information regarding natural gas facilities, the reader is referred to Section 4.12, Utilities and Public Services.

Airport Operations Hazards

Mather Airport is a full-service Fixed Base Operator (FBO) with a 24-hour air traffic control and one of the longest runways in California, at 11,300 feet long. Additionally, over 200 acres of land are available for new construction at Mather Airport. Airport-related hazards are generally associated with aircraft accidents, particularly during takeoffs and landings. Airport operation hazards include: incompatible land uses, power transmission lines, wildlife hazards (e.g., bird strikes), and tall structures that penetrate the imaginary surfaces surrounding an airport. The term "imaginary surfaces", established by Federal Aviation Administration regulations (14 Code Fed. Regs., part 77) refers to heights above which any object or structure is considered by the FAA to constitute a hazard to aircraft navigation, and thus a hazard to both aircraft and people and structures on the ground. Portions of the Planning Area, specifically the Downtown Planning Area, require mandated height restrictions as they lie within the imaginary surfaces of Mather

Airport. The reader is referred to Section 4.1, Land Use, for further discussion on height restrictions within the Planning Area, including the Downtown Planning Area.

Natural Hazards

For a discussion on flood hazards, the reader is referred to Section 4.8, Hydrology and Water Quality. For a discussion on fire hazards, the reader is referred to Section 4.12, Utilities and Public Services.

4.4.2 REGULATORY FRAMEWORK

Although numerous federal, state, and local laws and regulations pertaining to hazardous waste management are applicable to remedial activities, conformance with these laws and regulations is addressed through separate environmental review and regulatory oversight specifically associated with the remedial projects. These activities are separate actions that are not part of the proposed Rancho Cordova General Plan. Federal, state, and local laws and regulations that would apply to construction and operational activities within the Planning Area are included in **Table 4.4-1** and discussed further below.

TABLE 4.4-1
REGULATORY AGENCIES FOR HAZARDOUS MATERIALS

Federal Agencies	
Regulatory Agency	**Authority**
Department of Transportation (DOT)	Hazardous Materials Transportation Act - Code of Federal Regulations (CFR) 49
Environmental Protection Agency (EPA)	Federal Water Pollution Control Act Clean Air Act Resource Conservation and Recovery Act (RCRA) Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Superfund Amendments and Reauthorization Act (SARA) Federal Insecticide, Fungicide and Rodenticide Act Toxic Substances Control Act (TSCA)
National Institute of Health	Guidelines for Carcinogens and Biohazards
Occupational Safety and Health Administration (OSHA)	Occupational Safety and Health Act and CFR 29
State Agencies	
Regulatory Agency	**Authority**
Department of Toxic Substances Control (DTSC)	California Code of Regulations
Department of Industrial Relations (CAL-OSHA)	California Occupational Safety and Health Act, CCR Title 8
State Water Resources Control Board and Regional Water Quality Control Board	Porter-Cologne Water Quality Act Underground Storage Tank Law
Health and Welfare Agency	Safe Drinking Water and Toxic Enforcement Act
Air Resources Board and Air Pollution Control District	Air Resources Act
Office of Emergency Services	Hazardous Materials Release Response Plans/Inventory Law

Federal Agencies	
Department of Fish and Game	Fish and Game Code
Department of Food and Agriculture	Food and Agriculture Code
State Fire Marshall	Uniform Fire Code, CR Title 19
County Agencies	
Regulatory Agency	**Authority**
Sacramento County Environmental Management Department	CCR Title 22 Hazardous Waste Control Law Hazardous Materials Release Response Plans/Inventory Law Acutely Hazardous Materials Law Underground Storage Tanks Law

FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS

Hazardous Materials Handling

At the federal level, the principal agency regulating the generation, transport, and disposal of hazardous substances is EPA, under the authority of the Resource Conservation and Recovery Act (RCRA). The RCRA established an all-encompassing federal regulatory program for hazardous substances that is administered by EPA. Under the RCRA, EPA regulates the generation, transportation, treatment, storage, and disposal of hazardous substances. The RCRA was amended in 1984 by the Hazardous and Solid Waste Amendments of 1984 (HSWA), which specifically prohibits the use of certain techniques for the disposal of various hazardous substances. The Federal Emergency Planning and Community Right to Know Act of 1986 imposes hazardous materials planning requirements to help protect local communities in the event of accidental release. The EPA has delegated much of the RCRA requirements to the DTSC.

Hazardous Materials Releases

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, was enacted by Congress on December 11, 1980 (U.S. Code, Title 42). This law created a tax on the chemical and petroleum industries and provided broad Federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. Over five years, $1.6 billion was collected and the tax went to a trust fund for cleaning up abandoned or uncontrolled hazardous waste sites. CERCLA established prohibitions and requirements concerning closed and abandoned hazardous waste sites; provided for liability of persons responsible for releases of hazardous waste at these sites; and established a trust fund to provide for cleanup when no responsible party could be identified. The law authorizes two kinds of response actions: 1) short-term removals, where actions may be taken to address releases or threatened releases requiring prompt response; and 2) long-term remedial response actions that permanently and significantly reduce the dangers associated with releases or threats of releases of hazardous substances that are serious, but not immediately life threatening. These actions can be conducted only at sites listed on EPA's National Priorities List (NPL). CERCLA also enabled the revision of the National Contingency Plan (NCP). The NCP provided the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants.

CERCLA was amended by the Superfund Amendments and Reauthorization Act (SARA) on October 17, 1986.

CERCLA created the Superfund Program in order to clean up uncontrolled or abandoned hazardous-waste sites and to respond to accidents, spills, and other emergency releases of pollutants and contaminants. Section 101 of CERCLA defines a list of hazardous chemicals for which the U.S. EPA must establish regulations. Releases of CERCLA hazardous substances in amounts greater than their "reportable quantity" must be reported to the National Response Center and to state and local government officials. Hazardous substances identified in CERCLA include all chemicals on the following regulatory lists: Clean Air Act list of hazardous air pollutants (HAPs); Clean Water Act list of hazardous substances and priority pollutants; Solid Waste Disposal Act list of hazardous wastes; and Toxic Substances Control Act list of imminent hazards.

Worker Safety Requirements

The U.S. Department of Labor Occupational Safety & Health Administration (OSHA) is responsible at the federal level for ensuring worker safety. OSHA sets federal standards for implementation of workplace training, exposure limits, and safety procedures for the handling of hazardous substances (as well as other hazards). OSHA also establishes criteria by which each state can implement its own health and safety program.

Federal Aviation Regulations

The Code of Federal Regulations, Title 14, Volume 2 revised as of January 1, 2004 (14CFR77.1) pertains to aeronautics and space. Chapter 1 specifically includes the Federal Aviation Administration regulations and Part 77 (Federal Aviation Regulation or FAR Part 77) pertains to objects affecting navigable airspace. FAR Part 77 establishes standards for determining obstructions in navigable airspace; sets forth the requirements for notice to the Administrator of certain proposed construction or alteration; provides for aeronautical studies of obstructions to air navigation in order to determine their effect on the safe and efficient use of airspace; provides for public hearings on the hazardous effects of proposed construction or alteration on air navigation; and provides for the establishment of antenna farm areas.

STATE PLANS, POLICIES, REGULATIONS, AND LAWS

Hazardous Materials Handling

The California Hazardous Materials Release Response Plans and Inventory Law of 1985 (Business Plan Act) requires preparation of Hazardous Materials Business Plans and disclosure of hazardous materials inventories. A Business Plan includes an inventory of hazardous materials handled, facility floor plans showing where hazardous materials are stored, an emergency response plan, and provisions for employee training in safety and emergency response procedures (California Health and Safety Code, Division 20, Chapter 6.95, Article 1). Statewide, DTSC has primary regulatory responsibility for management of hazardous materials, with delegation of authority to local jurisdictions that enter into agreements with the state. Local agencies, including the Sacramento County Department of Environmental Management and the City of Rancho Cordova, administer these laws and regulations.

Worker Safety Requirements

The California Occupational Safety and Health Administration (Cal-OSHA) assumes primary responsibility for developing and enforcing workplace safety regulations within California. Cal-OSHA regulations pertaining to the use of hazardous materials in the workplace, as detailed in CCR Title 8, include requirements for safety training, availability of safety equipment, accident and illness prevention programs, hazardous substance exposure warnings, and emergency action and fire prevention plan preparation. Cal-OSHA enforces hazard communication program regulations that contain training and information requirements, including procedures for identifying and labeling hazardous substances, communicating hazard information related to hazardous substances and their handling, and preparation of health and safety plans to protect workers and employees at hazardous waste sites. The hazard communication program requires that Material Safety Data Sheets (MSDS) be available to employees and that employee information and training programs be documented.

Emergency Response to Hazardous Materials Incidents

California has developed an Emergency Response Plan to coordinate emergency services provided by federal, state, and local government and private agencies. Response to hazardous materials incidents is one part of this plan. The plan is managed by the State Office of Emergency Services (OES), which coordinates the responses of other agencies including the Cal-EPA, the California Highway Patrol (CHP), California Department of Fish and Game, Central Valley RWQCB, Sacramento County Sheriff's Department, and the City of Rancho Cordova Police and Fire Departments.

Hazardous Materials Transport

The U.S. Department of Transportation regulates hazardous materials transportation between states. State agencies with primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol (CHP) and the California Department of Transportation (Caltrans). Together, these agencies determine container types used and license hazardous waste haulers for hazardous waste transportation on public roads.

It is illegal to transport explosives or inhalation hazards on any public highway not designated for that purpose, unless the use of the highway is required to permit delivery, or the loading, of such materials (Cal. Vehicle Code §§ 31602(b), 32104(a)). When transporting explosives through or into a city for which a route has not been designated by the Highway Patrol, drivers must follow routes as may be prescribed or established by local authorities (California Vehicle Code, Section 31614(a)). The transportation of explosives in quantities of 1,000 pounds or less, or other than on a public highway, is subject to the California Health and Safety Code (California Vehicle Code, Section 31601(a)).

REGIONAL AND LOCAL PLANS, POLICIES, REGULATIONS, AND LAWS

Regulatory Authority for Remedial Activities at the IRCTS and Excluded Area

Under the 1994 ISEO issued to Aerojet and MDC, the DTSC and Central Valley RWQCB have regulatory authority over studies to determine the character and extent of chemicals that are found to originate in soil and groundwater beneath the IRCTS. Under the 1997 CAO (revised 2000), the Central Valley RWQCB has regulatory authority over the occurrence of perchlorate beneath the IRCTS and on the off-site migration of perchlorate. In addition, the EPA, DTSC, and Central Valley RWQCB have regulatory authority over chemicals that originate from the Aerojet

NPL Site and have migrated into groundwater beneath the IRCTS. Other agencies with regulatory authority include the Sacramento Metropolitan Air Quality Management District for emissions into the atmosphere and the Sacramento County Environmental Management Department for well construction permits and hazardous materials plans.

In 1991, DTSC issued an Imminent and Substantial Endangerment and Remedial Action Order to Aerojet and MDC that required them to perform activities necessary to investigate and remediate contamination present in soil and groundwater beneath the IRCTS. The 1991 order was replaced in 1994 by DTSC's issuance of an Imminent and Substantial Determination and Consent Order. The 1994 order clarified the regulatory requirements for the RI/FS process and remediation of contaminants in soil, soil vapor, or groundwater at the IRCTS.

The regulatory framework for contaminant studies within the IRCTS is structured from the following three documents:

- June 1989 PCD, which directs the EPA, DTSC, and Central Valley RWQCB, and Aerojet on issues related to contaminants in groundwater from the Aerojet NPL Site that have migrated beneath the IRCTS;
- June 1994 ISEO, which directs the DTSC, Aerojet, and MDC on issues related to contaminants in soil, soil vapor, and groundwater beneath the IRCTS; and
- June 1997 (revised September 2000) CAO, which directs the Central Valley RWQCB, Aerojet, and MDC on issues related to perchlorate in groundwater beneath the IRCTS and the off.-site migration of perchlorate.

The first document obligates Aerojet to perform studies and collect data sufficient for EPA, DTSC and Central Valley RWQCB to verify the character and extent of contaminants in groundwater from the Aerojet NPL Site. The next two documents obligate Aerojet and MDC to complete activities required to reduce the concentration of contaminants to levels that DTSC and Central Valley RWQCB find to be protective of human health and the environment. The PCD and the ISEO include community participation guidelines and both documents are available for public review at the DTSC office, located at 8800 Cal Center Drive in Sacramento, California. The CAO is available for public review at the Central Valley RWQCB office, located at 11020 Sun Center Drive, Suite 200, Rancho Cordova, California.

Sacramento County

The County of Sacramento, Office of Emergency Services (OES) implements the State's Right-to-Know Ordinance that gives the OES the authority to inventory hazardous materials used by businesses. The County is also in the process of collecting information regarding existing and proposed locations of hazardous material disposal, storage, handling, and transportation facilities. Additionally, the Sacramento County Environmental Management Department (EMD) is responsible for enforcing the state regulations on both the city and county level, governing hazardous waste generators, hazardous waste storage, underground storage tanks (including inspections, enforcement, and removals), and environmental health (including inspections and enforcement). EMD also regulates the use, storage, and disposal of hazardous materials in the County and abandonment of wells and septic systems in the County by issuing permits, monitoring regulatory compliance, investigating complaints, and other activities. EMD reviews technical aspects of hazardous waste site cleanups, and oversees remediation of certain contaminated sites resulting from leaking underground storage tanks. EMD is also responsible for providing technical assistance to public and private entities that seek to minimize the generation of hazardous waste.

Sacramento County Area Plan

The Sacramento County Environmental Management Department established the Sacramento County Area Plan (SCAP) as a guideline for hazardous material related accidents or occurrences. The purpose of the SCAP is "to delineate responsibilities and actions by various agencies in Sacramento County required to meet the obligation to protect the health and welfare of the populace, natural resources (environment), and the public and private properties involving hazardous materials." The SCAP is used for making initial decisions at a hazardous materials incident. The SCAP uses Level I, Level II and Level III classifications for hazardous material incidents, which are determined by the following planning basis:

- Level of technical expertise required to abate the incident;
- Extent of Municipal, County, and State Government involved;
- Extent of evacuation of civilians; and
- Extent of injuries and/or deaths.

Sacramento County Multi-Hazard Disaster Plan

The Sacramento County Multi-Hazard Disaster Plan (SCMDP) was established to address a planned response to extraordinary emergency situations associated with natural disasters and technological incidents. The SCMDP focuses on operational concepts related to large-scale disasters, which can pose major threats to life and property requiring unusual emergency responses. The SCMDP was designed to include Sacramento County as part of the California Standardized Emergency Management System (SEMS), which assigns responsibilities to support implementation of the SCMDP and to ensure successful response during a major disaster.

Sacramento County General Plan

The County of Sacramento General Plan was adopted by the County Board of Supervisors in December 1993 and is currently undergoing an update. The County General Plan policies and implementation measures apply to development within the Rancho Cordova General Plan Planning Area that are outside of the City limits, until such time those areas are annexed into the City of Rancho Cordova. The Hazardous Materials Element and Safety Element within the County General Plan include policies and implementation measures relevant to hazardous material and human safety related impacts within Sacramento County. General Plan Policies and associated implementation measures that are of particular note include: Policies HM-4 and HM-11 pertaining to the transportation of hazardous materials and protection of residents; Policy HM-6 pertaining to the acquisition of additional information so that federal and state agencies can better establish legally enforceable standards for hazardous materials; Policy HM-7 ensuring residents adjacent to industrial or commercial facilities are protected from the mishandling of hazardous materials; Policy HM-8 pertaining to the minimization of impacts due to groundwater and soil contamination; Policy HM-9 pertaining to the prevention of surface water contamination; Policy HM-10 pertaining to effective pollution prevention strategies; and Policy HM-12 pertaining to the inventory and reduction of toxic air contaminants.

Mather Airport Comprehensive Land Use Policy (CLUP)/ Airport Land Use Compatibility Plan (ALUP)

The Sacramento County Board of Supervisors adopted the updated Mather Airport Comprehensive Land Use Plan (CLUP) and the Mather Airport Policy Area (MAPA) into the County's General Plan. The CLUP establishes the planning area boundaries of the airport and provides the land use guidelines on which compatible uses are determined. The MAPA policies

place additional development conditions on new residential uses within the geographic boundaries of the MAPA. The MAPA policies are more stringent than the CLUP policies and provide additional protection to the airport and the surrounding land uses. The CLUP is being updated and renamed the Mather Airport Land Use Compatibility Plan (ALUP). The Mather Airport Master Plan is being updated concurrently with the CLUP. The reader is referred to Section 4.1 (Land Use) for a further discussion regarding applicable plans for Mather Airport.

4.4.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

Based on criteria derived from Appendix G in the CEQA Guidelines, the proposed General Plan would result in a significant impact to the environment or to human health and safety if the project would:

1) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

2) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

3) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

4) Be located on a site that is included on a list of hazardous materials sites compiled by Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.

5) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area.

6) For a project in the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area.

7) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

METHODOLOGY

This section analyzes the impacts associated with the proposed General Plan, including the risk of upset due to potential hazardous substances, such as hazardous materials and/or hazardous waste within the Planning Area, and other hazards to public safety. This evaluation of the General Plan's potential to create hazards to the public health or the environment related to hazardous substances is based on database research, field reconnaissance of the surroundings, review of the Sacramento County General Plan, Rancho Cordova Zoning Code, consultation with relevant agencies, and review of public comment letters.

PROJECT IMPACTS AND MITIGATION MEASURES

Transportation of Hazardous Materials

Impact 4.4.1 Implementation of the General Plan would include the routine transportation of hazardous materials on Planning Area roadways. Implementation of proposed General Plan policies and action items would result in a **less than significant** impact.

Though the specifics of hazardous materials cannot be predicted, according to the California Highway Patrol (CHP), US 50 and State Route 16 (Jackson Road) are the only approved transportation routes in the Planning Area for the transportation of explosives. It is illegal to transport explosives or inhalation hazards on any public highway not designated for that purpose, unless the use of the highway is required to permit delivery, or the loading of such materials (California Vehicle Code §§ 31602(b), 32104(a)). The California Highway Patrol also designates through routes to be used for the transportation of inhalation hazards and may designate separate through routes for the transportation of inhalation hazards composed of any chemical rocket propellant (California Vehicle Code, Section 32100 and Section 32102(b)). US 50 east to Prairie City Road is the only approved transportation route in the Planning Area for the transportation of poisonous inhalation hazards. These materials are highly toxic, spread rapidly, and require rapid and widespread evacuation if there is loss of containment or a fire. These inhalation hazards and poisonous gases are subject to additional safeguards. There are no approved transportation routes within the Planning Area for the transportation of radioactive materials. However, Highway 80, located over 5 miles northwest of the Planning Area, has been approved for the transportation of radioactive materials, as well as explosives and poisonous inhalation hazards (CHP, pers. comm., 2006).

As the proposed General Plan does not call for substantial expansion of industrial uses in the area that would appreciably increase the transportation of hazardous materials, and as approved transportation routes within the Planning Area are limited, there would be minimal routine transport of hazardous materials on Planning Area roadways. As previously noted, transportation of hazardous materials is regulated by the CHP, Caltrans, U.S. Department of Transportation (Hazardous Materials Transportation Act) and other regulatory agencies (which includes provisions regarding securing materials and container design) that provide standards designed to avoid releases.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following proposed General Plan policies and action items address the use and handling of hazardous materials and associated land uses involving hazardous materials:

Policy S.1.1 - Maintain acceptable levels of risk of injury, death, and property damage resulting from reasonably foreseeable safety hazards in Rancho Cordova.

Action S.1.1.1 – Conduct an evaluation, as part of the CEQA process, of the potential safety hazards of proposed development within the City and mitigate impacts as appropriate and practical to ensure a reasonable level of safety for residents, workers, and property owners.

Policy S.5.4 Ensure that all industrial facilities are constructed, maintained, and operated in accordance with current safety and environmental protection standards.

Action S.5.4.1 *Support the continued enforcement of permitting requirements for radioactive materials.*

Action S.5.4.2 *Enforce public safety standards for the use of radioactive materials, including the placarding of transport vehicles.*

Policy S.5.5 *Separate hazardous or toxic materials from the public.*

Action S.5.5.1 *Require industries which store and process hazardous or toxic materials to provide a buffer zone between the materials and the property boundaries; the buffer zone must be sufficient to protect public safety, as determined by the Planning Department.*

Action S.5.5.2 *Consider the impact of proposed industrial development projects with respect to transport of hazardous materials within the city. Locate uses requiring substantial transport of hazardous materials to direct such traffic away from the city's residential and commercial areas.*

Policy S.5.6 *Ensure that procedures are in place to reduce the chance of accidents in the transport of hazardous materials.*

Action S.5.6.1 *Continue to coordinate with the State Office of Emergency Services, the State Department of Toxic Substances Control, the State Highway Patrol, County of Sacramento, the Sacramento Metropolitan Fire District, the Rancho Cordova Police Department, and other appropriate agencies in hazardous materials route planning and incident response.*

Action S.5.6.2 *Request that state and federal agencies that regulate the transportation of hazardous materials review regulations and procedures, in cooperation with the City, to determine means of mitigating the public safety hazard in urbanized areas.*

Implementation of the Rancho Cordova General Plan policies and associated action items described above, as well as adherence to all federal, state, and local regulations regarding the transportation of hazardous materials, would reduce the environmental impacts associated with the routine transportation of hazardous materials on Planning Area roadways to **less than significant**.

Mitigation Measures

None required.

Release and Exposure to Hazardous Materials

Impact 4.4.2 The Planning Area consists of land uses having the potential to result in an increased risk of release of hazardous materials. This is considered a **potentially significant** impact.

Implementation of the General Plan with the proposed residential and non-residential uses would involve the storage, use, and transport of hazardous materials (e.g., jet fuel at Mather Airport, gasoline fuels, demolition materials, asphalt, lubricants, toxic solvents, pesticides and herbicides) during construction, demolition, and landscaping activities. In addition, certain commercial uses, including water treatment plants, swimming pool facilities, gas stations, and

dry cleaners that store, use, and routinely transport hazardous material to and from their facilities could pose a potential hazard to the environment. Hazardous materials used during construction and operational activities throughout the Planning Area may expose nearby residents and local schools to toxic emissions. Electrical transformers and industrial products containing polychlorinated biphenyls (PCBs) and heavy metals, as well as persistent residual chemicals including pesticides, herbicides, and fertilizers have the potential to pose a health and safety risk via accidental release, misuse or historic use in the Planning Area.

As discussed under Impact 4.4.1, the transportation of hazardous materials on area roadways is regulated by the CHP, U.S. Department of Transportation (Hazardous Materials Transportation Act) and Caltrans, and use of these materials is regulated by the DTSC (22 Cal. Code Regs §§ 66001, et seq.). The use, storage, and transport of hazardous materials by developers, contractors, business owners, and others are required to be in compliance with local, state, and federal regulations during project construction and operation. Facilities that use hazardous materials are required to obtain permits and comply with appropriate regulatory agency standards designed to avoid hazardous waste releases. All existing and future projects in the General Plan Planning Area would required to comply with federal, state and local regulations regarding the handling, transportation, disposal, and clean-up of hazardous materials. For further discussion on impacts to air quality due to toxic emissions, the reader is referred to Section 4.6, Air Quality, of this EIR.

As discussed above in the Regulatory Section (Section 4.4.2), under the 1994 ISEO issued to Aerojet and MDC, the Department of Toxic Substances Control (DTSC) and the Central Valley RWQCB have regulatory authority over studies to determine the character and extent of chemicals that are found to originate in soil and groundwater beneath the contaminated properties. Under the 1997 CAO (revised 2000), the Central Valley RWQCB has regulatory authority over the occurrence of perchlorate beneath the IRCTS and on the off-site migration of perchlorate. In addition, the EPA, DTSC, and Central Valley RWQCB have regulatory authority over chemicals that originate from the Aerojet NPL Site which have migrated into groundwater beneath the IRCTS. Remediation activities have commenced in these areas.

Underground storage tanks (USTs) are associated with a wide a variety of farmland and ranching activities. Various portions of the Planning Area have been historically used for rural residential and cattle grazing. However, USTs used in farming and ranching activities are exempt from the Sacramento County Environmental Management Department's (EMD) registration requirements. Due to unknown underlying conditions, there is the potential for discovering USTs within the General Plan Planning Area. If UST(s) are discovered during any phase of a project, removal is required prior to additional site preparation or development activities (California State Water Resources Control Board Underground Storage Tank Program, http://www.swrcb.ca.gov/cwphome/ust/ and California Health and Safety Code §§ 25281, et seq). Although the Environmental Management Department does not regulate the registration of farm/ranch USTs, all UST removal and remediation efforts must comply with the Sacramento County EMD standards. If discovered, the tanks would require removal prior to any development activities. If subsurface contamination occurred as a result of tank leakage or overfilling, the contamination would require assessment and remediation in compliance with Sacramento County EMD regulations.

To site and construct a state-funded school, a public school district must complete an extensive and independent statutory review process in accordance with the siting requirements of the California Department of Education. In addition to CEQA review, and in order to ensure that each new school site is safe from toxic hazards, new school sites may be subject to review from the following agencies: the Department of Toxic Substances Control; the State Allocation Board,

which administers and allocates funding requests; and the Division of the State Architect, which reviews the design, plans, and construction of public-funded schools. These review processes are most typically done on a site-specific basis. The selection of new public school sites must comply with the California Education Code (including Section 17521, requiring the governing board of the school district to adopt a resolution in connection with consideration of proposal for occupancy of a building to be constructed on its property, and to conduct a public meeting), and the California Code of Regulations (CCR), Title 5, Sections 14001 through 14012, which outlines the powers and duties and establishes standards with which the California Department of Education, and all public school districts, must comply with in the selection of new school sites. Due to the fact that any future siting of schools within the Planning Area will have to comply with state statutory and regulatory requirements addressing public and environmental health as well as safety from hazards, including hazardous substances, impacts from siting schools in the vicinity of such hazards are not evaluated further in this document. However, impacts due to the siting of schools and hazards within the Planning Area are not anticipated to be significant. At this time, any further analysis of this impact would be speculative.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following proposed General Plan policies and action items address issues associated with hazardous materials and contamination:

Policy LU.1.4 *Promote high quality, efficient, and cohesive land utilization that minimizes negative impacts (e.g., traffic congestion and visual blight) and environmental hazards (e.g. flood, soil instability) on adjacent neighborhoods and infrastructure and preserve existing and future residential neighborhoods from encroachment of incompatible activities and land uses.*

Action LU.1.4.3 *Require the disclosure of potential land use compatibility issues in all parts of the City, such as noise, dust, odors, etc., in order to provide potential purchasers with the information necessary to make informed decisions about the property and its future land uses.*

Action LU.1.4.4 *Develop guidelines for the buffering of incompatible land uses in ways that retain community character but do not consume large land area, create pedestrian barriers, or result in unsafe conditions.*

Policy NR.8.1 *Support recycling efforts by developing a set of programs to educate residents on recycling and provide recycling services.*

Action NR.8.1.6 *Provide locations for household hazardous wastes to be recycled.*

Policy S.1.1 - Maintain acceptable levels of risk of injury, death, and property damage resulting from reasonably foreseeable safety hazards in Rancho Cordova.

Action S.1.1.1 – Conduct an evaluation, as part of the CEQA process, of the potential safety hazards of proposed development within the City and mitigate impacts as appropriate and practical to ensure a reasonable level of safety for residents, workers, and property owners.

Policy S.1.3 – Prepare for emergencies and disasters prior to their occurrence.

Action S.1.3.1 – Create, adopt, and update, as needed a local Emergency Management Plan identifying leadership, representatives, coordination, and action for responding to emergencies in a timely and efficient manner.

Goal S.5 *Reduce the possibility of serious harm to residents, employees, or the environment as the result of an accidental release of toxic or hazardous substances.*

Policy S.5.1 *Work with public agencies and private companies to identify and work towards elimination of potential hazardous releases through compliance with State and Federal law.*

Policy S.5.2 *Consider the potential impact of hazardous facilities on the public and/or adjacent or nearby properties posed by reasonably foreseeable events. The City considers an event to be "reasonably foreseeable" when the probability of the event occurring is greater than one in one million (1 x 10-6) per year.*

Action S.5.2.1 *Adopt, and update as necessary, local standards for maximum acceptable exposure for the evaluation of hazardous facilities for potential to create hazardous physical effects at offsite locations that could result in death, significant injury, or significant property damage.*

Policy S.5.1 *The City shall work with public agencies and private companies to identify and work towards elimination of potential hazardous releases through compliance with State and Federal laws.*

Policy S.5.3 *Regulate the storage of hazardous materials and waste consistent with State and Federal law.*

Action S.5.3.1 *Regularly review the City's codes to ensure that City regulations reflect the most up-to-date standards for the storage, handling, and use of hazardous and toxic materials.*

Action S.5.3.2 *During the review and approval process for development plans and building permits, ensure that secondary containment is provided for hazardous and toxic materials.*

Action S.5.3.3 *Require all sites that are suspected or known to contain hazardous materials and/or are identified in a hazardous material/waste search to be reviewed, tested, and remediated for potential hazardous materials in accordance with all local, state, and federal regulations.*

Policy S.5.4 *The City shall seek to ensure that all industrial facilities are constructed, maintained, and operated in accordance with current safety and environmental protection standards.*

Action S.5.4.1 *Support the continued enforcement of permitting requirements for radioactive materials.*

Action S.5.4.2 *Enforce public safety standards for the use of radioactive materials, including the placarding of transport vehicles.*

Policy S.5.5 *Separate hazardous or toxic materials from the public.*

Action S.5.5.1 *Require industries which store and process hazardous or toxic materials to provide a buffer zone between the materials and the property boundaries; the buffer zone must be sufficient to protect public safety, as determined by the Planning Department.*

Action S.5.5.2 *Consider the impact of proposed industrial development projects with respect to transport of hazardous materials within the city. Locate uses requiring substantial transport of hazardous materials to direct such traffic away from the city's residential and commercial areas.*

Mitigation Measures

MM 4.4.2 The following shall be added as a policy to the Safety Element under Goal SA.1:

The City shall require written confirmation from applicable local, regional, state, and federal agencies that known contaminated sites have been deemed remediated to a level appropriate for land uses proposed prior to the City approving site development or provide an approved remediation plan that demonstrates how contamination will be remediated prior to site occupancy. This documentation will specify the extent of development allowed on the remediated site as well as any special conditions and/or restrictions on future land uses.

Implementation of the above proposed General Plan policies and associated action items, Mitigation Measure MM 4.4.2 and adherence to all federal, state, and local regulations regarding the storage and handling of hazardous wastes, the use and removal of underground storage tanks, as well as the clean-up and remediation of leaking contaminants and hazardous wastes and hazardous substances, would reduce potential impacts to the environment and to public health and safety associated with the accidental release of and exposure to hazardous substances to **less than significant**.

Airport Safety Hazards

Impact 4.4.3 Implementation of the proposed General Plan would locate development within an airport land use plan, potentially resulting in a safety hazard for people residing or working in the area. This impact is considered **less than significant**.

As described in the Airport Operations Hazards section above, airport operation hazards are generally associated with aircraft accidents, particularly during takeoffs and landings due to incompatible land uses, power transmission lines, wildlife hazards (e.g., bird strikes), and tall structures that penetrate the imaginary surfaces surrounding an airport.

The Comprehensive Land Use Plan (CLUP) establishes the planning area boundaries of Mather Airport and provides the land use guidelines on which compatible uses are determined. The Mather Airport Planning Area (MAPA) policies place additional development conditions on new residential uses within the geographic boundaries of the MAPA. The MAPA policies are more stringent than the CLUP policies and provide additional protection to the airport and surrounding land uses. Federal Aviation Regulations, which involve the Caltrans Division of Aeronautics, mandate height restrictions for buildings within imaginary surfaces surrounding airports (FAR, Part

77). Buildings within the Mather Airport safety zone would be required to adhere to both Federal Aviation Administration regulations, as well as the local CLUP. The reader is referred to Section 4.1, Land Use, for additional discussion regarding Mather Airport and the CLUP.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following proposed General Plan provisions address potential operational and safety conflicts with Mather Airport operations:

Policy LU.3.3 *Coordinate with regional planning agencies to set land use and environmental policies and cooperate in the implementation of programs consistent with General Plan policy.*

Policy LU.3.5 *Consult with state and federal regulatory and resource agencies during initial review of development projects to identify potential environmental conflicts and establish, if appropriate, concurrent application processing schedules.*

Adherence to Federal regulations, Comprehensive Land Use Plan, Mather Airport Planning Area provisions, implementation of the General Plan Land Use policies described above and Mitigation Measure MM 4.1.3b (see Section 4.1 [Land Use}), would reduce safety hazards due to the location of Mather Airport to **less than significant.**

Mitigation Measures

None required.

Interfere With Emergency Response Plans

Impact 4.4.4 Implementation of the proposed General Plan could impair implementation of or physically interfere with the Sacramento County Multi-Hazard Disaster Plan (SCMDP). This is considered a **less than significant** impact.

An efficient roadway and circulation system is vital for the evacuation of residents and the mobility of fire suppression, emergency response, and law enforcement vehicles. Implementation of the General Plan will add additional traffic and residences requiring evacuation in case of an emergency. However, as described in Section 4.5, Transportation and Circulation, compared to existing conditions, implementation of the proposed roadway system under the General Plan would provide for multiple roadway connections that offer more escape route and emergency access options, as well as new north-south and east-west evacuation/emergency routes throughout the Planning Area. The reader is referred to Impact 4.5.3 in Section 4.5, Transportation and Circulation, for additional discussion. As implementation of the proposed roadway system within the General Plan would improve city roadway connectivity, allowing for better emergency vehicle access to residences as well as evacuation routes for area residents, this impact is considered **less than significant**.

Mitigation Measures

None required.

4.4.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

SETTING

The cumulative setting for hazards and human health risks associated with the General Plan includes the City of Rancho Cordova as well as the unincorporated portions of the Planning Area. Hazardous material, human health, and safety impacts as described in CEQA Appendix G are generally site-specific and not cumulative by nature. The potential cumulative impacts due to the increased use of hazardous materials resulting from proposed development under the General Plan include, but are not limited to: air quality, noise, water quality, flooding, fire, as well as exposure to multiple contaminants. The cumulative impacts associated with affected resources, such as air and water, are analyzed in the applicable technical sections of this EIR.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Hazards and Health Risks

Impact 4.4.5 Persons could be exposed to contaminated soil or groundwater during development of previously contaminated sites or sites undergoing remediation. Implementation of the General Plan policies and action items as well as existing regulatory requirements and standards would reduce impacts so that they are considered **less than cumulatively considerable**.

The cumulative effects from land uses proposed in association with the General Plan could create a risk to public health from exposure to hazards and hazardous materials from existing contamination conditions as well as future land use operations (transportation, handling and storage). As discussed under Impact 4.4.2, implementation of the General Plan would involve the development of land on previously contaminated sites. Contamination from hazardous waste sites and leaking underground storage tanks have the potential to contaminate soils and/or groundwater and present public health hazards.

Transportation of hazardous materials on area roadways is regulated by the CHP, U.S. Department of Transportation (Hazardous Materials Transportation Act) and Caltrans, and use of these materials is regulated by the DTSC (22 Cal. Code Regs §§ 66001, et seq.). The use, storage, and transport of hazardous materials by developers, contractors, business owners, and others are required to be in compliance with local, state, and federal regulations during project construction and operation. New school sites may also be subject to review from the following agencies: the Department of Toxic Substances Control; the State Allocation Board, which administers and allocates funding requests; and the Division of the State Architect, which reviews the design, plans, and construction of public-funded schools. These review processes are most typically done on a site-specific basis. The selection of new public school sites must comply with the California Education Code (including Section 17521, requiring the governing board of the school district to adopt a resolution in connection with consideration of proposal for occupancy of a building to be constructed on its property, and to conduct a public meeting), and the California Code of Regulations (CCR), Title 5, Sections 14001 through 14012, which outlines the powers and duties and establishes standards with which the California Department of Education, and all public school districts, must comply with in the selection of new school sites.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following proposed General Plan policies and action items address land uses and activities associated with hazardous materials and contamination:

Policy LU.1.4 *Promote high quality, efficient, and cohesive land utilization that minimizes negative impacts (e.g., traffic congestion and visual blight) and environmental hazards (e.g. flood, soil instability) on adjacent neighborhoods and infrastructure and preserve existing and future residential neighborhoods from encroachment of incompatible activities and land uses.*

Action LU.1.4.3 *Require the disclosure of potential land use compatibility issues in all parts of the City, such as noise, dust, odors, etc., in order to provide potential purchasers with the information necessary to make informed decisions about the property and its future land uses.*

Action LU.1.4.4 *Develop guidelines for the buffering of incompatible land uses in ways that retain community character but do not consume large land area, create pedestrian barriers, or result in unsafe conditions.*

Policy NR.8.1 *Support recycling efforts by developing a set of programs to educate residents on recycling and provide recycling services.*

Action NR.8.1.6 *Provide locations for household hazardous wastes to be recycled.*

Policy S.1.1 *Maintain acceptable levels of risk of injury, death, and property damage resulting from reasonably foreseeable safety hazards in Rancho Cordova.*

Action S.1.1.1 *Conduct an evaluation, as part of the CEQA process, of the potential safety hazards of proposed development within the City and mitigate impacts as appropriate and practical to ensure a reasonable level of safety for residents, workers, and property owners.*

Policy S.1.3 *Prepare for emergencies and disasters prior to their occurrence.*

Action S.1.3.1 *Create, adopt, and update, as needed a local Emergency Management Plan identifying leadership, representatives, coordination, and action for responding to emergencies in a timely and efficient manner.*

Goal S.5 *Reduce the possibility of serious harm to residents, employees, or the environment as the result of an accidental release of toxic or hazardous substances.*

Policy S.5.1 *Work with public agencies and private companies to identify and work towards elimination of potential hazardous releases through compliance with State and Federal law.*

Policy S.5.2 *Consider the potential impact of hazardous facilities on the public and/or adjacent or nearby properties posed by reasonably foreseeable events. The City considers an event to be "reasonably foreseeable" when the probability of the event occurring is greater than one in one million (1×10^{-6}) per year.*

Action S.5.2.1 *Adopt, and update as necessary, local standards for maximum acceptable exposure for the evaluation of hazardous facilities for potential to create hazardous physical effects at offsite locations that could result in death, significant injury, or significant property damage.*

Policy S.5.1 *The City shall work with public agencies and private companies to identify and work towards elimination of potential hazardous releases through compliance with State and Federal laws.*

Policy S.5.3 *Regulate the storage of hazardous materials and waste consistent with State and Federal law.*

Action S.5.3.1 *Regularly review the City's codes to ensure that City regulations reflect the most up-to-date standards for the storage, handling, and use of hazardous and toxic materials.*

Action S.5.3.2 *During the review and approval process for development plans and building permits, ensure that secondary containment is provided for hazardous and toxic materials.*

Action S.5.3.3 *Require all sites that are suspected or known to contain hazardous materials and/or are identified in a hazardous material/waste search to be reviewed, tested, and remediated for potential hazardous materials in accordance with all local, state, and federal regulations.*

Policy S.5.4 *The City shall seek to ensure that all industrial facilities are constructed, maintained, and operated in accordance with current safety and environmental protection standards.*

Action S.5.4.1 *Support the continued enforcement of permitting requirements for radioactive materials.*

Action S.5.4.2 *Enforce public safety standards for the use of radioactive materials, including the placarding of transport vehicles.*

Policy S.5.5 *Separate hazardous or toxic materials from the public.*

Action S.5.5.1 *Require industries which store and process hazardous or toxic materials to provide a buffer zone between the materials and the property boundaries; the buffer zone must be sufficient to protect public safety, as determined by the Planning Department.*

Action S.5.5.2 *Consider the impact of proposed industrial development projects with respect to transport of hazardous materials within the city. Locate uses requiring substantial transport of hazardous materials to direct such traffic away from the city's residential and commercial areas.*

Implementation of the above proposed General Plan policies and associated action items, Mitigation Measure MM 4.4.2 and compliance with federal, state and local regulations regarding the handling, transportation, disposal, and clean-up of hazardous materials would fully mitigate specific hazardous material exposure issues associated with the proposed General Plan. As such, the General Plan's contribution to cumulative hazardous material impacts and other hazards to public safety are considered **less than cumulatively considerable.**

Mitigation Measures

None required.

REFERENCES

Agency For Toxic Substances and Disease Registry, http://www.atsdr.cdc.gov/

California Code of Regulations, Title 13, Chapter 6, Articles 1 and 2, http://government.westlaw.com/linkedslice/default.asp?SP=CCR-1000

California Department of Education School Site Selection, http://www.cde.ca.gov/ls/fa/sf/schoolsiteguide.asp

California Department of Toxic Substances Control, http://www.dtsc.ca.gov/

California Geological Survey, http://www.consrv.ca.gov/cgs/geologic_hazards/hazardous_minerals/index.htm

California State Water Resources Control Board Geotracker website, http://geotracker.swrcb.ca.gov/

California State Water Resources Control Board Underground Storage Tank Program, http://www.swrcb.ca.gov/cwphome/ust/

County of Sacramento. CEQA Findings of Fact and Statement of Overriding Considerations of the Board of Supervisors of Sacramento County for the Sunrise Douglas Community Plan/Sunridge Specific Plan. July 17, 2002.

County of Sacramento Department of Environmental Review and Assessment. Sunrise Douglas Community Plan/Sunridge Specific Plan Final Environmental Impact Report. November 2001.

County of Sacramento Waste Management and Recycling, http://www.sacgreenteam.com/projects/kiefergastoenergy.htm

Extension Toxicology Network. http://extoxnet.orst.edu/

Federal Aviation Administration, Department of Transportation Code of Federal Regulations, http://www.access.gpo.gov/nara/cfr/waisidx_04/14cfr77_04.html

Personal communication with Dana Booth, Sacramento County Environmental Management Department. January and February, 2006.

Personal communication with Mark Capps, ENSR, Inc., Consultant to Boeing Aircraft. February, 2006.

Personal communication with Hazardous Materials Sergeant Steve Snelling, California Highway Patrol. January 5, 2006.

Personal communication with Rodney Fricke, Aerojet Environmental Remediation. January and February, 2006.

Personal communication with William Hughes, ASE, Inc., Consultant to the U.S. Air Force. January and February, 2006.

Rancho Cordova General Plan, http://gp.cityofranchocordova.org/

Rancho Cordova Zoning Code, http://www.cityofranchocordova.org/documents/planning/zoning_code/

Sacramento County General Plan, http://www.saccounty.net/general-plan/gp-home.html

Sacramento Metropolitan Air Quality Management District Rules and Regulations, http://www.airquality.org/rules/rule902.pdf

U.S. Environmental Protection Agency Indoor Air Quality and Radon, http://www.epa.gov/radon/rnlinks.html and http://www.epa.gov/radon/radonqa1.html

4.5 – Transportation and Circulation

This section describes potential impacts on the transportation system associated with adoption of the proposed Rancho Cordova General Plan. The impact analysis evaluates the local and regional roadway, transit, bicycle, pedestrian, and aviation components of the overall transportation system.

4.5.1 EXISTING CONDITIONS

PHYSICAL ENVIRONMENT

The existing physical conditions of the transportation system are described below. This description is organized by transportation system component within the "study area", which includes roadway and transportation facilities within the City, the Planning Area outside of the current City limits as well as consideration of facilities and regional traffic conditions outside of the Planning Area.

Regional Roadway System

Rancho Cordova's transportation system is predominantly focused around the roadway network. Although automobile travel is the primary function for the roadway network, it also serves a variety of other modes: trucks, buses, bicycling, and walking.

Rancho Cordova's roadway network has two distinct characteristics; it is urban within developed areas of the City (north of Douglas Road, west of Sunrise Boulevard) and rural within undeveloped areas of the City (east of Sunrise Boulevard, south of U.S. 50).

Work, shopping, recreation, school, and goods movement trips are responsible for most of the travel demand on the transportation system. Recreation attractions include regional parks within or adjacent to the City and the American River Parkway which borders the north side of the City. Rancho Cordova is currently an employment and retail center for the region, which results in the importation of trips into the City.

There are several transportation constraints near the City that create congestion during peak periods. Within the City's Planning Area, Hazel Avenue, Sunrise Boulevard, and Watt Avenue provide three of the limited river crossings of the American River and are congested, particularly within the peak periods. Additionally, U.S. 50 and State Route (SR) 16 (Jackson Highway) provide regional east-west travel in the area and are also congested during peak periods.

The roadway system within and near Rancho Cordova's Planning Area is presented on **Figure 4.5-1**. Major roadways are described below:

State Highways

U.S. 50 is an east-west multi-lane freeway beginning just west of the City of Sacramento and continuing east through Sacramento County and El Dorado County to Lake Tahoe and beyond. It varies from eight lanes in the urban areas of metropolitan Sacramento to two to four lanes in rural areas in El Dorado County. In the Rancho Cordova area, US Highway 50 varies between an eight-lane facility and a six-lane facility with the addition of two high occupancy vehicle (HOV) lanes east of Sunrise Boulevard.

SR-16 (Jackson Highway) is an east-west rural highway that runs along the south edge of the Planning Area to Sacramento to the west and Rancho Murieta and Amador County to the east. In the Planning Area, SR-16 is a two-lane facility.

Major Roadways

Sunrise Boulevard is a north-south major road connecting Grant Line Road to the City of Roseville. It has two lanes between Grant Line Road and Douglas Road, four lanes between Douglas Road and White Rock Road, and six lanes north of White Rock Road. The U.S. 50/Sunrise Boulevard interchange is an L-9 configuration with loop on-ramps in the northeast and southwest quadrants and diagonal ramps in all four quadrants.

White Rock Road extends from International Drive to El Dorado County. It is a two-lane local road between International Drive and Zinfandel Drive, a six-lane secondary road between Zinfandel Drive and Sunrise Boulevard, and a two-lane rural road east of Sunrise Boulevard.

Mather Field Road extends from the Mather Reuse Area to Folsom Boulevard. It is a six-lane major road between International Drive and U.S. 50, and a four-lane major road between U.S. 50 and Folsom Boulevard. The U.S. 50/Mather Field Road interchange is an L-9 configuration with loop on-ramps in the northeast and southwest quadrants and diagonal ramps in all four quadrants.

Douglas Road is a two-lane secondary road that extends from Mather Boulevard in the Mather Reuse Area to Grant Line Road.

Grant Line Road is a two-lane secondary road that extends from State Route (SR) 99 to White Rock Road through the southeastern portion of the Planning Area.

Zinfandel Drive is a four-lane major road from International Drive to Folsom Boulevard. North and east of Folsom Boulevard it is a two-lane residential collector. The U.S. 50/Zinfandel Drive interchange is an L-9 configuration with loop on-ramps in the northeast and southwest quadrants and diagonal ramps in all four quadrants.

Hazel Avenue is four-lane north-south major road through Sacramento County that becomes Sierra College Boulevard in Placer County. The U.S. 50/Hazel Avenue interchange is an L-9 configuration with loop on-ramps in the northeast and southwest quadrants and diagonal ramps in all four quadrants.

International Drive is a four-lane east-west major road, beginning at the Mather Field Road/White Rock Road intersection and extending east to Kilgore Road.

Folsom Boulevard parallels U.S. 50 from Business 80 in Downtown Sacramento to Folsom, where it becomes Folsom-Auburn Road and continues north to Auburn. Paralleling the south side of Folsom Boulevard is the Regional Transit (RT) light rail transit (LRT). Folsom Boulevard is generally a four-lane major road within the City. The County of Sacramento recently completed widening of Folsom Boulevard between Hazel Avenue and Sunrise Boulevard from two- to four-lanes.

Gold Country Drive is a two-lane local road, beginning at Sunrise Boulevard and extending east to Hazel Avenue through the unincorporated community of Gold River.

Bradshaw Road is a two- to six-lane major road beginning at Folsom Boulevard and extending south to Grant Line Road. North of Goethe Road, Bradshaw Road is six-lanes. South of U.S. 50, Bradshaw Road eventually narrows from six- to two-lanes as it extends south.

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City of Rancho Cordova
Planning Department

Figure 4.5-1
General Plan Traffic Study Area

STUDY AREA

Fehr & Peers conducted a detailed analysis of the following roadway segments and freeway facilities under existing conditions within the study area. As noted above, the study area includes roadway and transportation facilities within the City, the Planning Area outside of the current City limits, as well as consideration of facilities and regional traffic conditions outside of the Planning Area. These roadway facilities were identified based on input from City staff, the California Department of Transportation (Caltrans) and comments received on the Notice of Preparation.

Roadways

1) SR-16 – Bradshaw Road to Excelsior Road
2) SR-16 – Excelsior Road to Eagles Nest Road
3) SR-16 – Sunrise Boulevard to Grant Line Road
4) SR-16 – East of Grant Line Road
5) Kiefer Boulevard – Grant Line Road to SR-16
6) Mather Boulevard – Femoyer Street to Douglas Road
7) Douglas Road – Mather Boulevard to Sunrise Boulevard
8) Douglas Road – Sunrise Boulevard to Grant Line Road
9) International Drive – South White Rock Road to Zinfandel Drive
10) International Drive – Zinfandel Drive to Kilgore Road
11) White Rock Road – Zinfandel Drive to Sunrise Boulevard
12) White Rock Road – Sunrise Boulevard to Grant Line Road
13) Folsom Boulevard – Sunrise Boulevard to Hazel Avenue
14) Folsom Boulevard – Watt Avenue to Bradshaw Road
15) Folsom Boulevard – Bradshaw Road to Mather Field Road
16) Folsom Boulevard – Mather Field Road to Coloma Road
17) Folsom Boulevard – Coloma Road to Zinfandel Drive
18) Folsom Boulevard – Zinfandel Drive to Sunrise Boulevard
19) Mather Field Road – Folsom Boulevard to U.S. 50 Westbound Ramps
20) Mather Field Road – U.S. 50 Eastbound Ramps to International Drive
21) Zinfandel Drive – Folsom Boulevard to U.S. 50 Westbound Ramps
22) Zinfandel Drive – U.S. 50 Eastbound Ramps to White Rock Road
23) Zinfandel Drive – White Rock Road to International Drive
24) Zinfandel Drive – Folsom Boulevard to Sunrise Boulevard
25) Sunrise Boulevard – Gold Country Drive to Coloma Road
26) Sunrise Boulevard – Coloma Road to U.S. 50 Westbound Ramps
27) Sunrise Boulevard – U.S. 50 Eastbound Ramps to Folsom Boulevard
28) Sunrise Boulevard – Folsom Boulevard to White Rock Road
29) Sunrise Boulevard – White Rock Road to Douglas Road
30) Sunrise Boulevard – Douglas Road to SR-16
31) Sunrise Boulevard – SR-16 to Grant Line Road
32) Hazel Avenue – U.S. 50 Westbound Ramps to Winding Way
33) Grant Line Road – White Rock Road to Douglas Road
34) Grant Line Road –Douglas Road to SR-16
35) Grant Line Road – SR-16 to Sunrise Boulevard
36) Coloma Road – Sunrise Boulevard to Folsom Boulevard
37) Gold Country Drive – Sunrise Boulevard to Folsom Boulevard
38) Bradshaw Road – Folsom Boulevard to U.S. 50
39) Bradshaw Road – U.S. 50 to Old Placerville Road
40) Bradshaw Road – Old Placerville Road to Kiefer Boulevard

41) Rancho Cordova Parkway – U.S. 50 to White Rock Road (Future Facility)
42) Rancho Cordova Parkway – White Rock Road to Douglas Road (Future Facility)
43) International Drive – Rancho Cordova Parkway to Sunrise Boulevard (Future Facility)
44) International Drive – Sunrise Boulevard to Kilgore Road (Future Facility)
45) International Drive – White Rock Road to Bradshaw Road (Future Facility)

Freeway Segments

1) U.S. 50 – Bradshaw Road to Mather Field Road
2) U.S. 50 – Mather Field Road to Zinfandel Boulevard
3) U.S. 50 – Zinfandel Boulevard to Sunrise Boulevard
4) U.S. 50 – Sunrise Boulevard to Hazel Avenue
5) U.S. 50 – Hazel Avenue to Folsom Boulevard
6) U.S. 50 – Folsom Boulevard to Prairie City Road

TRAFFIC OPERATIONS METHODOLOGY

The analysis methodology used to analyze roadway and freeway facilities is described below. The operations of roadway facilities are described with the term *level of service*. Level of service (LOS) is a qualitative description of traffic flow from the perspective of motorists based on factors such as speed, travel time, delay, freedom to maneuver, volume, and capacity. Six levels are defined from LOS A, as the least congested operating conditions, to LOS F, or the most congested operating conditions. LOS E represents "at-capacity" operations. When volumes exceed capacity, stop-and-go conditions result and operations are designated as LOS F.

For this General Plan analysis, LOS was determined by comparing existing and forecasted traffic volumes for selected roadway segments with daily LOS capacity thresholds. These thresholds are shown in **Table 4.5-1** and are consistent with capacities identified in the *Traffic Impact Analysis Guidelines* (County of Sacramento, July 2004)[1]. This methodology has been the prevailing standard for roadway segment analysis in the Sacramento Region.

Peak hour freeway mainline segments were evaluated using methodologies identified in the *Highway Capacity Manual* (Transportation Research Board, 2000). This methodology correlates LOS to freeway segment density, as described in **Table 4.5-2**. The calculation sheets are presented in **Appendix 4.5**.

[1] Capacities for proposed expressways in the Planning Area are consistent with those identified in the Placer Vineyards Specific Plan Draft EIR (Quad Knopf, July 2003).

TABLE 4.5-1
ROADWAY SEGMENT DAILY VOLUME THRESHOLDS[1]

Facility Type	Number of Lanes	Daily Volume Threshold				
		LOS A	LOS B	LOS C	LOS D	LOS E
Residential	2	600	1,200	2,000	3,000	4,500
Residential collector with frontage	2	1,600	3,200	4,800	6,400	8,000
Residential collector without frontage	2	6,000	7,000	8,000	9,000	10,000
Arterial, low access control	2	9,000	10,000	12,000	13,500	15,000
	4	18,000	21,000	24,000	27,000	30,000
	6	27,000	31,500	36,000	40,500	45,000
Arterial, moderate access control	2	10,800	12,600	14,400	16,200	18,000
	4	21,600	25,200	28,800	32,400	36,000
	6	32,400	37,800	43,200	48,600	54,000
Arterial, high access control	2	12,000	14,000	16,000	18,000	20,000
	4	24,000	28,000	32,000	36,000	40,000
	6	36,000	42,000	48,000	54,000	60,000
Expressway, 6-lanes[2]	6	24,300	39,720	56,700	72,900	81,000
Rural, 2-lane highway	2	2,400	4,800	7,900	13,500	22,900
Rural, 2-lane road, paved shoulders	2	2,200	4,300	7,100	12,200	20,000
Rural, 2-lane road, no shoulders	2	1,800	3,600	5,900	10,100	17,000

Notes:
1. *County of Sacramento Traffic Impact Analysis Guidelines, July 2004.*
2. *Based on capacities contained in the Placer Vineyards EIR (Quad Knopf, July 2003)*

TABLE 4.5-2
FREEWAY MAINLINE LOS CRITERIA

LOS	Description	Density[1]
A	Free-flow speeds prevail. Vehicles are almost completely unimpeded in their ability to maneuver within the traffic stream.	< 11
B	Free-flow speeds are maintained. The ability to maneuver with the traffic stream is only slightly restricted.	> 11 to 18
C	Flow with speeds at or near free-flow speeds. Freedom to maneuver within the traffic stream is noticeably restricted, and lane changes require more care and vigilance on the part of the driver.	> 18 to 26
D	Speeds decline slightly with increasing flows. Freedom to maneuver with the traffic stream is more noticeably limited, and the driver experiences reduced physical and psychological comfort.	> 26 to 35
E	Operation at capacity. There are virtually no usable gaps within the traffic stream, leaving little room to maneuver. Any disruption can be expected to produce a breakdown with queuing.	> 35 to 45
F	Represents a breakdown in flow.	*

Notes: [1] Density in passenger cars per mile per lane.
Source: Highway Capacity Manual (Transportation Research Board, 2000).

In addition to the peak hour freeway segment analysis, Caltrans requested peak hour freeway ramp capacity analyses (to determine locations where multiple lanes are required on freeway ramp facilities) and identification of the six-hour peak period volumes on the freeway segments (three-hour AM peak period plus the three-hour PM peak period). This information is provided in **Appendix 4.5**.

Policy C.1.2 from the City's proposed Circulation Element sets forth LOS standards for the City. The policy states:

> *The City shall seek to maintain operations on all roadways and intersections at Level of Service D or better at all times, including peak travel times, unless maintaining this Level of Service would, in the City's judgment, be infeasible and/or conflict with the achievement of other goals. Congestion in excess of Level of Service D may be accepted in these cases, provided that provisions are made to improve traffic flow and/or promote non-vehicular transportation as part of a development project or a City-initiated project.*

In addition to the above referenced policy, the City's proposed Circulation Element reflects the City's desire to maintain a maximum roadway cross-section of six-lanes such that major roadways do not become barriers for modes of travel other than the automobile. Additionally, the City desires Folsom Boulevard to have a maximum roadway cross-section of four-lanes to promote use of the LRT system and pedestrian activity along Folsom Boulevard in the City's new "downtown" area.

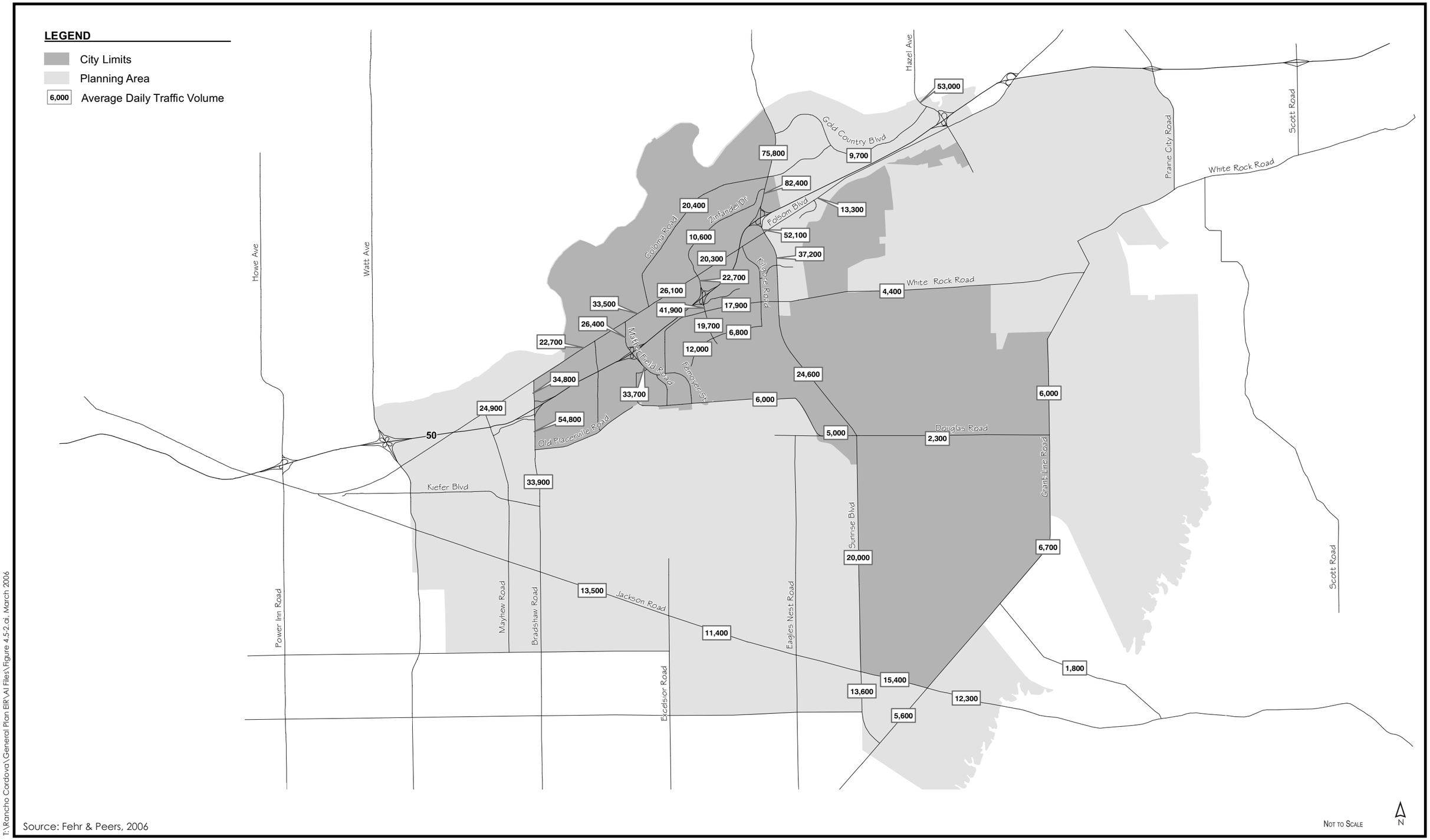
Proposed City Policy C.1.2 generally establishes that roadways would not operate at LOS E or LOS F unless widening of the roadway would conflict with specified maximum cross-sections identified in the proposed General Plan Roadway System Sizing Map. In cases where congestion would occur in excess of LOS E or LOS F, such congestion could be accepted if provisions are made to improve traffic flow and/or promote non-vehicular transportation.

Caltrans prepares a Transportation Concept Report (TCR) for each of its facilities in the area. A TCR is a long-term planning document that each Caltrans district prepares for every state highway or portion thereof in its jurisdiction. This document usually represents the first step in Caltrans' long-range corridor planning process. The purpose of a TCR is to determine how a highway will be developed and managed so that it delivers the targeted LOS and quality of operations that are feasible to attain over a 20-year period. These are indicated in the "route concept." In addition to the 20-year route concept level, the TCR includes an "ultimate concept," which is the ultimate goal for the route beyond the 20-year planning horizon. Ultimate concepts should be used cautiously, however, because unforeseen changes in land use and other variables make forecasting beyond 20 years difficult. SR-16 in the project study area has a route concept level of LOS E. U.S. 50 in the project study area has a route concept level of LOS F.

For the purposes of this assessment, the City's proposed LOS policy and the intent of the proposed General Plan Roadway System Sizing Map shall be used to identify impacts to all roadway facilities (a worst-case approach for identifying significant impacts).

EXISTING TRAFFIC VOLUMES

Fehr & Peers conducted daily roadway segment and AM and PM peak period traffic counts during the second quarter of 2003 and the first quarter of 2004. Fehr & Peers also collected counts at selected locations during the fourth quarter of 2005 to identify any significant changes (the 2005 counts were within one percent of the 2003 and 2004 counts). **Figure 4.5-2** shows existing daily roadway segment traffic volumes for local roadways in the Planning Area.



Source: Fehr & Peers, 2006

T:\Rancho Cordova\General Plan EIR\AI Files\Figure 4.5-2.ai, March 2006

City of Rancho Cordova
Planning Department

Figure 4.5-2
Average Daily Traffic Volumes
Exisiting Conditions

4.5.2 EXISTING TRAFFIC CONDITIONS

Existing operation of the study area roadways, freeways, transit system, and bicycle/pedestrian facilities are discussed below.

ROADWAY SEGMENTS

Table 4.5-3 presents the existing conditions analysis for roadway segments. Based on field observations, most of the study roadways were assumed to have moderate access control (limitations on local access points onto roadway) except for Hazel Avenue (U.S. 50 to Winding Way) and Sunrise Boulevard (Douglas Road to SR-16), which were assumed to have high access control. Kiefer Boulevard (Grant Line Road to just north of SR-16) was classified as a rural two-lane collector.

TABLE 4.5-3
ROADWAY LEVEL OF SERVICE - EXISTING CONDITIONS

Roadway Segment		Existing Conditions			
		Lanes	Volume	V/C	LOS
1.	SR-16 – Bradshaw Road to Excelsior Road	2	13,500	0.75	C
2.	SR-16 – Excelsior Road to Eagles Nest Road	2	11,400	0.63	B
3.	SR-16 – Sunrise Boulevard to Grant Line Road	2	15,400	0.86	D
4.	SR-16 – East of Grant Line Road	2	12,300	0.54	D
5.	Kiefer Boulevard – Grant Line Road to North of SR-16[1]	2	1,800	0.09	B
6.	Mather Boulevard – Femoyer Street to Douglas Road	2	6,000	0.33	A
7.	Douglas Road – Mather Boulevard to Sunrise Boulevard	2	5,000	0.28	A
8.	Douglas Road – Sunrise Boulevard to Grant Line Road	2	2,300	0.13	A
9.	International Drive – South White Rock Road to Zinfandel Drive	4	12,000	0.33	A
10.	International Drive – Zinfandel Drive to Kilgore Road	4	6,800	0.19	A
11.	White Rock Road – Zinfandel Drive to Sunrise Boulevard	6	17,900	0.33	A
12.	White Rock Road – Sunrise Boulevard to Grant Line Road	2	4,400	0.24	A
13.	Folsom Boulevard – Sunrise Boulevard to Hazel Avenue	4	13,300	0.37	A
14.	Folsom Boulevard – Watt Avenue to Bradshaw Road	4	24,900	0.69	B
15.	Folsom Boulevard – Bradshaw Road to Mather Field Road	4	22,700	0.63	B
16.	Folsom Boulevard – Mather Field Road to Coloma Road	4	33,500	0.93	E
17.	Folsom Boulevard – Coloma Road to Zinfandel Drive	4	26,100	0.73	C
18.	Folsom Boulevard – Zinfandel Drive to Sunrise Boulevard	4	20,300	0.56	A
19.	Mather Field Road – Folsom Boulevard to U.S. 50 Westbound Ramps	4	26,400	0.73	C
20.	Mather Field Road – U.S. 50 Eastbound Ramps to International Drive	6	33,700	0.62	B
21.	Zinfandel Drive – Folsom Boulevard to U.S. 50 Westbound Ramps	4	22,700	0.63	B

22.	Zinfandel Drive – U.S. 50 Eastbound Ramps to White Rock Road	6	41,900	0.78	C
23.	Zinfandel Drive – White Rock Road to International Drive	6	19,700	0.36	A
24.	Zinfandel Drive – Folsom Boulevard to Sunrise Boulevard	2	10,600	0.59	A
25.	Sunrise Boulevard – Gold Country Drive to Coloma Road	6	75,800	1.40	F
26.	Sunrise Boulevard – Coloma Road to U.S. 50 Westbound Ramps	6	82,400	1.53	F
27.	Sunrise Boulevard – U.S. 50 Eastbound Ramps to Folsom Boulevard	6	52,100	0.96	E
28.	Sunrise Boulevard – Folsom Boulevard to White Rock Road	6	37,200	0.69	B
29.	Sunrise Boulevard – White Rock Road to Douglas Road	4	24,600	0.68	B
30.	Sunrise Boulevard – Douglas Road to SR-16[2]	2	20,000[3]	1.00	E
31.	Sunrise Boulevard – SR-16 to Grant Line Road	2	13,600	0.76	C
32.	Hazel Avenue – Winding Way to U.S. 50 Westbound Ramps[2]	4	53,000	1.33	F
33.	Grant Line Road – White Rock Road to Douglas Road	2	6,000	0.33	A
34.	Grant Line Road –Douglas Road to SR-16	2	6,700	0.37	A
35.	Grant Line Road – SR-16 to Sunrise Boulevard	2	5,600	0.31	A
36.	Coloma Road – Sunrise Boulevard to Folsom Boulevard	2	20,400	0.57	A
37.	Gold Country Drive – Sunrise Boulevard to Folsom Boulevard	2	9,700	0.54	A
38.	Bradshaw Road – Folsom Boulevard to U.S. 50	6	34,800	0.64	B
39.	Bradshaw Road – U.S. 50 to Old Placerville Road	6	54,800	1.01	F
40.	Bradshaw Road – Old Placerville Road to Kiefer Boulevard	4	33,900	0.94	E

Notes: [1] *Roadway segment is currently not a through roadway.*
[2] *Roadway segment assumed to have high access control.*
[3] *Roadway segment operates at capacity.*
Shaded areas indicate deficiency.
Source: Fehr & Peers, 2005.

The following roadway segments operate unacceptably at LOS E or LOS F:

- Folsom Boulevard – Mather Field Road to Coloma Road
- Sunrise Boulevard – *Gold Country Drive* to Coloma Road
- Sunrise Boulevard – Coloma Road to U.S. 50 Westbound Ramps
- Sunrise Boulevard – U.S. 50 Eastbound Ramps to Folsom Boulevard
- Sunrise Boulevard – Douglas Road to SR-16
- Hazel Avenue – Winding Way to U.S. 50 Westbound Ramps
- Bradshaw Road – U.S. 50 to Old Placerville Road
- Bradshaw Road – Old Placerville Road to Kiefer Boulevard

From a driver's perspective, some segments may appear more congested than suggested by the calculations (see **Table 4.5-3** and **4.5-4**) (such as Sunrise between Folsom and White Rock). This is because the actual source of the bottleneck is elsewhere, but the spillback affect can propagate to other segments. This method of reporting is common practice does not identify impacts on segments affected by downstream bottlenecks, but does identify the location where the bottleneck occurs and where mitigation is appropriate.

FREEWAY FACILITIES

Table 4.5-4 summarizes peak hour freeway segment LOS.

TABLE 4.5-4
FREEWAY SEGMENT LEVEL OF SERVICE - EXISTING CONDITIONS

Segment	Number of Lanes[3]	AM Peak		PM Peak	
		Density[1]	LOS[2]	Density[1]	LOS[2]
Eastbound U.S. 50					
Bradshaw Road to Mather Field Road	4	45	E	35	E
Mather Field Road to Zinfandel Drive	4	32	D	35	E
Zinfandel Drive to Sunrise Boulevard	4	23	C	35	E
Sunrise Boulevard to Hazel Avenue	3	27	D	36	E
Hazel Avenue to Folsom Boulevard	3	26	D	31	D
Westbound U.S. 50					
Folsom Boulevard to Hazel Avenue	2	-	F	-	F
Hazel Avenue to Sunrise Boulevard	3	36	E	26	C
Sunrise Boulevard to Zinfandel Drive	4	34	D	25	C
Zinfandel Drive to Mather Field Road	4	34	D	29	E
Mather Field Road to Bradshaw Road	4	34	D	-	F

Notes: [1] *Density in passenger cars per mile per lane.*
[2] *LOS = Level of Service.*
[3] *Excludes HOV lanes.*
Shaded identifies unacceptable operations.
Source: Fehr & Peers, *2005.*

The analysis indicates that the following segments operate at an unacceptable LOS E or LOS F during one of the peak hours:

Eastbound U.S. 50

- West of Mather Field Road – AM and PM peak hours
- Mather Field Road to Zinfandel Drive – PM peak hour
- Zinfandel Drive to Sunrise Boulevard – PM peak hour
- Sunrise Boulevard to Hazel Avenue – PM peak hour

Westbound U.S. 50

- East of Hazel Avenue – AM and PM peak hours
- Hazel Avenue to Sunrise Boulevard – AM peak hour
- Zinfandel Drive to Mather Field Road – PM peak hour
- West of Mather Field Road – PM peak hour

In addition to the above, the 2004 Caltrans District 3 *Highway Congestion Monitoring Program (HICOMP) for Sacramento Metropolitan Area*, identifies congested (LOS F) conditions on the following U.S. 50 segments:

- Westbound Folsom Boulevard to Hazel Avenue - AM peak
- Westbound Zinfandel Drive to Bradshaw Road - AM & PM peak
- Eastbound Zinfandel Drive to Folsom Boulevard - PM peak hour

Although generally consistent, the different results are due to the differences in analysis methodology. The LOS results in the HICOMP report are based on field measurements using a "floating car" method, which includes the affect of downstream bottlenecks that cause vehicle queues that impact upstream operations. As discussed above, the HCM (Highway Capacity Manual) methodology was used, which does not account for downstream conditions. This is appropriate in isolating the source of the bottleneck and identifying measures to mitigate the bottleneck location.

Caltrans is conducting the *U.S. Highway 50 HOV Lane Project Plus Community Enhancement Project*. This project proposes to add HOV lanes (one lane eastbound and one lane westbound) between Sunrise Boulevard and Downtown Sacramento and to develop strategies and projects to improve the street system adjacent to U.S. 50.

TRAFFIC SAFETY

Recent accident history (January 1, 2005 through December 31, 2005) for the City of Rancho Cordova was researched to identify the City's highest accident locations. The fifteen highest accident roadway segments and intersections are summarized below:

Intersection	Number of Accidents	Roadway Segment	Number of Accidents
Sunrise/Coloma	25	Olson: Progress to Zinfandel	12
Folsom/Mather Field	17	Zinfandel: Olson to Folsom	12
Olson/Zinfandel	16	Old Placerville: Granby to Bradshaw	11
Coloma/Malaga	14	Sunrise: Gold Express to Coloma	11
Sunrise/Zinfandel	13	Zinfandel: Mobile Country Club to Vehicle	11
Folsom/Sunrise	11	Sunrise: Mobile County to U.S. 50 Westbound Ramps	11
Sunrise/Douglas	10	Bradshaw: Countyroads to Lincoln Village	7
Coloma/Trinity River	9	Sunrise: Trade Center to Folsom	6
Gold Express/Sunrise	9	Coloma: Trinity River to Vehicle	6
Coloma/Folsom	8	Coloma: Ranchito to Elmanto	5
Folsom/La Loma	8	Folsom: Dawes to Mather Field	5
Mather Field/Croydon	8	Folsom: Mather Field to La Loma	5
Coloma/Chase	7	Coloma: Ananda to Chase	5
Folsom/Olson	7	Mather Field: Folsom to Mills Station	5
International/Data	7	Sunrise: Coloma to Mobile Country Club	5
Zinfandel/Data	7	Sunrise: Gold Country to Gold Express	5
Zinfandel/White Rock	7		

TRANSIT SYSTEM

Sacramento Regional Transit (RT) operates bus and light rail transit (LRT) service in Sacramento County, including the Planning Area. Existing fixed-route bus and LRT service near the project site are described below.

Fixed-Route Bus Service

Fixed-route bus service within the Rancho Cordova Planning Area is provided by Routes 21, 28, 72, 73, 74, 75, and 91. These routes are described in detail below:

- *Route 21* begins at the Sunrise Mall in Citrus Heights and continues south, along Sunrise Boulevard, Coloma Road, and Folsom Boulevard to the Mather/Mills LRT station. It operates Monday through Friday on approximately 30-minute headways and Saturdays, Sundays, and holidays on 60- to 70-minute headways.

- *Route 28* begins at Sunrise Mall in Citrus Heights and continues south, along Fair Oaks Boulevard, Sunrise Boulevard, Zinfandel Drive, Cordova Lane, and Folsom Boulevard to the Butterfield LRT station. It operates Monday through Saturday on approximately 60-minute headways. On Sundays and holidays, the route only operates between the Butterfield LRT station and the Mather/Mills LRT station.

- *Route 72* begins at the Watt/Manlove LRT station and extends eastward using Watt Avenue, Kiefer Boulevard, Branch Center Drive, Bradshaw Road, Lincoln Village Drive, Routier Road, Rockingham Drive, and Mather Field Road to the Mather/Mills LRT station. Route 72 operates Monday through Sunday (including holidays) on 30- to 60-minute headways.

- *Route 73* provides service within Rancho Cordova, between the Mather/Mills LRT station and the Sunrise LRT station. It operates on Mather Field Road, Rockingham Drive, White Rock Road, Sunrise Boulevard, Trade Center Drive, and Citrus Road. Route 73 operates on Monday through Saturday on 60-minute headways. There is no service on Sundays or holidays.

- *Route 74* operates between the Mather/Mills LRT station and the Sunrise LRT station, within Rancho Cordova, on Mather Field Road, International Drive, Data Drive, Research Drive, Zinfandel Drive, White Rock Road, Prospect Drive, Sun Center Drive, Trade Center Drive, and Citrus Road. It operates Monday through Saturday on 60-minute headways. There is no service on Sundays or holidays.

- *Route 75* operates in the Mather Field Area of Rancho Cordova, beginning at the Mather/Mills LRT station and extending south and operating on Mather Field Road, Peter A. McCuen Way, Femoyer Street, Mather Boulevard, Macready Avenue, Old Placerville Road, and Rockingham Drive. It operates Monday through Sunday (including holidays) on 60-minute headways.

- *Route 91* provides service between Roseville and Rancho Cordova, including service to Sunrise Mall in Citrus Heights. The route begins at the I-80/Riverside Road/Auburn Road interchange and extends south on Auburn Road, Twin Oaks Avenue, and Sunrise Boulevard to the Sunrise LRT station. It operates on 30- to 60-minute headways on Monday through Sunday (including holidays).

Light Rail Transit Service

Light Rail Transit (LRT) service is provided from Downtown Sacramento along the U.S. 50 corridor to the Sunrise Boulevard Station. An LRT extension eastward to the City of Folsom was recently completed and is under operation.

The following LRT stations provide service within the Planning Area:

- Mather/Mills station located at the Mather Field Road/Folsom Boulevard intersection. The station has 298 total parking spaces.
- Zinfandel station located at the Zinfandel Drive/Folsom Boulevard intersection.
- Cordova Town Center station located at the Cordova Lane/Folsom Boulevard intersection.
- Sunrise station located at the Sunrise Boulevard/Folsom Boulevard intersection. The station has 487 parking spaces.
- Hazel station located at the Hazel Avenue/Folsom Boulevard intersection. The station has 432 parking spaces.

A windshield survey was conducted by Fehr & Peers[2] of the existing LRT parking lots which indicated that the Mather/Mills lot is the most utilized at approximately 80% occupied. The Sunrise station was approximately 50% occupied, while the Hazel station was approximately 20% occupied.

Bicycle/Pedestrian Facilities

Bicycle facilities include Class I (off-street facilities), Class II (on-street bicycle lanes identified with signage and markings), and Class III (on-street bicycle routes identified by signage). Pedestrian facilities are comprised of paths, sidewalks, and pedestrian crossings.

A Class I off-street bike paths exist along the Folsom South Canal, American River, and along a portion of Sunrise Boulevard south of the American River. There is a bike/pedestrian only crossing of U.S. 50 between Mather Field Road and White Rock Road. Sidewalks exist on most streets within the City that are in developed areas.

The City of Rancho Cordova recently completed a bicycle circulation study that identifies existing and proposed bicycle facilities citywide (see **Figure 3.0-20**). The City will be preparing a Bicycle and Pedestrian Master Plan (BPMP) after the City adopts its new General Plan. The purpose of the BPMP is to improve and encourage bicycle and pedestrian transportation in the City of Rancho Cordova. The BPMP will incorporate the bicycle circulation study and establish goals and policies for planning and implementing bicycle and pedestrian facilities in the City of Rancho Cordova.

[2] Survey was conducted February 2006, at approximately 10:00 AM to capture peak parking demand.

Aviation System

Mather Field is located in the Planning Area just south of the Mather Field Road/U.S. 50 interchange. Mather Air Force Base was decommissioned by the federal government and officially closed in September 1993. Mather Field is comprised of 5,716 acres and, at the time of decommission, the runways and associated facilities became Mather Airport.

Mather Airport (2,875 acres) re-opened for general aviation and air cargo use in May 1995. The airport has one of the largest runways in Sacramento Country, and is typically used by air cargo carriers. United Parcel Service has established permanent operations at Mather, and the airport is also used as a general aviation airport for businesses with corporate jets.

The remaining property (other than the airport) consists of a regional park, commerce center, and housing.

4.5.3 REGULATORY FRAMEWORK

STATE OF CALIFORNIA TRANSPORTATION CONCEPT REPORTS

As described previously in subsection 4.4.1, Caltrans prepares a Transportation Concept Report (TCR), which is a long-term planning document for the state highways. SR 16 in the project study area has a route concept level of LOS E, and the ultimate concept for SR 16 is a four-lane facility with continuous left-turn lane. U.S. 50 in the project study area has a concept level of LOS F and the ultimate concept for U.S. 50 is a 10- to 12-lane freeway between Sunrise Boulevard and SR 99 and an eight-lane freeway with HOV lanes east of Sunrise Boulevard, with a proposal to add HOV lanes west of Sunrise Boulevard.

SACRAMENTO COUNTY GENERAL PLAN

The existing Sacramento County General Plan was adopted in December of 1993. The County's General Plan is currently undergoing update. The update addresses plans for growth in the next planning cycle (2004-2025) as well as addressing new emerging planning issues. Topics addressed in the Update Project include, but are not limited to, holding capacity, infrastructure financing, policy analysis, smart growth planning, and mature communities. Currently adopted key General Plan policies regarding transportation and circulation that are applicable to the Planning Area outside of the City limits include:

- Regional land use and transportation planning (policies CI-2, CI-9 and CI-24)
- Provisions for transit (policies CI-3, CI-5, CI-13 and CI-14)
- Provisions for bicycle and pedestrian modes of transportation (policies CI-5, CI-6, CI-14 and CI-35)
- Level of service standards (LOS D for rural collectors and LOS E urban area roads) and mitigation of traffic impacts (policies CI-9, CI-22 and CI-23)

The Sacramento County Transportation Plan identifies the following circulation improvements to Planning Area roadways for pre and post year 2010 conditions:

- SR 16 – 6 lanes

- Sunrise Reliever (now referred to as Rancho Cordova Parkway) – 6 lanes with a transit feeder line network
- Grant Line Road – 6 lanes
- Hazel Connection to Grant Line Road – 6 lanes
- Sunrise Boulevard – 6 lanes with a transit feeder line network
- Folsom Boulevard – 6 lanes with a transit trunk line network
- Douglas Road – 6 lanes
- International Drive – 6 lanes
- White Rock Road – 6 lanes
- Future Sunrise Reliever (now referred to as Rancho Cordova Parkway) Interchange

2010 SACRAMENTO CITY/COUNTY BIKEWAY MASTER PLAN

The Bikeway Master Plan identifies existing and planned bicycle routes through and near the Planning Area. The Master Plan also contains design, safety, and traffic control standards for use in constructing and/or upgrading facilities within the city of Rancho Cordova.

As discussed previously in this chapter, the City of Rancho Cordova has identified bicycle facilities for implementation as part of the General Plan process (see **Figure 3.0-20**). Additionally, the City will be preparing a Bicycle and Pedestrian Master Plan to aid implementation of pedestrian and bicycle facilities.

TRANSIT MASTER PLAN

Regional Transit's 20-year Master Plan for transit facilities planned feeder bus service for Sunrise Boulevard, Mather Boulevard, and Zinfandel Drive. These bus lines are intended to support light rail service along the Folsom Boulevard/Highway 50 corridors, which currently extend as far east as the City of Folsom.

METROPOLITAN TRANSPORTATION PLAN (MTP) FOR 2025

The MTP 2025 (SACOG 2002) is a long-range planning document for identifying and programming roadway improvements throughout the Sacramento region. The MTP 2025 has a history of being able to fund and deliver identified Tier I projects through state and local funding. However, it is noted that the Sacramento Area Council of Governments (SACOG) adopted a new MTP in July 2005 that no longer contains regional transportation projects as a result of the lapse in air quality conformity (associated with attainment efforts for federal Clean Air Act standards for ozone). Based on consultation with SACOG and Sacramento Metropolitan Air Quality Management District, this issue will be resolved after the approval of the Rate-of-Progress State Implementation Plan for Air Quality for the Sacramento Air Basin in early 2006 and the adoption of a new MTP containing the regional transportation projects identified in the 2025 MTP.

Tier I projects identified in the MTP 2025 are summarized in the **Appendix 4.5**.

DEVELOPMENT FINANCING PLANS

The County has implemented several financing plans for implementing roadway improvements with specific plan developments in the Planning Area. The following financing plans are in place and have identified funding for improvements:

- *Villages of Zinfandel Public Facilities Financing Plan*—financing plan for development within the Villages of Zinfandel Specific Plan area, originally within County boundaries, now within City boundaries.

- *Sunridge Public Facilities Financing Plan*—financing plan for development within the Sunridge Specific Plan area, originally within County boundaries, now within City boundaries.

- *Mather Field Public Facilities Financing Plan*—financing plan for development within the Mather Field Specific Plan area in Sacramento County.

- *North Vineyard Station Public Facilities Financing Plan*—financing plan for development within the North Vineyard Station Specific Plan area in Sacramento County.

- *Vineyard Springs Comprehensive Plan Public Facilities Financing Plan*—financing plan for development within the Vineyard Springs Comprehensive Plan area in Sacramento County.

CITY OF RANCHO CORDOVA CAPITAL IMPROVEMENT PROGRAM (CIP)

Funding sources associated with the current CIP include development fees, financing districts, Measure A sales tax, and state and federal funding sources. The CIP was recently expanded and now includes updated development fees and additional roadway improvements identified in the proposed General Plan (see **Figure 3.0-19**) currently within City limits and the existing sphere of influence and would be expanded as land area is annexed into the City. The City's CIP identifies planned roadway improvements within the City/Planning Area, cost estimates, and a nexus study to identify fair-share contributions of new development. The City's CIP is fully funded and incorporates the Villages of Zinfandel and Sunridge CIP financing documents. In addition, the new CIP includes funding for improvements to existing interchanges along U.S. 50 as well as the development of a new interchange associated with the future Rancho Cordova Parkway.

MEASURE A

Measure A is a half-cent sales tax approved by voters to implement transportation improvements in the Sacramento region. Some specific roadway improvements in the Planning Area have been identified in Measure A as receiving funding from the measure.

SACRAMENTO REGION BLUEPRINT

The Sacramento Region Blueprint process, initiated by SACOG in 2002, evaluated the affects of land use planning and transportation decisions within the six-county region (including Sacramento, Yolo, Placer, Sutter, Yuba and El Dorado counties). The process evaluated a Year 2050 land use horizon for the following land use development scenarios:

- *Base Case Scenario (Scenario A)* – Future development within the region that is similar to current growth trends (fairly low density). This scenario has an outward growth pattern, with jobs-housing imbalances in sub-areas, which promotes urban sprawl.

- *Scenario B* – More housing choices than in the Base Case Scenario with some growth through re-investment. The scenario incorporates a mix of land uses with "edge" cities accounting for the most growth.

- *Scenario C* – Slightly higher housing densities and re-investment than Scenario B. Scenario C incorporates a mix of land uses with "inner ring" areas (like Rancho Cordova) accounting for the most growth.

- *Scenario D* – Highest housing densities and re-investment levels when compared to the other scenarios. Scenario D incorporates a mix of land uses with "core" areas (near downtown Sacramento) accounting for the most growth.

Scenario C has been chosen by most jurisdictions in the region as the preferred alternative to guide land use planning and transportation for the future and was adopted by SACOG in 2004. The proposed City Rancho Cordova General Plan has been developed based on this scenario.

The travel demand forecasting models created by SACOG for the Blueprint project were used in this EIR to qualitatively assess the effects on the regional transportation system of land use decisions within the Planning Area on the regional transportation system. The following scenarios were evaluated:

- Base Case Scenario

- Scenario C

- Modified Scenario –Scenario C land use within the Planning Area and Base Case Scenario land use outside of Rancho Cordova. This scenario was analyzed to assess the impacts of increased development within the City and Planning Area assuming that other regional jurisdictions continue land use development consistent with Scenario A, the "status quo." The modified scenario is consistent with analysis assumptions prepared to evaluate impacts of the proposed General Plan.

A performance measure of vehicle miles traveled (VMT) was used to compare the above referenced scenarios, consistent with the Blueprint process. VMT was calculated separately for trips originating in, or destined for, the City of Rancho Cordova (within the existing City limits) and for trips from the rest of the region. The VMT results for Scenario C and the Modified Scenario were compared to the Base Case Scenario to assess impacts to the regional roadway system if the region developed consistent with Scenario C, or if the City of Rancho Cordova was the only jurisdiction to implement land use consistent with Scenario C (i.e., under the Modified Scenario). **Table 4.5-5** summarizes Blueprint comparison results.

TABLE 4.5-5
BLUEPRINT VEHICLE MILES TRAVELED (VMT) COMPARISON

SACOG Scenarios	Change in VMT (Compared to the Base Case Scenario)	
	Trips To / From Rancho Cordova	Trips Outside of Rancho Cordova
Scenario C	10% Higher	15% Lower
Modified Scenario	29% Higher	2% Lower

Source: Fehr & Peers and SACOG, 2005.

The results of the VMT comparison reflect that increased density within Rancho Cordova would increase traffic (VMT) within the City when compared to the Base Case Scenario. However, increased density within Rancho Cordova under Scenario C or the Modified Scenario will have regional benefits as VMT in the region would decrease. Consistent with the above descriptions of Scenario C and the Modified Scenario, these results also indicate that substantial regional and local benefits would occur if land use in the region were developed consistent with Scenario C.

For the purposes of this EIR, land use outside the City's Planning Area is expected to grow at the Base Case Scenario, since no other jurisdictions have adopted SACOG Blueprint Scenario C as their land use plan. This is a conservative assumption for identifying environmental impacts.

CALTRANS DESIGN INFORMATION BULLETIN 77

Caltrans issues Design Information Bulletins (DIBs) to assist in the design and requirements for modifications to the state's highway system. DIB 77 specifically addresses new or modified interchanges to the state's highway system, such as connectivity to U.S. 50. DIB 77 consists of the following requirements prior to approval of interchange modification approvals:

- *Interchange Justification (for new interchange proposals)* – It must be demonstrated that existing interchanges and/or local roads and streets in the corridor can neither provide the necessary traffic service nor be improved to satisfactorily accommodate the design-year traffic demands.

- *Consideration of Alternatives* – It must be demonstrated that all reasonable alternatives for design options, location, and transportation system management TYPE improvements (such as ramp metering, mass transit, and HOV facilities) have been assessed and provided for if currently justified, or provisions are included for accommodating such facilities if a future need is identified.

- *Interchange Spacing* – Interchange improvements must comply with the spacing requirements of the Highway Design Manual and DIB 77. If not, design exception approval for the proposed deviation must be requested and obtained before the project will be considered for conceptual (PSR) approval.

- *No Significant Adverse Impact* – The proposed interchange does not have a significant adverse impact on the safety and operation of the highway facility based on an analysis of current and future traffic.

- *Connection to Public Road* – The proposed interchange connects to a public road only and will provide all traffic movements.

- *Meets Local Planning* – The proposal considers and is consistent with local and regional land use and transportation plans.

- *Coordination With Development* – The request for a new or revised interchange generated by new or expanded development requires appropriate coordination between the development and related or otherwise required transportation system improvements.

Of particular concern with DIB 77 is the "No Significant Adverse Impact" requirement. Since U.S. 50 is currently operating at a poor LOS, there may be difficulties connecting or upgrading interchanges and demonstrating that they will not have an adverse affect on freeway operations.

DIB 77 may also be in direct conflict with the Sacramento Region Blueprint process, as increased development densities in the "ring" area around downtown Sacramento, like Rancho Cordova, will require new interchanges (such as the Rancho Cordova Parkway) and upgrades to existing interchanges. However, DIB 77 requires that these modifications not adversely affect already poor operations on U.S. 50. The adherence to DIB 77 would be used to force development to occur where new interchanges or interchange modifications can be implemented, most likely in areas where the freeway system is currently operating at uncongested levels, thus encouraging further sprawl.

50 CORRIDOR MOBILITY PARTNERSHIP

Rancho Cordova is participating in the 50 Corridor Mobility Partnership, which is evaluating transportation infrastructure needs in a study area from the American River to Jackson Road and from Bradshaw Road to El Dorado Hills. The multi-jurisdictional effort (consisting of the Cities of Rancho Cordova and Folsom, Counties of Sacramento and El Dorado, and Caltrans) confirms the analysis in the General Plan ADEIR that 1) congestion levels on Sunrise Boulevard north of Folsom Boulevard and on US 50 through the entire study area will continue to rise, influencing travel patterns over a wide area, and 2) regional efforts to improve those facilities should be aggressively pursued but will be difficult to implement. Therefore, new and improved parallel facilities must be emphasized, consistent with the City's General Plan.

4.5.4 IMPACTS AND MITIGATION MEASURES

This subsection describes the transportation analysis of the General Plan and identifies potential impacts and mitigation measures that would be associated with the adoption of the proposed General Plan. Quantitative transportation/traffic impact analyses were conducted for the three scenarios (the "analysis scenarios"), which are described in the Methodology subsection of this chapter.

STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the following State CEQA Guidelines Appendix G. A transportation/traffic impact is considered significant if implementation of the proposed General Plan would result in the following:

- Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections).

- Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways.
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- Result in inadequate emergency access.
- Conflict with adopted policies, plans or programs supporting alternative transportation.

Consistent with California Government Code Section 65089, the Sacramento Transportation Authority (STA), acting as the County's Congestion Management Agency (CMA), was responsible for preparing, monitoring, and enforcing the County's Congestion Management Plan (CMP). In 1996, all jurisdictions in the Sacramento area were determined to be exempt from the CMP in accordance with Assembly Bill (AB) 2419 (Bowler), Section 65088.3. Therefore, threshold of significance (2) (above) is not applicable.

Significant impacts of the proposed General Plan were identified according to the following criteria:

1) Conflict with circulation provisions or standards of the City, Sacramento County, and Caltrans that would result in physical effect to the environment (threshold of significance [1], [2] and [6]). This would include conflicts with the Sacramento County General Plan Transportation Plan roadway design and LOS standards (LOS D for rural collectors and LOS E for urban area roads). For Caltrans facilities (SR 16 and U.S. 50), a significant impact would include causing a facility to operate at an unacceptable level (based on the Route Concept Report) or the addition of 10 trips or more to a freeway facility already operating at an unacceptable level.

2) Degrade LOS based on the following criteria for significance (threshold of significance [1]):

    - LOS reaching E or F, if existing LOS is D or better
    - Any measurable increase in traffic[3] if existing LOS is E or F

3) Conflict with policies, plans, or programs supporting alternative transportation or increase demands for transit facilities greater than planned capacity (e.g., transit service, carpooling, bicycling, walking) (threshold of significance [6]).

4) The project is considered to have a significant effect on bike and pedestrian facilities if it would result in adverse effects to existing bikeways or pedestrian facilities that would discourage their use and result in safety issues (thresholds of significance [4] and [7] above.

[3] Measurable increase is defined as an increase in the volume-to-capacity ratio (V/C) of 0.05 for roadway segments, or at least ten vehicles in a peak hour to freeway segments.

Impacts associated with potential conflicts with air traffic (threshold of significance [3] above) is addressed in Section 4.1 (Land Use) and Section 4.4 (Hazards and Human Health). The proposed Mather Airport Master Plan includes provisions to expand operations at the airport through the year 2020. The proposed General Plan is not expected to result in further expansion given the airport's primary use by cargo carriers.

TRANSPORTATION ANALYSIS METHODOLOGY AND RESULTS

The transportation impact analysis is focused on potential LOS impacts that would occur from increased travel demand associated with new land development under the proposed General Plan.

Analysis Methodology

Preparation of the transportation analysis for the roadway system followed the steps described below. For other components of the transportation system, the policies and implementation measures were evaluated against the significance thresholds.

TDF Model Development

A modified version of the SACMET regional travel demand forecasting (TDF) model (v.01) was used to develop daily, AM peak hour, PM peak hour, and peak six-hour traffic volume forecasts for the study roadways, ramps, and freeway segments for the analysis scenarios identified above (Year 2030 Conditions, Buildout of the Entire Planning Area With General Plan Roadway Improvements for Year 2030 and Buildout of the Entire Planning Area With Complete General Plan Roadway Improvements). The TDF model was specifically calibrated through the U.S. 50 corridor, including El Dorado County, the City of Folsom, the surrounding Sacramento County areas, and the City of Rancho Cordova. The calibration effort consisted of adding detail to the SACMET model by disaggregating Traffic Analysis Zones (TAZs), updating roadway connectivity in the area to reflect existing conditions, and updating existing land use in the area. The model was validated to Year 2004 Conditions within the City of Rancho Cordova.

Land Use Data

Land use data for the Planning Area (dated December 22, 2005)[4] was developed by the City of Rancho Cordova. The land use data were provided by traffic analysis zone (TAZ) for Year 2030 Conditions and General Plan Buildout Conditions. TAZs are geographic polygons used to organize land use data for input into a travel demand forecasting (TDF) model. The TAZs are defined by natural borders such as roads, waterways, and topography that typically represents areas of homogenous travel behavior.

Land use outside the Planning Area was estimated by Fehr & Peers by increasing development assumptions reflected in the SACMET model from a Year 2025 horizon to a Year 2030 horizon. Future development in the area, such as the Folsom Sphere of Influence area, the Folsom Promenade development, the Vineyard Springs Specific Plan, the Florin-Vineyard Community Plan, North Vineyard

[4] Since commencement of the traffic analysis in December 2005, the City has further refined the buildout projections for the Planning Area. This refinement resulted in reductions in the buildout condition of the Planning Area. The traffic in this analysis; however, utilizes buildout projections that now overstate development conditions in the Planning Area, which is a conservative approach under CEQA that ensures full evaluation of potential transportation and traffic impacts under the proposed General Plan.

Station Specific Plan, the Bradshaw Landing development, and other known developments were incorporated into the land use projections.

Roadway Network Modifications

Roadway improvements included into the forecasting model outside the Planning Area are based on Tier 1 roadway improvements identified in the MTP 2025. Roadway improvements within the Planning Area are based on roadway network connectivity identified in the City's Circulation Plan.

Transit Enhancements

Appropriately incorporated into the travel demand model as identified in the proposed General Plan, these facilities were accounted for in the City's mode choice prior to assignment of project trips to the roadway network.

Forecast Development

The following TDF model runs were prepared for use in this analysis:

- *Year 2030 Conditions.* This development scenario is based on expected development levels within the Rancho Cordova Planning Area, as proposed by the General Plan, and within the Sacramento region by year 2030. This analysis incorporates the roadway system identified in the proposed General Plan as being implemented by year 2030 (see **Figure 3.0-19**). This scenario contemplates near buildout within the current City limits.

- *Buildout of the Entire Planning Area With General Plan Roadway Improvements for Year 2030.* This development scenario assumes full buildout of the Rancho Cordova Planning Area, as proposed by the General Plan, and assuming year 2030 levels of development within the remainder of the Sacramento region. This analysis incorporates the roadway system identified in the proposed General Plan as being implemented by year 2030 (see **Figure 3.0-19**).

- *Buildout of the Entire Planning Area With Complete General Plan Roadway Improvements.* This development scenario assumes full buildout of the Rancho Cordova Planning Area, as proposed by the General Plan, and assuming year 2030 levels of development within the remainder of the Sacramento region. This analysis incorporates the ultimate roadway system (roadway improvements identified beyond year 2030) identified in the proposed General Plan (see **Figure 3.0-19**).

The TDF model was used to forecast growth on the roadway facilities between the base year and future year conditions. The incremental volume increase was added to existing volumes (obtained from counts) to develop forecasts for use in this analysis.

Environmental Effects of Proposed General Plan Circulation Improvements

As noted above and in Section 3.0 (Project Description), the proposed General Plan includes roadway expansion and capacity improvements (see **Figure 3.0-19**), bikeway and trail improvements (see **Figure 3.0-20**) and transit system improvements (see **Figure 3.0-21**). The anticipated environmental effects of these circulation improvements are programmatically considered in this EIR based on available environmental documentation, field review at a reconnaissance level and review of aerial photography. The anticipated environmental effects are listed below. Subsequent site-specific environmental review of circulation improvements

would be conducted once the improvements have been designed and exact alignments have been established.

- Temporary construction-related land use conflicts on adjacent uses associated with noise, construction traffic/access conflicts and visual impacts.
- Conversion of agricultural land from roadway extension and widening.
- Temporary construction traffic impacts from construction vehicles and construction traffic control.
- Hazardous material exposure impacts from construction of facilities (roadways, trails and transit).
- Air quality impacts from construction and operation of facilities (roadways, trails and transit).
- Noise impacts from construction and operation of facilities (roadways, trails and transit).
- Soil erosion and geologic stability impacts from construction and operation of facilities (roadways, trails and transit). This would include consideration of the post-year 2030 tunnel at the Mather Airport.
- Water quality (surface and groundwater) and drainage impacts from construction and operation of facilities (roadways, trails and transit). This would also include potential direct impacts from improvements to crossings of the Folsom South Canal as well as potential groundwater issues with the post 2030 tunnel at Mather Airport.
- Biological resource impacts associated with construction and operation of facilities (roadways, trails and transit). This would include direct and indirect impacts to wetland features, vernal pools, special-status plant and wildlife species, grassland habitat and tree resources.
- Cultural and paleontological resource impacts associated with construction activities that could impact undiscovered resources.
- Conflicts with existing and planned alignments of infrastructure facilities (water supply, wastewater conveyance, electrical distribution, natural gas, telephone and cable).
- Visual impacts with the construction of urban-type circulation improvements (e.g., 4-lane and larger roadways, transit facilities, urban interchanges).

Table 4.5-13 (at end of section) provides a summary of anticipated environmental effects from the implementation of roadway improvements shown in **Figure 3.0-19**.

Mitigating policies and action items in the proposed General Plan identified in Sections 4.1 through 4.13 of this EIR would be applied (where applicable) to minimize these environmental effects.

Analysis Results

Operations of the study area roadways, freeway facilities, and bicycle/pedestrian facilities are discussed below.

Study Roadway Segments

Impact 4.5.1 Implementation of the proposed General Plan would result in an increase in traffic volumes that would result in deficient level of service conditions in year 2030. This would be a **significant** impact.

The daily roadway segments traffic volumes shown on **Figure 4.5-3** through **Figure 4.5-5** were compared to the roadway segment thresholds summarized in **Table 4.5-1** to analyze traffic operations on the study area roadway segments for the three future analysis scenarios. **Table 4.5-6** through **Table 4.5-9** summarizes significant operation impacts to roadway segments for all analysis scenarios using the proposed City of Rancho Cordova LOS D standard. In addition, significant traffic impacts would also likely occur prior to year 2030 as development proceeds under the General Plan.

Traffic Impacts/Conflicts with Sacramento County

The following roadway segments that are currently within Sacramento County would fail to meet the County's LOS standard under the analysis scenarios evaluated:

- *Sunrise Boulevard* – Gold Country Drive to Coloma Road (under all analysis scenarios)
- *Sunrise Boulevard* – Coloma Road to U.S. 50 Westbound Ramps (under all analysis scenarios)
- *Sunrise Boulevard* – U.S. 50 Eastbound Ramps to Folsom Boulevard (under all analysis scenarios)
- *Sunrise Boulevard* – Folsom Boulevard to White Rock Road (under proposed General Plan year 2030 conditions and proposed General Plan buildout conditions with year 2030 roadway network)
- *Hazel Avenue* – Winding Way to U.S. 50 Westbound Ramps (under all analysis scenarios)
- *Bradshaw Road* – U.S. 50 to Old Placerville Road (under all analysis scenarios)
- *Bradshaw Road* – Old Placerville Road to Kiefer Boulevard (under proposed General Plan buildout conditions with year 2030 roadway network).

TABLE 4.5-6
ROADWAY LEVEL OF SERVICE – PROPOSED GENERAL PLAN YEAR 2030 CONDITIONS, YEAR 2030 ROADWAY NETWORK

Roadway Segment		Year 2030 Conditions, Year 2030 Roadway Network			
		Lanes	Volume	V/C	LOS
1.	SR-16 – Bradshaw Road to Excelsior Road	6	56,900	0.70	D
2.	SR-16 – Excelsior Road to Eagles Nest Road	6	46,500	0.57	C
3.	SR-16 – Sunrise Boulevard to Grant Line Road	6	34,800	0.43	B
4.	SR-16 – East of Grant Line Road	6	28,400	0.35	B
5.	Kiefer Boulevard – Grant Line Road to North of SR-16	4	23,300	0.65	B
6.	Mather Boulevard – Femoyer Street to Douglas Road	6	35,000	0.65	B
7.	Douglas Road – Mather Boulevard to Sunrise Boulevard	6	24,600	0.46	A
8.	Douglas Road – Sunrise Boulevard to Grant Line Road	6	23,100	0.43	A
9.	International Drive – South White Rock Road to Zinfandel Drive	6	66,600	0.82	D
10.	International Drive – Zinfandel Drive to Kilgore Road	6	66,700	0.82	D
11.	White Rock Road – Zinfandel Drive to Sunrise Boulevard	6	38,400	0.71	C
12.	White Rock Road – Sunrise Boulevard to Grant Line Road	6	51,800	0.64	C
13.	Folsom Boulevard – Sunrise Boulevard to Hazel Avenue	4	25,500	0.71	C
14.	Folsom Boulevard – Watt Avenue to Bradshaw Road	4	26,100	0.73	C
15.	Folsom Boulevard – Bradshaw Road to Mather Field Road	4	27,200	0.76	C
16.	Folsom Boulevard – Mather Field Road to Coloma Road	4	38,600	1.07	F
17.	Folsom Boulevard – Coloma Road to Zinfandel Drive	4	29,300	0.81	D
18.	Folsom Boulevard – Zinfandel Drive to Sunrise Boulevard	4	24,200	0.67	B
19.	Mather Field Road – Folsom Boulevard to U.S. 50 Westbound Ramps	6	38,500	0.71	C
20.	Mather Field Road – U.S. 50 Eastbound Ramps to International Drive	6	61,100	1.13	F
21.	Zinfandel Drive – Folsom Boulevard to U.S. 50 Westbound Ramps	6	30,600	0.57	A
22.	Zinfandel Drive – U.S. 50 Eastbound Ramps to White Rock Road	6	79,300	1.47	F
23.	Zinfandel Drive – White Rock Road to International Drive	6	43,600	0.81	D
24.	Zinfandel Drive – Folsom Boulevard to Sunrise Boulevard	2	12,100	0.67	B
25.	Sunrise Boulevard – Gold Country Drive to Coloma Road	6	95,700	1.77	F
26.	Sunrise Boulevard – Coloma Road to U.S. 50 Westbound Ramps	6	109,100	2.02	F
27.	Sunrise Boulevard – U.S. 50 Eastbound Ramps to Folsom Boulevard	6	62,000	1.15	F
28.	Sunrise Boulevard – Folsom Boulevard to White Rock Road	6	59,400	1.10	F
29.	Sunrise Boulevard – White Rock Road to Douglas Road	6	49,100	0.82	D
30.	Sunrise Boulevard – Douglas Road to SR-16[1]	6	45,200	0.75	C

Roadway Segment		Year 2030 Conditions, Year 2030 Roadway Network			
		Lanes	Volume	V/C	LOS
31.	Sunrise Boulevard – SR-16 to Grant Line Road[1]	6	29,100	0.49	A
32.	Hazel Avenue – Winding Way to U.S. 50 Westbound Ramps[1]	6	113,000	1.88	F
33.	Grant Line Road – White Rock Road to Douglas Road	6	61,300	0.76	D
34.	Grant Line Road –Douglas Road to SR-16	6	38,000	0.47	B
35.	Grant Line Road – SR-16 to Sunrise Boulevard	6	29,700	0.37	B
36.	Coloma Road – Sunrise Boulevard to Folsom Boulevard	4	25,400	0.71	C
37.	Gold Country Drive – Sunrise Boulevard to Folsom Boulevard	4	13,100	0.36	A
38.	Bradshaw Road – Folsom Boulevard to U.S. 50	6	41,400	0.77	C
39.	Bradshaw Road – U.S. 50 to Old Placerville Road	6	74,600	1.38	F
40.	Bradshaw Road – Old Placerville Road to Kiefer Boulevard	6	79,400	0.98	E
41.	Rancho Cordova Parkway – U.S. 50 to White Rock Road	6	61,900	0.76	D
42.	Rancho Cordova Parkway – White Rock Road to Douglas Road	6	32,000	0.59	A
43.	International Drive – Rancho Cordova Parkway to Sunrise Boulevard	4	17,300	0.48	A
44.	International Drive – White Rock Road to Bradshaw Road	6	59,100	0.73	D

Notes: [1] Roadway segment assumed to have high access control.
Shaded areas indicate deficiency.
Source: Fehr & Peers, 2005.

TABLE 4.5-7
ROADWAY LEVEL OF SERVICE – PROPOSED GENERAL PLAN BUILDOUT CONDITIONS, YEAR 2030 ROADWAY NETWORK

Roadway Segment		General Plan Buildout Conditions, Year 2030 Roadway Network			
		Lanes	Volume	V/C	LOS
1.	SR-16 – Bradshaw Road to Excelsior Road	6	56,600	0.70	C
2.	SR-16 – Excelsior Road to Eagles Nest Road	6	47,300	0.58	C
3.	SR-16 – Sunrise Boulevard to Grant Line Road	6	36,500	0.45	B
4.	SR-16 – East of Grant Line Road	6	28,900	0.36	B
5.	Kiefer Boulevard – Grant Line Road to North of SR-16	4	24,700	0.69	B
6.	Mather Boulevard – Femoyer Street to Douglas Road	6	37,700	0.70	B
7.	Douglas Road – Mather Boulevard to Sunrise Boulevard	6	27,300	0.51	A
8.	Douglas Road – Sunrise Boulevard to Grant Line Road	6	24,100	0.45	A
9.	International Drive – South White Rock Road to Zinfandel Drive	6	69,600	0.86	D
10.	International Drive – Zinfandel Drive to Kilgore Road	6	71,200	0.88	D
11.	White Rock Road – Zinfandel Drive to Sunrise Boulevard	6	41,300	0.76	C
12.	White Rock Road – Sunrise Boulevard to Grant Line Road	6	57,000	0.70	D
13.	Folsom Boulevard – Sunrise Boulevard to Hazel Avenue	4	27,000	0.75	C
14.	Folsom Boulevard – Watt Avenue to Bradshaw Road	4	26,200	0.73	C
15.	Folsom Boulevard – Bradshaw Road to Mather Field Road	4	27,600	0.77	C
16.	Folsom Boulevard – Mather Field Road to Coloma Road	4	39,400	1.09	F
17.	Folsom Boulevard – Coloma Road to Zinfandel Drive	4	29,700	0.83	D
18.	Folsom Boulevard – Zinfandel Drive to Sunrise Boulevard	4	25,300	0.70	C
19.	Mather Field Road – Folsom Boulevard to U.S. 50 Westbound Ramps	6	38,400	0.71	C
20.	Mather Field Road – U.S. 50 Eastbound Ramps to International Drive	6	62,400	1.16	F
21.	Zinfandel Drive – Folsom Boulevard to U.S. 50 Westbound Ramps	6	31,100	0.58	A
22.	Zinfandel Drive – U.S. 50 Eastbound Ramps to White Rock Road	6	82,300	1.52	F
23.	Zinfandel Drive – White Rock Road to International Drive	6	44,800	0.83	D
24.	Zinfandel Drive – Folsom Boulevard to Sunrise Boulevard	2	12,300	0.68	B
25.	Sunrise Boulevard – Gold Country Drive to Coloma Road	6	96,500	1.79	F
26.	Sunrise Boulevard – Coloma Road to U.S. 50 Westbound Ramps	6	110,000	2.04	F
27.	Sunrise Boulevard – U.S. 50 Eastbound Ramps to Folsom Boulevard	6	65,600	1.21	F
28.	Sunrise Boulevard – Folsom Boulevard to White Rock Road	6	62,300	1.15	F
29.	Sunrise Boulevard – White Rock Road to Douglas Road	6	50,000	0.83	D
30.	Sunrise Boulevard – Douglas Road to SR-16[1]	6	46,500	0.78	C

Roadway Segment		General Plan Buildout Conditions, Year 2030 Roadway Network			
		Lanes	Volume	V/C	LOS
31.	Sunrise Boulevard – SR-16 to Grant Line Road[1]	6	31,300	0.52	A
32.	Hazel Avenue – Winding Way to U.S. 50 Westbound Ramps[1]	6	114,700	1.91	F
33.	Grant Line Road – White Rock Road to Douglas Road	6	60,700	0.75	D
34.	Grant Line Road –Douglas Road to SR-16	6	40,800	0.50	C
35.	Grant Line Road – SR-16 to Sunrise Boulevard	6	31,600	0.39	B
36.	Coloma Road – Sunrise Boulevard to Folsom Boulevard	4	26,200	0.73	C
37.	Gold Country Drive – Sunrise Boulevard to Folsom Boulevard	4	13,100	0.36	A
38.	Bradshaw Road – Folsom Boulevard to U.S. 50	6	41,300	0.76	C
39.	Bradshaw Road – U.S. 50 to Old Placerville Road	6	76,300	1.41	F
40.	Bradshaw Road – Old Placerville Road to Kiefer Boulevard	6	82,900	1.02	F
41.	Rancho Cordova Parkway – U.S. 50 to White Rock Road	6	64,800	0.80	D
42.	Rancho Cordova Parkway – White Rock Road to Douglas Road	6	31,900	0.59	A
43.	International Drive – Rancho Cordova Parkway to Sunrise Boulevard	4	20,500	0.57	A
44.	International Drive – White Rock Road to Bradshaw Road	6	63,200	0.78	D

Notes: [1] Roadway segment assumed to have high access control.
Shaded areas indicate deficiency.
Source: Fehr & Peers, 2005.

TABLE 4.5-8
ROADWAY LEVEL OF SERVICE – GENERAL PLAN BUILDOUT CONDITIONS, POST-YEAR 2030 ROADWAY NETWORK

Roadway Segment		General Plan Buildout Conditions, Post-Year 2030 Roadway Network			
		Lanes	Volume	V/C	LOS
1.	SR-16 – Bradshaw Road to Excelsior Road	6	53,800	0.66	C
2.	SR-16 – Excelsior Road to Eagles Nest Road	6	47,700	0.59	C
3.	SR-16 – Sunrise Boulevard to Grant Line Road	6	35,300	0.44	B
4.	SR-16 – East of Grant Line Road	6	28,900	0.36	B
5.	Kiefer Boulevard – Grant Line Road to North of SR-16	4	24,800	0.69	B
6.	Mather Boulevard – Femoyer Street to Douglas Road	6	28,800	0.53	A
7.	Douglas Road – Mather Boulevard to Sunrise Boulevard	6	26,200	0.49	A
8.	Douglas Road – Sunrise Boulevard to Grant Line Road	6	23,100	0.43	A
9.	International Drive – South White Rock Road to Zinfandel Drive	6	71,400	0.88	D
10.	International Drive – Zinfandel Drive to Kilgore Road	6	70,600	0.87	D
11.	White Rock Road – Zinfandel Drive to Sunrise Boulevard	6	39,000	0.72	C
12.	White Rock Road – Sunrise Boulevard to Grant Line Road	6	48,800	0.60	C
13.	Folsom Boulevard – Sunrise Boulevard to Hazel Avenue	4	29,200	0.81	D
14.	Folsom Boulevard – Watt Avenue to Bradshaw Road	4	25,900	0.72	C
15.	Folsom Boulevard – Bradshaw Road to Mather Field Road	4	26,900	0.75	C
16.	Folsom Boulevard – Mather Field Road to Coloma Road	4	39,900	1.11	F
17.	Folsom Boulevard – Coloma Road to Zinfandel Drive	4	30,000	0.83	D
18.	Folsom Boulevard – Zinfandel Drive to Sunrise Boulevard	4	24,800	0.69	B
19.	Mather Field Road – Folsom Boulevard to U.S. 50 Westbound Ramps	6	39,300	0.73	C
20.	Mather Field Road – U.S. 50 Eastbound Ramps to International Drive	6	64,600	1.20	F
21.	Zinfandel Drive – Folsom Boulevard to U.S. 50 Westbound Ramps	6	31,500	0.58	A
22.	Zinfandel Drive – U.S. 50 Eastbound Ramps to White Rock Road	6	80,100	1.48	F
23.	Zinfandel Drive – White Rock Road to International Drive	6	44,500	0.82	D
24.	Zinfandel Drive – Folsom Boulevard to Sunrise Boulevard	2	12,400	0.69	B
25.	Sunrise Boulevard – Gold Country Drive to Coloma Road	6	95,700	1.77	F
26.	Sunrise Boulevard – Coloma Road to U.S. 50 Westbound Ramps	6	109,100	2.02	F
27.	Sunrise Boulevard – U.S. 50 Eastbound Ramps to Folsom Boulevard	6	65,300	1.21	F
28.	Sunrise Boulevard – Folsom Boulevard to White Rock Road	6	43,700	0.81	D
29.	Sunrise Boulevard – White Rock Road to Douglas Road	6	44,700	0.75	C
30.	Sunrise Boulevard – Douglas Road to SR-16[1]	6	43,400	0.72	C

Roadway Segment		General Plan Buildout Conditions, Post-Year 2030 Roadway Network			
		Lanes	Volume	V/C	LOS
31.	Sunrise Boulevard – SR-16 to Grant Line Road[1]	6	30,000	0.50	A
32.	Hazel Avenue – Winding Way to U.S. 50 Westbound Ramps[1]	6	117,900	1.97	F
33.	Grant Line Road – White Rock Road to Douglas Road	6	68,400	0.84	D
34.	Grant Line Road –Douglas Road to SR-16	6	45,800	0.57	C
35.	Grant Line Road – SR-16 to Sunrise Boulevard	6	34,000	0.42	B
36.	Coloma Road – Sunrise Boulevard to Folsom Boulevard	4	25,800	0.72	C
37.	Gold Country Drive – Sunrise Boulevard to Folsom Boulevard	4	13,100	0.36	A
38.	Bradshaw Road – Folsom Boulevard to U.S. 50	6	40,400	0.75	C
39.	Bradshaw Road – U.S. 50 to Old Placerville Road	6	75,300	1.39	F
40.	Bradshaw Road – Old Placerville Road to Kiefer Boulevard	6	75,100	0.93	E
41.	Rancho Cordova Parkway – U.S. 50 to White Rock Road	6	48,700	0.60	C
42.	Rancho Cordova Parkway – White Rock Road to Douglas Road	6	24,100	0.45	A
43.	International Drive – Rancho Cordova Parkway to Sunrise Boulevard	4	18,000	0.50	A
44.	International Drive – White Rock Road to Bradshaw Road	6	62,000	0.77	D

Notes: [1] Roadway segment assumed to have high access control.
Shaded areas indicate deficiency.
Source: Fehr & Peers, 2005.

TABLE 4.5-9
SUMMARY OF ROADWAY SEGMENTS PROJECTED TO OPERATE AT A DEFICIENT LEVEL OF SERVICE

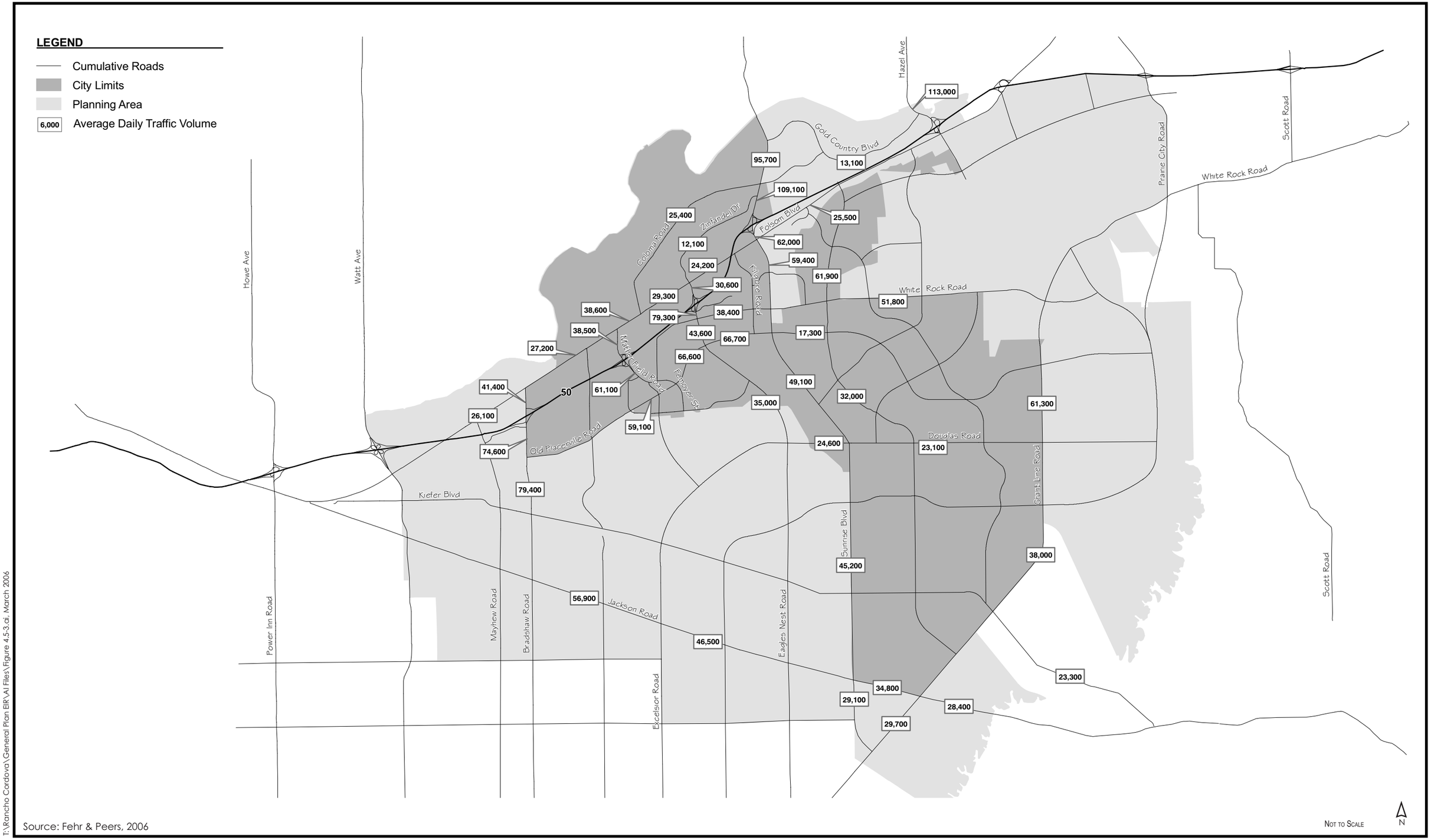
Impacted Roadway Segment		Proposed General Plan Year 2030 Conditions, Year 2030 Roadway Network	General Plan Buildout Conditions, Year 2030 Roadway Network	General Plan Buildout Conditions, Post-Year 2030 Roadway Network
16.	Folsom Boulevard - Mather Field Road to Coloma Road	X	X	X
20.	Mather Field Road - U.S. 50 Eastbound Ramps to International Drive	X	X	X
22.	Zinfandel Drive – U.S. 50 Eastbound Ramps to White Rock Road	X	X	X
25.	Sunrise Boulevard – Gold Country Drive to Coloma Road	X	X	X
26.	Sunrise Boulevard – Coloma Road to U.S. 50 Westbound Ramps	X	X	X
27.	Sunrise Boulevard – U.S. 50 Eastbound Ramps to Folsom Boulevard	X	X	X
28.	Sunrise Boulevard – Folsom Boulevard to White Rock Road	X	X	
32.	Hazel Avenue – Winding Way to U.S. 50 Westbound Ramps	X	X	X
38.	Bradshaw Road – U.S. 50 to Old Placerville Road	X	X	X
40.	Bradshaw Road – Old Placerville Road to Kiefer Boulevard	X	X	X
Total Number of Impacts:		**10**	**10**	**9**

In addition to these LOS impacts, the proposed General Plan roadway network conflicts with the Sacramento County General Plan Transportation Plan in the following aspects:

- Sizing of Folsom Boulevard (6 lanes versus 4 lanes). The County's General Plan provides additional capacity on Folsom Boulevard and would reduce impacts to the segment identified in the City's General Plan.

- Post year 2030 tunnel under Mather Airport is not identified in the Sacramento County Transportation Plan. The tunnel is assumed to be implemented after year 2030. Impacts without the tunnel were identified in analysis scenarios that included roadway improvements foreseeable prior to year 230.

- Extension of Chrysanthy Boulevard east of Sunrise Boulevard is not identified in the Sacramento County Transportation Plan. Without this connectivity, traffic volumes would increase on Sunrise Boulevard, SR-16, and Douglas Road Extension to Excelsior Road. With the exception of Sunrise Boulevard, the other roadways have sufficient capacity to serve demands. Sunrise Boulevard would likely have additional significant impacts, particularly to the segments from SR-16 to Douglas Road.

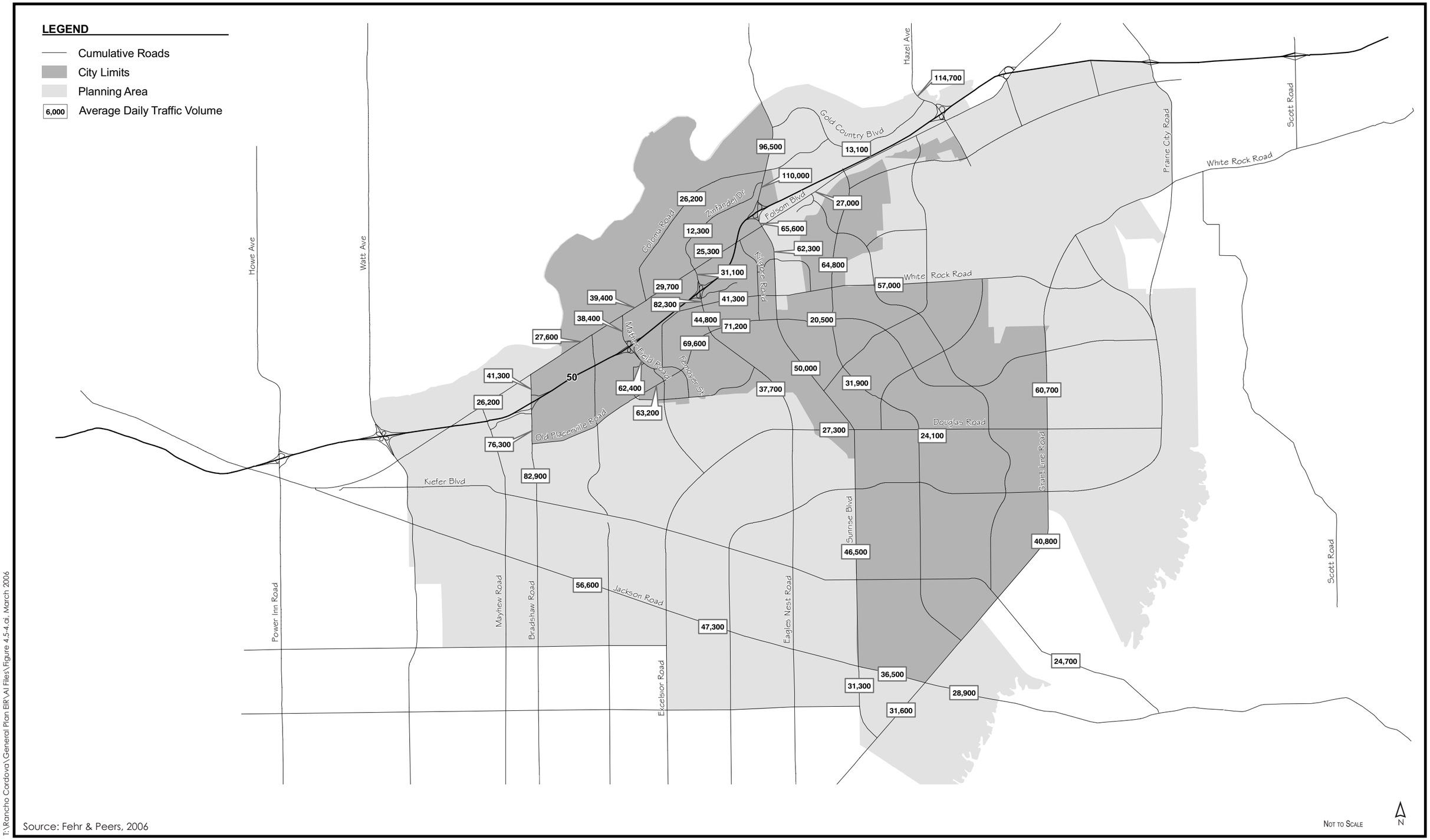


Source: Fehr & Peers, 2006

T:\Rancho Cordova\General Plan EIR\AI Files\Figure 4.5-3.ai, March 2006

City of Rancho Cordova
Planning Department

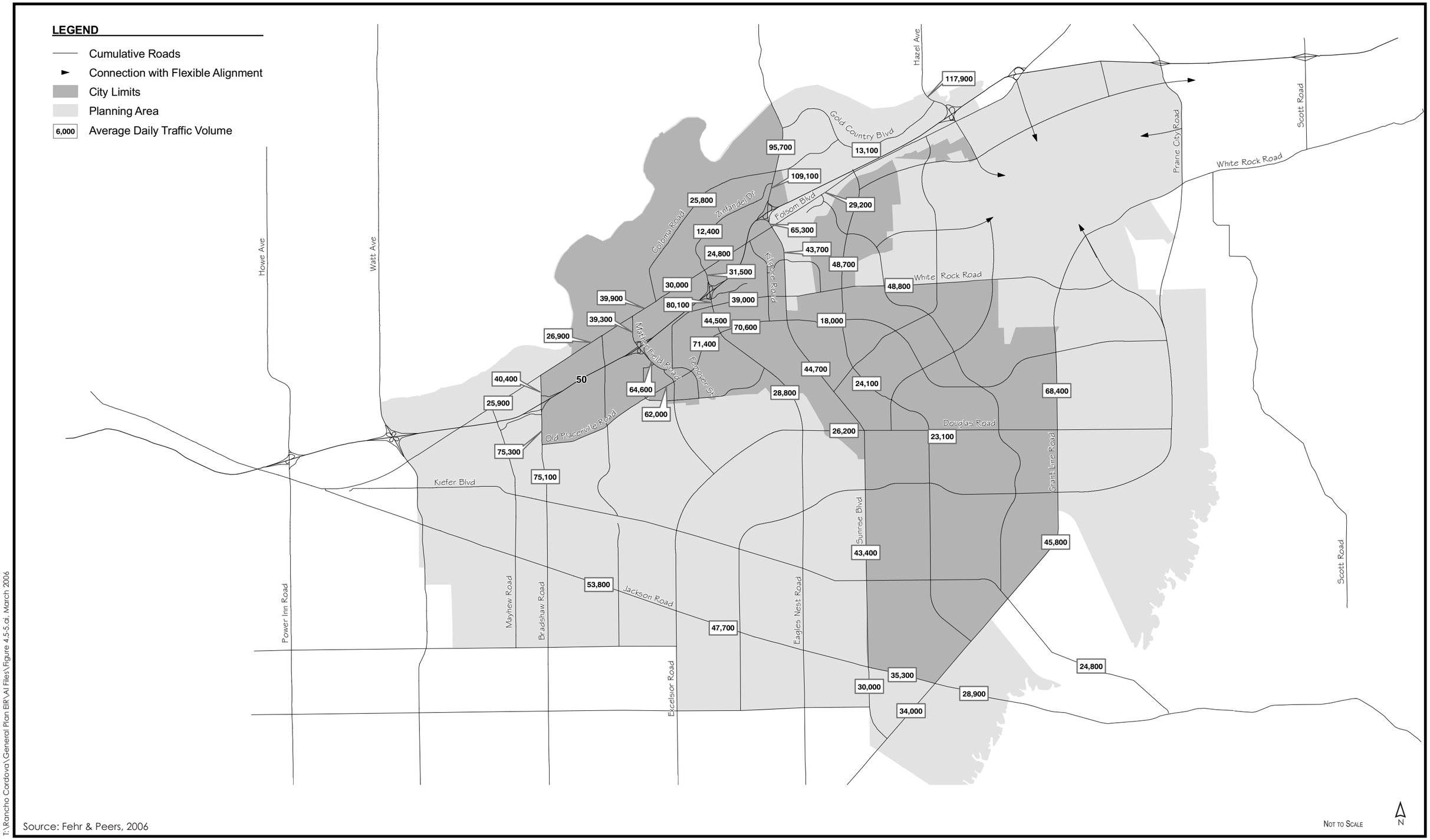
Figure 4.5-3
Average Daily Traffic Volumes
Proposed General Plan Year 2030 Conditions - Year 2030 Roadway Network



T:\Rancho Cordova\General Plan EIR\AI Files\Figure 4.5-4.ai, March 2006

City of Rancho Cordova
Planning Department

Figure 4.5-4
Average Daily Traffic Volumes
Proposed General Plan Buildout Conditions - Year 2030 Roadway Network



Source: Fehr & Peers, 2006

T:\Rancho Cordova\General Plan EIR\AI Files\Figure 4.5-5.ai, March 2006

City of Rancho Cordova
Planning Department

Figure 4.5-5
Average Daily Traffic Volumes
Proposed General Plan Buildout Conditions - Post Year 2030 Roadway Network

- Extension of Routier Road south of Kiefer Road is not identified in the Sacramento County Transportation Plan. Given the low demand on this roadway segment, if it is not implemented, the remaining roadways have sufficient capacity to serve demands.

- Provision of supporting roadway network in the East and Aerojet Planning Areas are not identified in the Sacramento County Transportation Plan. This connectivity is assumed to be implemented after year 2030. Impacts without these roadways are identified in analysis scenarios that included roadway improvements foreseeable prior to year 230.

- Roadway sizing and connectivity in the Mather Field Specific Plan Area. This may prohibit some of the roadway connectivity identified in the City's General Plan, and could result in additional impacts to area roadways such as Sunrise Boulevard.

The traffic operational impacts of these roadway system modifications have been considered in this traffic analysis.

Timing of Development and Planned Roadway Improvements

As noted in the above tables, implementation of the proposed improvements identified in the Roadway System Sizing Map would provide service levels consistent with the City's LOS "D" standard. However, potential issues with funding, the effect of regional traffic through the City, timing of required permits (e.g., wetland fill permits under Section 404 of the Clean Water Act) and coordination with Sacramento County could result in delays in delivering roadway improvements prior to deficient LOS conditions having developed in the interim. As noted in the proposed General Plan policies and action items below, the General Plan does include provisions that attempt to keep similar timing for development and the provision of roadway improvements. However, the City cannot ensure these improvements will be timely in all circumstances (for the reasons noted above).

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and action items are identified in the General Plan Circulation Element that address roadways and circulation systems:

Policy C.1.2 *Seek to maintain operations on all roadways and intersections at Level of Service D or better at all times, including peak travel times, unless maintaining this Level of Service would, in the City's judgment, be infeasible and/or conflict with the achievement of other goals. Congestion in excess of Level of Service D may be accepted in these cases, provided that provisions are made to improve traffic flow and/or promote non-vehicular transportation as part of a development project or a City-initiated project. Please see Policy C.1.3 for additional policy guidance related to this issue.*

Examples of system improvements which may be accepted when Level of Service D cannot be maintained include the following, where the improvement or funding is in excess of standard City requirements:

- *Development of on- or off-street bicycle or pedestrian circulation (not including sidewalks that are constructed as part of roadway improvements);*

- *Providing or funding public transportation facilities or services;*
- *Other features as determined appropriate by the City.*

Action C.1.2.1 *Adopt, and update as necessary, guidelines for the preparation of traffic impact analysis for proposed development projects. Items to be addressed may include the following:*

- *Guidelines for determining when traffic analysis is required;*
- *Guidelines for the preparation of traffic analysis; and*
- *Significance criteria for use in CEQA analysis of proposed projects.*

Action C.1.2.2 *Adopt, and update as necessary, a list of circulation improvements, including roadway improvements, pedestrian and bicycle facilities, and transit-related improvements, which the City will accept as offsets for congestion in accordance with this policy.*

Mitigation Measures

Implementation of the above proposed General Plan Policies and Action items would reduce significant impacts to transportation and circulation. However, the proposed General Plan's impacts to levels of service within the Planning Area and those portions of the study area outside the Planning Area, cannot be mitigated to a less-than-significant level, because the mitigation measures are infeasible, as discussed in further detail below. (See CEQA Guidelines Section 15126.4). Because of the infeasibility of mitigation measures, this impact is considered **significant** and **unavoidable**.

Folsom Boulevard - Mather Field Road to Coloma Road

Widening of this portion of Folsom Boulevard from 4 to 6 lanes would improve operations consistent with City LOS standards for all analysis scenarios. However, there are right-of-way constraints along this roadway segment associated with existing businesses and light rail. In addition, during the development of the General Plan, the City Council identified that the future design of Folsom Boulevard is intended to have a "main street feel" as part of its connection with the Downtown Planning Area (see General Plan Circulation Element) as well as promote alternative models of travel in the area (such as LRT, pedestrians, and bicycles). Thus, the City Council determined that Folsom Boulevard should be maintained as a 4-lane facility. Therefore, implementation of the mitigation measure is considered infeasible, since it is in violation of the proposed General Plan vision for Folsom Boulevard.

Mather Field Road - U.S. 50 Eastbound Ramps to International Drive

Widening this portion of Mather Field Road from 6 to 8 lanes would improve the operation of this segment for all analysis scenarios. However, there are right-of-way constraints along this roadway segment associated with existing businesses and residential units. In addition, during the development of the Roadway System Sizing Map and the General Plan, the City Council identified that no local roadway would be designed larger than a 6-lane facility, given that large roadway facilities (8 lanes and greater) conflicts with pedestrian and bicycle use and results in the "barrier effect" where such roadways act as a physical barrier dividing portions of

the City. Therefore, implementation of the mitigation measure is considered infeasible, since it is in violation of the proposed General Plan.

Zinfandel Drive – U.S. 50 Eastbound Ramps to White Rock Road

Widening this portion of Zinfandel Drive from 6 to 8 lanes would improve the operation of this segment for all analysis scenarios. However, there are right-of-way constraints along this roadway segment associated with existing businesses. In addition, during the development of the Roadway System Sizing Map and the General Plan, the City Council identified that no local roadway would be designed larger than a 6-lane facility, given that large roadway facilities (8 lanes and greater) conflicts with pedestrian and bicycle use and results in the "barrier effect" of such roadways dividing portions of the City. In addition, this portion of Zinfandel is within the Downtown Planning Area that is intended to be a pedestrian-friendly gathering place for daytime and nighttime activities. Therefore, implementation of the mitigation measure is considered infeasible, since it is in violation of the proposed General Plan.

Sunrise Boulevard – Gold Country Drive to Coloma Road

Widening of this portion of Sunrise Boulevard from 6 to at least 12 lanes or the creation of an increased capacity expressway system would improve the operation of this segment for all analysis scenarios. However, there are right-of-way constraints along this roadway segment associated with existing businesses. In addition, during the development of the Roadway System Sizing Map and the General Plan, the City Council identified that no local roadway would be designed larger than a 6-lane facility, given that large roadway facilities (8 lanes and greater) conflicts with pedestrian and bicycle use and results in the "barrier effect" of such roadways dividing portions of the City. Therefore, implementation of the mitigation measure is considered infeasible, since it is in violation of the proposed General Plan.

Sunrise Boulevard – Coloma Road to U.S. 50 Westbound Ramps

Widening of this portion of Sunrise Boulevard from 6 to at least 12 lanes or the creation of an increased capacity expressway system would improve the operation of this segment for all analysis scenarios. However, there are right-of-way constraints along this roadway segment associated with existing businesses. In addition, during the development of the Roadway System Sizing Map and the General Plan, the City Council identified that no local roadway would be designed larger than a 6-lane facility, given that large roadway facilities (8 lanes and greater) conflicts with pedestrian and bicycle use and results in the "barrier effect" of such roadways dividing portions of the City. Therefore, implementation of the mitigation measure is considered infeasible, since it is in violation of the proposed General Plan.

Sunrise Boulevard – U.S. 50 Eastbound Ramps to Folsom Boulevard

Widening of this portion of Sunrise Boulevard from 6 to 8 lanes for the proposed General Plan under year 2030 conditions scenario and an 8-lane facility with high access control[5] for both proposed General Plan buildout conditions would improve the operation of this segment. However, there are right-of-way constraints along this roadway segment associated with existing businesses. In addition, during the development of the Roadway System Sizing Map and the

[5] High access control would consist of driveway consolidation and limiting the number of intersections along the segment to decrease friction and increase capacity.

General Plan, the City Council identified that no local roadway would be designed larger than a 6-lane facility, given that large roadway facilities (8 lanes and greater) conflicts with pedestrian and bicycle use and results in the "barrier effect" of such roadways dividing portions of the City. Therefore, implementation of the mitigation measure is considered infeasible, since it is in violation of the proposed General Plan.

Sunrise Boulevard – Folsom Boulevard to White Rock Road

Widening of this portion of Sunrise Boulevard from 6 to 8 lanes for the proposed General Plan under year 2030 conditions and proposed General Plan buildout with year 2030 roadway network scenarios would improve the operation of this segment. However, there are right-of-way constraints along this roadway segment associated with existing businesses. In addition, during the development of the Roadway System Sizing Map and the General Plan, the City Council identified that no local roadway would be designed larger than a 6-lane facility, given that large roadway facilities (8 lanes and greater) conflicts with pedestrian and bicycle use and results in the "barrier effect" of such roadways dividing portions of the City. Therefore, implementation of the mitigation measure is considered infeasible, since it is in violation of the proposed General Plan.

Hazel Avenue – Winding Way to U.S. 50 Westbound Ramps

Widening of this portion of Hazel Avenue from 6 to 12 lanes or the creation of an increased capacity expressway system would improve the operation of this segment for all analysis scenarios. However, there are right-of-way constraints along this roadway segment associated with existing businesses. Further, an expanded bridge crossing of the American River would be required that would involve substantial grading north of the American River and result in potentially significant impacts to existing recreational uses adjacent to the bridge as well as significant impacts to habitat conditions along the American River. The Sacramento General Plan Transportation Plan identifies this portion of Hazel Avenue as a 6-lane facility and has recently released a Draft EIR/EA for the Hazel Avenue Widening Project (Madison Avenue to U.S. Highway 50) for this improvement. This facility is currently outside of the City's jurisdiction and the City cannot ensure that these improvements would be completed. Therefore, implementation of the mitigation measure is considered infeasible.

Bradshaw Road – U.S. 50 to Old Placerville Road

Widening this portion of Bradshaw Road from 6 to 8 lanes would improve the operation of this segment for all analysis scenarios. However, there are right-of-way constraints along this roadway segment associated with existing businesses. In addition, during the development of the Roadway System Sizing Map and the General Plan, the City Council identified that no local roadway would be designed larger than a 6-lane facility, given that large roadway facilities (8 lanes and greater) conflicts with pedestrian and bicycle use and results in the "barrier effect" of such roadways dividing portions of the City. Therefore, implementation of the mitigation measure is considered infeasible, since it is in conflict with the proposed General Plan.

Bradshaw Road – Old Placerville Road to Kiefer Boulevard

Widening this portion of Bradshaw Road from 6 to 8 lanes would improve the operation of this segment for all analysis scenarios. However, there are right-of-way constraints along this roadway segment associated with existing businesses. In addition, during the development of the Roadway System Sizing Map and the General Plan, the City Council identified that no local roadway would be designed larger than a 6-lane facility, given that large roadway facilities (8

lanes and greater) conflicts with pedestrian and bicycle use and results in the "barrier effect" of such roadways dividing portions of the City. Therefore, implementation of the mitigation measure is considered infeasible, since it is in conflict with the proposed General Plan.

Study Freeway Segments

Impact 4.5.2 Implementation of the proposed General Plan would exacerbate unacceptable operations on eastbound and westbound U.S. 50 during the a.m. and p.m. peak hours. This is considered a **significant** impact.

The results of the AM and PM peak hour freeway segment analysis are summarized in **Table 4.5-10** through **Table 4.5-12** for each of the scenarios. As shown in these tables, the proposed General Plan increases in traffic volumes to the highway would contribute to deficient operation of U.S. 50 (eastbound and westbound) from Folsom Boulevard to Bradshaw Road interchanges. While the City does not have jurisdiction to implement improvements to U.S. 50 mainline, the City's CIP includes approximately $180 million in improvements to existing U.S. 50 interchanges (Bradshaw, Mather, Zinfandel, Sunrise) as well as the new Rancho Cordova Parkway interchange within the Planning Area, consistent with the General Plan (see **Figure 3.0-19**). These improvements would include overpass structures and ramp improvements, additional signalization improvements and other associated improvements. As noted above, Caltrans is evaluating the *U.S. Highway 50 HOV Lane Project Plus Community Enhancement Project*, which proposes the extension of an eastbound and westbound HOV lane on U.S. 50 to Downtown Sacramento in an EIR.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and action items are identified in the General Plan Circulation Element that address roadways and circulation systems:

Policy C.5.1 *Aggressively pursue State and federal funding to implement all aspects of the City's Circulation Plan.*

Policy C.5.2 *Require proposed new development projects to analyze their contribution to increased traffic and to implement improvements necessary to address their impact on facilities not covered by a fee program.*

Policy C.5.3 *Assess fees sufficient to cover the fair share portion of all new development impacts on the local and regional transportation system.*

Action C.5.3.1 *Periodically undertake a detailed analysis of the improvements needed as growth occurs and the costs associated with those improvements. Update fees as necessary to ensure full funding of all required improvements.*

Action C.5.3.2 *Establish a road maintenance assessment district to provide a funding source to maintain road improvements and new roads as a result of new development.*

TABLE 4.5-10
FREEWAY SEGMENT LEVEL OF SERVICE – PROPOSED GENERAL PLAN YEAR 2030 CONDITIONS, YEAR 2030 ROADWAY NETWORK

Segment	Number of Lanes[3]	AM Peak		PM Peak	
		Density[1]	LOS[2]	Density[1]	LOS[2]
Eastbound U.S. 50					
Bradshaw Road to Mather Field Road	4	-	F	-	F
Mather Field Road to Zinfandel Drive	4	-	F	43	E
Zinfandel Drive to Sunrise Boulevard	4	34	D	38	E
Sunrise Boulevard to Hazel Avenue	3	-	F	39	E
Hazel Avenue to Folsom Boulevard	3	-	F	27	D
Westbound U.S. 50					
Folsom Boulevard to Hazel Avenue	2	-	F	-	F
Hazel Avenue to Sunrise Boulevard	3	42	E	-	F
Sunrise Boulevard to Zinfandel Drive	4	41	E	36	E
Zinfandel Drive to Mather Field Road	4	-	F	-	F
Mather Field Road to Bradshaw Road	4	-	F	-	F

Notes: [1] *Density in passenger cars per mile per lane.*
[2] *LOS = Level of Service.*
[3] *Excludes HOV lanes.*
Shaded identifies unacceptable operations.
Source: *Fehr & Peers, 2005.*

TABLE 4.5-11
FREEWAY SEGMENT LEVEL OF SERVICE – PROPOSED GENERAL PLAN BUILDOUT CONDITIONS, YEAR 2030 ROADWAY NETWORK

Segment	Number of Lanes[3]	AM Peak		PM Peak	
		Density[1]	LOS[2]	Density[1]	LOS[2]
Eastbound U.S. 50					
Bradshaw Road to Mather Field Road	4	-	F	43	E
Mather Field Road to Zinfandel Drive	4	-	F	43	E
Zinfandel Drive to Sunrise Boulevard	4	36	E	39	E
Sunrise Boulevard to Hazel Avenue	3	-	F	42	E
Hazel Avenue to Folsom Boulevard	3	-	F	28	D
Westbound U.S. 50					
Folsom Boulevard to Hazel Avenue	2	-	F	-	F
Hazel Avenue to Sunrise Boulevard	3	-	F	-	F
Sunrise Boulevard to Zinfandel Drive	4	-	F	37	E
Zinfandel Drive to Mather Field Road	4	-	F	-	F
Mather Field Road to Bradshaw Road	4	-	F	-	F

Notes: [1] *Density in passenger cars per mile per lane.*
[2] *LOS = Level of Service.*
[3] *Excludes HOV lanes.*
Shaded identifies unacceptable operations.
Source: *Fehr & Peers, 2005.*

TABLE 4.5-12
FREEWAY SEGMENT LEVEL OF SERVICE – PROPOSED GENERAL PLAN BUILDOUT CONDITIONS, POST-YEAR 2030 ROADWAY NETWORK

Segment	Number of Lanes[3]	AM Peak		PM Peak	
		Density[1]	LOS[2]	Density[1]	LOS[2]
Eastbound U.S. 50					
Bradshaw Road to Mather Field Road	4	-	F	-	F
Mather Field Road to Zinfandel Drive	4	-	F	44	E
Zinfandel Drive to Sunrise Boulevard	4	35	E	36	E
Sunrise Boulevard to Hazel Avenue	3	-	F	36	E
Hazel Avenue to Folsom Boulevard	3	-	F	25	C
Westbound U.S. 50					
Folsom Boulevard to Hazel Avenue	2	-		-	F
Hazel Avenue to Sunrise Boulevard	3	42	E	-	F
Sunrise Boulevard to Zinfandel Drive	4	-	F	35	E
Zinfandel Drive to Mather Field Road	4	-	F	-	F
Mather Field Road to Bradshaw Road	4	-	F	-	F

Notes: [1] *Density in passenger cars per mile per lane.*
[2] *LOS = Level of Service.*
[3] *Excludes HOV lanes.*
Shaded identifies unacceptable operations.
Source: *Fehr & Peers, 2005.*

Mitigation Measures

Implementation of the City's CIP for improvements to *U.S. 50 and the U.S. 50 HOV Lane Project Plus Community Enhancement Project* would improve operation of the U.S. 50 mainline. Additionally, the following improvements (some of which are included in the City's current CIP) would be implemented to maintain progression on U.S. 50:

- Installation of ramp metering at all interchanges within the City.
- Construction of auxiliary lanes between on- and off-ramps within the City.
- Coordinate traffic signal timing at freeway interchanges with adjacent City intersections to minimize impact of vehicle queue spillback onto U.S. 50.
- Construction of various parallel facilities to U.S. 50 consistent with the City's Circulation Plan.
- The extension of HOV lanes from Sunrise Boulevard to Downtown Sacramento (or an interim project to Watt Avenue).
- HOV enhancements to existing interchanges such as HOV bypass lanes at existing metered on-ramps.

The City is committed to the improvement of operations to U.S. 50 and providing its contribution as noted by the provision of funding for U.S. 50 improvements in the City's CIP. However, most of these improvements are outside of the City's jurisdiction and the City cannot ensure that these improvements would be completed. Given these conditions, this impact is considered **significant and unavoidable**.

Roadway Safety and Emergency Access

Impact 4.5.3 Implementation of the proposed General Plan would result in an increase in traffic volumes, which could increase the potential opportunities for safety conflicts as well as potential conflicts with emergency access. This is considered a **less than significant** impact.

While implementation of the proposed General Plan would increase the amount of vehicle traffic and the number of potential safety and emergency access conflicts, implementation of the proposed roadway system under the General Plan would provide for multiple roadway connections that offer more escape route and emergency access options, as well as new north-south and east-west evacuation/emergency routes throughout the Planning Area. Implementation of the proposed roadway system within the General Plan would improve city roadway connectivity, allowing for better emergency vehicle access to residences as well as evacuation routes for area residents, thus this impact is considered **less than significant**. In addition, modern construction design standards would also result in the provision of facilities without unacceptable safety conflicts.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and action items are identified in the General Plan Circulation Element that address roadways and circulation systems:

Policy C.5.1 *Aggressively pursue State and federal funding to implement all aspects of the City's Circulation Plan.*

Policy C.5.2 *Require proposed new development projects to analyze their contribution to increased traffic and to implement improvements necessary to address their impact on facilities not covered by a fee program.*

Policy C.5.3 *Assess fees sufficient to cover the fair share portion of all new development impacts on the local and regional transportation system.*

Action C.5.3.1 *Periodically undertake a detailed analysis of the improvements needed as growth occurs and the costs associated with those improvements. Update fees as necessary to ensure full funding of all required improvements.*

Action C.5.3.2 *Establish a road maintenance assessment district to provide a funding source to maintain road improvements and new roads as a result of new development.*

Mitigation Measures

None required.

Transit System

Impact 4.5.4 Implementation of the proposed General Plan would result in an increase in the demand for public transit service (e.g., bus and light rail service). This is considered a **less than significant** impact.

Implementation of the General Plan would increase demand for transit services in the Planning Area. However, the proposed General Plan accommodates a mix of residential densities, commercial uses, and pedestrian and bicycle facilities to promote options for movement beyond the use of motor vehicles and includes proposed enhancements to existing transit service (see **Figure 3.0-21**). Additionally, the City is currently preparing a Transit Master Plan to aid in the identification and implementation of transit facilities within the City consistent with the proposed General Plan. No conflicts with current transit provisions or plans are expected as a result of implementation of the proposed General Plan and this impact is considered **less than significant**.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and action items are identified in the General Plan Circulation Element that address roadways and circulation systems:

Policy C.3.1 *Advocate for transit services which meet the needs of residents and employees in Rancho Cordova.*

Action C.3.1.1 *Create, implement, and update regularly a Transit Master Plan for Rancho Cordova that identifies the type of system desired for the City. Transit routes should coincide with major destinations for employment and shopping, the location of major institutions, concentrations of multi-family housing, and other land uses likely to attract public transit ridership. Bus routes should follow major roads with service to residential neighborhoods from connector streets. Figure C-3 identifies the City's preferred transit system.*

Action C.3.1.2 *Work with transit providers to develop and implement the Transit Master Plan and any additional transit services within the City that are timely, cost-effective, and responsive to growth patterns and existing and future transit demand.*

Action C.3.1.3 *Pursue all available sources of funding for transit services.*

Action C.3.1.4 *Ensure that transit service is provided in accordance with regional plans and policies, including identified transit improvements developed as part of the Sacramento County Mobility Study.*

Action C.3.1.5 *Review the need for additional transit lines/service in new development and require installation of needed stops through the project review process.*

Policy C.3.2 *Maintain and improve access and mobility for seniors, youth, and the disabled with programs that meet their mobility needs.*

Action C.3.2.1 *Encourage paratransit service within the City by working with service providers to better identify service gaps and resources, and to improve response times.*

Policy C.3.3 *Promote the integration of transit facilities into new development.*

Action C.3.3.1 *Require new development and redevelopment to include public transit stations, especially light rail stations, and to promote pedestrian activity and connection between public transit and retail, office, and residential uses.*

Policy C.3.4 *Promote the establishment and use of employee shuttles that help reduce trips on City roads.*

Action C.3.4.1 *Encourage and accept employee shuttles as a viable mitigation measure for trip reduction when proposed development cannot otherwise mitigate potential impacts to City streets.*

Mitigation Measures

None required.

Bicycle and Pedestrian System

Impact 4.5.5 Implementation of the proposed General Plan would result in an increase in the demand for pedestrian and bicycle infrastructure. This is considered a **less than significant** impact.

Implementation of the General Plan would increase pedestrian and bicycle use in the Planning Area. However, the proposed General Plan accommodates a mix of residential densities, commercial uses, and pedestrian and bicycle facilities to promote options for movement other than the use of motor vehicles and proposes new bikeways and trails that would connect with existing trails (e.g., American River Parkway and Folsom South Canal) (see **Figure 3.0-20**).

Additionally, the City is preparing a Pedestrian and Bicycle Master Plan to aid in the identification and implementation of these facilities. Therefore, this impact is **less than significant**.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and action items are identified in the General Plan Circulation Element that address roadways and circulation systems:

Goal C.2 *Establish an extensive, world-class pedestrian and bicycle network that is a safe and attractive option for local or regional trips or recreation and that connects to the City's neighborhoods, parks and schools, employment areas, and retail centers.*

Policy C.2.1 *Create a system of on- and off-street trails and multi-use paths, as generally illustrated on Figure C-2, that are used for walking and bicycling and that are attractive, natural, and safe transportation corridors.*

Policy C.2.2 *Require bicycle and pedestrian connections to public transit systems at stops, stations, and terminals; carpool/vanpool park-and-ride lots; and activity centers (e.g., schools, community centers, medical facilities, senior residences, parks, employment centers, high-density residential areas, commercial centers).*

Policy C.2.3 *Design all development projects to safely integrate walking and provide alternatives to automobile transportation.*

Policy C.2.4 *Provide sidewalks throughout the City. Minimum widths for sidewalks are shown below, but these may be adjusted/increased as determined appropriate by the City to accommodate special circumstances of individual projects. Meandering sidewalks are discouraged, except where necessary to accommodate site-specific features such as trees or habitat.*

MINIMUM SIDEWALK WIDTHS

Street Classification	Sidewalk Width
Residential/Industrial	5 feet
Commercial	8 feet
Major	8 feet
Downtown	10 feet

Action C.2.4.1 *Prepare and adopt a Pedestrian Master Plan that sets forth a comprehensive pedestrian system and support facilities, as well as plans education, marketing, and enforcement programs. Identify detailed and ranked improvements in the Master Plan, and update the plan every three to five years.*

Action C.2.4.2 *Coordinate the Pedestrian Master Plan and the circulation-related components of the City Open Space Standards.*

Policy C.2.5 *Provide safe and convenient bicycle access to all parts of the community.*

Action C.2.5.1 *Prepare and adopt a Bikeway Master Plan that sets forth a comprehensive bicycle system and support facilities over the next 20 years, as well as plans education, marketing, and enforcement programs. Identify detailed and ranked circulation improvements in the Master Plan, and update the plan every three to five years.*

Action C.2.5.2 *Coordinate the Bikeway Master Plan with the circulation-related components of the City Open Space Standards.*

Action C.2.5.3 *Pursue all available sources of funding for the development and improvement of bicycle facilities. Develop projects and secure funding to improve pedestrian and bicycle safety and access around schools and transit stations.*

Action C.2.5.4 *Establish a Bicycle Advisory Committee to oversee creation and implementation of the Bicycle Master Plan and ensure consistency with existing policy documents, such as the General Plan.*

Action C.2.5.5 *Coordinate City departments with stakeholders such as the County of Sacramento, Sacramento Area Council of Governments, Folsom South Canal Development Team, American River Parkway Committee, Cordova Recreation and Park District, Sacramento City/County Bicycle Advisory Committee, air quality agencies, Sacramento Regional Transit District, 50 Corridor Transportation Management Association, employers, residents, and cyclists in order to design, implement, and maintain the proposed bikeway system.*

Action C.2.5.6 *Provide funding for a staff position focused on review of proposed bicycle and related facilities and their implementation and operation.*

Policy C.2.6 *Provide on-street bike lanes along all connector roadways and on local and major roadways when necessary to provide for interconnected routes. On-street bike routes may be provided on local, connector, and major roadways as deemed necessary by the City.*

Policy C.2.7 *Require grade-separated crossings or enhanced at-grade crossings at key locations on the off-street trail system to maximize the safety and attractiveness of bicycling and walking routes. Locations for grade-separated crossings include Highway 50 in the vicinity of Olson Drive, an additional crossing of Highway 50 generally west of Mather Field Road, and crossings associated with the Folsom South Canal. Additional grade-separated crossings will be identified in Greenfield areas of the City as new development is proposed. The following criteria will be used in the design of the roadway and off-street trails systems:*

Crossings:	Freeway/ Expressway	Major Road	Secondary Road	Local Road
Class I Off Street Trail	Grade-Separated	Grade-Separated *or* Signal	Signal	Stop signs on bike trail
Class II Bike Lane	Signal	Signal	Signal *or* Stop sign	Stop sign
Class III Bike Route	Signal	Signal	n/a	n/a

Action C.2.7.1 *Include grade-separated crossings in the City's Capital Improvement Plan, and collect fees to assist in the construction of these facilities.*

Action C.2.7.2 *Develop standards for grade separated pedestrian and bicycle crossings that take the pedestrian/bicycle crossing either above or below the road. When the crossing goes under the road, development standards should specify that a change is elevation is required of both the crossing and roadway, thereby splitting the necessary vertical clearance. Doing so will make the crossing safer and more attractive to users by allowing them to see the horizon as they make the crossing.*

Policy C.2.8 *Promote bicycling and walking as a safe and attractive activity. Educate all road users to share the road and interact safely.*

Action C.2.8.1 *Develop programs to encourage bicycle use in communities where significant segments of the population do not drive and where short trips are most common (e.g., through Safe Routes to Schools programs).*

Action C.2.8.2 *Maintain roadways and bicycle-related facilities so they provide safe and comfortable conditions for the bike rider, including establishing a routine street sweeping program and maintaining lane striping for bike lanes and routes.*

Action C.2.8.3 *Minimize road construction impacts by coordinating bike, and pedestrian facilities with roadway construction whenever feasible.*

Action C.2.8.4 *Ensure traffic calming projects are appropriate for bicycle and pedestrian users (e.g., address bulb-out or roundabout designs that push cyclists into traffic).*

Action C.2.8.5 *Provide signage, alternative routes, etc. during construction activities affecting bikeways to ensure the safety of cyclists.*

Action C.2.8.6 *Enforce traffic laws to improve the safety and comfort of all road users, with a particular focus on behaviors and attitudes that cause motor vehicle/bicycle crashes.*

Action C.2.8.7 *Use available accident data to monitor bicycle-related accident levels annually and focus on a reduction of fifty percent on a per capita basis over the next 20 years.*

Action C.2.8.8 *Improve pedestrian crossings in areas of high pedestrian activity where safety is an issue.*

Action C.2.8.9 *Adopt a target level of bicycle use (e.g. percent of trips) and safety to be achieved within a specific timeframe, and improve data collection necessary to monitor progress.*

Policy C.2.9 *Establish the City as a model employer by encouraging bicycle use among its employees. Potential strategies for encouraging bicycle use include providing parking, showers, and lockers in City facilities and establishing a City bicycle fleet.*

Mitigation Measures

None required.

4.5.5 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

The setting for this cumulative analysis includes existing, proposed, planned and approved projects in the City of Rancho Cordova General Planning Area and the southeastern portion of

Sacramento County. The cumulative setting also assumes anticipated and planned development within the City of Sacramento's Sphere of Influence, the City of Folsom's Sphere of Influence, and City of Elk Grove's Sphere of Influence as well as growth planned for under the general plans, community plans and specific plans for Sacramento, El Dorado and Placer counties, cities of Sacramento, Folsom, Elk Grove and Roseville. Development in this region (further identified in Section 4.0) would change the intensity of land uses in the region and increase housing, employment, shopping and recreational opportunities. This analysis also accounts for regional traffic volume conditions anticipated for year 2030 for U.S. 50 and SR 16.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Traffic Impacts on Local Roadways and State Highways

Impact 4.5.6 When considered with existing, proposed, planned and approved development in the region, implementation of the Rancho Cordova General Plan would contribute to cumulative traffic volumes in the region that result in significant impacts to level of service and operations. This is considered a **cumulatively considerable** impact.

The traffic impact analyses provided in **Impact 4.5.1** and **4.5.2** are based on cumulative conditions (year 2030) that take into account anticipated traffic volumes from development in the region. While the proposed General Plan land uses would provide reduced vehicle miles traveled (in terms of the length of trips) outside of the Planning Area (see **Table 4.5-5**) as compared to maintenance of existing land use patterns (assuming development of the land use pattern under the Sacramento County General Plan), the proposed General Plan would still add substantial traffic volumes on local roadways and state highway facilities that would result in significant traffic impacts within the Planning Area as well as in adjoining jurisdictions. Improvements to regional transportation facilities associated with cumulative traffic conditions are intended to be addressed through implementation of SACOG MTP.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and action items are identified in the General Plan Circulation Element that address roadways and circulation systems:

Policy C.5.1 *Aggressively pursue State and federal funding to implement all aspects of the City's Circulation Plan.*

Policy C.5.2 *Require proposed new development projects to analyze their contribution to increased traffic and to implement improvements necessary to address their impact on facilities not covered by a fee program.*

Policy C.5.3 *Assess fees sufficient to cover the fair share portion of all new development impacts on the local and regional transportation system.*

Action C.5.3.1 *Periodically undertake a detailed analysis of the improvements needed as growth occurs and the costs associated with those improvements. Update fees as necessary to ensure full funding of all required improvements.*

Action C.5.3.2 *Establish a road maintenance assessment district to provide a funding source to maintain road improvements and new roads as a result of new development.*

Mitigation Measures

Implementation of proposed General Plan policies and action items would assist in reducing its cumulative contribution to regional traffic effects. However, this impact would still be considered **cumulatively considerable** and a **significant and unavoidable** impact for the reasons listed in **Impacts 4.5.1** and **4.5.2**. Further, the City does not have jurisdiction over improvements outside of the City's jurisdiction (e.g., facilities within Sacramento County and Caltrans facilities) and the City cannot ensure that these improvements would be completed. With the exception of funding sources for regional traffic improvements associated with the SACOG MTP, there are no regional traffic mitigation programs that the City could participate in to minimize its regional traffic impact.

Transit System

Impact 4.5.7 Implementation of the proposed General Plan would contribute to the cumulative demand for public transit service (e.g., bus and light rail service). The General Plan's contribution is considered **less than cumulatively considerable**.

Implementation of the General Plan would increase demand for transit services in the Planning Area as well as demands for such services in the region. However, the proposed General Plan accommodates a mix of residential densities, commercial uses, and pedestrian and bicycle facilities to promote options for movement beyond the use of motor vehicles and includes proposed enhancements to existing transit service (see **Figure 3.0-21**). Additionally, the City is currently preparing a Transit Master Plan to aid in the identification of the transit demands of the City consistent with the proposed General Plan and implementation of needed system improvements. No conflicts with current transit provisions or plans are expected as a result of implementation of the proposed General Plan. Thus, implementation of the proposed General Plan would accommodate its increase in transit demand and would have a **less than cumulatively considerable** contribution to public transit impacts.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and action items are identified in the General Plan Circulation Element that address roadways and circulation systems:

Policy C.3.1 *Advocate for transit services which meet the needs of residents and employees in Rancho Cordova.*

Action C.3.1.1 *Create, implement, and update regularly a Transit Master Plan for Rancho Cordova that identifies the type of system desired for the City. Transit routes should coincide with major destinations for employment and shopping, the location of major institutions, concentrations of multi-family housing, and other land uses likely to attract public transit ridership. Bus routes should follow major roads with service to residential neighborhoods from connector streets. Figure C-3 identifies the City's preferred transit system.*

Action C.3.1.2 *Work with transit providers to develop and implement the Transit Master Plan and any additional transit services within the City that are timely, cost-effective, and responsive to growth patterns and existing and future transit demand.*

Action C.3.1.3 *Pursue all available sources of funding for transit services.*

Action C.3.1.4 *Ensure that transit service is provided in accordance with regional plans and policies, including identified transit improvements developed as part of the Sacramento County Mobility Study.*

Action C.3.1.5 *Review the need for additional transit lines/service in new development and require installation of needed stops through the project review process.*

Policy C.3.2 *Maintain and improve access and mobility for seniors, youth, and the disabled with programs that meet their mobility needs.*

Action C.3.2.1 *Encourage paratransit service within the City by working with service providers to better identify service gaps and resources, and to improve response times.*

Policy C.3.3 *Promote the integration of transit facilities into new development.*

Action C.3.3.1 *Require new development and redevelopment to include public transit stations, especially light rail stations, and to promote pedestrian activity and connection between public transit and retail, office, and residential uses.*

Policy C.3.4 *Promote the establishment and use of employee shuttles that help reduce trips on City roads.*

Action C.3.4.1 *Encourage and accept employee shuttles as a viable mitigation measure for trip reduction when proposed development cannot otherwise mitigate potential impacts to City streets.*

Mitigation Measures

None required.

Bicycle and Pedestrian System

Impact 4.5.8 Implementation of the proposed General Plan would contribute to cumulative demands for pedestrian and bicycle infrastructure. The General Plan's contribution is considered **less than cumulatively considerable**.

Implementation of the General Plan would increase pedestrian and bicycle use in the Planning Area in addition to anticipated growth in pedestrian and bicycle usage in the region. However, the proposed General Plan accommodates a mix of residential densities, commercial uses, and pedestrian and bicycle facilities to promote options for movement other than the use of motor vehicles. The General Plan includes proposed new bikeways and trails that would connect with

existing trails (e.g., American River Parkway and Folsom South Canal) thus providing new facilities to accommodate its contribution to increased demand (see **Figure 3.0-20**).

The City is preparing a Pedestrian and Bicycle Master Plan to aid in the identification and implementation of these facilities. Thus, implementation of the proposed General Plan would accommodate its increase in demand for pedestrian and bicycle infrastructure and would have a **less than cumulatively considerable** contribution to pedestrian and bicycle infrastructure.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and action items are identified in the General Plan Circulation Element that address roadways and circulation systems:

Goal C.2 *Establish an extensive, world-class pedestrian and bicycle network that is a safe and attractive option for local or regional trips or recreation and that connects to the City's neighborhoods, parks and schools, employment areas, and retail centers.*

Policy C.2.1 *Create a system of on- and off-street trails and multi-use paths, as generally illustrated on Figure C-2, that are used for walking and bicycling and that are attractive, natural, and safe transportation corridors.*

Policy C.2.2 *Require bicycle and pedestrian connections to public transit systems at stops, stations, and terminals; carpool/vanpool park-and-ride lots; and activity centers (e.g., schools, community centers, medical facilities, senior residences, parks, employment centers, high-density residential areas, commercial centers).*

Policy C.2.3 *Design all development projects to safely integrate walking and provide alternatives to automobile transportation.*

Policy C.2.4 *Provide sidewalks throughout the City. Minimum widths for sidewalks are shown below, but these may be adjusted/increased as determined appropriate by the City to accommodate special circumstances of individual projects. Meandering sidewalks are discouraged, except where necessary to accommodate site-specific features such as trees or habitat.*

MINIMUM SIDEWALK WIDTHS

Street Classification	Sidewalk Width
Residential/Industrial	5 feet
Commercial	8 feet
Major	8 feet
Downtown	10 feet

Action C.2.4.1 *Prepare and adopt a Pedestrian Master Plan that sets forth a comprehensive pedestrian system and support facilities, as well as plans education, marketing, and enforcement programs. Identify detailed and ranked improvements in the Master Plan, and update the plan every three to five years.*

Action C.2.4.2 *Coordinate the Pedestrian Master Plan and the circulation-related components of the City Open Space Standards.*

Policy C.2.5 *Provide safe and convenient bicycle access to all parts of the community.*

Action C.2.5.1 *Prepare and adopt a Bikeway Master Plan that sets forth a comprehensive bicycle system and support facilities over the next 20 years, as well as plans education, marketing, and enforcement programs. Identify detailed and ranked circulation improvements in the Master Plan, and update the plan every three to five years.*

Action C.2.5.2 *Coordinate the Bikeway Master Plan with the circulation-related components of the City Open Space Standards.*

Action C.2.5.3 *Pursue all available sources of funding for the development and improvement of bicycle facilities. Develop projects and secure funding to improve pedestrian and bicycle safety and access around schools and transit stations.*

Action C.2.5.4 *Establish a Bicycle Advisory Committee to oversee creation and implementation of the Bicycle Master Plan and ensure consistency with existing policy documents, such as the General Plan.*

Action C.2.5.5 *Coordinate City departments with stakeholders such as the County of Sacramento, Sacramento Area Council of Governments, Folsom South Canal Development Team, American River Parkway Committee, Cordova Recreation and Park District, Sacramento City/County Bicycle Advisory Committee, air quality agencies, Sacramento Regional Transit District, 50 Corridor Transportation Management Association, employers, residents, and cyclists in order to design, implement, and maintain the proposed bikeway system.*

Action C.2.5.6 *Provide funding for a staff position focused on review of proposed bicycle and related facilities and their implementation and operation.*

Policy C.2.6 *Provide on-street bike lanes along all connector roadways and on local and major roadways when necessary to provide for interconnected routes. On-street bike routes may be provided on local, connector, and major roadways as deemed necessary by the City.*

Policy C.2.7 *Require grade-separated crossings or enhanced at-grade crossings at key locations on the off-street trail system to maximize the safety and attractiveness of bicycling and walking routes. Locations for grade-separated crossings include Highway 50 in the vicinity of Olson Drive, an additional crossing of Highway 50 generally west of Mather Field Road, and crossings associated with the Folsom South Canal. Additional grade-separated crossings will be identified in Greenfield areas of the City as new development is proposed. The following criteria will be used in the design of the roadway and off-street trails systems:*

Crossings:	Freeway/ Expressway	Major Road	Secondary Road	Local Road
Class I Off Street Trail	Grade-Separated	Grade-Separated *or* Signal	Signal	Stop signs on bike trail
Class II Bike Lane	Signal	Signal	Signal *or* Stop sign	Stop sign
Class III Bike Route	Signal	Signal	n/a	n/a

Action C.2.7.1 *Include grade-separated crossings in the City's Capital Improvement Plan, and collect fees to assist in the construction of these facilities.*

Action C.2.7.2 *Develop standards for grade separated pedestrian and bicycle crossings that take the pedestrian/bicycle crossing either above or below the road. When the crossing goes under the road, development standards should specify that a change is elevation is required of both the crossing and roadway, thereby splitting the necessary vertical clearance. Doing so will make the crossing safer and more attractive to users by allowing them to see the horizon as they make the crossing.*

Policy C.2.8 *Promote bicycling and walking as a safe and attractive activity. Educate all road users to share the road and interact safely.*

Action C.2.8.1 *Develop programs to encourage bicycle use in communities where significant segments of the population do not drive and where short trips are most common (e.g., through Safe Routes to Schools programs).*

Action C.2.8.2 *Maintain roadways and bicycle-related facilities so they provide safe and comfortable conditions for the bike rider, including establishing a routine street sweeping program and maintaining lane striping for bike lanes and routes.*

Action C.2.8.3 *Minimize road construction impacts by coordinating bike, and pedestrian facilities with roadway construction whenever feasible.*

Action C.2.8.4 *Ensure traffic calming projects are appropriate for bicycle and pedestrian users (e.g., address bulb-out or roundabout designs that push cyclists into traffic).*

Action C.2.8.5 *Provide signage, alternative routes, etc. during construction activities affecting bikeways to ensure the safety of cyclists.*

Action C.2.8.6 *Enforce traffic laws to improve the safety and comfort of all road users, with a particular focus on behaviors and attitudes that cause motor vehicle/bicycle crashes.*

Action C.2.8.7 *Use available accident data to monitor bicycle-related accident levels annually and focus on a reduction of fifty percent on a per capita basis over the next 20 years.*

Action C.2.8.8 *Improve pedestrian crossings in areas of high pedestrian activity where safety is an issue.*

Action C.2.8.9 *Adopt a target level of bicycle use (e.g. percent of trips) and safety to be achieved within a specific timeframe, and improve data collection necessary to monitor progress.*

Policy C.2.9 *Establish the City as a model employer by encouraging bicycle use among its employees. Potential strategies for encouraging bicycle use include providing parking, showers, and lockers in City facilities and establishing a City bicycle fleet.*

Mitigation Measures

None required.

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TABLE 4.5-13
ANTICIPATED ENVIRONMENTAL EFFECTS OF ROADWAY SYSTEM SIZING MAP

Roadway	Direction	From	To	Proposed Number of Total Lanes	Right-of-Way (ROW) and Associated Environmental Effects
Americanos Blvd.	North	Kiefer Blvd.	Douglas Road	4	No existing roadway. Four streams, two roads, 14 vernal pools, 45 acres of vernal pool grassland may be affected by improvements to ROW.*
	South				
	North	Douglas Road	White Rock Road	4	No existing roadway. One stream, 40 acres of mine tailings, one acre of open water, two roads, two vernal pools, five acres vernal pool grassland may be affected by improvements to ROW.*
	South				
	North	White Rock Road	Rancho Cordova Pkwy	4	No existing roadway. One stream, 20 acres of mine tailings, one intersection to be built may be affected by improvements to ROW.*
	North				
	South	Rancho Cordova Pkwy	Folsom Blvd	2	No existing roadway. One canal bridge required, 2.6 acres of existing development, seven acres of mine tailings, and one road may be affected by improvements to ROW.*
	South				
Bradshaw Road	North	Elder Creek Road	Jackson Hwy (SR 16)	6	Currently two lanes. Agricultural land and commercial land on both sides, approximately ten residences, utility poles on both sides, and drainage may be affected by improvements to ROW.
	South				
	North	Jackson Hwy (SR 16)	Old Placerville.	6	Six lanes north of Goethe, four lanes south. Utility poles and streetlights and a drainage ditch may be affected by improvements to ROW.
	South				
	North	Old Placerville.	Folsom Blvd.	6	Road is built out with six lanes, landscaped medians, turn lanes, bike lanes, sidewalks, and landscaping.
	South				
Chrysanthy Blvd.	North	Florin Road	Kiefer Blvd.	4	No existing roadway. Seven acres of farmland, three acres of pasture grassland, 1.5 acres of marsh, four streams, three roads, 19 vernal pools, and 20 acres of vernal pool grassland may be affected by improvements to ROW.*
	South				

Roadway	Direction	From	To	Proposed Number of Total Lanes	Right-of-Way (ROW) and Associated Environmental Effects
Chrysanthy Blvd. (cont.)	North	Kiefer Blvd.	Sunrise Blvd.	4	No existing roadway. One canal bridge required, three streams, 0.1 acres of low density development, two roads, 10 vernal pools, 31 acres of vernal pool grassland may be affected by improvements to ROW.*
	South				
	East	Sunrise Blvd.	Grant Line Road	4	No existing roadway. 0.3 acres of marsh, four streams, two roads, 17 vernal pools, 48 acres of vernal pool grassland may be affected by improvements to ROW.*
	West				
Coloma Road	East	Folsom Blvd.	Sunrise Blvd.	4	Roadway is currently four lanes with sidewalks, bike lanes with trees and utility poles.
	West				
	East	Sunrise Blvd.	Gold Country Blvd.	4	Roadway is currently at 4 lanes with approximately 20 utility poles, 15 streetlights, 10 trees, commercial property lines and the Coloma Treatment Plant.
	West				
Douglas Road	East	Eagles Nest Road	Sunrise Blvd.	6	Currently two lanes. Adjacent vacant land on south, portions of Mather Airport on north. Northern California TRACON (air traffic control) would be affected as well as Mather Lake and wetlands. Roadway bridges over Folsom Canal and Morrison Creek require four more lanes each.
	West				
	East	Sunrise Blvd.	Jaeger Road	6	Currently two lanes. Approximately 35 utility poles and two trees as well as other vegetation may need to be modified or removed.
	West				
	East	Jaeger Road	Grant Line Road	6 to 4	No existing roadway. One stream, 0.05 acres of mine tailings, two roads, 17 vernal pools, 11 acres of vernal pool grassland may be affected by improvements to ROW.*
	West				
Eagles Nest Road	North	Florin Road	Jackson Hwy (SR 16)	2	Currently two lanes. Drainage on both sides, some agricultural land, and utility poles on west may be affected by improvements to ROW.

Roadway	Direction	From	To	Proposed Number of Total Lanes	Right-of-Way (ROW) and Associated Environmental Effects
	South				
Eagles Nest Road (cont.)	North	Jackson Hwy (SR 16)	Douglas Road	4	One lane rural road exists from Jackson Hwy to Kiefer Blvd. Agricultural land, approximately five residences, a Muslim cemetery, a pet cemetery, and at least two vernal pools may be affected by improvements to ROW.
	South				
Easton Valley Pkwy	East	Rancho Cordova Pkwy	Hazel Ave.	6	No existing roadway. Two streams, 29 acres of mine tailings, one road may be affected by improvements to ROW.*
	West				
	East	Hazel Ave.	New Road	6	No existing roadway. 15 acres of mine tailings and one road may be affected by improvements to ROW.*
	West				
	East	New Road	Prairie City Road	4	No existing roadway. Two streams, 27 acres of mine tailings, 2.5 acres of riparian woodland, one road may be affected by improvements to ROW.*
	West				
Elder Creek Road	East	Plan Area Boundary	Bradshaw Road	4	Currently two lanes. Several low density residences, utility poles on both sides of the street, drainage on both sides, and a Buddhist temple on the north side may be affected by improvements to ROW.
	West				
	East	Bradshaw Road	Excelsior Road	4	Currently two lanes. Agricultural land with wire fencing on both sides for entire length, vernal pools and wetland features along 1/4 of road, and a cemetery on the north may be affected by improvements to ROW.
	West				
Excelsior Road	North	Florin Road	Elder Creek Road	2	Currently two lanes without improvements. Widening for sidewalks/landscaping may affect wetlands and drainage on both sides. Vernal pool reserve on east side.
	South				
	North	Elder Creek Road	Kiefer Blvd.	4	Currently two lanes without improvements. Utility poles along

Roadway	Direction	From	To	Proposed Number of Total Lanes	Right-of-Way (ROW) and Associated Environmental Effects
	South				west side, drainage on both, trees on east, and approximately eight urban residences may be affected by improvements to ROW.
Excelsior Road (cont.)	North	Kiefer Blvd.	Eagles Nest Road	4	Currently two lanes. South of Independence Development ROW exists with potential impacts to utility poles on east. Roadway crosses Morrison Creek. Within Independence Development, 80 homes would require removal as well as 5 large trees and a park. Minimal impacts would occur north of Independence Development due to ROW improvements.
	South				
Florin Road	East	Excelsior Road	Sunrise Blvd.	4	Currently two lanes. Laguna Creek bridge would require two additional lanes. Utility poles on south side, three large trees on south side, twenty wetland features and vernal pools on both sides may be affected by improvements to ROW.
	West				
Folsom Blvd.	East	Watt Ave.	Bradshaw Road	4	Currently four lanes with median, turn lanes, sidewalks on north, and landscaping. Bounded by large trees on south and railroad tracks (light rail and freight).
	West				
	East	Bradshaw Road	Mather Field Road	4	Currently four lanes with median, turn lanes, sidewalk and landscaping on north. Bounded by large trees on south and railroad tracks (light rail and freight). Some drainage features on vacant land portions of north side. A real estate office sits adjacent to south side and may be affected by any improvements.
	West				
	East	Mather Field Road	Sunrise Blvd.	4	Currently four lanes with median, turn lanes, sidewalks on north, and landscaping. Bounded by large trees on south and railroad tracks (light rail and freight).
	West				

Roadway	Direction	From	To	Proposed Number of Total Lanes	Right-of-Way (ROW) and Associated Environmental Effects
	East	Sunrise Blvd	Hazel Ave.	4	Currently four lanes with median, turn lanes, sidewalks on north, and landscaping. Bounded by large trees on south and railroad tracks (light rail and freight).
	West				
Folsom Blvd. (cont.)	East	Hazel Ave.	US Highway 50	4	Four lanes at Hazel, two lanes west of winery. Utility poles on south may require relocation. Railroad tracks on south may be affected. Drainage and fence line on north may be affected by improvements to ROW.
	West				
Gold Center Drive	East	Zinfandel Drive	Prospect Park Drive	2	Currently two lanes. Striping still needed between portions of Prospect Park Drive but no other improvements required.
	West				
Gold Country Blvd.	East	Sunrise Blvd.	Coloma Road	2	Roadway is currently at 2 lanes. Contains landscaped medians, landscaped buffers on both sides, bike lanes & sidewalks on both sides.
	West				
	East	Coloma Road	Hazel Ave.	4	The 2-lane roadway contains landscaped medians, landscaped buffers on both sides, bike lanes & sidewalks on both sides, street parking, elementary school, residential homes, 40 trees and 25 street lights that may need to be modified or removed to accommodate improvements to ROW.
	West				
Grant Line Road	North	Plan Area Boundary	Kiefer Blvd.	6	The 2-lane roadway contains 10 residential homes setbacks, approximately 60 utility poles, approximately 10 trees and drainage ditches that may need to be modified or removed to accommodate improvements to ROW.
	South				
	North	Kiefer Blvd.	Douglas Road	6	The 2-lane roadway contains approximately 60 utility poles and drainage ditches that may need to be modified or removed to accommodate improvements to ROW.
	South				

Roadway	Direction	From	To	Proposed Number of Total Lanes	Right-of-Way (ROW) and Associated Environmental Effects
Grant Line Road (cont.)	North	Douglas Road	White Rock Road	6	The 2-lane roadway contains an electrical sub-station, approximately 60 utility poles, 10 trees and vegetation, and 1 residential property that may need to be modified or removed to accommodate improvements to ROW.
	South				
Hazel Ave.	North	Easton Valley Pkwy	Folsom Blvd.	6	No road currently exists. Proposed roadway would go over light rail tracks and through Gencorp/Aerojet property. Two streams and four acres of mine tailings may be affected by improvements to ROW.
	South				
	North	Folsom Blvd.	American River	6	Roadway is currently at 6 lanes except for the freeway overpass (4 lanes) which may need to be modified to accommodate improvements to ROW.
	South				
International Pkwy	East	Mather Field Road	New Road	4	Roadway is currently at 2 lanes. No other impacts would be associated with need to be modified to accommodate improvements to ROW.
	West				
	East	New Road	Sunrise Blvd	6	Road is currently four lanes with full improvements. Buffer exists on both sides with room for two more lanes. Road ends at Kilgore. Vacant land along unbuilt portion. Road would cross Folsom Canal.
	West				
	East	Sunrise Blvd	Rancho Cordova Pkwy	4	No existing roadway. 0.5 acres of marsh, one stream, 41 acres of mine tailings, two roads, four vernal pools may be affected by improvements to ROW.*
	West				
	East	Rancho Cordova Pkwy	Grant Line Road	4	No existing roadway. Two streams, 14 acres of mine tailings, one road, eight vernal pools, 25 acres of vernal pool grassland may be affected by improvements to ROW.*
	West				
Jackson Hwy (SR 16)	East	Watt Ave.	Bradshaw Road	6	The two-lane roadway contains approximately 20 utility poles that may need to be modified or removed to accommodate improvements to ROW.

Roadway	Direction	From	To	Proposed Number of Total Lanes	Right-of-Way (ROW) and Associated Environmental Effects
	West				
Jackson Hwy (SR 16) (cont.)	East	Bradshaw Road	Excelsior Road	6	Currently two lanes. Utility poles on north side, drainage on both sides, and a cemetery on north may be affected by improvements to ROW.
	West				
	East	Excelsior Road	Sunrise Blvd.	6	Currently two lanes. Agricultural and rural residences on the north, drainage on both sides, extensive vernal pools and wetlands, Triangle Rock Vernal Pool Reserve on south, and over 50 trees may be affected by improvements to ROW.
	West				
	East	Sunrise Blvd.	Plan Area Boundary	6	The 2-lane roadway contains approximately 30 utility poles and 10 trees that may need to be modified or removed to accommodate improvements to ROW.
	West				
Jaeger Road	North	Grant Line Road	Kiefer Blvd.	4	No existing roadway. Five acres agricultural, one stream, one road, two vernal pools, 14 acres of vernal pool grassland may be affected by improvements to ROW.*
	South				
	North	Kiefer Blvd.	Douglas Road	4 to 6	Road is currently one lane rural road (unpaved). Extensive wetlands (over 20 features) on both sides of the road as well as wire fencing and approximately five drainage features may be affected by improvements to ROW.
	South				
Kiefer Blvd.	East	Watt Ave.	Bradshaw Road	4	Currently built-out at four lanes with all improvements. Utility poles abut ROW on both sides with residential and some commercial land adjacent to road which may be affected by improvements to ROW.
	West				
	East	Bradshaw Road	Excelsior Road	4	No existing roadway. Three acres of existing development, one stream, two roads, two vernal pools, 10 acres of vernal pool grassland may be affected by improvements to ROW.*
	West				

Roadway	Direction	From	To	Proposed Number of Total Lanes	Right-of-Way (ROW) and Associated Environmental Effects
Kiefer Blvd. (cont.)	East	Excelsior Road	Sunrise Blvd.	4	No existing roadway. One canal bridge required, three acres of farmland, three streams, two roads, sixteen vernal pools, 20 acres of vernal pool grassland may be affected by improvements to ROW.*
	West				
	East	Sunrise Blvd.	Grant Line Road	4	No existing roadway. Two streams, 0.26 acres of open water, two roads, five vernal pools, 12 acres of vernal pool grassland may be affected by improvements to ROW.*
	West				
Kilgore Road	North	International Pkwy	White Rock Road	4	Road at build-out with four lanes and full improvements.
	South				
	North	White Rock Road	Folsom Blvd	2	Two lanes and sidewalks already exist. Utility poles on east side of the northern half may be affected by improvements to ROW.
	South				
Mather Field Road	North	Excelsior Road	Old Placerville Road	4	No existing roadway. 17 acres of existing development (high-density), two roads, one vernal pool, six acres of vernal pool grassland may be affected by improvements to ROW.*
	South				
	North	Old Placerville Road	Folsom Blvd.	6	Road is built out with six lanes south of freeway. Freeway overpass would require an additional lane. North of the freeway road is four lanes. 11 residences with block sound walls, a gas station, two commercial buildings, utility poles on the east side, two intersections, crossings for railroad and light rail, and railroad spur on west side may be affected by improvements to ROW.
	South				
Mayhew Road	North	Elder Creek Road	Kiefer Blvd.	2	Road ends south of Kiefer. Golf course, approximately six large trees, 15 smaller trees on west side, fence line and bushes along east side, an industrial property south of Jackson, twenty trees, a creek, and drainage features, as well as a creek crossing may be affected by improvements to ROW.

Roadway	Direction	From	To	Proposed Number of Total Lanes	Right-of-Way (ROW) and Associated Environmental Effects
	South				
	North	Kiefer Blvd.	Micron Ave	2	Currently two lanes south of Micron Ave. Buffer on east and west available for improvements to ROW with minimal impacts.
	South				
	North	Micron Ave	Folsom Blvd	4	Currently four lanes south of Folsom until freeway. Overpass requires an additional lane southbound. Two trees south of the freeway may be affected by improvements to ROW. Residential land abuts roadway on both sides but would likely be unaffected.
	North				
Micron Ave.	East	Mayhew Road	Bradshaw Road	2	Road is built out with two lanes and a merge lane. Includes sidewalk and landscaping on south side.
	West				
Old Placerville Road	East	Bradshaw Road	New Road	6	Currently four lanes close to Bradshaw and two lanes east of Granby Dr. Approximately 20 homes, approximately 20 palm trees, shopping centers on north and south at Bradshaw, multi-family housing on south side, Karsten Homes (industrial), portions of Mather Airport, utility poles on both sides, drainage on south, as well as street lights may be affected by improvements to ROW.
	West				
	East	New Road	Rockingham Drive	4	The road is fully built out with four lanes, landscaping, sidewalks, bike lanes, and all intersections complete.
	West				
Prairie City Road	North	Grant Line Road	New Road	4	The 2-lane roadway contains approximately 30 utility poles that may need to be modified or removed to accommodate improvements to ROW.
	South				
Prairie City Road (cont.)	North	New Road	US Highway 50	4	The 2-lane roadway contains approximately 40 utility poles that may need to be modified or removed to accommodate improvements to ROW.

Roadway	Direction	From	To	Proposed Number of Total Lanes	Right-of-Way (ROW) and Associated Environmental Effects
	South				
Rancho Cordova Pkwy	North	Douglas Road	Rio Del Oro Pkwy	6	No existing roadway. One stream, 17 acres of mine tailings, two roads, three vernal pools, 12 acres of vernal pool grassland may be affected by improvements to ROW.*
	South				
	North	Rio Del Oro Pkwy	White Rock Road	6	No existing roadway. 22 acres of mine tailings, three roads, two vernal pools may be affected by improvements to ROW.*
	South				
	North	White Rock Road	Folsom Blvd	6	No existing roadway. One canal bridge required, 0.6 acres of existing development (high-density), two streams, 35 acres of mine tailings, one road may be affected by improvements to ROW.*
	South				
Rio Del Oro Pkwy	North	Sunrise Blvd	Rancho Cordova Pkwy	6	No existing roadway. Six acres of mine tailings, one road, six acres of vernal pool grassland may be affected by improvements to ROW.*
	South				
	North	Rancho Cordova Pkwy	White Rock Road	4	No existing roadway. 32 acres of mine tailings and one road may be affected by improvements to ROW.*
	South				
	North	White Rock Road	Folsom Blvd	4	No existing roadway. Two acres of development (high-density), two streams, 35 acres of mine tailings, one road may be affected by improvements to ROW.*
	South				
Rockingham Drive	East	Old Placerville Road	Mather Field Road	4	Road is currently four lanes with sidewalks, landscaping and trees on both sides of the road. Streetlights on both sides of the road.
	West				
Routier Road	North	Elder Creek Road	Kiefer Blvd	2	No existing roadway. Six acres of farmland, 2.6 acres of development, four streams, three roads, 10 vernal pools, 17 acres of vernal pool grassland may be affected by improvements to ROW.*
	South				

Roadway	Direction	From	To	Proposed Number of Total Lanes	Right-of-Way (ROW) and Associated Environmental Effects
Routier Road (cont.)	North	Kiefer Blvd	Folsom Blvd	4	Currently two lanes from Folsom south to Old Placerville. Overpass over freeway requires two additional lanes. Four trees south of freeway, large bushes, and a sidewalk on west (south of Folsom) may be affected by improvements to ROW. Roadway south of Old Placerville does not exist (Mather Airport).
	South				
Sunrise Blvd	North	Grant Line Blvd	Kiefer Blvd.	6	The 2-lane roadway contains approximately 60 utility poles and a creek overpass that may need to be modified or removed to accommodate improvements to ROW.
	South				
	North	Kiefer Blvd.	Douglas Road	6	The 2-lane roadway contains approximately 50 utility poles that may need to be modified or removed to accommodate improvements to ROW.
	South				
	North	Douglas Road	White Rock Road	6	The 4-lane roadway contains landscaped medians and buffers, approximately 60 utility poles, 100 street lights, approximately 40 trees and commercial/industrial property lines that may need to be modified or removed to accommodate improvements to ROW.
	South				
	North	White Rock Road	Folsom Blvd	6	The 6-lane roadway contains landscaped medians and buffers, sidewalks, approximately 80 utility poles, 60 street lights, approximately 50 trees and commercial/industrial property lines that may need to be modified or removed to accommodate improvements to ROW.
	South				
	North	Folsom Blvd	American River	6	The 6-lane roadway contains landscaped medians and buffers, sidewalks, approximately 60 utility poles, 40 street lights, approximately 25 trees and commercial property lines that may need to be modified or removed to accommodate improvements to ROW.
	South				

Roadway	Direction	From	To	Proposed Number of Total Lanes	Right-of-Way (ROW) and Associated Environmental Effects
Sun Center Drive	East	Kilgore Road	White Rock Road	2	Road is currently two lanes with landscaping, striping, sidewalks, and a large number of large trees of various types.
	West				
Watt Ave	North	Plan Area Boundary	Jackson Hwy (SR 16)	6	Currently two lanes. Drainage along both sides, utility poles along east side, and 50 or more large bushes on east side may be affected by improvements to ROW.
	South				
	North	Jackson Hwy (SR 16)	Kiefer Blvd	6	Currently two lanes north of Kiefer. Three lanes south of Kiefer. Drainage on west side of roadway may be affected by improvements to ROW.
	South				
	North	Kiefer Blvd	Folsom Blvd	6	Currently built-out at six lanes with full improvements and cinderblock sound walls for residences on east side.
	South				
	North	Folsom Blvd	American River	6	Currently built out at six lanes with full improvements. Bridge over freeway requires two additional lanes. North of the freeway road is four lanes but large vacant median available for two additional lanes.
	South				
White Rock Road	East	New Road	Zinfandel Drive	4	The roadway is currently 2 lanes with sidewalks, street parking, residential properties lines, elementary school, approximately 60 utility poles and street lights, commercial/ industrial property lines with landscaped buffers, and 40 trees that may need to be modified or removed to accommodate improvements to ROW.
	West				
	East	Zinfandel Drive	Sunrise Blvd	6	The roadway is currently 6 lanes and merges into 4 lanes with turn lanes, landscaped medians & buffers on both sides, Folsom South Canal overpass, approximately 15 utility poles, and approximately 15 street lights that may need to be modified or removed to accommodate improvements to ROW.
	West				

Roadway	Direction	From	To	Proposed Number of Total Lanes	Right-of-Way (ROW) and Associated Environmental Effects
White Rock Road (cont.)	East	Sunrise Blvd	Grant Line Road	6	The roadway is currently 4 lanes and merges into 2 lanes with buffers on both sides, approximately 40 trees & vegetation, and approximately 100 utility poles that may need to be modified or removed to accommodate improvements to ROW.
	West				
	North	Grant Line Road	Prairie City Road	6	The 2-lane roadway contains approximately 40 utility poles that may need to be modified or removed to accommodate improvements to ROW.
	South				
Zinfandel Drive	North	Douglas Road	White Rock Road	6	Road is six lanes with full improvements north of Data Drive. South of Data road is four lanes with full improvements and wide buffer. Sidewalks and landscaping on both sides may be affected by improvements to ROW. Road currently ends at Solera Drive.
	South				
	North	White Rock Road	Folsom Blvd	6	Road is built out with six lanes and full improvements south of freeway. Freeway overpass requires widening for one additional southbound lane. North of freeway road narrows to four lanes with improvements and business close to ROW on both sides. A gas station, service station, six to ten businesses, commercial parking, a railroad crossing, two intersections, and the Zinfandel Light Rail Station may be affected by improvements to ROW.
	South				
	North	Folsom Blvd	Sunrise Blvd	2	Roadway becomes two lanes north of Folsom Blvd. and is complete with sidewalks, landscaping, and bike lanes throughout this residential area.
	South				
New Road	East	Old Placerville	New Road	4	No existing roadway. Seven acres of high density development, one stream, two roads. May be affected by improvements to ROW*
	West				

Roadway	Direction	From	To	Proposed Number of Total Lanes	Right-of-Way (ROW) and Associated Environmental Effects
New Road (cont.)	East	New Road	Eagles Nest Road	4	No existing roadway. 20 acres pasture grassland, 0.03 acres of marsh, .02 acres high density development, one road may be affected by improvements to ROW.*
	West				
New Road	East	Mather Field Road	International Pkwy	4	No existing roadway. One acre of pasture, six acres of existing development, one road may be affected by improvements to ROW.*
	West				
	East	International Pkwy	New Road	4	No existing roadway. Three acres of existing development, one road may be affected by improvements to ROW.*
	West				
New Road	North	Douglas Road	Americanos Blvd.	4	No existing roadway. One stream, 23 acres of mine tailings, three roads, three vernal pools may be affected by improvements to ROW.*
	South				
	North	Americanos Blvd.	White Rock Road	4	No existing roadway. 20 acres of mine tailings and two roads may be affected by improvements to ROW.*
	South				
	North	White Rock Road	New Road	2	No existing roadway. Two streams, six acres of mine tailings, two roads may be affected by improvements to ROW.*
	South				
New Road	North	New Road	New Road	2	No existing roadway. 16 acres of mine tailings, three roads, 11 acres of vernal pool grassland may be affected by improvements to ROW.*
	South				
New Road	East	Prairie City Road	Nothing Proposed	4	No existing roadway. Two streams, 17 acres of mine tailings, two roads, three acres of vernal pool grassland may be affected by improvements to ROW.*
	West				
New Road	North	Easton Valley Pkwy	US Highway 50	4	No existing roadway. One stream, six acres of mine tailings, three acres of riparian woodland, one road may be affected by improvements to ROW.*
	South				

Roadway	Direction	From	To	Proposed Number of Total Lanes	Right-of-Way (ROW) and Associated Environmental Effects
New Road	North	Easton Valley Pkwy	Folsom Blvd	4	No existing roadway. One stream, 14 acres of mine tailings, 2 acres of riparian woodland, one road may be affected by improvements to ROW.*
	South				
New Road	East	Americanos Blvd	New Road	4	No existing roadway. 37 acres of mine tailings and one road may be affected by improvements to ROW.*
	West				
New Road	East	White Rock Road	New Road	2	No existing roadway. Two roads and 11 acres of vernal pool grassland may be affected by improvements to ROW.*
	West				
New Road	North	New Road	Prairie City Road	2	No existing roadway. Three streams, 8 acres of mine tailings, nine acres of recreation area (state land), one road, one vernal pool, 33 acres of vernal pool grassland may be affected by improvements to ROW.*
	South				
New Road	East	Grant Line Road	New Road	2	No existing roadway. 5 acres of development, one stream, seven acres of mine tailings, two roads, 10 vernal pools, 10 acres of vernal pool grassland may be affected by improvements to ROW.*
	West				
New Road	East	Grant Line Road	New Road	2	No existing roadway. Two streams, one road, 11 vernal pools, 20 acres of vernal pool grassland may be affected by improvements to ROW.*
	West				
New Road	East	Grant Line Road	New Road	2	No existing roadway. Three streams, one road, 21 vernal pools, 30 acres of vernal pool grassland may be affected by improvements to ROW.*
	West				

4.6 – Air Quality

This section describes the air quality impacts of the proposed Rancho Cordova General Plan. It examines the climatic influences that affect air quality of the Rancho Cordova General Plan Planning Area and also describes available data on measured contaminant levels. (The Planning Area is defined in Section 3.1.) In addition, it outlines the regulatory and planning agencies and programs relevant to the Planning Area.

4.6.1. EXISTING SETTING

AIR BASIN CHARACTERISTICS

The Rancho Cordova General Plan Planning Area lies at the southern end of the Sacramento Valley, a broad, flat valley bounded by the coastal ranges to the west and the Sierra Nevada to the east. A sea level gap in the Coast Range (the Carquinez Strait) is located approximately 50 miles southwest and the intervening terrain is very flat. The prevailing wind direction is southwesterly, which is the wind direction when marine breezes flow through the Carquinez Strait. Marine breezes dominate during the spring and summer months, and show strong daily variations. Highest average wind speeds occur in the afternoon and evening hours; lightest winds occur in the night and morning hours. During fall and winter, when the sea breeze diminishes, northerly winds occur more frequently, but southwesterly winds still predominate.

The Planning Area is under the jurisdiction of the Sacramento Metropolitan Air Quality Management District (SMAQMD). The Planning Area is part of the Sacramento Valley Air Basin. The Sacramento Valley Air Basin has been further divided into planning areas called the Northern Sacramento Valley Air Basin (NSVAB) and the Greater Sacramento Air Region, designated by the U.S. Environmental Protection Agency (EPA) as the Sacramento Federal Ozone non-attainment area. The non-attainment area consists of all of Sacramento and Yolo counties and parts of El Dorado, Solano, Placer, and Sutter counties.

The San Francisco Bay Area Air Basin lies to the west, and the San Joaquin Valley Air Basin is located to the south of the Planning Area. Considerable transport of pollutants occurs between these air basins, so that air quality in the Planning Area is partially determined by the release of pollutants elsewhere. In turn, pollutants generated in the Planning Area affect air quality in areas to the north and east.

AMBIENT AIR QUALITY STANDARDS

Both the U. S. Environmental Protection Agency (EPA) and the California Air Resources Board (ARB) have established ambient air quality standards for common pollutants. The national ambient air quality standards ("NAAQS", or "federal standards") and California ambient air quality standards ("CAAQS", or "state standards") for important pollutants are summarized in **Table 4.6-1**. These ambient air quality standards are levels of contaminants that represent levels that protect public health and welfare, and avoid specific adverse health effects associated with each pollutant. The ambient air quality standards cover what are called "criteria" pollutants because the health and other effects of each pollutant are described in criteria documents. EPA and ARB have focused on the following air pollutants as indicators of ambient air quality: ozone, carbon monoxide (MO), nitrogen dioxide (NO_2) fix, sulfur dioxide (SO_2), particulate matter (PM), and lead. The federal and state ambient standards were developed independently with differing purposes and methods, although both processes attempted to avoid health-related effects. As a result, the federal and state standards differ in some cases. In general, the California standards are more stringent. This is particularly true for ozone and PM_{10}.

A geographical area identified to have air quality as good as, or better than, the national and / or California ambient air quality standard is referred to as being in attainment of these standards. An area may be an attainment area for one pollutant and a nonattainment area for others

In 1997, the U.S. EPA adopted new national air quality standards for ground-level ozone and for fine particulate matter, which have not yet been implemented due to litigation. The existing 1-hour ozone standard of 0.12 parts per million (ppm) will be phased-out and replaced by an 8-hour standard of 0.08 ppm. New national standards for fine particulate matter (diameter 2.5 microns or less) have also been established for 24-hour and annual averaging periods. The current PM_{10} standards were retained, but the method and form for determining compliance with the standards were revised. Implementation of the new ozone and particulate matter standards was delayed by a lawsuit. On February 27, 2001 the U. S. Supreme Court unanimously ruled in favor of the U.S. EPA, clearing the way for implementation of the new standards.

During the delay caused by the lawsuit, ARB developed recommended designations for California air basins, proposing that Sacramento County be designated as non-attainment for the new 8-hour ozone standard. On April 28, 2005, the ARB approved the 8-hour average standard at 0.070 ppm.

TABLE 4.6-1
FEDERAL AND STATE AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	Federal Primary Standard	State Standard
Ozone	1-Hour 8-Hour	- 0.08 ppm	0.09 ppm 0.070 ppm
Carbon Monoxide	8-Hour 1-Hour	9 ppm 35 ppm	9.0 ppm 20.0 ppm
Nitrogen Dioxide	Annual Average 1-Hour	0.053 ppm --	-- 0.25 ppm
Sulfur Dioxide	Annual Average 24-Hour 1-Hour	0.03 ppm 0.14 PPM --	-- 0.04 ppm 0.25 ppm
PM_{10}	Annual Average 24-Hour	50 $\mu g/m^3$ 150 $\mu g/m^3$	20 $\mu g/m^3$ 50 $\mu g/m^3$
$PM_{2.5}$	Annual 24-Hour	15 $\mu g/m^3$ 65 $\mu g/m^3$	12 $\mu g/m^3$ --

Notes: PPM = Parts per Million; $\mu g/m^3$ = Micrograms per Cubic Meter
Source: Sacramento Metropolitan Air Quality Management District, 2004

AIR POLLUTANTS OF CONCERN AND HEALTH EFFECTS

The most problematic pollutants in Rancho Cordova are ozone, carbon monoxide, and particulate matter. Carbon monoxide in Sacramento County no longer exceeds the ambient air quality standards in Sacramento County, but has in the past. The health effects and major sources of these pollutants are described below. Toxic air contaminants are a separate class of pollutants and are discussed later in this section.

Ozone

Ground level ozone, commonly referred to as smog, is greatest on warm, windless, sunny days. Ozone is not emitted directly into the air from point sources (e.g., mobile or stationary); rather, they are formed through a complex series of chemical reactions between reactive organic gases (ROG) and nitrogen oxides (NOx). These reactions occur over time in the presence of sunlight.

Ozone is a public health concern because it is a respiratory irritant that increases susceptibility to respiratory infections and diseases, and because it can harm lung tissue at high concentrations. In addition, ozone can cause substantial damage to leaf tissues of crops and natural vegetation, and can damage many natural and manmade materials by acting as a chemical oxidizing agent.

The principal sources of the ozone precursors (ROG and NOx) are the combustion of fuels and the evaporation of solvents, paints, and fuels.

Particulate Matter (PM)

Particulate matter can be divided into several size fractions. Coarse particles are between 2.5 and 10 microns in diameter, and arise primarily from natural processes, such as wind-blown dust or soil. Fine particles are less than 2.5 microns in diameter and are produced mostly from combustion, or burning activities. Fuel burned in cars and trucks, power plants, factories, fireplaces and wood stoves produces fine particles.

The level of fine particulate matter in the air is a public health concern because it can bypass the body's natural filtration system more easily than larger particles, and can lodge deep in the lungs. The health effects vary depending on a variety of factors, including the type and size of particles. Research has demonstrated a correlation between high PM concentrations and increased mortality rates. Elevated PM concentrations can also aggravate chronic respiratory illnesses such as bronchitis and asthma.

Carbon Monoxide (CO)

Carbon monoxide (CO) is an odorless, colorless gas that is formed by the incomplete combustion of fuels. Motor vehicle emissions are the dominant source of CO in the Sacramento area. At high concentrations, CO reduces the oxygen-carrying capacity of the blood and can cause dizziness, headaches, unconsciousness, and even death. CO can also aggravate cardiovascular disease. Relatively low concentrations of CO can significantly affect the amount of oxygen in the bloodstream because CO binds to hemoglobin 220–245 times more strongly than oxygen.

CO emissions and ambient concentrations have decreased significantly in recent years. These improvements are due largely to the introduction of cleaner burning motor vehicles and motor vehicle fuels. The Sacramento area has attained the state and national CO standard. The records from the area's monitoring stations show that the CO standard has not been exceeded since 1999. CO is still a pollutant that must be closely monitored, however, due to its severe effect on human health.

Toxic Air Contaminants (TACs)

In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern. Unlike criteria pollutants, no safe levels of exposure to TACs have been established. There are many different types of TACs, with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations, such as gasoline stations and dry cleaners, and motor vehicle exhaust. Public exposure to TACs can result from emissions from normal operations, as well as accidental releases of hazardous materials during upset conditions. The health effects of TACs include cancer, birth defects, neurological damage and death.

Diesel exhaust is a TAC of growing concern in California. In 1998, ARB identified diesel engine particulate matter as a TAC. The exhaust from diesel engines contains hundreds of different gaseous and particulate components, many of which are toxic. Mobile sources, such as trucks, buses, automobiles, trains, ships and farm equipment are by far the largest source of diesel emissions. Studies show that diesel particulate matter concentrations are much higher near heavily traveled highways and intersections.

It is important to understand that TACs are not considered criteria air pollutants and thus are not specifically addressed through the setting of ambient air quality standards. Instead, EPA and ARB regulate Hazardous Air Pollutants (HAPs) and TACs, respectively, through statutes and regulations that generally require the use of the maximum or best available control technology (MACT and BACT) to limit emissions. These in conjunction with additional rules set forth by SMAQMD establish the regulatory framework for TACs.

AMBIENT AIR QUALITY

The SMAQMD and ARB maintain several air quality monitoring sites in the Sacramento area, however, none are located in the City of Rancho Cordova and not all monitoring sites measure all air pollutants. For instance, the Sloughhouse monitoring site, which is the site nearest to the City, only measures ozone. The nearest monitoring site for carbon monoxide, $PM_{2.5}$, Nitrogen Dioxide, and Sulfur Dioxide is at Del Paso Manor at 2701 Avalon Dr, Sacramento. The nearest monitoring site for PM_{10} is the Sacramento Branch Center Road site, located near Bradshaw Road south of U.S. 50, within the Planning Area. Based on these monitoring sites, all federal ambient air quality standards have been met in the Rancho, with the exception of ozone, which exceeded the 8-hour average on ten occasions in 2005. Also, California standards for PM_{10} and ozone were exceeded in the City in 2005. See **Table 4.6-2** for air quality in Rancho Cordova.

TABLE 4.6-2[MM1][MM2]
RANCHO CORDOVA AREA AIR QUALITY

Pollutant	Standard[3]	2003		2004		2005	
		Highest	Days over	Highest	Days over	Highest	Days over
Ozone							
Highest 1-hour average[1]	0.09 ppm	0.131 ppm	1	0.114 ppm	0	0.132 ppm	3
Highest 8-hour average[2]	0.07 ppm	0.107 ppm	19	0.93 ppm	8	0.110 ppm	10
Carbon Monoxide							
Highest 8-hour average[1]	9.0 ppm	4.27 ppm	0	3.15 ppm	0	2.26 ppm	0

Pollutant	Standard[3]	2003		2004		2005	
		Highest	Days over	Highest	Days over	Highest	Days over
PM_{10}							
Highest 24-hour average[1]	50 g/m^3	77.0 g/m^3	4	45.0 g/m^3	0	52.0 g/m^3	1
$PM_{2.5}$							
Highest 8-hour average[2]	65 g/m^3	73.2 g/m^3	2	58.2 g/m^3	0	45.7 g/m^3	0
Sulfur Dioxide							
Highest 1-hour average[1]	.0.25 ppm	.003 ppm	0	.003 ppm	0	.003 ppm	0
Nitrogen Dioxide							
Highest 1-hour average[1]	0.25 ppm	.101 ppm	0	.066 ppm	0	.061 ppm	0

Source: California Air Resource Board
Note: (1) California standard; (2) National standard (3) ppm = parts per million, g/m^3 = micrograms per cubic meter.

ODORS

Typically odors are regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals have the ability to smell minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; in fact, an odor that is offensive to one person (e.g., from a fast-food restaurant) may be perfectly acceptable to another. It is also important to note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity. Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word "strong" to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air. When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

SENSITIVE RECEPTORS AND POLLUTION SOURCES

Sensitive receptors are facilities where sensitive receptor population groups (children, the elderly, the acutely ill and the chronically ill) are likely to be located. Examples of these receptors are schools, retirement homes, convalescent homes, hospitals and medical clinics. The majority of sensitive receptors in Rancho Cordova are schools and residences.

EMERGING AIR QUALITY ISSUES

The following is a discussion of emerging air quality issues that would not normally have been addressed by general plan policies and programs.

Major Stationary Air Pollutant Sources in the Planning Area

The Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, 1987, Connelly) was enacted in September 1987. Under this act, stationary sources are required to report the types and quantities of certain substances their facilities routinely release into the air. The goals of the Air Toxics "Hot Spots" Act are to collect emission data, to identify facilities having localized impacts, to ascertain health risks, and to notify nearby residents of significant risks. The Hotspots Analysis and Reporting Program (HARP) is a tool that assists with the programmatic requirements of the Air Toxics "Hot Spots" Program. HARP is a computer software package that combines the tools of emission inventory database, facility prioritization calculation, air dispersion modeling, and risk assessment analysis. All of these tools are tied to a single database allowing information to be shared and utilized.

Major stationary air pollutant sources listed in the HARP database for the City of Rancho Cordova include: A. Teichert & Son Aggregate, AeroJet, Puente Wood Products, Sacramento Rendering Company and Teledyne Mec.

Mather Airport

The following information was excerpted, in part, from the Revised Draft Mather Airport Master Plan, February 2004. Mather Field was established in 1918 as a military base and pilot training school. The base was closed after World War I, but reactivated in 1941 as a training field. In 1958, the Strategic Air Command B-52 wing was assigned to the base. In the 1970s, Mather provided inter-service and international undergraduate navigator training. Base expansion and improvement continued throughout the 1980s, but ceased when the decision to close Mather was announced by the Department of Defense in 1988. In 1993, the Air Force issued a Record of Decision for disposal of the base and aviation facilities were transitioned to Sacramento County on March 28, 1995. Mather Airport was officially reopened as a civilian airport on May 5, 1995.

Following the airport's re-opening in May 1995, the majority of all-cargo carriers operating at Sacramento International Airport relocated to Mather Airport due to a number of reasons. Airborne Express, and United Parcel Service (UPS) currently operate at Mather.

In addition to air cargo service, Mather Airport also accommodates regional general aviation demand, including corporate general aviation, recreational general aviation, and air taxis. Mather based general aviation aircraft are primarily used for corporate, government, and recreational purposes. Trajen Flight Support and Mather Aviation provide services to general aviation users.

Additional tenants include the Sacramento County Sheriff Air Operation Bureau, Union Flights, and the California Department of Justice. The California Department of Education and the Army National Guard own property within the Airport boundary. Mather supports a large-scale aircraft shuttle for one of the area's premier technology companies. The California Department of Forestry (CDF) used Mather as its northern California maintenance base from 1995 to 2002, but relocated to McClellan Park in June 2002.

The airfield includes two parallel northeast-southwest runways separated by 1,000 feet (centerline to centerline). Primary Runway 4R-22L is 11,301 feet long and 150 feet wide (with 75-foot-wide shoulders). Runway 4L-22R is 6,040 feet long and 150 feet wide. The distance separating the parallel runways is insufficient to allow simultaneous operations during IFR conditions. In addition, Mather the airport has three 450-square-yard helipads.

From 1998 to 2000, the number of average daily all-cargo aircraft operations increased from 25 to 56. In 2001, the number of average daily all-cargo aircraft operations declined to 40. In 2001, total aircraft operations, including air cargo carriers, commuter cargo, air taxis, general aviation, and military was an average of 229 aircraft operations per day or 83,567 aircraft operations annually. 2006 projections estimate 87,000 aircraft operations or an average of 238 operations daily.

Sources of airport-related TAC emissions include aircraft, ground-service equipment, fuel storage and handling, and other sources. TACs released by these sources include but are not limited to VOCs (acetaldehyde, formaldehyde, benzene, and 1, 3-butadiene); chromium; dioxins; polycyclic organic compounds (PAHs); tetrachloroethylene; nickel; and toluene.

Diesel Exhaust/Land Use Issues

In 1998, after a 10-year scientific assessment process, the Air Resources Board identified particulate matter from diesel-fueled engines as a toxic air contaminant (TAC). Unlike criteria pollutants like carbon monoxide, TACs do not have ambient air quality standards. Since no safe levels of TACs can be determined, there are no air quality standards for TACs. Instead, TAC impacts are evaluated by calculating the health risks associated with a given exposure. Two types of risk are usually assessed: chronic non-cancer risk and acute non-cancer risk. Diesel particulate has been identified as a carcinogenic material, but is not considered to have acute non-cancer risks. The state has begun a program of identifying and reducing risks associated with particulate matter emissions from diesel-fueled vehicles. In September 2000, the Air Resources Board approved a comprehensive Diesel Risk Reduction Plan to reduce diesel emissions from both new and existing diesel-fueled engines and vehicles. The goal of the Plan is to reduce diesel PM emissions and the associated health risk by 75 percent in 2010 and 85 percent by 2020. The Plan consists of new regulatory standards for all new on road, off-road and stationary diesel-fueled engines and vehicles, new retrofit requirements for existing on-road, off-road and stationary diesel-fueled engines and vehicles, and new diesel fuel regulations to reduce the sulfur content of diesel fuel as required by advanced diesel emission control systems. Land uses where individuals could be exposed to high levels of diesel exhaust include:

- Warehouses
- Schools with high volume of bus traffic
- High volume highways
- High volume arterials and local roadways with high level of diesel traffic.

The General Plan Planning Area is served by four school districts. Many of the schools in the District have high volumes of bus traffic during daily morning and afternoon operations, which contribute to diesel emissions in the Planning Area. High volume highways in the Planning Area include SR 50 and Jackson Highway (SR 160), which have a high volume of daily truck traffic. Trucks are considered major sources of diesel related emissions. Additionally, the Planning Area has several high volume arterials and local roadways (i.e., Folsom Boulevard, Sunrise Boulevard Road, White Rock Road, Douglas Road, International Drive) that have considerable amounts of diesel powered vehicles and truck traffic.

Wood Smoke

Wood smoke has long been identified as a significant source of pollutants in urban and suburban areas. Wood smoke contributes to particulate matter and carbon monoxide concentrations, reduces visibility and contains numerous toxic air contaminants. Present controls on this source include the adoption of emission standards for wood stoves and fireplace inserts. Interest in wood smoke is likely to increase with the recent adoption of a $PM_{2.5}$ (particulate matter less than 2.5 microns in diameter) national standard.

4.6.2. REGULATORY FRAMEWORK

Air quality in the Basin is addressed through the efforts of various federal, state, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies primarily responsible for improving the air quality in Sacramento County are discussed below, along with their individual responsibilities.

FEDERAL

U.S. Environmental Protection Agency

The U.S. Environmental Protection Agency (EPA) is responsible for enforcing the Federal Clean Air Act and the 1990 amendments to it ("Federal CAA"), and the national ambient air quality standards (federal standards) that the EPA establishes. These standards identify levels of air quality for six "criteria" pollutants, which are considered the maximum levels of ambient (background) air pollutants considered safe, with an adequate margin of safety, to protect public health and welfare. The six criteria pollutants include ozone, CO, nitrogen dioxide (NO_2 - a form of NO_X), sulfur dioxide (SO_2 - a form of SO_X), particulate matter 10 microns in size and smaller (PM_{10}), and lead. The U.S. EPA also has regulatory and enforcement jurisdiction over emission sources beyond state waters (outer continental shelf), and sources that are under the exclusive authority of the federal government, such as aircraft, locomotives, and interstate trucking.

Federal Hazardous Air Pollutant Program

Title III of the CAA requires EPA to promulgate national emissions standards for HAPs (NESHAP). The NESHAP may differ for major sources than for area sources of HAPs. (Major sources are defined as stationary sources with potential to emit more than 10 tons per year [TPY] of any HAP or more than 25 TPY of any combination of HAPs; all other sources are considered area sources.) The emissions standards are to be promulgated in two phases. In the first phase (1992–2000), EPA developed technology-based emission standards designed to produce the maximum emission reduction achievable. These standards are generally referred to as requiring MACT. For area sources, the standards may be different, based on generally available control technology. In the second phase (2001–2008), EPA is required to promulgate health risk–based emissions standards where deemed necessary to address risks remaining after implementation of the technology-based NESHAP standards.

The CAAA required EPA to promulgate vehicle or fuel standards containing reasonable requirements that control toxic emissions, at a minimum to benzene and formaldehyde. Performance criteria were established to limit mobile-source emissions of toxics, including benzene, formaldehyde, and 1, 3-butadiene. In addition, Section 219 required the use of reformulated gasoline in selected U.S. cities (those with the most severe ozone nonattainment conditions) to further reduce mobile-source emissions.

STATE

California Air Resources Board

The California Air Resources Board, a department of the California Environmental Protection Agency (Cal EPA), oversees air quality planning and control throughout California. It is primarily responsible for ensuring implementation of the 1989 amendments to the California Clean Air Act (CCAA), responding to the federal CAA requirements, and for regulating emissions from motor vehicles and consumer products within the State. ARB has established emission standards for vehicles sold in California and for various types of equipment available commercially. It also sets fuel specifications to further reduce vehicular emissions.

The amendments to the CCAA establish ambient air quality standards for the State (state standards) and a legal mandate to achieve these standards by the earliest practical date (SMAQMD, 1998). These standards apply to the same six criteria pollutants as the Federal CAA, and also include sulfate, visibility, hydrogen sulfide, and vinyl chloride. They are more stringent than the federal standards and, in the case of PM_{10} and SO_2, far more stringent.

Tanner Air Toxics Act

California regulates TACs primarily through the Tanner Air Toxics Act (AB 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588). The Tanner Act sets forth a formal procedure for ARB to designate substances as TACs. This includes research, public participation, and scientific peer review before ARB can designate a substance as a TAC. To date, ARB has identified more than 21 TACs and has adopted EPA's list of HAPs as TACs. Most recently, diesel PM was added to the ARB list of TACs.

Once a TAC is identified, ARB then adopts an Airborne Toxics Control Measure (ATCM) for sources that emit that particular TAC. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If there is no safe threshold, the measure must incorporate BACT to minimize emissions.

The AB 2588 requires that existing facilities that emit toxic substances above a specified level prepare a toxic-emission inventory, prepare a risk assessment if emissions are significant, notify the public of significant risk levels, and prepare and implement risk reduction measures. ARB has adopted diesel exhaust control measures and more stringent emission standards for various on-road mobile sources of emissions, including transit buses and off-road diesel equipment (e.g., tractors, generators). In February 2000, ARB adopted a new public-transit bus-fleet rule and emission standards for new urban buses. These rules and standards provide for (1) more stringent emission standards for some new urban bus engines, beginning with 2002 model year engines; (2) zero-emission bus demonstration and purchase requirements applicable to transit agencies; and (3) reporting requirements under which transit agencies must demonstrate compliance with the urban transit bus fleet rule. Upcoming milestones include the low-sulfur diesel-fuel requirement, and tighter emission standards for heavy-duty diesel trucks (2007) and off-road diesel equipment (2011) nationwide.

Air Quality and Land Use Handbook

As part of the Air Resources Board's Community Health Program, ARB has developed an Air Quality and Land Use Handbook, which is intended to serve as a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process. ARB is also developing related information and technical

evaluation tools for addressing cumulative air pollution impacts in a community. Any recommendations or considerations contained in the Handbook are voluntary and do not constitute a requirement or mandate for either land use agencies or local air districts.

The primary goal in developing this document was to provide information that will help keep California's children and other vulnerable populations out of harm's way with respect to nearby sources of air pollution. Recent air pollution studies have shown an association between respiratory and other non-cancer health effects and proximity to high traffic roadways. Other studies have shown that diesel exhaust and other cancer-causing chemicals emitted from cars and trucks are responsible for much of the overall cancer risk from airborne toxics in California. Also, ARB community health risk assessments and regulatory programs have produced important air quality information about certain types of facilities that should be considered when siting new residences, schools, day care centers, playgrounds, and medical facilities (i.e., sensitive land uses). Sensitive land uses deserve special attention because children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the non-cancer effects of air pollution. There is also substantial evidence that children are more sensitive to cancer-causing chemicals.

The Handbook identifies ARB's recommendations regarding the siting of new sensitive land uses near freeways, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and gasoline dispensing facilities. This list consists of the air pollution sources that have been evaluated from the standpoint of the proximity issue. It is based on available information and reflects ARB's primary areas of jurisdiction – mobile sources and toxic air contaminants.

REGIONAL AND LOCAL

Sacramento Metropolitan Air Quality Management District

The Sacramento Metropolitan Air Quality Management District (SMAQMD) coordinates the work of government agencies, businesses, and private citizens to achieve and maintain healthy air quality for the Sacramento area. The SMAQMD develops market-based programs to reduce emissions associated with mobile sources, processes permits, ensures compliance with permit conditions and with SMAQMD rules and regulations, and conducts long-term planning related to air quality.

The SMAQMD sponsors a variety of community education programs. For example, the "Spare the Air" program focuses on reducing automobile trips, particularly when the Air Quality Index indicates that air quality is reaching unhealthy levels (SMAQMD, 2004). Surveys indicate that approximately 22 percent of drivers curtail driving by at least one trip during unhealthy periods. The SMAQMD is also engaged in a variety of public outreach programs, including work with the American Lung Association, information brochures, radio and television announcements, and other efforts.

Sacramento Area Regional Ozone Attainment Plan.

Sacramento County and the Planning Area are included in the Greater Sacramento Ozone non-attainment area as delineated by the U. S. EPA. The Federal CAA set new deadlines for attaining the ozone standard. The Sacramento Area was classified as a "serious" non-attainment area and given a date of 1999 by which to achieve attainment. Because achieving attainment by this date was later found to be infeasible, the area was "bumped up" to "severe" classification and an attainment date of 2005 was designated. The Clean Air Act also set specific planning requirements to ensure that the attainment goal would be met. In 1994, ARB,

in cooperation with the air districts of the Sacramento non-attainment area, fulfilled one of these requirements by preparing the 1994 Sacramento Area Regional Ozone Attainment Plan. The plan identified a detailed comprehensive strategy for reducing emissions to the level needed for attainment and showed how the area would make expeditious progress toward meeting this goal.

The Federal CAA sets "rate-of-progress" or "milestone" emission reduction targets and dates to gauge whether the non-attainment areas were making reasonable further progress toward reaching the goal of attainment (SMAQMD, 2004). Milestone reports were required in 1996 and every 3 years thereafter until the attainment deadline. The Sacramento Area Regional 2002 Milestone Report concluded that the area had made significant achievements in reduction of ozone precursors since 1994 and that the Sacramento area has satisfied the milestone rate-of-progress requirement all pollutants including VOC and NOx emission.

The Federal CAA requires that an area's transportation plan must "conform", or show that it does not harm the area's chances of reaching the ozone standard. Areas with a State Implementation Plan SIP, such as California, have a "motor vehicle emissions budget" (MVEB) tied to the SIP. Transportation planners are required to analyze the emissions anticipated from transportation plans and transportation improvement programs and ensure that they remain within the SIP's emissions budget (this is called demonstrating conformity). If not demonstrated, conformity will lapse and transportation funding can be withheld from all but exempt projects.

The current SIP's fleet information is about 10 years old. The Sacramento Area Council of Governments (SACOG) is the agency responsible for demonstrating transportation conformity in our area. SACOG estimates that applying the most recent fleet data to our existing models would result in a conformity lapse.

The State Air Resources Board, SACOG, U.S.EPA and FHWA have negotiated approval to use the 1994 vehicle fleet data through December 31, 2002. After that time, conformity findings can be made only if the new fleet data is used. This means that the transportation plans and transportation improvement programs now in place for the SMAQMD area cannot be changed until the area has a new clean air plan. The Sacramento area, unlike others in the state, is not required to update the SIP before the 8-hour ozone plans are due in 2006. However, since a conformity lapse began October 4, 2004, an expedited process to prepare a plan is underway. The 1994 Attainment Plan is still in effect, however an updated Attainment Plan is required have ARB approval by May of 2007.

One of the principal elements of the 1994 Sacramento Area Regional Ozone Attainment Plan was the requirement to obtain emission reductions of one ton per day each for ROG and NOx through the implementation of transportation control measures (TCMs) and control of land use project emissions. In response to this requirement, Sacramento County adopted General Plan Policy AQ-15 requiring a percent reduction in emissions associated with new projects. Additionally, the SMAQMD and other air districts in the Sacramento federal ozone non-attainment area recently adopted new thresholds of significance to be used in evaluating land use proposals. In setting the thresholds, the districts considered both the health-based air quality standards and the attainment strategies contained in the 1994 Sacramento Area Regional Ozone Attainment Plan. Three types of thresholds were established:

- Mass Emission Thresholds-The District considers increases in emissions of nitrogen oxides (NO_x) greater than 85 pounds per day as significant during construction. For operation of a project, the District's threshold of significance is 65 pounds per day of either NO_x or Reactive Organic Gases (ROG).

- Emissions Concentration Thresholds-A predicted violation of any California Ambient Air Quality Standard (CAAQS) during both construction or operation of the project would be considered a significant impact.
- Substantial Contribution Threshold-A project is considered to contribute substantially to an existing or projected violation of the CAAQS if it emits pollutants at a level equal to or greater than five percent of the CAAQS.

The new mass emissions threshold of 65 pounds per day was intended to achieve the one ton 1994 Sacramento Area Regional Ozone Attainment Plan goal as long as projects achieve an average mitigation effectiveness rate of 15 percent. The reduction of the threshold from 85 pounds per day to 65 pounds per day was intended to increase the number of projects subject to mitigation requirements.

The construction threshold of 85 pounds per day for NOx has been in use since 1994. The purpose of this threshold is to fulfill the Mobile Off-Road commitment which is two tons per day by 2005.

The SMAQMD has developed Standard Construction Mitigation language that it recommends for all construction projects. This standard mitigation is to be applied to land use as well as roadway construction projects. Acceptable options for reducing emissions include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available.

The SMAQMD has developed two tools to assist in assessing construction impacts and applying this Standard Construction Mitigation:

- A Roadway Construction Emissions Model to assist roadway project proponents with determining the emission impacts of their projects; and

- A Construction Mitigation Calculator to assist project contractors in determining compliance with the standard mitigation measures.

In addition, effective as of October 10, 2005, if modeled construction-generated emissions for a project are not reduced to SMAQMD's threshold of significance (85 pounds per day [lb/day]) by the application of the standard construction mitigation, then an off-site construction mitigation fee is recommended. The fee must be paid before a grading permit can be issued. This fee is used by SMAQMD to purchase off-site emissions reductions. Such purchases are made through SMAQMD's Heavy Duty Incentive Program, through which select owners of heavy duty equipment in Sacramento County can repower or retrofit their old engines with cleaner engines or technologies.

Toxic Air Contaminates

At the local level, air pollution control or management districts may adopt and enforce ARB's control measures. Under SMAQMD Rule 201 ("General Permit Requirements"), Rule 202 ("New Source Review"), and Rule 207 ("Federal Operating Permit"), all sources that possess the potential to emit TACs are required to obtain permits from the district. Permits may be granted to these operations if they are constructed and operated in accordance with applicable regulations, including new-source review standards and air-toxics control measures.

SMAQMD limits emissions and public exposure to TACs through a number of programs. SMAQMD prioritizes TAC emitting stationary sources based on the quantity and toxicity of the TAC emissions and the proximity of the facilities to sensitive receptors.

Sources that require a permit are analyzed by SMAQMD (e.g., health risk assessment) based on their potential to emit toxics. If it is determined that the project will emit toxics in excess of SMAQMD's threshold of significance for TACs, as identified below, sources have to implement the BACT for TACs (T-BACT) to reduce emissions. If a source cannot reduce the risk below the threshold of significance even after T-BACT has been implemented, the SMAQMD will deny the permit required by the source. This helps to prevent new problems and reduces emissions from existing older sources by requiring them to apply new technology when retrofitting with respect to TACs.

SMAQMD Rules and Regulations

SMAQMD has adopted a number of rules and regulations for the purpose of attaining the goals set forth in the federal and state Clean Air Acts. These rules and regulations, known as The Rules and Regulations of the Sacramento Metropolitan Air Quality Management District, have been implemented to provide an orderly procedure for the review of new sources of air pollution and of the modification and operation of existing sources through the issuance of permits. While there are a number of exceptions, the Rules and Regulations pertain to "any person building, erecting, altering or replacing any article, machine, equipment or other contrivance, the use of which may cause, eliminate, reduce, or control the issuance of air contaminants". The Rules and Regulations contain specific guidelines for admittance of air pollutants (i.e. dust, odors, asbestos, etc.) by any new and modified stationary air pollution sources.

Guide to Air Quality Assessment in Sacramento County

SMAQMD has developed a manual for calculating a project's air quality impacts. This document, known as the Guide to Air Quality Assessment in Sacramento County is intended to act as a guide during the Initial Study phase of a proposed land use development. Further environmental review is required if, following review in the Initial Study phase, significant air quality impacts are identified. Such review may result in an Environmental Impact Report (EIR), a Mitigated Negative Declaration, or in those cases with no significant impacts, a Negative Declaration. The Guide is intended for use by the SMAQMD to review projects. In other projects, the SMAQMD will use it to provide comments as a responsible agency or a reviewing agency under CEQA. SMAQMD recommends that this Guide be used by lead agencies at local, state, and federal levels for projects which are likely to result in emission impacts in Sacramento County. It is also intended to act as a guide for planners, consultants, land use developers, and any other entity concerned with accurate estimation and mitigation of project-related air emission impacts in Sacramento County.

Odors

In 1991 SMAQMD adopted a nuisance rule that addresses odor exposure. Rule 402 states that no person shall discharge from any source whatsoever such quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons, or to the public, or that endanger the comfort, repose, health, or safety of any such persons, or the public, or that cause to have a natural tendency to cause injury or damage to business or property. The provisions of Rule 402 do not apply to odors emanating from agricultural operations necessary for the growing of crops or raising of fowl or animals. SMAQMD recommends that odor impacts be addressed in a qualitative manner. Such an analysis shall

determine whether the project results in excessive nuisance odors, as defined under the California Code of Regulations and Section 41700 of the California Health and Safety Code, and thus constitutes a public nuisance related to air quality.

Potential stationary odors sources in the City include the Sacramento Rendering Company plant and the Kiefer Landfill located adjacent to the southeastern border of the Planning Area.

Sacramento County General Plan

The Sacramento County General Plan is used to guide future development in unincorporated portions of the County, including sections of the Planning Area that are outside the Rancho Cordova City limits. The Sacramento County Air Quality Element includes policies that are intended to protect air quality in the Sacramento area. Policy AQ-3 promotes optimal air quality benefits through the use of energy conservation, while Policy AQ-5 requires the use of BACTs. Policy AQ-11 requires that new residential development install facilities for the charging of electrical vehicles and Policy AQ-15 states that all major indirect source of emissions shall be modified to reduce emissions. Policies AQ-17 and AQ-19 speak to the identification of air quality impacts of development projects as well as the location and design of the projects to reduce these impacts. Policy AQ-22 requires buffer areas between sensitive land uses and sources of air pollution or odors. Policy AQ-23 calls for the promotion of mixed-use development to reduce vehicle trips, AQ-25 requires the development be designed to promote pedestrian and bicycle access and AQ-26 calls for the accommodation of growth within existing urban areas. Finally, Policy AQ-37 calls for the use of vegetation to maximize air quality benefits. The County General Plan is currently applicable to the Planning Area outside the existing city limits of Rancho Cordova and will remain so until annexed by the City.

Sacramento Transportation and Air Quality Collaborative

The Sacramento Transportation and Air Quality Collaborative is a consortium of forty-eight regional and local organizations established to address air quality, transportation, land use and governance issues in the greater Sacramento area. The collaborative seeks to increase public participation through education, evaluation of transit systems, land use developments, jobs/housing balances and encouragement of regional planning efforts to achieve and maintain clean air quality as measured by federal and state ambient air quality standards.

The Sacramento Transportation and Air Quality Collaborative is jointly funded by ten public agencies within the Sacramento countywide area: the County of Sacramento; the Cities of Citrus Heights, Elk Grove, Folsom, Rancho Cordova, and Sacramento; the Sacramento Regional Transit District (RT); the Sacramento Area Council of Governments (SACOG), the Sacramento Metropolitan Air Quality Management District (SMAQMD), and the Sacramento Transportation Authority (STA). In addition, Caltrans provides in-kind support.

4.6.3. IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The following standards, to determine whether the proposed General Plan would result in significant impacts to air quality, are based on State CEQA Guidelines Appendix G. A significant impact to air quality would occur if implementation of the proposed project would do any of the following:

1) Conflict with or obstruct implementation of the applicable air quality plan.

2) Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

3) Result 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).

4) Expose sensitive receptors to substantial pollutant concentrations.

5) Create objectionable odors affecting a substantial number of people.

The SMAQMD has published a guidance document to assist in the preparation of the air quality portions of environmental documents, by recommending thresholds of significance to be used in evaluating land use proposals. The following thresholds were recommended:[1]

- *Ozone Precursors Significance Thresholds - The District considers increases in emissions of nitrogen oxides (NO_x) greater than 85 pounds per day as significant during construction. For operation of a project, the District's threshold of significance is 65 pounds per day of either NO_x or Reactive Organic Gases (ROG).*

- *Other Criteria Pollutant Significance Thresholds - A project that may cause an exceedance of a state air quality standard, or may make a substantial contribution to an existing exceedance of an air quality standard, will have a significant adverse air quality impact. "Substantial" is defined as making measurably worse, which is five percent or more of an existing exceedance of a state ambient air quality standard.*

- *Offensive Odors Significance Threshold - A qualitative assessment indicating that a project may reasonably be expected to generate odorous emissions in such quantities as to cause detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which may endanger the comfort, repose, health, or safety of any such person or the public, or which may cause, or have a natural tendency to cause, injury or damage to business or property, will have a significant adverse air quality impact.*

- *Toxic Air Contaminants Significance Thresholds - The recommended significance thresholds for TACs are a lifetime probability of contracting cancer greater than 10 in one million and a ground-level concentration of non-carcinogenic toxic air pollutants would result in a Hazard Index of greater than 1*[2].

- *Cumulative Impacts Thresholds - A proposed project is considered cumulatively significant, if the project requires a change in the existing land use designation (i.e., general plan amendment, rezone), and projected emissions of the proposed project are greater than the emissions anticipated for the site if developed under the existing land use designation.*

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[1] Sacramento Metropolitan Air Quality Management District, *Guide to Air Quality Assessment in Sacramento County*, July 2004.
[2] Maximum Incremental Cancer Risk ≥ 10 in 1 million
Hazard Index ≥ 1.0 (project increment)
Hazard Index ≥ 3.0 (facility-wide)

Applicable federal and state ambient air quality standards shown in **Table 4.6-1** represent thresholds of significance for state and federal standards. This air quality analysis uses both the State CEQA Guidelines Appendix G significance criteria and the thresholds of significance from SMAQMD.

METHODOLOGY

Generally, the air quality analysis for an EIR is based on land use designations identified in the General Plan Land Use Element and the projected traffic and residential, commercial, office, and industrial uses. Increases in regional criteria air pollutants were calculated using the Urbemis 2002 (v8.7) computer program (see **Table 4.6-3**). This program estimates criteria pollutants from area and mobile emission sources associated with development projects, based on the specific types of land uses proposed for development. Use of this model for large community-based plans, where specific land uses have not yet been identified, may not fully account for site-specific conditions, but has been used to provide a reasonable estimation of emissions based on typical land use development conditions under the proposed General Plan.

PROJECT IMPACTS AND MITIGATION MEASURES

Conflict with the SMAQMD Regional Ozone Attainment Plan

Impact 4.6.1 The implementation of the proposed City of Rancho Cordova General Plan land uses would conflict with the land use assumptions used 1994 SMAQMD Regional Ozone Attainment Plan. This is considered a **potentially significant** impact to air quality.

In the early 1990's the Sacramento area had the fifth worst ozone air quality in the United States. The Federal CAA set new deadlines for attaining the federal ozone standards. In 1994, the Sacramento Metropolitan Air Quality Management District adopted a plan to attain this standard called the Regional Ozone Attainment Plan (also called the State Implementation Plan, or SIP). Currently, SMAQMD is in the process of updating the Attainment Plan. This update uses SACOG's Sacramento Region Blueprint: Transportation/Land Use Study as a basis for projected growth in the area (per. comm. Borkenhagen). SACOG's Blueprint has projected population of 332,000 persons, 112,290 housing units, and 144,406 jobs for the area by the year 2050. While the area defined as the Rancho Cordova Community by SACOG does not precisely match the General Plan Planning Area, it is within range to approximate the SACOG anticipated growth for the area. The proposed Rancho Cordova General Plan projects a total buildout population of 310,568, 126,241 housing units and 195,021 jobs. The differences in population, housing units and employment between these two growth scenarios is substantial resulting in an exceedance of the data used to formulate the Regional Ozone Attainment Plan and its ozone reduction predictions and mitigations. Conflicts with the Regional Ozone Attainment Plan may result in the non-attainment of air quality standards for the SMAQMD area. This would be in direct disagreement with the California Clean Air Act resulting in the potential loss of transportation funding for the Sacramento area. This is considered a significant impact.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following proposed General Plan policies and action items provide some mitigation of buildout air quality impacts:

Policy AQ.1.1 *The City coordinate with responsible agencies and other jurisdictions to improve air quality within Rancho Cordova and the greater Sacramento region.*

Action AQ.1.1.1 *Use the emissions guidelines produced by the California Air Resources Board, SMAQMD, and SACOG to ensure that City facilities and operations comply with mandated measures.*

Action AQ.1.1.2 *Support SMAQMD in the development of improved ambient air quality monitoring capabilities, as well as the establishment of standards that more adequately address the air quality impacts of proposed project plans and proposals.*

Action AQ1.1.3 *Support intergovernmental efforts directed at adopting stricter standards related to lowest emission technology vehicles, and more efficient burning engines and fuels (e.g., HVAC, generators, construction equipment, stricter tailpipe emissions standards, etc.).*

Mitigation Measures

The above General Plan policies and action items would assist in the improvement of air quality conditions. However, they do not require the City to reduce future land uses to be more inline with the Blueprint projections used in the Attainment Plan update. As such, implementation of this policy would not fully mitigate the conflict between the proposed General Plan buildout projections and those used in the update Attainment Plan. In addition, there are no feasible methods to completely offset air pollutant emission increases from land uses under the proposed General Plan. Thus, this impact is considered **significant and unavoidable**

Construction Air Pollutants

Impact 4.6.2 Implementation of the proposed General Plan would result in short-term emissions generated by construction and demolition activities that would affect local air quality and could result in health and nuisance-type impacts in the immediate vicinity of individual construction sites as well as contribute to particulate matter and regional ozone impacts. This is considered a **significant** impact to air quality.

Construction and demolition emissions are generally short term or temporary in duration; however, they still have the potential to significantly impact air quality. The main contributors to this short-term adverse impact to air quality are fugitive dust emissions (PM_{10}) and emission of ozone forming gases (ROG and NO_x), for which the SMAQMD is in severe non-attainment. Fugitive dust emissions are generally associated with grading, movement of soil and other site preparation activities. ROG and NO_x emissions break down to form ozone and are associated primarily with gas and diesel equipment exhaust and the application of various exterior building coatings. The potential construction of approximately 126,241 dwelling units and 71,209,788 square feet of commercial, industrial, and office uses and the supporting infrastructure would generate significant emissions of ROG, NO_x, and PM_{10}. Construction activities associated with buildout under the proposed General Plan would include grading, building demolition, building construction, and paving. Wind erosion and disturbance to exposed areas would also be sources of dust emissions. In addition, motor vehicle exhaust associated with construction equipment and construction personnel commuter trips, and material transport and delivery, would contribute to the generation of ROG, NO_x, and PM_{10}.

Emissions from individual development construction sites would be short term and temporary but would occur more or less continually through buildout of the General Plan Planning Area. At any given time, several construction projects may be under way, which may result in substantial construction related emissions.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following proposed General Plan policies and action items would provide partial mitigation of construction air quality impacts:

Policy AQ.1.1 *Coordinate with responsible agencies and other jurisdictions to improve air quality within Rancho Cordova and the greater Sacramento region.*

Action AQ.1.1.1 *Use the emissions guidelines produced by the California Air Resources Board, SMAQMD, and SACOG to ensure that City facilities and operations comply with mandated measures.*

Action AQ.1.1.2 *Support SMAQMD in the development of improved ambient air quality monitoring capabilities, as well as the establishment of standards that more adequately address the air quality impacts of proposed project plans and proposals.*

Action AQ1.1.3 *Support intergovernmental efforts directed at adopting stricter standards related to lowest emission technology vehicles, and more efficient burning engines and fuels (e.g., HVAC, generators, construction equipment, stricter tailpipe emissions standards, etc.).*

Policy AQ.1.2 *Evaluate projects for compliance with State and federal ambient air quality standards and the Sacramento Metropolitan Air Quality Management District's (SMAQMD) thresholds of significance.*

Action AQ.1.2.1 *Coordinate with SMAQMD through the environmental review process to ensure that proposed projects would not significantly affect the region's ability to meet State and federal air quality standards.*

Action AQ.1.2.2 *Require project proponents to coordinate with SMAQMD on appropriate methodologies for evaluating project emissions and air quality impacts (e.g., emissions modeling software, SMAQMD's thresholds of significance, etc.).*

Action AQ.1.2.3 *Require all new development projects that exceed SMAQMD's thresholds of significance to incorporate design, construction, and/or operational features that will result in a reduction in emissions when compared to an "unmitigated baseline" project. The measures should consider cost-effectiveness, maximum cost, and the provision of credits for emissions reductions already in place. An "unmitigated baseline project" is a development project that is built and/or operated without the implementation of trip-reduction, energy conservation, or similar features, including any such features that may be required by the Zoning Code or other applicable codes.*

Policy AQ.2.1 *Promote strategic land use patterns for businesses that reduce the number and length of motor vehicle trips and that encourage multiple forms of transportation for employees and patrons.*

Action AQ.2.1.1 Support the location of ancillary employee services, including childcare, restaurants, banking facilities, and convenience markets, at major employment centers for the purpose of reducing mid-day vehicle trips.

Policy AQ.2.2 Encourage mixed-use developments that put residences in close proximity to services, employment, transit, schools, and civic facilities/services.

Policy AQ.2.3 Encourage infill development as a way to reduce vehicle trips and improve air quality.

Action AQ.2.3.1 Identify and adopt incentives for planning and implementing infill development projects within urbanized areas and near job centers and transportation nodes.

Policy AQ.2.4 Maximize air quality benefits through selective use of landscaping vegetation that is low in emission of volatile organic compounds, and through re-vegetation of appropriate areas.

Action AQ.2.4.1 Provide buffers and setbacks between sensitive land uses and sources of air pollution.

Policy AQ.3.1 Promote walking and bicycling as viable forms of transportation to services, shopping, and employment.

Policy AQ.3.2 Promote mass transit as an alternative to single-occupant motor vehicle travel.

Policy AQ.3.3 Involve local businesses in creating, maintaining, or promoting mass transit opportunities and reducing vehicle emissions.

Policy AQ.3.4 Emphasize "demand management" strategies that seek to reduce single-occupant vehicle use in order to achieve state and federal air quality plan objectives.

Action AQ.3.4.1 Provide disincentives for single-occupant vehicle trips by reducing the parking supply and introducing pricing controls (e.g., paid parking) in areas where multiple forms of transportation are available.

Action AQ.3.4.2 Require designated carpool and vanpool parking in all new office developments.

Policy AQ.4.1 Promote improved air quality benefits through energy conservation measures for new and existing development.

Action AQ.4.1.1 Require energy-conserving features in the design and construction of new development. Many options exist for reducing pollution from energy-producing systems, including the following:

- Requiring the use of the best available technologies to reduce air pollution standards.
- Using building materials and methods that reduce emissions.

- Requiring that development projects be located and designed in a way that minimizes direct and indirect emission of air contaminants.
- Installing efficient heating equipment and other appliances, such as water heaters, swimming pool heaters, cooking equipment, refrigerators, furnaces, and boiler units.
- Utilizing automated time clocks or occupant sensors to control heating systems.

Action AQ.4.1.2 Encourage the use of cost-effective and innovative emission-reduction technologies in building components and design.

Action AQ.4.1.3 Support the use of building materials and methods that increase efficiency beyond State Title 24 standards.

Action AQ.4.1.4 Encourage the use of "EPA Energy Star"-certified appliances.

Action AQ.4.1.5 Promote the implementation of sustainable design strategies for "cool communities," such as installing reflective roofing or light-colored pavement and planting urban shade trees.

Action AQ.4.1.6 Consider incorporating energy-conserving design and construction techniques in all City facilities.

Mitigation Measures

The above General Plan policies and action items would reduce potential construction related air quality impacts. However, implementation of these policies and action items would not fully offset air pollutant emissions from construction activities. Thus, this impact is considered **significant and unavoidable**.

Operational Air Pollutants

Impact 4.6.3 Implementation of the proposed General Plan would increase air pollutant emissions from operational activities of land uses within the Planning Area will exceed thresholds for ROG and NOx, and other federal or state emissions standards. This is considered a **significant impact**.

Implementation of the proposed General Plan would result in increased employment growth, and an increase in population. These increases would introduce additional mobile and stationary sources of emissions, which would adversely affect regional air quality. The U.S. Environmental Protection Agency has designated the Greater Sacramento Air Area as an ozone non-attainment area. The principal sources of the ozone precursors (ROG and NOx) are the combustion of fuels and the evaporation of solvents, paints, and fuels.

Implementation of the proposed General Plan would result in regional emissions of ROG, NO_x, and PM_{10}, and CO due to increased use of motor vehicles, natural gas, burning activities, maintenance equipment, and various consumer products, thereby increasing potential operational air quality impacts.

Increases in operational air impacts with implementation of the proposed General Plan would generally consist of two sources: stationary and mobile.

- A stationary source of air pollution refers to an emission source that does not move (e.g., utilities and chemical and manufacturing facilities). Often, stationary sources are defined as large emitters that release relatively consistent qualities and quantities of pollutants. The term "area source" is used to describe the many smaller stationary sources located together whose individual emissions may be low, but whose collective emissions can be significant. Typically, area sources are those that emit less than 25 tons per year of any combination of hazardous air pollutants, or less than 10 tons per year of any single hazardous air pollutant.

- A mobile source of air pollution refers to a source that is capable of moving under its own power. In general, mobile sources imply on-road transportation, but there is also a non-road or off-road category that includes gas-powered lawn tools and mowers, farm and construction equipment, recreational vehicles, boats, planes, and trains.

Increases in industrial, commercial, office uses as well as services that provide for an increasing population, intensify stationary source air emissions. Implementation of the proposed General Plan would result in an increase in population and commercial, industrial and office uses, operational air pollution impacts would increase beyond current day levels. While a portion of the operational impacts are traffic related, as discussed below, the highest increases of ROG and PM_{10} are anticipated to come from stationary sources (see **Table 4.6-3**).

Motor vehicles are a major source of ozone in the Sacramento area. Buildout of the General Plan would add an estimated 310,568 persons to the area, increasing area traffic. Congested intersections, due to increased traffic, lower average speeds and increase idling times leading to an increase in local carbon monoxide concentrations. CO emissions are expected to decrease per vehicle-mile traveled due to cleaner burning fuels and improved technology. An increase in the number of vehicles may work to off-set any improvements in CO concentrations, however since the background levels for CO (2.26 ppm for an 8-hour average in 2005 in the City) are so low this would be less than a significant impact.

Table 4.6-3 illustrates the potential air quality emissions under buildout conditions. Increases in regional criteria air pollutants were calculated using the Urbemis 2002 (v8.7) computer program. This program estimates criteria pollutants from area and mobile emission sources associated with development projects, based on the specific types of land uses proposed for development. According to this analysis, under buildout conditions, uses in the Planning Area may produce 14,296.66 tons of ROG, 3,168.86 tons of NOx, and 8,420.85 tons of PM_{10} per year. As discussed under Impact 4.6.1, the increase in potential air pollutant emission sources in the Planning Area has the possibility to conflict with the Regional Ozone Attainment Plan, as well as exceed state and federal air quality thresholds.

TABLE 4.6-3
PROJECTED GENERAL PLAN BUILDOUT AIR QUALITY

Input Assumptions									
Planning or Focus Area (Model Run)	**Dwelling Units**		**Commercial**		**Office**		**Industrial**		
Planning or Focus Area (Model Run)	/# Units	Trip Gen Rate	/1000 sqft	Trip Gen Rate	/1000 sqft	Trip Gen Rate	/1000 sqft	Trip Gen Rate	
General Plan Planning Area	126,241.00	6.42	11,971,169	21.47	36,397,637	1.66	22,840,982	3.48	
City Area	75,923.00		5,764,627		21,614,312		7,705,690		
Non-City Area/Unincorporated	50,318.00		6,206,542		14,783,325		15,135,292		
Projected Annual Emissions									
Planning or Focus Area (Model Run)	Area Source Emissions (TONS/YR)			Mobile Sours Emissions (TONS/YR)			Total Emissions (TONS/YR)		
	ROG	NOx	PM10	ROG	NOx	PM10	ROG	NOx	PM10
General Plan Planning Area	12,347.99	1,966.26	22.62	1,948.67	1,202.60	8,398.23	14,296.66	3,168.86	8,420.85
City Area	2,905.58	258.55	482.00	194.74	144.05	867.52	3,100.32	402.61	1349.53
Non-City Area/Unincorporated	1,949.85	176.17	319.46	150.82	111.12	665.15	2,100.67	287.29	984.61
Projected Daily Emissions									
Planning or Focus Area (Model Run)	Area Source Emissions (TONS/DAY)			Mobile Sours Emissions (TONS/DAY)			Total Emissions (TONS/DAY)		
	ROG	NOx	PM10	ROG	NOx	PM10	ROG	NOx	PM10
General Plan Planning Area	33.83	5.39	0.06	5.34	3.29	23.01	39.17	8.68	23.07
City Area	7.96	0.71	1.32	0.53	0.39	2.38	8.49	1.10	3.70
Non-City Area/Unincorporated	5.34	0.48	0.88	0.41	0.30	1.82	5.76	0.79	2.70

Emissions were calculated based on default assumptions provided in the model for the lower Sacramento Valley area. Model default assumptions for pass-by and double-counting adjustments were included. Actual emissions will vary depending on how development occurs, the specific types of land uses developed, and emission control measures implemented.

The proposed General Plan has a number of policies and actions designed reduce mobile and stationary source air quality impacts and promote alternative transportation.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following proposed General Plan policies and action items provide partial mitigation of operational air quality impacts:

Stationary Source Reduction Policies and Actions

Policy AQ.4.1 *Promote improved air quality benefits through energy conservation measures for new and existing development.*

Action AQ.4.1.1 *Require energy-conserving features in the design and construction of new development. Many options exist for reducing pollution from energy-producing systems, including the following:*

- Requiring the use of the best available technologies to reduce air pollution standards.
- Using building materials and methods that reduce emissions.
- Requiring that development projects be located and designed in a way that minimizes direct and indirect emission of air contaminants.
- Installing efficient heating equipment and other appliances, such as water heaters, swimming pool heaters, cooking equipment, refrigerators, furnaces, and boiler units.
- Utilizing automated time clocks or occupant sensors to control heating systems.

Action AQ.4.1.2 *Encourage the use of cost-effective and innovative emission-reduction technologies in building components and design.*

Action AQ.4.1.3 *Support the use of building materials and methods that increase efficiency beyond State Title 24 standards.*

Action AQ.4.1.4 *Encourage the use of "EPA Energy Star"-certified appliances.*

Action AQ.4.1.5 *Promote the implementation of sustainable design strategies for "cool communities," such as installing reflective roofing or light-colored pavement and planting urban shade trees.*

Action AQ.4.1.6 *Consider incorporating energy-conserving design and construction techniques in all City facilities.*

Policy AQ.4.2 *Support vehicle improvements and the use of clean vehicles that reduce emissions and improve air quality.*

Action AQ.4.2.1 *Replace the City's fleet vehicles with new vehicles that utilize the lowest emission technology available, whenever economically feasible.*

Action AQ.4.2.2 Consider adopting a policy that provides a preferential treatment to contractors using reduced emission equipment for City construction projects and for City contracts for services (e.g., garbage collection).

Action AQ.4.2.3 Encourage lowest emission technology buses in public transit fleets.

Action AQ.4.2.4 Promote developments and street systems that support the use of neighborhood electric vehicles.

Action AQ.4.2.5 Consider adoption of an ordinance that limits the amount of time diesel-powered trucks, buses, and other heavy vehicles may idle.

Policy AQ.4.4 Support SMAQMD's program of retrofitting construction equipment.

Action AQ.4.4.1 Enforce construction-related air quality mitigation measures adopted through the CEQA process.

Mobile Source Reduction Policies and Actions

Policy AQ.2.1 Promote strategic land use patterns for businesses that reduce the number and length of motor vehicle trips and that encourage multiple forms of transportation for employees and patrons.

Action AQ.2.1.1 Support the location of ancillary employee services, including childcare, restaurants, banking facilities, and convenience markets, at major employment centers for the purpose of reducing mid-day vehicle trips.

Policy AQ.2.2 Encourage mixed-use developments that put residences in close proximity to services, employment, transit, schools, and civic facilities/services.

Action AQ.2.2.1 Promote compact development within one-quarter to one-half mile of rail transit stations and transit stations along enhanced transit corridors.

Action AQ.2.2.2 Require Greenfield areas of the City to be developed in keeping with the City's Building Block Concept of livable, walkable neighborhoods with services and employment opportunities integrated within every Village of the community.

Policy AQ.2.3 Encourage infill development as a way to reduce vehicle trips and improve air quality.

Action AQ.2.3.1 Identify and adopt incentives for planning and implementing infill development projects within urbanized areas and near job centers and transportation nodes.

Policy AQ.2.4 Maximize air quality benefits through selective use of landscaping vegetation that is low in emission of volatile organic compounds, and through re-vegetation of appropriate areas.

Action AQ.2.4.1 Provide buffers and setbacks between sensitive land uses and sources of air pollution.

Action AQ.2.4.2 *Promote criteria for all new parking lots to include tree plantings that will result in 50 percent shading of parking lot surface areas within 15 years.*

Policy AQ.3.1 *Promote walking and bicycling as viable forms of transportation to services, shopping, and employment.*

Action AQ.3.1.1 *Facilitate street design that encourages biking and walking in both new and established areas.*

Action AQ.3.1.2 *Require all new development to be designed to enable easy pedestrian and bicycle access and circulation.*

Action AQ.2.1.1 *Develop and distribute user-friendly maps of the City's existing and planned pedestrian and bicycle facilities to businesses and post on the City's website.*

Policy AQ.3.2 *Promote mass transit as an alternative to single-occupant motor vehicle travel.*

Action AQ.3.2.1 *Provide and/or adequately advertise shuttles from local transit stations to special event and civic centers.*

Action AQ.3.2.2 *Encourage employers to provide: direct shuttle service to light rail; transit subsidies; bicycle facilities; ridesharing; flex schedules and alternative work schedules, including telecommuting and work-at-home programs; and preferential parking for carpools.*

Action AQ.3.2.3 *Support the development of Transportation Demand Management services through the City's Transportation Tax Area that result in active marketing of transit services, ride sharing programs, bike and pedestrian facilities, and provision of transit subsidies that provide air quality benefits.*

Policy AQ.3.2.4 *Require that new development pay its fair share of the cost of transit facilities.*

Policy AQ.3.3 *Involve local businesses in creating, maintaining, or promoting mass transit opportunities and reducing vehicle emissions.*

Action AQ.3.3.1 *Encourage commercial, retail, and residential developments to participate in or create Transportation Management Associations.*

Action AQ.3.3.2 *Recommend that business owners schedule deliveries at off-peak traffic periods.*

Policy AQ.3.4 *Emphasize "demand management" strategies that seek to reduce single-occupant vehicle use in order to achieve state and federal air quality plan objectives.*

Action AQ.3.4.1 *Provide disincentives for single-occupant vehicle trips by reducing the parking supply and introducing pricing controls (e.g., paid parking) in areas where multiple forms of transportation are available.*

Action AQ.3.4.2 Require designated carpool and vanpool parking in all new office developments.

Action AQ.3.4.3 Consider developing a model trip reduction and air quality improvement program for City employees. The program could include flexible or compressed work schedules, commuter matching services, telecommuting options, and preferential carpool/vanpool parking, transit subsidies.

Mitigation Measures

MM 4.6.3a The following mitigation measure shall be added as a policy under General Plan Goal AQ.1:

The City shall prohibit wood-burning open masonry fireplaces in all new development. Fireplaces with EPA-approved inserts, EPA-approved stoves, and fireplaces burning natural gas will be allowed.

MM 4.6.3b The following mitigation measure shall be added as a policy under General Plan Goal AQ.1:

The City shall develop an incentive program to encourage homeowners to replace high-pollution emitting non-EPA-certified wood stoves that were installed before the effective date of the applicable EPA regulation with newer cleaner-burning EPA-certified wood stoves.

The proposed General Plan policies, actions items and mitigation measures MM 4.6.3a and b listed above would reduce potential mobile and stationary source air quality impacts. The air quality analysis completed for the project, based on the projected buildout population, number of housing units and commercial/industrial/office square footage, show that under buildout conditions operational air quality pollutants are projected to be: ROG (39.17 tons/day), NOx (8.68 tons/day) and Pm_{10} (23.07 tons/day) (see **Table 4.6-3**). While the proposed policies and actions would assist in reducing the stationary and mobile air quality impacts generated by implementation of the General Plan, ultimately the fact remains that the land uses proposed are more intense than the assumptions for development of the area contained in the SMAQMD 1994 Regional Ozone Attainment Plan. The effectiveness of above listed policies and actions to effectively reduce air emissions below levels projected in the Attainment Plan is currently unknown. It must be assumed that there is a possibility that the more intensive development proposed would violate an air quality standard or contribute substantially to an existing or projected air quality violation. In addition, there are no feasible methods to completely offset air pollutant emission increases from land uses under the proposed General Plan. For these reasons, the impact is considered **significant and unavoidable**.

Sources of Toxic Air Contaminants

Impact 4.6.4 Implementation of the proposed General Plan would include sources of toxic air contaminants that may affect surrounding land uses. Sensitive land uses may also be located near existing sources toxic air contaminants. This impact is considered **potentially significant** impact.

Implementation of the proposed General Plan would include land uses that are potential sources of Toxic Air Contaminants (TACs). The type and level of TACs are dependent on the nature of the land use, individual facilities, and the methods and operations of particular

facilities. **Table 4.6-4** displays potential sources of TAC emissions for various land uses proposed under the General Plan. Diesel exhaust particulate was recently added to the California Air Resources Board (ARB) list of TACs. Activities involving long-term use of diesel powered equipment and heavy- duty trucks contribute significantly to TAC levels.

TABLE 4.6-4
TOXIC AIR EMISSION BY LAND USE

Land Use	Toxic Air Emission
Auto Body Shop	Benzene, Toluene, Xylene
Auto Machine Shop	Asbestos
Chemical Manufacturing	Ethylene, Dichloride, Asbestos
Dry Cleaner	Perchloroethylene
Electrical Manufacturing	Polychlorinated Biphenyls (PCBs), Cadium, Chromium, Nickel
Gasoline Station	Benzene, Methyl-Tertitary Butyl Ether (MTBE)
Hospital	Dioxin, Cadium, Ethylene Oxide
Medical Equipment Sterilization	Ethylene Oxide
Printing Services	Ethyl Benzene, Ethylene Glycol, Xylene
Wastewater Treatment	Benzene, Carbon Tetrachloride, Ethylene Dichloride, Chloroform

Stationary Sources

Direct emissions are released from stationary sources, usually industrial in nature. Because of the great variation in emissions types and amounts from different industrial uses, it is not possible to predict direct emissions. The SMAQMD has statutory authority over stationary sources of emissions. The District issues permits to ensure that all equipment and processes comply with federal and state laws and regulations, and District rules. Before a stationary source is built, erected or operated, a permit to do so must be obtained from the District. Air Quality permits are, in effect, a contract between the District and stationary sources that sets limits on emissions and requires compliance with all District, state and federal regulations in order to protect public health. The District's rules and regulations impose limits on emissions and requires use of Best Available Control Technology (BACT) and purchase of emission off-sets for industrial sources exceeding certain emission levels. These regulations include the identification and quantification of emissions of Toxic Air Contaminants and, if warranted, estimation of cancer and non-cancer risk associated with any source. The permitting process was instigated to assist the controlling of air pollutants by stationary sources and is intended to ensure that these air emissions do not harm public health.

The issuance of SMAQMD Air Quality permits, compliance with all District, state and federal regulations regarding stationary and TACs, the use of Best Available Control Technology (BACT) and the purchase of emission off-sets for industrial sources would reduce potential stationary sources toxic air emissions. Therefore, the General Plan's potential stationary TAC impacts are considered less than significant.

Mobile Sources

Mobile sources of TAC emissions in the Planning Area would be associated primarily with the operation of school buses transporting students to and from the high, middle, and elementary schools in the Planning Area, as well as diesel-powered delivery trucks associated with roadways and commercial/retail/ and industrial uses in the Planning Area.

Emissions from school buses can vary depending on various factors, including bus type, age, and maintenance, and the amount of time spent idling. Health impacts from exhaust exposure include eye and respiratory irritation, enhanced respiratory allergic reactions, asthma exacerbation, increased cancer risk, and immune system degradation. Generally, children are more vulnerable to air pollutants because of their higher inhalation rates, narrower airways, and less mature immune systems.

In response to the above issue, ARB adopted an ATCM as part of the Particulate Matter Risk Reduction Plan to specifically deal with diesel emissions from school buses. This measure became effective July 16, 2003. The school bus–idling ATCM includes the following requirements:

a) The driver of a school bus or vehicle, transit bus, or heavy-duty vehicle (other than a bus) shall manually turn off the bus or vehicle upon arriving at a school and shall restart no more than 30 seconds before departing. A driver of a school bus or vehicle shall be subject to the same requirement when operating within 100 feet of a school and shall be prohibited from idling more than 5 minutes at each stop beyond schools, such as parking or maintenance facilities, school bus stops, or school activity destinations. A driver of a transit bus or heavy duty vehicle (other than a bus) shall be prohibited from idling more than 5 minutes at each stop within 100 feet of a school. Idling necessary for health, safety, or operational concerns shall be exempt from these restrictions.

b) The motor carrier of the affected bus or vehicle shall ensure that drivers are informed of the idling requirements, track complaints and enforcement actions, and keep track of driver education and tracking activities. According to ARB, implementation of the above requirements would eliminate unnecessary idling for school buses and other heavy-duty vehicles, thus reducing localized exposure to TAC emissions and other harmful air pollution emissions at and near schools and protecting children from unhealthy exhaust emissions.

In addition to the school bus–idling ATCM, ARB adopted an idling-restriction ATCM for large commercial diesel-powered vehicles that became effective February 1, 2005. In accordance with this measure, affected vehicles are required to limit idling to no longer than 5 minutes under most circumstances. ARB is currently evaluating additional ATCMs intended to further reduce TACs associated with commercial operations, including a similar requirement to limit idling of smaller diesel-powered commercial vehicles. However, these provisions do not address diesel emissions for truck traffic along roadways in the Planning Area.

While these measures will reduce the amount of TACs associated with diesel–powered vehicles, determination of the potential air quality impacts due to the emission of TACs by commercial diesel-powered trucks cannot be ascertained given the size and scope of land use changes with implementation of the proposed General Plan and the uncertainty of future development types. As a result, exposure of sensitive receptors to mobile-source TACs would be considered a potentially significant impact.

Short-term Construction Sources

Implementation of the proposed General Plan Project would result in the potential construction of a variety of projects. This construction would result in short-term emissions of diesel exhaust from on-site heavy duty equipment. Particulate exhaust emissions from diesel-fueled engines (diesel PM) were identified as a TAC by ARB in 1998. Construction would result in the generation of diesel PM emissions from the use of off-road diesel equipment required for site grading and excavation, paving, and other construction activities. The amount of which the receptors are exposed (a function of concentration and duration of exposure) is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). The use of construction equipment would be temporary in nature, however, even with the dispersive properties of diesel PM, short-term construction activities could expose sensitive receptors to levels that exceed applicable standards, therefore this would be considered a potentially significant impact.

Mather Airport

According to the Mather Airport Master Plan, there will be an increase in aircraft operations and ground-support operations in the future. Projected aircraft operations for 2011 are estimated at 97,900 operations (an average of 268 per day) and for 2021 118,900 operations (an average of 325 operations per day) (Mather Airport Master Plan). This is an increase of over current conditions of 11.6 percent for 2011 and 35.6 percent for 2021.

Sources of airport-related TAC emissions include aircraft (e.g., air carriers, commuter and cargo aircraft, and general aviation); ground-service equipment; fuel storage and handling; and other sources. TACs released by these sources include but are not limited to VOCs (acetaldehyde, formaldehyde, benzene, and 1, 3-butadiene); chromium; dioxins; polycyclic organic compounds (PAHs); tetrachloroethylene; nickel; and toluene.

Studies conducted for Chicago's O'Hare Airport identified that the cancer risks associated with operations at the airport exceed 10 in 1 million over an area of approximately 40 square miles and 1 in 1 million over an area of approximately 1,000 square miles, assuming 70 years of exposure (KM Chng Environmental 1999). Additionally, in 2000, the Illinois EPA monitored TAC emissions in the vicinity of O'Hare Airport as well as other locations in the Chicago area from June to December, focusing on toxic compounds identified in EPA's national strategy and on mobile-source emissions associated with airport operations (Illinois Environmental Protection Agency 2002). A review and analysis of the accumulated monitoring results found that the levels of toxic compounds (e.g., acetaldehyde and formaldehyde) attributable to airport operations were detected at monitoring sites. However, the concentrations of such compounds were indistinguishable from (or lower than) typical urban background levels.

U.S. EPA, the National Aeronautics and Space Administration, the Federal Aviation Administration, the aviation industry (General Electric and Boeing), and the research community (Massachusetts Institute of Technology) are conducting a multi-agency aircraft particle emissions experiment. The main focus is to test aircraft engines for TACs. Data from this study are anticipated to be released in 2006 and updated emission factors to follow in approximately two years. This data, along with further monitoring around airports and validation of modeling results, will allow the compilation of more accurate emissions data into EPA models and identification of the proper characterization methods.

Based on the above discussion, it can be ascertained that Mather Airport has the potential to expose sensitive receptors to TAC emissions to an extent that health risks could result. However,

Mather Airport is quite modest in size compared to O'Hare International Airport and this issue is not well understood at this time. Therefore, any conclusions regarding health risks would be speculative. Additionally, Mather Airport is not listed on the HARP facilities database. Therefore, no impact conclusion can be made based on research of this issue.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following proposed General Plan policies and action items provide partial mitigation of toxic impacts:

Policy AQ.2.1 *Promote strategic land use patterns for businesses that reduce the number and length of motor vehicle trips and that encourage multiple forms of transportation for employees and patrons.*

Action AQ.2.1.1 *Support the location of ancillary employee services, including childcare, restaurants, banking facilities, and convenience markets, at major employment centers for the purpose of reducing mid-day vehicle trips.*

Policy AQ.4.1 *Promote improved air quality benefits through energy conservation measures for new and existing development.*

Action AQ.4.1.1 *Require energy-conserving features in the design and construction of new development. Many options exist for reducing pollution from energy-producing systems, including the following:*

- Requiring the use of the best available technologies to reduce air pollution standards.
- Using building materials and methods that reduce emissions.
- Requiring that development projects be located and designed in a way that minimizes direct and indirect emission of air contaminants.
- Installing efficient heating equipment and other appliances, such as water heaters, swimming pool heaters, cooking equipment, refrigerators, furnaces, and boiler units.
- Utilizing automated time clocks or occupant sensors to control heating systems.

Action AQ.4.1.2 *Encourage the use of cost-effective and innovative emission-reduction technologies in building components and design.*

Action AQ.4.1.3 *Support the use of building materials and methods that increase efficiency beyond State Title 24 standards.*

Action AQ.4.1.4 *Encourage the use of "EPA Energy Star"-certified appliances.*

Action AQ.4.1.5 *Promote the implementation of sustainable design strategies for "cool communities," such as installing reflective roofing or light-colored pavement and planting urban shade trees.*

Action AQ.4.1.6 Consider incorporating energy-conserving design and construction techniques in all City facilities.

Policy AQ.4.2 Support vehicle improvements and the use of clean vehicles that reduce emissions and improve air quality.

Action AQ.4.2.1 Replace the City's fleet vehicles with new vehicles that utilize the lowest emission technology available, whenever economically feasible.

Action AQ.4.2.2 Consider adopting a policy that provides a preferential treatment to contractors using reduced emission equipment for City construction projects and for City contracts for services (e.g., garbage collection).

Action AQ.4.2.3 Encourage lowest emission technology buses in public transit fleets.

Action AQ.4.2.4 Promote developments and street systems that support the use of neighborhood electric vehicles.

Action AQ.4.2.5 Consider adoption of an ordinance that limits the amount of time diesel-powered trucks, buses, and other heavy vehicles may idle.

Policy AQ.4.4 Support SMAQMD's program of retrofitting construction equipment.

Action AQ.4.4.1 Enforce construction-related air quality mitigation measures adopted through the CEQA process.

Mitigation Measures

MM 4.6.4a The following change is made to General Plan Policy AQ.4.2.5:

~~Consider~~ ~~a~~Adoption of an ordinance that limits the amount of time diesel-powered trucks, buses, and other heavy vehicles may idle in accordance with California Air Resources Control Board rules for mobile TAC sources.

MM 4.6.4b The following shall be added as a new policy under General Plan Goal AQ.2:

Utilize the guidelines in the California Air Resources Control Board Air Quality and Land Use Handbook: A Community Health Perspective when evaluating new development requests that either would generate toxic air contaminant emissions near sensitive receptors or locate new sensitive receptors near existing sources of air toxic emissions or order to minimize health hazards.

Implementation of the above General Plan policies and action items and mitigation measures MM 4.6.4a and b would reduce potential stationary, mobile and construction TAC source impacts. However, implementation of these policies and action items would not fully offset TAC source emissions or exposure. Thus, this impact is considered **significant and unavoidable**.

Possible Exposure of Sensitive Receptors to Odorous Emissions

Impact 4.6.5 Implementation of the proposed General Plan would include sources that may expose sensitive receptors to construction and long-term odorous emissions. This impact is considered a **potentially significant** impact.

Implementation of the proposed General Plan would allow for the development of uses that have the potential to produce odorous emissions either during the construction or operation of the development. Additionally, implementation of the General Plan may allow for the construction of sensitive land uses (i.e. residential development, schools, parks, offices, etc.) near existing or future sources of odorous emissions, as specific land use designations are not yet determined for the Planning Area.

Future construction activities could result in odorous emissions from diesel exhaust associated with construction equipment. However, because of the temporary nature of these emissions and the highly diffusive properties of diesel exhaust, exposure to this emission by sensitive receptors would be limited.

While the human nose is the sole sensing device for odors, SMAQMD has adopted a nuisance rule that addresses odor exposure. Rule 402 states that no person shall discharge from any source whatsoever such quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons, or to the public, or that endanger the comfort, repose, health, or safety of any such persons, or the public, or that cause to have a natural tendency to cause injury or damage to business or property. The provisions of Rule 402 do not apply to odors emanating from agricultural operations necessary for the growing of crops or raising of fowl or animals. If public complaints are sufficient to cause the odor source to be considered a public nuisance, then SMAQMD can require the identified source to incorporate mitigation measures to correct the nuisance condition. For example, the Sunrise-Douglas Community Plan/Sun Ridge Specific Plan project went through an extensive analysis of odor issues from the Sacramento Rendering Plant that was deemed in violation of Rule 402. As a result, odor mitigation measures were identified by SMAQMD, which resulted in plant upgrades that reduced and/or eliminated the issue for the Sunrise-Douglas Community Plan area as well as the Planning Area.

Potential odor issues pertaining to the Kiefer Landfill would be addressed through the implementation of mitigation measures MM 4.12.5.1 and MM 4.6.5.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and actions address potential odor issues for future development:

Policy LU.1.4 *Promote high quality, efficient, and cohesive land utilization that minimizes negative impacts (e.g., traffic congestion and visual blight) and environmental hazards (e.g. flood, soil instability) on adjacent neighborhoods and infrastructure and preserve existing and future residential neighborhoods from encroachment of incompatible activities and land uses.*

Action LU.1.4.3 *Require the disclosure of potential land use compatibility issues in all parts of the City, such as noise, dust, odors, etc., in order to provide potential purchasers with the information necessary to make informed decisions about the property and its future land uses.*

Mitigation Measures

MM 4.6.5 The following mitigation measure shall be added as a new policy under General Plan Goal AQ.1:

Require odor impact analyses be conducted for evaluating new development requests that either could generate objectionable odors that may violate SMAQMD Rule 402 or any subsequent rules and regulations regarding objectionable odors near sensitive receptors or locate new sensitive receptors near existing sources of objectionable odors. Should objectionable odor impacts be identified, odor mitigation shall be required in the form of setbacks, facility improvements or other appropriate measures.

Implementation of the proposed General Plan policies, action items and mitigation measures MM 4.6.5 and MM 4.12.5.1 (2,000-foot setback from Kiefer Landfill) listed above require the protection of residential neighborhoods from incompatible land uses, including future land uses, and the disclosure of potential odorous emissions to potential property owners. Therefore, this impact is considered **less than significant**.

4.6.4 CUMULATIVE SETTING, IMPACTS AND MITIGATION MEASURES

CUMULATIVE SETTING

Sacramento County and the City of Rancho Cordova General Plan areas are included in the Greater Sacramento Ozone non-attainment area as delineated by the U. S. EPA. Therefore, the cumulative setting considers the cumulative effect of increased emissions in the air basin. In 1994, the Air Resources Board, in cooperation with the air districts of the Sacramento non-attainment area, fulfilled one of these requirements by preparing the 1994 Sacramento Area Regional Ozone Attainment Plan. The plan identified a detailed comprehensive strategy for reducing emissions to the level needed for attainment and showed how the area would make expeditious progress toward meeting this goal. Milestone reports were required in 1996 and every 3 years thereafter until the attainment deadline. The current Plan utilizes transportation forecasts based on SACOG forecasts of population and employment within the non-attainment area.

Ozone has been trending downward both in terms of the overall rate of population exposure to ozone and the number of days and hours over the standard. Total emission of ozone precursors has been trending downward due to increasingly efficient emission control programs, and continued reductions in emissions are forecast for the future. Growth in population and vehicle use and new stationary sources of pollutants tend to retard air quality improvements. The reader is referred to Section 4.0 regarding a further description of regional development conditions considered as part of the cumulative setting conditions. Current patterns of suburban development with long average commute distances tend to exacerbate the situation.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Regional Air Quality Impacts

Impact 4.6.6 Implementation of the proposed General Plan along with potential development of the Planning Area would exacerbate existing regional problems with ozone and particulate matter. The proposed General Plan's contribution to these conditions is considered **cumulatively considerable**.

Implementation of the proposed General Plan would result in substantial new development, increased population, and adversely affect regional air quality. Development under the existing General Plan would correspond to SACOG projections of households and employment that were utilized in the current Regional Attainment Plan. However, the update to the Regional

Ozone Attainment Plan uses projections from the Sacramento Region Blueprint. The Sacramento Region Blueprint was intended to provide for reduced air quality impacts by compact development that reduces vehicle miles traveled and the General Plan is modeled after the Blueprint. The projected number of housing units under the proposed General Plan would be greater than under the Blueprint. Additionally, employment under the proposed General Plan would be substantially higher, with 195,021 jobs projected under the proposed General Plan and 144,406 under the Blueprint. While the additional job growth is technically inconsistent with the assumptions of the Regional Ozone Attainment Plan, this additional employment is consistent with proposed General Plan goals and overall regional strategies for reducing travel by improving the jobs/housing balance. Jobs/housing imbalances promote long distance commuting. In Rancho Cordova, a substantial number of workers commute to the City, as the current jobs/housing ratio is 2.36:1 (2.36 jobs per housing unit). Build-out of the proposed General Plan would result in an overall jobs/housing ratio of 1.54:1 (1.54 jobs per housing unit), thus reducing the ratio of commuters to the City.

Sacramento County is classified a severe non-attainment area for the federal ozone standards. In order to improve air quality and attain the health-based standards, reductions in emissions are necessary within the non-attainment area. The growth in population, vehicle usage and business activity within the non-attainment area, when considered with growth proposed under the General Plan, would contribute to cumulative regional air quality impacts. Additionally, implementation of the proposed General Plan may either delay attainment of the standards or require the adoption of additional controls on existing and future air pollution sources to offset project-related emission increases.

Additionally, with the increase growth projected with implementation of the proposed General Plan, an increase in TACs is anticipated. Approximately 11,971,169 square feet of commercial space and 22,840,982 square feet of industrial space are projected for the Planning Area under buildout conditions. Operation of these land uses as well as the potential increase in diesel traffic to serve these uses, the increase of projected aircraft operations at Mather Airport and increase of diesel traffic in the area will increase the amount of TACs.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and action items that provide for partial mitigation of air quality impacts:

Stationary Source Reduction Policies and Actions

Policy AQ.4.1 *Promote improved air quality benefits through energy conservation measures for new and existing development.*

Action AQ.4.1.1 *Require energy-conserving features in the design and construction of new development. Many options exist for reducing pollution from energy-producing systems, including the following:*

- *Requiring the use of the best available technologies to reduce air pollution standards.*
- *Using building materials and methods that reduce emissions.*
- *Requiring that development projects be located and designed in a way that minimizes direct and indirect emission of air contaminants.*

- *Installing efficient heating equipment and other appliances, such as water heaters, swimming pool heaters, cooking equipment, refrigerators, furnaces, and boiler units.*

- *Utilizing automated time clocks or occupant sensors to control heating systems.*

Action AQ.4.1.2 Encourage the use of cost-effective and innovative emission-reduction technologies in building components and design.

Action AQ.4.1.3 Support the use of building materials and methods that increase efficiency beyond State Title 24 standards.

Action AQ.4.1.4 Encourage the use of "EPA Energy Star"-certified appliances.

Action AQ.4.1.5 Promote the implementation of sustainable design strategies for "cool communities," such as installing reflective roofing or light-colored pavement and planting urban shade trees.

Action AQ.4.1.6 Consider incorporating energy-conserving design and construction techniques in all City facilities.

Policy AQ.4.2 Support vehicle improvements and the use of clean vehicles that reduce emissions and improve air quality.

Action AQ.4.2.1 Replace the City's fleet vehicles with new vehicles that utilize the lowest emission technology available, whenever economically feasible.

Action AQ.4.2.2 Consider adopting a policy that provides a preferential treatment to contractors using reduced emission equipment for City construction projects and for City contracts for services (e.g., garbage collection).

Action AQ.4.2.3 Encourage lowest emission technology buses in public transit fleets.

Action AQ.4.2.4 Promote developments and street systems that support the use of neighborhood electric vehicles.

Action AQ.4.2.5 Consider adoption of an ordinance that limits the amount of time diesel-powered trucks, buses, and other heavy vehicles may idle.

Policy AQ.4.4 Support SMAQMD's program of retrofitting construction equipment.

Action AQ.4.4.1 Enforce construction-related air quality mitigation measures adopted through the CEQA process.

Mobile Source Reduction Policies and Actions

Policy AQ.2.1 Promote strategic land use patterns for businesses that reduce the number and length of motor vehicle trips and that encourage multiple forms of transportation for employees and patrons.

Action AQ.2.1.1 *Support the location of ancillary employee services, including childcare, restaurants, banking facilities, and convenience markets, at major employment centers for the purpose of reducing mid-day vehicle trips.*

Policy AQ.2.2 *Encourage mixed-use developments that put residences in close proximity to services, employment, transit, schools, and civic facilities/services.*

Action AQ.2.2.1 *Promote compact development within one-quarter to one-half mile of rail transit stations and transit stations along enhanced transit corridors.*

Action AQ.2.2.2 *Require Greenfield areas of the City to be developed in keeping with the City's Building Block Concept of livable, walkable neighborhoods with services and employment opportunities integrated within every Village of the community.*

Policy AQ.2.3 *Encourage infill development as a way to reduce vehicle trips and improve air quality.*

Action AQ.2.3.1 *Identify and adopt incentives for planning and implementing infill development projects within urbanized areas and near job centers and transportation nodes.*

Policy AQ.2.4 *Maximize air quality benefits through selective use of landscaping vegetation that is low in emission of volatile organic compounds, and through re-vegetation of appropriate areas.*

Action AQ.2.4.1 *Provide buffers and setbacks between sensitive land uses and sources of air pollution.*

Action AQ.2.4.2 *Promote criteria for all new parking lots to include tree plantings that will result in 50 percent shading of parking lot surface areas within 15 years.*

Policy AQ.3.1 *Promote walking and bicycling as viable forms of transportation to services, shopping, and employment.*

Action AQ.3.1.1 *Facilitate street design that encourages biking and walking in both new and established areas.*

Action AQ.3.1.2 *Require all new development to be designed to enable easy pedestrian and bicycle access and circulation.*

Action AQ.2.1.1 *Develop and distribute user-friendly maps of the City's existing and planned pedestrian and bicycle facilities to businesses and post on the City's website.*

Policy AQ.3.2 *Promote mass transit as an alternative to single-occupant motor vehicle travel.*

Action AQ.3.2.1 *Provide and/or adequately advertise shuttles from local transit stations to special event and civic centers.*

Action AQ.3.2.2 *Encourage employers to provide: direct shuttle service to light rail; transit subsidies; bicycle facilities; ridesharing; flex schedules and alternative work schedules, including telecommuting and work-at-home programs; and preferential parking for carpools.*

Action AQ.3.2.3 *Support the development of Transportation Demand Management services through the City's Transportation Tax Area that result in active marketing of transit services, ride sharing programs, bike and pedestrian facilities, and provision of transit subsidies that provide air quality benefits.*

Policy AQ.3.2.4 *Require that new development pay its fair share of the cost of transit facilities.*

Policy AQ.3.3 *Involve local businesses in creating, maintaining, or promoting mass transit opportunities and reducing vehicle emissions.*

Action AQ.3.3.1 *Encourage commercial, retail, and residential developments to participate in or create Transportation Management Associations.*

Action AQ.3.3.2 *Recommend that business owners schedule deliveries at off-peak traffic periods.*

Policy AQ.3.4 *Emphasize "demand management" strategies that seek to reduce single-occupant vehicle use in order to achieve state and federal air quality plan objectives.*

Action AQ.3.4.1 *Provide disincentives for single-occupant vehicle trips by reducing the parking supply and introducing pricing controls (e.g., paid parking) in areas where multiple forms of transportation are available.*

Action AQ.3.4.2 *Require designated carpool and vanpool parking in all new office developments.*

Action AQ.3.4.3 *Consider developing a model trip reduction and air quality improvement program for City employees. The program could include flexible or compressed work schedules, commuter matching services, telecommuting options, and preferential carpool/vanpool parking, transit subsidies.*

Policy AQ.5.1 *Encourage employers to participate in SMAQMD's public education programs.*

Action AQ.5.1.1 *Provide air quality information on the City's website, including links to public information provided by SMAQMD and the California Air Resources Board.*

Action AQ.5.1.2 *Encourage employers to post flyers about carpools, vanpools, and other modes of transportation that contribute to improved air quality in locations that are easily visible to employees.*

Policy AQ.5.2 *Support programs that encourage children to safely walk or bike to school.*

Mitigation Measures

Implementation of the above proposed General Plan policies and action items and mitigation measures MM 4.6.2 and MM 4.6.4a and b identified above would assist in reducing the General Plan's contribution to cumulative regional and local air quality impacts; however, this contribution is still considered **cumulatively considerable** and thus a **significant and unavoidable** impact. No feasible mitigation is available to completely mitigate this impact.

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4.7 – Noise

INTRODUCTION

This section discusses and analyzes the ambient noise characteristics of the Rancho Cordova Planning Area. The information provided in this section is based on the Sacramento County General Plan (1993), the proposed City of Rancho Cordova General Plan (2006), and technical assessment by Bollard Acoustical Consultants, Inc.

4.7.1 SETTING

BACKGROUND AND TERMINOLOGY

Noise is often described as unwanted sound. Sound is defined as any pressure variation in air that the human ear can detect. If the pressure variations occur frequently enough (at least 20 times per second), they can be heard and hence are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second, called Hertz (Hz).

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals of pressure), as a point of reference, defined as 0 dB. Other sound pressures are then compared to the reference pressure, and the logarithm is taken to keep the numbers is a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB. Another useful aspect of the decibel scale is that changes in levels (dB) correspond closely to human perception of relative loudness. **Table 4.7-1** shows examples of noise levels for several common noise sources and environments.

TABLE 4.7-1
TYPICAL A-WEIGHTED SOUND LEVELS OF COMMON NOISE SOURCES

Decibels	Description
130	Threshold of pain
120	Jet aircraft take-off at 100 feet
110	Riveting machine at operators position
100	Shotgun at 200 feet
90	Bulldozer at 50 feet
80	Diesel locomotive at 300 feet
70	Commercial jet aircraft interior during flight
60	Normal conversation speech at 5 - 10 feet
50	Open office background level
40	Background level within a residence
30	Soft whisper at 2 feet
20	Interior of recording studio

EFFECTS OF NOISE ON PEOPLE

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by weighing the frequency response of a sound level meter by means of the standardized A-weighing network. There is a strong correlation between A-weighted sound levels (expressed as dBA) and community response to noise. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels in decibels.

Community noise is commonly described in terms of the "ambient" noise level, which is defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (L_{eq}) over a given time period (usually one hour). The L_{eq} is the foundation of the Day-Night Average Level noise descriptor, L_{dn}, and shows very good correlation with community response to noise.

The Day-night Average Level (L_{dn}) is based upon the average noise level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because L_{dn} represents a 24-hour average, it tends to disguise short-term variations in the noise environment.

Noise in the community has been cited as being a health problem, not in terms of actual physiological damages such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities such as sleep, speech, recreation and tasks demanding concentration or coordination. When community noise interferes with human activities or contributes to stress, public annoyance with the noise source increases, and the acceptability of the environment for people decreases. This decrease in acceptability and the threat to public well-being are the bases for policies preventing exposures to excessive community noise levels.

To control noise from fixed sources which have developed from processes other than zoning or land use planning, many jurisdictions have adopted community noise control ordinances. Such ordinances are intended to abate noise nuisances and to control noise from existing sources. They may also be used as performance standards to judge the creation of a potential nuisance, or potential encroachment of sensitive uses upon noise-producing facilities. Community noise control ordinances are generally designed to resolve noise problems on a short-term basis (usually by means of hourly noise level criteria), rather than on the basis of 24-hour or annual cumulative noise exposures.

In addition to the A-weighted noise level, other factors should be considered in establishing criteria for noise sensitive land uses. For example, sounds with noticeable tonal content such as whistles, horns, droning or high-pitched sounds may be more annoying than the A-weighted sound level along suggests. Many noise standards apply a penalty, or correction, or 5 dBA to such sounds. The effects of unusual tonal content are generally more of a concern at nighttime, when residents may notice the sound in contrast to low levels of background noise.

Because many rural residential areas experience very low noise levels, residents may express concern about the loss of "peace and quiet" due to the introduction of a sound which was not audible previously. In very quiet environments, the introduction of virtually any change in local activities will cause an increase in noise levels. A change in noise level and the loss of "peace

and quiet" is the inevitable result of land use or activity changes in such areas. Audibility of a new noise source and/or increases in noise levels within recognized acceptable limits are not usually considered to be significant noise impacts, but these concerns should be addressed and considered in the planning and environmental review processes.

EXISTING AND FUTURE NOISE CONDITIONS IN THE PLANNING AREA

The major noise sources in the City of Rancho Cordova and Planning Area consist of State Route 16, U.S. 50 and local traffic on streets, commercial and industrial uses, active recreation of parks, outdoor play areas of schools, and railroad operations. Each of these noise sources is discussed individually below.

Transportation Noise Sources

Roadway Traffic Noise Levels

Major roadways within the City of Rancho Cordova include State Routes 50 and 16, Sunrise Boulevard, Folsom Boulevard, White Rock Road, Zinfandel Drive, Bradshaw Road, and others. The Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA-RD-77-108), with the Calveno vehicle noise emission curves, was used to predict existing and cumulative traffic noise levels for these roadways and others within the City of Rancho Cordova.

Tables 4.7-2 through **4.7-3** show existing and year 2030 (under the proposed General Plan) traffic volumes, noise levels and distances to traffic noise contours for the major roadways located within the City of Rancho Cordova. The future scenarios represent cumulative traffic conditions under the proposed land use It is recognized that vehicle speeds vary considerably on roadways in the City of Rancho Cordova, particularly due to the fact that the reductions in speed are frequently necessary because of traffic signals and stop signs at roadway intersections. In order to provide a generally worst-case estimate of existing traffic noise along the roadways within City of Rancho Cordova, a normalized speed of 65 mph was applied to highways and a speed of 45 mph was applied to all other roadways in the modeling effort. The contour distances should also be considered conservative in that they do not account for local topographic or structural shielding.

TABLE 4.7-2
FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL DATA INPUTS AND DISTANCES FROM CENTERLINE TO 60 AND 65 DB L_{DN} CONTOURS
CITY OF RANCHO CORDOVA NOISE ELEMENT - EXISTING CONDITIONS

Roadway	From	To	Existing ADT	Ldn @ 100 ft.	Distance (ft) to 70 dB Ldn	Distance (ft) to 65 dB Ldn	Distance (ft) to 60 dB Ldn
SR 16	Excelsior Rd	Eagles Nest Rd	11,400	68	69	150	322
SR 16	Sunrise Blvd	Grant Line Rd	15,400	69	85	183	394
SR 16	Grant Line Rd	East of Grant Line Rd	12,300	68	73	157	339
SR 16	Excelsior Rd	Bradshaw Rd	13,700	68	79	169	364
Kiefer Blvd	Grant Line Rd	SR 16	1,625	55	10	21	45
Mather Blvd	Femoyer St	Douglas	6,000	61	23	50	108
Douglas Rd	Mather Blvd	Sunrise	5,000	60	21	44	96
Douglas Rd	Sunrise Blvd	Grant Line	2,300	56	12	26	57
International Dr	South White Rock Rd	Zinfandel	12,000	64	37	80	172
International Dr	Zinfandel Dr	Kilgore	6,800	61	25	55	117
White Rock Rd	Zinfandel Dr	Sunrise	17,900	65	48	104	224
White Rock Rd	Sunrise Blvd	Grant Line	4,400	59	19	41	88
Folsom Blvd	Sunrise Blvd	Hazel	13,300	64	40	85	184
Folsom Blvd	Watt	Bradshaw	24,900	67	60	130	279
Folsom Blvd	Bradshaw	Mather	22,700	66	57	122	262
Folsom Blvd	Mather	Coloma	33,500	68	73	158	340
Folsom Blvd	Coloma	Zinfandel	26,100	67	62	134	288
Folsom Blvd	Zinfandel	Sunrise	17,000	65	47	100	216
Mather Field Rd	Folsom Blvd	US-50 WB ramps	26,400	67	63	135	290
Mather Field Rd	US-50 EB Ramps	International	33,700	68	74	159	342
Zinfandel Dr	Folsom Blvd	US-50 WB Ramps	22,700	66	57	122	262
Zinfandel Dr	US-50 EB Ramps	White Rock	41,900	69	85	183	395
Zinfandel Dr	White Rock Rd	International	19,700	66	51	111	239

Roadway	From	To	Existing ADT	Ldn @ 100 ft.	Distance (ft) to 70 dB Ldn	Distance (ft) to 65 dB Ldn	Distance (ft) to 60 dB Ldn
Zinfandel Dr	Folsom Blvd	Sunrise	10,600	63	34	73	158
Sunrise Blvd	Gold Country Blvd	Coloma	75,800	72	126	272	586
Sunrise Blvd	Coloma Rd	US-50 WB Ramps	82,400	72	134	288	620
Sunrise Blvd	US-50 EB Ramps	Folsom Blvd	52,100	70	98	212	457
Sunrise Blvd	Folsom Blvd	White Rock	37,200	68	79	169	365
Sunrise Blvd	White Rock Rd	Douglas	24,600	67	60	129	277
Sunrise Blvd	Douglas Rd	SR 16	20,000	66	52	112	241
Sunrise Blvd	SR 16	Grant Line Rd	13,600	64	40	87	186
Hazel Ave	US-50 WB Ramps	Winding Way	53,000	70	100	214	462
Grant Line Rd	White Rock Rd	Douglas	6,000	61	23	50	108
Grant Line Rd	Douglas Rd	SR 16	6,700	61	25	54	116
Grant Line Rd	SR 16	Sunrise	5,600	60	22	48	103
Coloma Rd	Sunrise Blvd	Folsom	20,400	66	53	113	244
Gold Country	Sunrise Blvd	Hazel	9,700	63	32	69	149
Bradshaw Rd	Old Placerville Rd	Kiefer	33,900	68	74	159	343
Rancho Cordova Pkwy	US-50	White Rock	NA	NA	NA	NA	NA
Rancho Cordova Pkwy	White Rock	Douglas	NA	NA	NA	NA	NA
International	Rancho Cordova Pkwy	Sunrise	NA	NA	NA	NA	NA
International	Sunrise	White Rock	NA	NA	NA	NA	NA
International	White Rock	Bradshaw	NA	NA	NA	NA	NA
US-50	Bradshaw Rd	Mather Field Rd	184,000	80	497	1071	2307
US-50	Mather Field Rd	Zinfandel	168,000	80	468	1008	2171
US-50	Zinfandel Blvd	Sunrise	149,000	80	432	930	2004
US-50	Sunrise Blvd	Hazel	122,000	79	378	814	1754
US-50	Folsom Blvd	Hazel Ave	108,000	78	348	751	1617
US-50	Folsom Blvd	Prairie City Rd	95,000	78	320	689	1485

Source: Bollard Acoustical Consultants, 2006

TABLE 4.7-3
FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODELED NOISE LEVELS AND DISTANCES FROM CENTERLINE TO 60, 65, AND 70 DB LDN CONTOURS
CITY OF RANCHO CORDOVA NOISE ELEMENT - YEAR 2030 CONDITIONS UNDER THE PROPOSED GENERAL PLAN

Roadway	From	To	Post 2030 Roadway Network Build Out	Ldn @ 100 ft.	Distance (ft) to 70 dB Ldn	Distance (ft) to 65 dB Ldn	Distance (ft) to 60 dB Ldn
SR 16	Excelsior Rd	Eagles Nest Rd	47,700	74	180	389	837
SR 16	Sunrise Blvd	Grant Line Rd	35,300	73	148	318	685
SR 16	Grant Line Rd	East of Grant Line Rd	28,900	72	129	278	599
SR 16	Excelsior Rd	Bradshaw Rd	53,800	74	195	421	907
Kiefer Blvd	Grant Line Rd	SR 16	24,800	67	60	129	278
Mather Blvd	Femoyer St	Douglas	28,800	67	66	143	308
Douglas Rd	Mather Blvd	Sunrise	26,200	67	62	134	289
Douglas Rd	Sunrise Blvd	Grant Line	23,100	66	57	123	265
International Dr	South White Rock Rd	Zinfandel	71,400	71	121	261	563
International Dr	Zinfandel Dr	Kilgore	70,600	71	120	260	559
White Rock Rd	Zinfandel Dr	Sunrise	39,000	69	81	175	376
White Rock Rd	Sunrise Blvd	Grant Line	48,800	70	94	203	437
Folsom Blvd	Sunrise Blvd	Hazel	29,200	67	67	144	310
Folsom Blvd	Watt	Bradshaw	25,900	67	62	133	287
Folsom Blvd	Bradshaw	Mather	26,900	67	63	136	294
Folsom Blvd	Mather	Coloma	39,900	69	82	177	382
Folsom Blvd	Coloma	Zinfandel	30,000	67	68	147	316
Folsom Blvd	Zinfandel	Sunrise	24,800	67	60	129	278
Mather Field Rd	Folsom Blvd	US-50 WB ramps	39,300	69	82	176	378
Mather Field Rd	US-50 EB Ramps	International	64,600	71	114	245	527
Zinfandel Dr	Folsom Blvd	US-50 WB Ramps	31,500	68	70	152	326

Roadway	From	To	Post 2030 Roadway Network Build Out	Ldn @ 100 ft.	Distance (ft) to 70 dB Ldn	Distance (ft) to 65 dB Ldn	Distance (ft) to 60 dB Ldn
Zinfandel Dr	US-50 EB Ramps	White Rock	80,100	72	131	282	608
Zinfandel Dr	White Rock Rd	International	44,500	69	89	191	411
Zinfandel Dr	Folsom Blvd	Sunrise	12,400	64	38	81	175
Sunrise Blvd	Gold Country Blvd	Coloma	95,700	73	148	318	685
Sunrise Blvd	Coloma Rd	US-50 WB Ramps	109,100	73	161	347	747
Sunrise Blvd	US-50 EB Ramps	Folsom Blvd	65,300	71	114	246	531
Sunrise Blvd	Folsom Blvd	White Rock	43,700	69	87	188	406
Sunrise Blvd	White Rock Rd	Douglas	44,700	69	89	191	412
Sunrise Blvd	Douglas Rd	SR 16	43,400	69	87	188	404
Sunrise Blvd	SR 16	Grant Line Rd	30,000	67	68	147	316
Hazel Ave	US-50 WB Ramps	Winding Way	117,900	73	170	365	787
Grant Line Rd	White Rock Rd	Douglas	68,400	71	118	254	547
Grant Line Rd	Douglas Rd	SR 16	45,800	69	90	194	419
Grant Line Rd	SR 16	Sunrise	34,000	68	74	159	344
Coloma Rd	Sunrise Blvd	Folsom	25,800	67	62	133	286
Gold Country	Sunrise Blvd	Hazel	13,100	64	39	84	182
Bradshaw Rd	Old Placerville Rd	Kiefer	75,100	71	126	270	583
Rancho Cordova Pkwy	US-50	White Rock	48,700	70	94	203	437
Rancho Cordova Pkwy	White Rock	Douglas	24,100	67	59	127	273
International	Rancho Cordova Pkwy	Sunrise	18,000	65	48	104	225
International	Sunrise	White Rock	71,300	71	121	261	563
International	White Rock	Bradshaw	62,000	71	110	238	513
US-50	Bradshaw Rd	Mather Field Rd	213,500	81	549	1182	2547

Roadway	From	To	Post 2030 Roadway Network Build Out	Ldn @ 100 ft.	Distance (ft) to 70 dB Ldn	Distance (ft) to 65 dB Ldn	Distance (ft) to 60 dB Ldn
US-50	Mather Field Rd	Zinfandel	189,300	81	506	1091	2351
US-50	Zinfandel Blvd	Sunrise	168,600	80	469	1010	2176
US-50	Sunrise Blvd	Hazel	153,300	80	440	948	2042
US-50	Folsom Blvd	Hazel Ave	133,000	79	400	862	1858
US-50	Folsom Blvd	Prairie City Rd	118,800	79	371	800	1723

Source: Bollard Acoustical Consultants, 2006

Railroads

There is no current freight train activity in the City of Rancho Cordova, but the City is served by Regional Transit Light Rail along the Folsom Boulevard / U.S. 50 corridor.

In order to quantify train activity and the associated noise levels along the light-rail tracks, a short-term noise monitoring survey of light-rail train activity was conducted along the tracks between the Hazel Avenue and Iron Point Stations on January 5-6, 2006. The results were compared to similar data previously collected adjacent to light rail tracks.

Based on the Sacramento Regional Transit Gold Line Light Rail Schedule, it was determined that approximately 137 train pass-bys occur per day along the double tracks west of Hazel Avenue and approximately 59 train pass-bys occur per day along the single tracks east of Hazel Avenue. The Sound Exposure Level (SEL) of individual trains was recorded along with the duration and maximum noise level during the monitoring survey. The aggregate of the data collected indicates that at a distance of 100 feet, the average train operating on these tracks will produce an SEL of approximately 90 dB with usage of the warning horn, and approximately 86 dB without the usage of the horn. Trains are generally required to sound warning horns as they approach at-grade crossings located within the City of Rancho Cordova.

Table 4.7-4 shows the computed light rail train noise levels in terms of Ldn at a distance of 100 feet from the tracks. **Table 4.7-5** shows the predicted distances to the light rail noise contours in feet. These tables are broken into three categories corresponding to locations where no warning horns are applied (approximately 500+ feet from at grade crossings), locations where warning horns are applied but sufficiently removed from warning bells (approximately 100 to 500 feet from the intersection), and locations affected by both warning horns and warning bells (within 100 feet from the at-grade intersection).

TABLE 4.7-4
COMPUTED LIGHT-RAIL L_{DN}
RANCHO CORDOVA, CA

Light Rail Operations	Ldn @ 100′ from Center Line of Tracks - within various proximities to grade crossing (G/C)		
	0-100′ from G/C	100′-500′ from G/C	500′+ from G/C
East of Hazel Ave.	62	60	58
Hazel Ave. to Watt Ave.	67	65	63

Source: Bollard Acoustical Consultants, Inc., 2006.

TABLE 4.7-5
DISTANCES TO 60 DB L_{DN} LIGHT RAIL NOISE LEVEL CONTOUR
RANCHO CORDOVA, CA

Light-Rail Operations	Distance from Center Line of Tracks to 60 dB L_{dn} Noise Level Contour in Feet – within various proximities to grade crossing (G/C)		
	0-100′ from G/C	100′-500′ from G/C	500′+ from G/C
East of Hazel Ave.	140	100	75
Hazel Ave. to Watt Ave.	270	200	150

Source: Bollard Acoustical Consultants, Inc., 2006.

Airports

Mather Airport (formerly Mather Air Force Base [AFB]) has been open as a public-use air cargo and general aviation airport since May 5, 1995. Managed by the County Department of Airports, the airport, which operates 24 hours per day, consists of two primary runways, one 11,300 feet long and the other 6,100 feet long, generally aligned in a northeast-to-southwest direction. Mather Airport is a joint-use facility, supporting both military and commercial operations, and is rapidly developing as an air cargo depot. The airport includes approximately 40 acres of exclusive air cargo ramp space.

Following the closure of Mather AFB in 1988, the County adopted a reuse plan for Mather Airport in fall 1991. The Mather Airport Comprehensive Land Use Plan (CLUP) was subsequently adopted in May 1997. SACOG is in the process of updating the CLUP and renaming it the Mather Airport Land Use Compatibility Plan (ALUCP). As depicted in **Figure 4.1-5** in Section 4.1 (Land Use) of this EIR, portions of the project site are located within the currently adopted 60- and 65-dBA CNEL noise contours of the CLUP for Mather Airport. These noise contours, however, have been proposed for revision as part of the development of the Mather Airport Master Plan, which is currently being prepared by the Sacramento County Airport System. The noise contours are being revised to account for existing and projected changes in aircraft operations that have occurred since development of the CLUP for Mather Airport.

Single-event noise associated with aircraft overflight is also of concern when evaluating aircraft noise effects in terms of land use compatibility. Single-event noise is the maximum sound level produced by an individual approach overflight at a specific location, often described in terms of Lmax, which is the maximum sound level recorded for each event. A different measurement of single-event noise, also commonly used when evaluating aircraft noise, is the SEL. The SEL describes the event's mean energy level over the duration of the noise event. As would be expected, single-event noise levels for aircraft overflights within the Planning Area would be greatest and most frequent near the airport's primary flight paths.

Non-transportation Noise Sources

The production of noise is a result of many processes and activities, even when best available noise control technology is applied. Noise exposures within industrial facilities are controlled by Federal and State employee health and safety regulations (OSHA), but exterior noise levels may exceed locally acceptable standards. Commercial, recreational and public service facility activities can also produce noise which affects adjacent sensitive land uses.

From a land use planning perspective, fixed-source (also referred to as "stationary" or "non-transportation") noise control issues focus upon two goals: to prevent the introduction of new noise-producing uses in noise-sensitive areas, and to prevent encroachment of noise-sensitive land uses upon existing noise facilities. The first goal can be achieved by applying noise performance standards to proposed new noise-producing uses. The second goal can be met by requiring that new noise-sensitive uses in proximity to noise-producing facilities include mitigation measures to ensure compliance with those noise performance standards.

Descriptions of representative fixed noise sources in the City of Rancho Cordova are provided below. These uses are intended to be representative of the relative noise generation of such uses, and are intended to identify specific noise sources which should be considered in the review of development proposals. The following examples are not intended to be a comprehensive list of noise sources within the City. Site-specific noise analyses should be

performed where noise sensitive land uses are proposed in proximity to these (or similar) noise sources, or where similar sources are proposed to be located near noise-sensitive land uses.

General Service Commercial and Light Industrial Uses

Noise sources associated with service commercial uses such as automotive repair facilities, wrecking yards, tire installation centers, car washes, loading docks, etc., are found at various locations within the City of Rancho Cordova. The noise emissions of these types of uses are dependent on many factors, and are therefore, difficult to quantify precisely. Nonetheless, noise generated by these uses contribute to the ambient noise environment in the immediate vicinity of these uses, and should be considered where either new noise-sensitive uses are proposed nearby or where similar uses are proposed in existing residential areas.

Parks and School Playing Fields

There are several park and school uses within the City. These uses are spread throughout the City. Noise generated by these uses depends on the age and number of people utilizing the respective facility at a given time, and the types of activities they are engaged in. School playing field activities tend to generate more noise than those of neighborhood parks, as the intensity of school playground usage tends to be higher. At a distance of 100 feet from an elementary school playground being used by 100 students, average and maximum noise levels of 60 and 75 dB, respectively, can be expected. At organized events such as high school football games with large crowds and public address systems, the noise generation is often significantly higher. As with service commercial uses, the noise generation of parks and school playing fields is variable.

Aerojet General

Aerojet, a GenCorp Inc. company, is a major space and defense contractor specializing in missile and space propulsion, and defense and armaments. It is located south of Highway 50 between Hazel Avenue and Prairie City Road. Although much of the manufacturing/production which takes place at Aerojet occurs within insulated buildings, there are several noise producing activities/types of equipment which occur or are used in outdoor areas of the facility. According to Aerojet representatives, such activities include, but are not limited to, compressors, air dryers, cooling towers, fluid pumps, boilers, vacuum pumps, alarms, Low water boiler (fog horn type), building fire sirens, detonation warning siren in test facility, rocket testing (1-240 second burst of noise), Impact noise from Hazard Testing Lab NOL car gap tests, Groundwater Extraction Tower (GET) facilities, pumps, fans, ventilators, vacuum pumps, stream jets, diesel fire pumps, HVAC units, grinders, saws, drills, weed eaters, leaf blowers, trimmers, mowers, chain saws, spray booths, case burst testing, sand blasting, cranes, PA systems (announcements), well pumping stations, construction/demolition and operation of a wastewater treatment facility. The 65- and 75 dBA noise contours associated with test firing of rockets extend approximately 7,920 feet and 4,224 feet respectively from the test location.

Cordova Shooting Center

The Cordova Shooting Center is located on Douglas Road west of Sunrise Boulevard. The facility is used for small arms, rifle and shotgun firing and is open 7 day a week with hours beginning as early as 9 am and ending as late as 7 pm. Firearms used at this facility and similar shooting ranges generate maximum noise levels ranging from approximately 95 dB to 115 dB at a distance of 50 feet. Due to the impulsive nature of the noise generated at this facility, and the fact that impulsive noises have been found to be more annoying than steady state noises,

proposals for development of noise-sensitive land uses in the general vicinity of this use should be carefully evaluated for noise impact.

Aggregate Facilities

There are various aggregate mining and processing facilities within the Planning Area. Operations at aggregate facilities typically consist of the excavation of aggregate material using front-loaders and or self elevating scrapers, the transfer of that material via truck or conveyor to the processing plant, where it is crushed and screened into various sized products, and the load out of the material via heavy trucks. Some facilities include asphalt concrete plants and Portland cement concrete plants. The noise generation of such facilities varies by size, type of equipment, and hours of operation, but processing plant equipment normally ranges from 80 to 90 dB Leq at a distance of 100 feet from the processing plant equipment. Because of the early startup hours normally associated with these types of uses, and the high noise generation of the mining and processing equipment, proposals for development of noise-sensitive land uses in the general vicinity of this use should be carefully evaluated for noise impact.

Sacramento Rendering Company

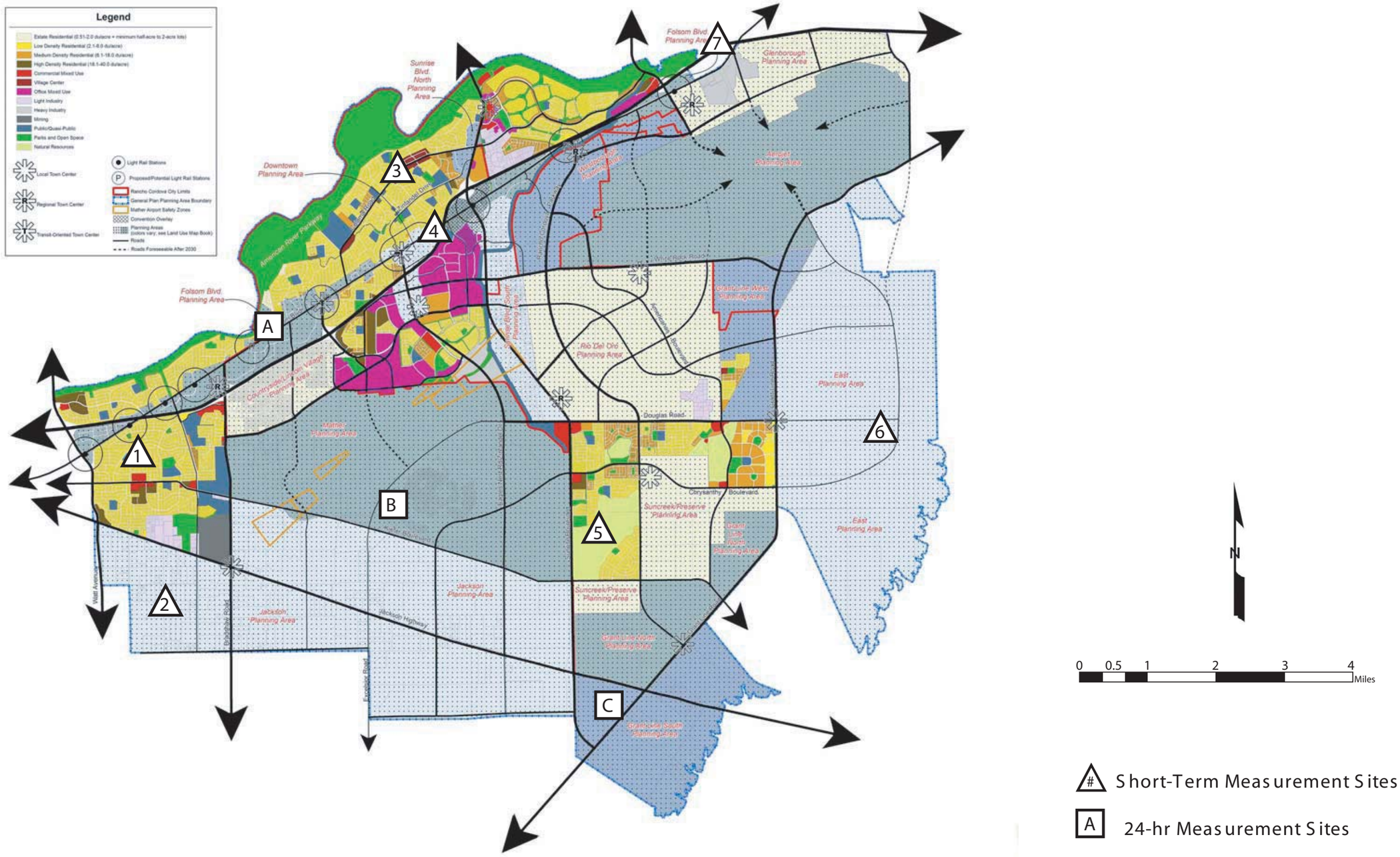
The Sacramento Rendering Company is located at 11350 Kiefer Boulevard, west of Douglas Boulevard. Activities at this facility consist of the recycling of byproducts from the meat and poultry industries. The facility normally operates 6 days a week, 24-hours per day. Most of the noise-generating processes are located within the facility, and the principal noise source is heavy truck traffic associated with approximately 90 deliveries per day. When the noise levels were measured in 2001/2002 as part of the Sunrise Douglas Community Plan/Sunridge Specific Plan EIR, the plant entrance on Kiefer Road had a noise measurement of 50 dBA (Sacramento County, 2002).

Kiefer Landfill

Sacramento County operates the Kiefer Landfill at 12701 Kiefer Blvd. Noise sources associated with this facility consist primarily of trucks arriving and departing the site, and heavy earthmoving equipment used in day-to-day landfill operations. Typical hours of operation at this facility are from 7 am to 5 pm. The landfill is surrounded by undeveloped rolling terrain. Significant noise sources at this location include bulldozers, backup warning devices, garbage trucks, and private and commercial traffic using the landfill. Noise measurements conducted at the landfill in 1989 yielded an average noise level of 71 dBA at a distance of 100 feet from the main dump activity area. Due to historic conflicts which arise from the development of noise-sensitive land uses in the vicinities of landfills, proposals for development of noise-sensitive land uses in the general vicinity of this use should be carefully evaluated for noise impact.

COMMUNITY NOISE SURVEY

To quantify existing noise levels at areas within the City of Rancho Cordova that are removed from the more significant noise sources identified above, a community noise survey was performed at 7 locations within predominately residential areas (see **Figure 4.7-1**). These locations were each monitored for short-term periods at various times including both day and night. The results of the community noise survey are provided in **Table 4.7-6**.



Source: Bollard Acoustic Consultants, 2006

T:\Rancho Cordova\General Plan EIR\AI Files\Figure 4.7-1.ai, February 2006

City of Rancho Cordova
Planning Department

Figure 4.7-1
Noise Measurement Locations

TABLE 4.7-6
COMMUNITY NOISE MEASUREMENT SURVEY RESULTS

Site	Location	Dates	Time Period	L_{eq}	L_{max}	L_{50}	Estimated L_{dn}	Sources
1	Rosemont Community Park off Americana Way.	1/12/06	Morning	52	64	50	50-55	Parking lot activity, distant Hwy. 50 traffic, aircraft flyovers, neighborhood activity
		1/10/06	Afternoon	48	61	44		
		1/19/06	Nighttime	49	55	49		
2	Off Mayhew Rd. just north of Elder Creek Rd.	1/12/06	Morning	45	57	43	50	Distant tractor, aircraft flyovers, natural sounds, distant Bradshaw Rd. traffic
		1/10/06	Afternoon	47	63	43		
		1/19/06	Nighttime	47	52	47		
3	Dave Roberts Community Park II	1/12/06	Morning	51	61	50	55-60	Hwy. 50 traffic, natural sounds, aircraft flyovers, local traffic, kids playing at nearby school
		1/6/06	Afternoon	54	59	53		
		1/19/06	Nighttime	53	60	50		
4	Kilgore Cemetery off Kilgore Rd.	1/12/06	Morning	51	60	50	55-60	Local traffic, Hwy. 50 traffic, nearby construction, natural sounds
		1/6/06	Afternoon	54	70	53		
		1/19/06	Nighttime	54	61	54		
5	Off Jaeger Rd. north of Kiefer Rd.	1/12/06	Morning	40	51	38	45-50	Construction equipment/activity, aircraft flyovers, natural sounds
		1/10/06	Afternoon	48	63	41		
		1/19/06	Nighttime	41	56	41		
6	Near end of Glory Ln. off Grant Line Rd.	1/12/06	Morning	40	50	39	40-45	Aircraft flyovers, natural sounds, distant construction activity and Grant Line Rd. traffic
		1/10/06	Afternoon	42	57	40		
		1/19/06	Nighttime	38	51	37		
7	Off California Cir. just east of Alabama Ave./ Aerojet	1/12/06	Morning	47	56	46	50-55	Loading dock activity, at Aerojet, natural sounds, distant Folsom Blvd. and Hwy. 50 traffic
		1/10/06	Afternoon	44	54	42		
		1/19/06	Nighttime	49	59	48		
A	Lord Way Residence (Centennial Estates)	1/11/06	Daytime	75	82	75	78	Hwy 50 traffic
			Nighttime	71	80	68		
B	Nestlenook Way Residence (Near Mather Airport)	1/12/06	Daytime	51	76	46	55	Aircraft flyovers, natural sounds
			Nighttime	48	70	46		
C	Grant Line Rd. Residence	2/24/05	Daytime	67	88	55	70	Grant Line Rd. traffic, natural sounds
			Nighttime	62	82	43		

Source: Bollard Acoustical Consultants, Inc., 2006.

4.7.2 REGULATORY FRAMEWORK

LOCAL

Sacramento County General Plan

The 1993 Sacramento County General Plan Noise Element provides policies relevant to noise in the larger Sacramento County area, and is currently applicable to areas of the Rancho Cordova Planning Area outside of existing City boundaries. The Policy NO-1 provides a not to be exceeded standard of 60 dB L_{dn}/CNEL for new transportation noise sources at outdoor activity areas so as not to exceed of any affected residential lands or land use. However, if the best available noise-reduction technology cannot achieve the 60 dB L_{dn} CNEL standard, then an exterior noise level of 65 dB L_{dn} CNEL may be allowed in outdoor activity areas. Policies NO-2 and NO-3 implements standards and conditions for non-transportation noise. Policy NO-4 requires an acoustical analysis shall be required as part of the environmental review process so that noise mitigation may be included in the project design for residential units under prescribed conditions. Policy NO-5 limits residential development in areas where non-transportation noise will exceed the non-transportation noise standards. Policy NO-6 requires compatibility of proposed non-residential projects and future transportation noise levels. Policy NO-7 requires that proposed development of residential land uses should not be permitted in certain noise impacted areas.

MATHER AIRPORT POLICY AREA

The Sacramento County General Plan contains Airport Land Use Policy, which supports the implementation of the Mather Airport CLUP. The Airport Land Use Policy applies to any project that requires an entitlement and falls within an airport noise or safety zone. The Airport Land Use Policy includes the Mather Airport Policy Area. The policy establishes that new residential development shall be prohibited within the 60 CNEL Mather Airport Policy Area and that new residential development outside of the 60 CNEL is subject to conditions requiring the following: (1) Minimum noise insulation to 45 dB within new residential dwellings with windows closed in any habitable room (including detached single-family residential; (2) notification in the California Department of Real Estate's *Public Report* disclosing to prospective buyers that the parcel is within the Mather Airport Policy Area; and (3) requiring an Avigation Easement acknowledging the property is located within the Mather Airport Policy Area and granting the right of flight and unobstructed passage of all aircraft into and out of Mather Airport (Sacramento County, 1993). The other exception is that new accessory residential dwellings are allowed within the Mather Airport Policy Area on parcels zoned Agricultural, Agricultural-Residential, Interim Agricultural, Interim General Agricultural, or Interim Limited Agricultural and between the 60 and 65 CNEL contours but would be subject to the conditions listed above. The policy is intended to increase the awareness of residents, in any future residential communities that are approved, of their possible exposure to aircraft operations, limit the potential for conflict between the airport and adjacent communities, and to protect future airport development and aircraft operations flexibility beyond that obtainable solely by relying upon the noise and safety land use guidelines contained within the Mather Airport CLUP.

Cordova Community Plan

The Land Use Goal of the Cordova Community Plan is to create an orderly, balanced, and integrated land use pattern that emphasizes revitalization of existing land uses; supports the diversity of business, particularly the transformation of Mather as a premiere business center and air-cargo facility; promotes a pedestrian-friendly, multi-modal environment that capitalizes on

the linkage opportunities of the LRT stations; and enhances the regional and local character, identity, and quality of development.

To achieve that goal, Land Use Objective LU-3 is to promote a balance between the growth of the air-cargo industry at Mather with the need for housing and residential lifestyles in adjacent neighborhoods.

Mather Airport Comprehensive Land Use Plan

The State of California has adopted airport noise and safety standards that are implemented through Comprehensive Land Use Plans (CLUPs) prepared for public-use airports. The CLUPs are prepared and maintained by the Airport Land Use Commissions (ALUCs). In Sacramento County, the Sacramento Area Council of Governments (SACOG) serves as the ALUC. The noise and safety standards identified in the CLUPs for local airports are implemented through the control of land use around airports with regard to the noise, safety, and height restrictions. SACOG also works with cities and counties to ensure consistency between local land use plans and CLUPs developed for local airports.

The Mather Airport CLUP was adopted in May 1997 and includes regional policies for land use compatibility with respect to aircraft noise. The CLUP for Mather Airport requires that as development occurs in the area near the airport, affected cities and counties should evaluate the impact of aircraft noise on proposed development. The CLUP prohibits new residential development within the 65-dBA CNEL noise contours. The CLUP noise contours (in CNEL) for Mather Airport, in relation to the plan area, are depicted in Figure 4.1-5 in Section 4.1 (Land Use) of this EIR.

The Airport Noise Compatibility in the Mather Airport CLUP is based on the Federal Aviation Regulation (FAR) Part 150 Noise Compatibility Study, which was established by the Federal Aviation Study and Noise Abatement Act of 1979. A Noise Compatibility Study includes the development of a Noise Exposure Map and a Noise Compatibility Program, which identify appropriate uses for land surrounding airports and include noise mitigation programs to ensure benefits for the surrounding communities. The Noise Compatibility Study for the Mather Airport will be updated by SACOG after adoption of the final Mather Airport Master Plan by the Sacramento County Board of Supervisors. Land uses that are incompatible with the 65 dB CNEL noise contour are residential dwellings, public and private schools, hospitals and convalescent homes, churches, synagogues, temples and other places of worship. Acceptable land uses within the 65 dB CNEL include manufacturing, transportation/communications/utilities, wholesale trade, retail trade, business/personal services, shopping districts, recreation, agriculture, mining, and public uses if they can achieve interior noise standards of 45 dB CNEL or 50 dB CNEL. CLUP/ALUCP compliance would be further determined on a project-by-project basis. Given that portions of the Planning Area are located within the existing and proposed boundaries of the CLUP/ALUCP, implementation of the General Plan must comply with federal, State and local regulations so as to not conflict with operations of the airport facilities. Additionally, State Airport Land Use Commission (ALUC) law requires a jurisdiction to either amend its General Plan and other land use regulations to achieve consistency with airport CLUPs adopted by the ALUC.

The County is currently in the process of developing the *Mather Airport Master Plan*. The Master Plan will be used to guide airport development over the next 20 years, while attempting to resolve related aviation, environmental, and socioeconomic issues existing in the community. One of the primary issues to be addressed in the plan relates to the exposure of citizens in

nearby communities to noise generated by aircraft on approach and departure routes from Mather Airport.

City of Rancho Cordova Noise Ordinance

The City's noise ordinance, which is based on the County noise ordinance, establishes maximum allowable exterior and interior noise levels for affected land uses. The ordinance generally limits exterior noise levels (measured at residential land and agricultural land uses) to a maximum of 55 dBA during any cumulative 30-minute period during the daytime hours (7 a.m.–10 p.m.), and 50 dBA during any cumulative 30-minute period during the nighttime hours (10 p.m.–7 a.m.). The ordinance sets somewhat higher noise limits for noise of shorter duration; however, noise shall not exceed 75 dBA during the day and 70 dBA at night. Activities generally considered to be exempt from the noise standards include construction activities (provided that they occur between the daytime hours of 7 a.m.– 6 p.m., Monday through Saturday, and 9 a.m.–6 p.m. on Sunday), school athletic and entertainment events, activities conducted on public parks and playgrounds, and transportation noise. The City's noise ordinance would be applicable to areas within the Planning Area, but outside of the current City limits, when such areas are annexed into the City.

4.7.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

CEQA guidelines state that implementation of a project would result in significant noise impacts if the project would result in any of the following:

1) Exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan, noise ordinance, or applicable standards of other agencies.

2) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

3) A substantial permanent increase in ambient noise levels in the project vicinity above levels without the project.

4) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

5) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, exposure of people residing or working in the area to excessive noise levels resulting from the proposed project.

6) For a project within the vicinity of a private airstrip, exposure of people residing or working in the project area to excessive noise levels.

METHODOLOGY

Because this Draft EIR considers the impacts associated with adoption of the City of Rancho Cordova General Plan, including new noise policies and standards, as well as the development

of both noise sensitive and noise-generating land uses, the following methodology is employed. Noise impacts are identified for new noise-sensitive developments located within areas impacted by existing or future, aircraft, traffic, light rail, industrial, or other significant noise sources. Noise impacts are also identified for noise-producing projects proposed near existing or proposed noise-sensitive areas. Noise impacts are also identified where implementation of the proposed General Plan policies pertaining to noise would themselves result in the exposure of people to excessive noise levels. Finally, noise impacts are evaluated by projecting traffic noise generation of the proposed General Plan roadways under year 2030 and buildout conditions. Potential noise impacts of each of these major noise sources are described below.

Traffic Noise Impact Assessment Methodology

Traffic noise impacts are assessed by comparing both the existing traffic noise levels and standards of significance to the predicted traffic noise levels within the Plan Area under year 2030 and buildout conditions under the proposed General Plan for both the General Plan Roadway System improvements expected by year 2030 and post-year 2030 General Plan Roadway System improvements. Traffic Noise Prediction Model

To describe future noise levels due to traffic, the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA-RD-77-108) was used. The FHWA model is the analytical method currently favored for highway traffic noise prediction by most state and local agencies, including the California Department of Transportation (Caltrans).

The FHWA model is based upon the Calveno reference noise factors for automobiles, medium trucks and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site.

The FHWA model was developed to predict hourly L_{eq} values for free-flowing traffic conditions (see **Tables 4.7-2** and **4.7-3**). To predict L_{dn}/CNEL values, it is necessary to determine the day/night distribution of traffic and adjust the traffic volume input data to yield an equivalent hourly traffic volume. The significance of the noise increase of all traffic-related noise sources shall be determined according to the following criteria:

- Where existing traffic noise levels are less than 60 dB Ldn at the outdoor activity areas of noise-sensitive uses, a +5 dB Ldn increase in noise levels will be considered significant; and

- Where existing traffic noise levels range between 60 and 65 dB Ldn at the outdoor activity areas of noise-sensitive uses, a +3 dB Ldn increase in noise levels will be considered significant; and

- Where existing traffic noise levels are greater than 65 dB Ldn at the outdoor activity areas of noise-sensitive uses, a +1.5 dB Ldn increase in noise levels will be considered significant.

Noise Impact Assessment Methodology for Noise-Producing Uses Within the Planning Area

There are a variety of stationary noise sources associated with implementation of the proposed General Plan which have the potential to create noise levels in excess of the proposed General Plan noise standards or result in annoyance at existing and future noise-sensitive developments in the Planning Area. Such uses/noise sources include, but are not limited to, commercial loading docks associated with grocery stores and other stores/shops, and neighborhood parks.

Because the General Plan does not include detailed site or grading plans, it is not feasible to identify specific noise impacts associated with future land uses. Rather, potential for these sources to generate excessive or annoying noise levels is identified.

Aircraft Noise Impact Assessment Methodology

Noise impacts associated with operations at Mather Airport could result if noise-sensitive land uses are proposed within the airport's noise impact boundaries (noise contours) associated with the adopted Mather Airport CLUP.

Construction Noise Impact Assessment Methodology

Implementation of the General Plan would result in subsequent development projects with associated construction noise impacts. These noise impacts would add to the noise environment in the Planning Area and could exceed normally acceptable sound levels at neighboring receptor locations.

Noise would be generated by increased truck traffic on area roadways and the operation of heavy equipment on a construction site. This noise increase would be temporary in duration and would most likely occur during daytime hours.

Activities involved in construction would generate maximum noise levels, as indicated in **Table 4.7-7**, ranging from 85 to 90 dB at a distance of 50 feet. While pile-driving is not a typical construction activity, pile-drive construction could occur in the Planning Area that can generate similar noise levels as well as excessive groundborne vibration.

TABLE 4.7-7
CONSTRUCTION EQUIPMENT NOISE

Type of Equipment	Maximum Level, dB at 50 feet
Bulldozers	87
Heavy Trucks	88
Backhoe	85
Pneumatic Tools	85

PROJECT IMPACTS AND MITIGATION MEASURES

Construction Noise Impacts

Impact 4.7.1 Implementation of the proposed General Plan would result in subsequent development projects and cause an increase in construction noise levels that would exceed City of Rancho Cordova noise standards. This is considered a **potentially significant** impact.

Construction activities associated with the buildout of the General Plan would typically generate maximum noise levels ranging from 85 to 95 dB at a distance of 50 feet as well as generate groundborne vibration (see **Table 4.7-7**). Depending on the timing of the buildout of the General Plan planning areas, existing and future residents may be exposed to these excessive noise levels.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and action items are contained in the proposed General Plan Noise Element address construction noise:

Policy N.1.1 *Establish standards and policies consistent with those in Tables N-1 and N-2 to govern maximum sound levels in new development.*

TABLE N-1
NOISE LEVEL PERFORMANCE STANDARDS FOR STATIONARY NOISE EXPOSURE

Stationary Noise Source	Noise Level Descriptor	Daytime Maximum (7 a.m. to 10 p.m.)	Nighttime Maximum (10 p.m. to 7 a.m.)
Typical	Hourly Leq, dB	55	45
Tonal, impulsive, repetitive, or consist primarily of speech or music	Hourly Leq, dB	50	40

Notes: The City may impose noise level standards which are more or less restrictive than those specified above based upon determination of existing low or high ambient noise levels. The types of uses which may typically produce the noise sources addressed below include, but are not limited to, industrial facilities including pump stations, trucking operations, tire shops, auto maintenance shops, metal fabricating shops, shopping centers, drive-up windows, car washes, loading docks, public works projects, batch plants, bottling and canning plants, recycling centers, electric generating stations, race tracks, landfills, sand and gravel operations, and athletic fields.
These noise level performance standards apply to new projects that are affected by or include non-transportation noise sources, with the exception of residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings).

Policy N.1.4 *Mitigate noise created by proposed non-transportation noise sources to comply with the City's noise standards to the maximum extent feasible.*

Action N.1.4.1 *Limit construction activity to the hours of 7 a.m. to 7 p.m. weekdays and 8 a.m. to 6 p.m. weekends when construction is conducted in proximity to residential uses.*

Action N.1.4.2 *Consider restricting the hours of operation of loading docks, trash compactors, and other noise-producing uses in commercial areas that are adjacent to residential uses.*

Action N.1.4.3 *Require stationary construction equipment and construction staging areas to be set back from existing noise-sensitive land uses.*

Policy N.1.5 *Mitigate noise created by the construction of new transportation noise sources (such as new roadways or new light rail service) to the maximum extent feasible to comply with the City's standards.*

Mitigation Measures

MM 4.7.1 The following shall be added as a new policy under Goal N.1:

To the extent feasible and appropriate, the City shall require the use of temporary construction noise control measures for public and private project that may include the use of temporary noise barriers, temporary relocation of noise-sensitive land uses or other appropriate measures.

While implementation of the above proposed General Plan policies and action items and Mitigation Measure MM 4.7.1 would reduce construction noise, it is not likely that excessive construction noise levels can be fully mitigated in all circumstances. Thus, this noise impact is considered a **significant and unavoidable**.

Traffic Noise Impacts

Impact 4.7.2 Implementation of the proposed General Plan would result in increases in traffic noise levels that would be in excess of City of Rancho Cordova noise standards. This is considered a **significant** impact.

Implementation of the proposed General Plan would result in increased traffic noise levels from additional vehicle traffic on existing and future roadways. Implementation of the General Plan will result in new noise-sensitive land uses throughout the Planning Area along roadways projected to have substantial traffic volumes. Major Roadways such as Grant Line Road, Rancho Cordova Parkway, Chrysanthy Boulevard, Jackson Highway, US 50, Sunrise Boulevard, Bradshaw Road will contribute to transportation noise that will impact noise-sensitive land uses. **Table 4.7-8** compares existing traffic noise levels with noise levels after General Plan implementation, and shows a significant increase between existing L_{dn} and L_{dn} after implementation. Residential and other noise-sensitive uses adjacent to area roadways would be affected by increased traffic noise, especially those areas with no soundwalls adjacent to the roadway. Increased noise impacts to area roadways would also result in significant **[**traffic noise impacts outside of the City in parts of Sacramento County that are adjacent to Rancho Cordova.

TABLE 4.7-8
FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODELED NOISE LEVELS AND PROJECT RELATED INCREASES
CITY OF RANCHO CORDOVA NOISE ELEMENT – GENERAL PLAN AREA BUILDOUT

Roadway	From	To	Predicted L_{dn} at 100 feet from Roadway Center Lines				
			Existing Conditions	Pre 2030 Roadway Network Build Out	dB	Post 2030 Roadway Network Build Out	dB
SR 16	Excelsior Rd	Eagles Nest Rd	68	74	+6	74	+6
SR 16	Sunrise Blvd	Grant Line Rd	69	73	+4	73	+4
SR 16	Grant Line Rd	East of Grant Line Rd	68	72	+4	72	+4
SR 16	Excelsior Rd	Bradshaw Rd	68	74	+6	74	+6
Kiefer Blvd	Grant Line Rd	SR 16	55	67	+12	67	+12
Mather Blvd	Femoyer St	Douglas	61	67	+6	67	+6
Douglas Rd	Mather Blvd	Sunrise	60	67	+7	67	+7
Douglas Rd	Sunrise Blvd	Grant Line	56	66	+10	66	+10
International Dr	South White Rock Rd	Zinfandel	64	71	+7	71	+7
International Dr	Zinfandel Dr	Kilgore	61	71	+10	71	+10
White Rock Rd	Zinfandel Dr	Sunrise	65	69	+4	69	+4
White Rock Rd	Sunrise Blvd	Grant Line	59	70	+11	70	+11
Folsom Blvd	Sunrise Blvd	Hazel	64	67	+3	67	+3
Folsom Blvd	Watt	Bradshaw	67	67	0	67	0
Folsom Blvd	Bradshaw	Mather	66	67	+1	67	+1
Folsom Blvd	Mather	Coloma	68	69	+1	69	+1
Folsom Blvd	Coloma	Zinfandel	67	67	0	67	0
Folsom Blvd	Zinfandel	Sunrise	65	67	+2	67	+2
Mather Field Rd	Folsom Blvd	US-50 WB ramps	67	69	+2	69	+2

Roadway	From	To	Predicted L_{dn} at 100 feet from Roadway Center Lines				
			Existing Conditions	Pre 2030 Roadway Network Build Out	dB	Post 2030 Roadway Network Build Out	dB
Mather Field Rd	US-50 EB Ramps	International	68	71	+3	71	+3
Zinfandel Dr	Folsom Blvd	US-50 WB Ramps	66	68	+2	68	+2
Zinfandel Dr	US-50 EB Ramps	White Rock	69	72	+3	72	+3
Zinfandel Dr	White Rock Rd	International	66	69	+3	69	+3
Zinfandel Dr	Folsom Blvd	Sunrise	63	64	+1	64	+1
Sunrise Blvd	Gold Country Blvd	Coloma	72	73	+1	73	+1
Sunrise Blvd	Coloma Rd	US-50 WB Ramps	72	73	+1	73	+1
Sunrise Blvd	US-50 EB Ramps	Folsom Blvd	70	71	+1	71	+1
Sunrise Blvd	Folsom Blvd	White Rock	68	69	+1	69	+1
Sunrise Blvd	White Rock Rd	Douglas	67	69	+2	69	+2
Sunrise Blvd	Douglas Rd	SR 16	66	69	+3	69	+3
Sunrise Blvd	SR 16	Grant Line Rd	64	67	+3	67	+3
Hazel Ave	US-50 WB Ramps	Winding Way	70	73	+3	73	+3
Grant Line Rd	White Rock Rd	Douglas	61	71	+10	71	+10
Grant Line Rd	Douglas Rd	SR 16	61	69	+8	69	+8
Grant Line Rd	SR 16	Sunrise	60	68	+8	68	+8
Coloma Rd	Sunrise Blvd	Folsom	66	67	+1	67	+1
Gold Country	Sunrise Blvd	Hazel	63	64	+1	64	+1
Bradshaw Rd	Old Placerville Rd	Kiefer	68	71	+3	71	+3
Rancho Cordova Pkwy	US-50	White Rock	n/a	70	n/a	70	n/a
Rancho Cordova Pkwy	White Rock	Douglas	n/a	67	n/a	67	n/a
International	Rancho Cordova Pkwy	Sunrise	n/a	65	n/a	65	n/a

Roadway	From	To	Predicted L_{dn} at 100 feet from Roadway Center Lines				
			Existing Conditions	Pre 2030 Roadway Network Build Out	dB	Post 2030 Roadway Network Build Out	dB
International	Sunrise	White Rock	n/a	71	n/a	71	n/a
International	White Rock	Bradshaw	n/a	71	n/a	71	n/a
US-50	Bradshaw Rd	Mather Field Rd	80	81	+1	81	+1
US-50	Mather Field Rd	Zinfandel	80	81	+1	81	+1
US-50	Zinfandel Blvd	Sunrise	80	80	0	80	0
US-50	Sunrise Blvd	Hazel	79	80	+1	80	+1
US-50	Folsom Blvd	Hazel Ave	78	79	+1	79	+1
US-50	Folsom Blvd	Prairie City Rd	78	79	+1	79	+1
Source: Traffic Section of General Plan, Caltrans, and FHWA-RD-77-108							

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and action items are contained in the proposed General Plan Noise Element address traffic noise:

Policy N.1.1 *Establish standards and policies consistent with those in Tables N-1 and N-2 to govern maximum sound levels in new development.*

TABLE N-2
NOISE LEVEL PERFORMANCE STANDARDS FOR MAXIMUM TRANSPORTATION NOISE EXPOSURE

Land Use	Outdoor Activity Areas1 Ldn/CNEL, dB	Interior Spaces	
		Ldn/CNEL, dB	Leq, dB2
Residential	603	45	--
Residential subject to noise from railroad tracks, aircraft overflights, or similar noise sources which produce clearly identifiable, discrete noise events (e.g., the passing of a single train)	603	405	--
Transient lodging	604	45	--
Hospitals, nursing homes	603	45	--
Theaters, auditoriums, music halls	--	--	35
Churches, meeting halls	603	--	40
Office buildings	--	--	45
Schools, libraries, museums	--	--	45
Playgrounds, neighborhood parks	70	--	--

1 Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use.
Where it is not practical to mitigate exterior noise levels at patio or balconies of apartment complexes, a common area such as a pool or recreation area may be designated as the outdoor activity area.
2 As determined for a typical worst-case hour during periods of use.
3 Where it is not possible to reduce noise in outdoor activity areas to 60 dB Ldn/CNEL or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB Ldn/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.
4 In the case of hotel/motel facilities or other transient lodging, outdoor activity areas such as pool areas may not be included in the project design. In these cases, only the interior noise level criterion will apply.
5 The intent of this noise standard is to provide increased protection against sleep disturbance for residences located near railroad tracks.

Policy N.1.5 *Mitigate noise created by the construction of new transportation noise sources (such as new roadways or new light rail service) to the maximum extent feasible to comply with the City's standards.*

Policy N.1.6 *Ensure that comfortable noise levels and adequate privacy are maintained in higher density development.*

Action N.1.6.1 *Develop guidelines, strategies, and standards specifically related to maintaining acceptable noise levels in higher density development. Consider design and construction standards that minimize noise conflicts between residents with shared walls or floors/ceilings.*

Policy N.2.1 *Strategically locate grade separations on existing or future light rail lines so that they will not result in adverse noise impacts to adjacent residential areas.*

Action N.2.1.1 *Encourage placement of light rail lines below the grade of the roadway in order to reduce noise impacts.*

Policy N.2.2 *Ensure that operational noise levels of new roadway projects will not result in significant noise impacts.*

Action N.2.2.1 *Assess the significance of the noise increase of all roadway improvement projects in existing areas according the following criteria:*

Where existing traffic noise levels are less than 60 dB Ldn at the outdoor activity areas of noise-sensitive uses, a +5 dB Ldn increase in noise levels due to roadway improvement projects will be considered significant;

Where existing traffic noise levels range between 60 and 65 dB Ldn at the outdoor activity areas of noise-sensitive uses, a +3 dB Ldn increase in noise levels due to roadway improvement projects will be considered significant; and

Where existing traffic noise levels are greater than 65 dB Ldn at the outdoor activity areas of noise-sensitive uses, a +1.5 dB Ldn increase in noise levels due to roadway improvement projects will be considered significant.

Policy N.2.3 *Emphasize mitigation methods other than soundwall installation to reduce noise to acceptable levels in residential areas originally constructed without soundwalls.*

Action N.2.3.1 *Adopt a Citywide noise reduction program to reduce traffic noise and other noise levels*

Policy N.2.4 *Emphasize site planning and project design when noise mitigation measures are required.*

Action N.2.4.1 *Consider the use of noise barriers to meet the noise standards only after all other practical design-related noise mitigation measures, including the use of distance from noise sources, have been integrated into the project.*

Mitigation Measures

While implementation of the above policies and actions would reduce noise associated with traffic, some traffic noise impacts cannot be mitigated to a less than significant level due to the proximity of noise-sensitive land uses to major roadways and highways, and because noise attenuation may not be feasible in all circumstances. Thus, this impact is considered **significant and unavoidable.**

Stationary Noise Impacts

Impact 4.7.3 Implementation of the proposed General Plan could result in future stationary noise sources that generate noise levels in excess of applicable noise standards for non-transportation noise sources. This is considered a **potentially significant** impact.

Implementation of the proposed General Plan could result in the future development of land uses that generate noise levels in excess of applicable City of Rancho Cordova noise standards for non-transportation noise sources. Such land uses may include commercial area loading docks, industrial uses, HVAC equipment, car washes, daycare facilities, auto repair, as well as recreational uses. While the General Plan does not specifically propose any new noise-generating uses, the Conceptual Land Plans for the Jackson Planning Area, Mather Planning Area, Rio del Oro Planning Area, Aerojet Planning Area, and Sunrise Boulevard South Planning Area include industrial land use designations, which may result in noise sources. Specific land use types that would locate in the City are not known at this time. Additionally, noise from existing stationary noise sources such as the Groundwater Extraction Tower (GET) facilities within the Westborough Planning Area, Kiefer Landfill, aggregate operations along Grant Line Road and Jackson Highway, and industrial uses such as the auto dismantlers along Sunrise Boulevard will continue to result in noises that may impact noise-sensitive land uses that may be located in their vicinity. In addition, General Plan growth would require the construction of schools and parks that could result in additional stationary noise source impacts that are not regulated by the City (e.g., school stadiums and sports park facilities).

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and action items are contained in the proposed General Plan Noise Element address stationary noise:

Policy N.1.1 *Establish standards and policies consistent with those in Tables N-1 and N-2 to govern maximum sound levels in new development.*

TABLE N-1
NOISE LEVEL PERFORMANCE STANDARDS FOR STATIONARY NOISE EXPOSURE

Stationary Noise Source	Noise Level Descriptor	Daytime Maximum (7 a.m. to 10 p.m.)	Nighttime Maximum (10 p.m. to 7 a.m.)
Typical	Hourly L_{eq}, dB	55	45
Tonal, impulsive, repetitive, or consist primarily of speech or music	Hourly Leq, dB	50	40

Notes: The City may impose noise level standards which are more or less restrictive than those specified above based upon determination of existing low or high ambient noise levels. The types of uses which may typically produce the noise sources addressed below include, but are not limited to, industrial facilities including pump stations, trucking operations, tire shops, auto maintenance shops, metal fabricating shops, shopping centers, drive-up windows, car washes, loading docks, public works projects, batch plants, bottling and canning plants, recycling centers, electric generating stations, race tracks, landfills, sand and gravel operations, and athletic fields.
These noise level performance standards apply to new projects that are affected by or include non-transportation noise sources, with the exception of residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings).

Policy N.1.2 *Ensure that the indoor and outdoor areas of new projects will be located, constructed, and/or shielded from noise sources in compliance with the City's noise standards to the maximum extent feasible.*

Action N.1.2.1 *Require new development of noise-creating uses to conform with the City's maximum noise levels.*

Action N.1.2.2 *Require an acoustical analysis as part of the environmental review process when noise-sensitive land uses are proposed in areas where current or projected exterior noise levels exceed the City's standards.*

Action N.1.2.3 *Require any potential noise impacts identified during the acoustical analysis to be mitigated in the project design to the maximum extent feasible.*

Policy N.1.3 *Ensure that proposed non-residential land uses likely to exceed the City's standards do not create noise disturbances in existing noise-sensitive areas.*

Action N.1.3.1 *Require an acoustical analysis as part of the environmental review process when proposed non-residential land uses are likely to produce noise levels that exceed the City's noise standards. The acoustical analysis must be prepared by a qualified person experienced in environmental noise assessment and architectural acoustics, and must estimate existing and projected cumulative noise levels and compare those levels to the policies within this Element.*

Action N.1.3.2 *Require any noise impacts identified in the acoustical analysis to be mitigated in conjunction with the project design.*

Policy N.1.4 *Mitigate noise created by proposed non-transportation noise sources to comply with the City's noise standards to the maximum extent feasible.*

Action N.1.4.1 *Limit construction activity to the hours of 7 a.m. to 7 p.m. weekdays and 8 a.m. to 6 p.m. weekends when construction is conducted in proximity to residential uses.*

Action N.1.4.2 *Consider restricting the hours of operation of loading docks, trash compactors, and other noise-producing uses in commercial areas that are adjacent to residential uses.*

Action N.1.4.3 *Require stationary construction equipment and construction staging areas to be set back from existing noise-sensitive land uses.*

Policy N.1.5 *Mitigate noise created by the construction of new transportation noise sources (such as new roadways or new light rail service) to the maximum extent feasible to comply with the City's standards.*

Policy N.2.3 *Emphasize mitigation methods other than soundwall installation to reduce noise to acceptable levels in residential areas originally constructed without soundwalls.*

Action N.2.3.1 *Adopt a Citywide noise reduction program to reduce traffic noise and other noise levels.*

Policy N.2.4 *Emphasize site planning and project design when noise mitigation measures are required.*

Action N.2.4.1 *Consider the use of noise barriers to meet the noise standards only after all other practical design-related noise mitigation measures, including the use of distance from noise sources, have been integrated into the project.*

Mitigation Measure

While implementation of the above policies and actions would reduce noise associated with new stationary noise sources and the placement of new noise-sensitive land uses that the City has jurisdiction (e.g., commercial and industrial sites, residential uses). However, some stationary noise impacts cannot be mitigated to a less than significant level due to limitations of the City to control the exact placement of substantial noise-generating uses (e.g., school facilities) in proximity to noise-sensitive land uses (e.g., residential). Accordingly, stationary source noise levels from activities on uses for which the City has limited control could result in noise levels that exceed the City's maximum allowable noise standards. Thus, this impact is considered **significant and unavoidable.**

Airport Noise Impacts

Impact 4.7.4 Implementation of the proposed General Plan would result in the creation of new noise-sensitive land uses within the 65 dB CNEL noise contours contained within the Mather Airport CLUP. Additionally, the implementation of the General Plan would result in the creation of new noise-sensitive land uses within over-flight areas of Mather Airport, thereby presenting the potential for annoyance from single event noise. This is considered a **significant** impact.

As discussed in Impact 4.1.3 in Section 4.1 (Land Use) of this EIR, there are five planning areas affected by the existing Mather Airport CLUP boundaries and 60 to 65 dB CNEL contour ranges: Mather Planning Area; Jackson Planning Area; Sunrise Boulevard South Planning Area; Rio del Oro Planning Area; and the Aerojet Planning Area. The General Plan Conceptual Land Plans for these planning areas have land use designations of heavy industrial, light industrial, office park, commercial mixed use, office mixed use, surface mining, regional town center, parks, and natural resources within the 60 and 65 dB CNEL. These proposed land uses within the 60 to 65 dB CNEL contours are consistent with the current Mather Airport CLUP, with one exception. . The only exception is the Rio del Oro Planning Area, which includes residential uses within the 65 dB CNEL contour. However, the proposed Conceptual Land Plan is consistent with the proposed new noise contours associated with new data on aircraft operations associated with the Mather Airport Master Plan. However, these new noise contours have yet to be adopted by the Airport Land Use Commission. Therefore, the proposed General Plan is not consistent with the existing CLUP. This would be a significant impact.

Single-event noise associated with aircraft overflights is also of concern when evaluating aircraft noise effects in terms of land use compatibility. Single-event noise is the maximum sound level produced by an individual approach overflight at a specific location, often described in terms of Lmax, which is the maximum sound level recorded for each event. A different measurement

of single-event noise, also commonly used when evaluating aircraft noise, is the SEL. The SEL describes the event's mean energy level over the duration of the noise event. As would be expected, single-event noise levels for aircraft overflights within the Planning Area would be greatest and most frequent near the airport's primary flight paths. Noise measurements taken for the environmental review of the proposed Rio del Oro Specific Plan identified that single-event noise levels associated with aircraft overflights from Mather Airport ranged from 65 to 96 dBA Lmax (maximum noise level recorded for each event) in the Rio del Oro Planning Area.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and action items contained in the General Plan Land Use and Noise Elements address noise:

Policy LU.3.10 *Ensure that land uses adjacent to or near Mather Airport are subject to the location, use, and height restrictions of the most recently adopted CLUP at the time of development consideration, except when the CLUP is under an update process. In the circumstance of a CLUP update, coordinate with the County in the review of development projects to determine the most appropriate development restrictions for the continued operation of the airport.*

Policy N.1.1 *Establish standards and policies consistent with those in Tables N-1 and N-2 to govern maximum sound levels in new development.*

TABLE N-2
NOISE LEVEL PERFORMANCE STANDARDS FOR MAXIMUM TRANSPORTATION NOISE EXPOSURE

Land Use	Outdoor Activity Areas[1] Ldn/CNEL, dB	Interior Spaces	
		Ldn/CNEL, dB	Leq, dB[2]
Residential	60[3]	45	--
Residential subject to noise from railroad tracks, aircraft overflights, or similar noise sources which produce clearly identifiable, discrete noise events (e.g., the passing of a single train)	60[3]	40[5]	--
Transient lodging	60[4]	45	--
Hospitals, nursing homes	60[3]	45	--
Theaters, auditoriums, music halls	--	--	35
Churches, meeting halls	60[3]	--	40
Office buildings	--	--	45
Schools, libraries, museums	--	--	45
Playgrounds, neighborhood parks	70	--	--

1 *Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use.*
Where it is not practical to mitigate exterior noise levels at patio or balconies of apartment complexes, a common area such as a pool or recreation area may be designated as the outdoor activity area.
2 *As determined for a typical worst-case hour during periods of use.*
3 *Where it is not possible to reduce noise in outdoor activity areas to 60 dB Ldn/CNEL or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB Ldn/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.*
4 *In the case of hotel/motel facilities or other transient lodging, outdoor activity areas such as pool areas may not be included in the project design. In these cases, only the interior noise level criterion will apply.*
5 *The intent of this noise standard is to provide increased protection against sleep disturbance for residences located near railroad tracks.*

Policy N.1.2 *Ensure that the indoor and outdoor areas of new projects will be located, constructed, and/or shielded from noise sources in compliance with the City's noise standards to the maximum extent feasible.*

Action N.1.2.11 *Require new development of noise-creating uses to conform with the City's maximum noise levels.*

Action N.1.2.2 *Require an acoustical analysis as part of the environmental review process when noise-sensitive land uses are proposed in areas where current or projected exterior noise levels exceed the City's standards.*

Action N.1.2.3 *Require any potential noise impacts identified during the acoustical analysis to be mitigated in the project design to the maximum extent feasible.*

Mitigation Measures

MM 4.7.4 The following shall be added as a new Policy under Goal N.1:

New residential development shall be prohibited within the 60 CNEL Mather Airport Policy Area and new residential development shall only be allowed inside of the 60 CNEL Mather Airport Policy Area if the following conditions are met:

1) Noise insulation is provided in all new residential dwelling units, which reduces interior noise levels to 45 dB with windows closed in any habitable room.

2) Prospective buyers are notified through the Public Report prepared by the California Department of Real Estate disclosing the fact that the parcel is located within the Mather Airport Policy Area.

3) An Aviation Easement is recorded on the property acknowledging that the property is located within the Mather Airport Policy Area. The easement shall grant the right of flight and unobstructed passage of all aircraft into and out of Mather Airport. The Avigation Easement shall be granted to the County of Sacramento, recorded with the Sacramento County Recorder and filed with the County Department of Airports.

Implementation of the above policies, actions and mitigation measure would reduce airport noise and conflicts with the Mather Airport. However, these provisions would not fully mitigate single-event aircraft noise issues or the Rio del Oro Planning Area's current conflict with the adopted Mather Airport CLUP. This impact would be **significant and unavoidable**.

Light Rail and Transit Noise Impacts

Impact 4.7.5 Implementation of the General Plan could expose future land uses and residents to light rail and public transit related noise. This is considered a **less than significant** impact.

Buildout of the General Plan could expose future land uses and residents to light rail and public transit related noise. The Regional Transit light rail line currently runs east to west through Rancho

Cordova along the south side of Folsom Boulevard. **Table 4.7-5** shows the estimated distances to railroad noise contours for the light rail line that travels through the Folsom Boulevard Planning Area. According to the Table, the 60 dB L_{dn} noise standard would be met at distances from 150 to 270 feet from grade crossing. Currently there is residential development along Folsom Boulevard near the light rail tracks. Implementation of the General Plan would result in new residential development along Folsom Boulevard through infill projects with residential components. These projects may be subjected to noise from the light rail that exceeds the City's 60 dB noise standard. However, most projects will be further than 150 to 270 feet from the tracks. Additionally, implementation of the General Plan will locate new residential development throughout the Planning Area. These new residential units may be subjected to noise from light rail and other types of transit. The City is requiring new projects to participate in Community Service Areas, which may require shuttle service to employment centers and light rail stations. The City is also preparing a Transit Master Plan that will identify routes through the Planning Area and appropriate types of transit. The types of transit that will be used to provide public transportation throughout the Planning Area has not yet been identified, but may include a combination of light rail, trolleys, bus rapid transit, and shuttles. Because the types of transit and the routes have not been identified or analyzed for project-specific impacts, it is possible that new residents will be subjected to noise from transit that exceeds the City's 60 dB noise standard.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and action items are contained in the proposed General Plan Noise Element to ensure that light rail and transit noise associated with buildout of the General Plan does not adversely affect existing communities and developments:

Policy N.1.1 *Establish standards and policies consistent with those in Tables N-1 and N-2 to govern maximum sound levels in new development.*

Policy N.1.2 *Ensure that the indoor and outdoor areas of new projects will be located, constructed, and/or shielded from noise sources in compliance with the City's noise standards to the maximum extent feasible.*

Policy N.1.5 *Mitigate noise created by the construction of new transportation noise sources (such as new roadways or new light rail service) to the maximum extent feasible to comply with the City's standards.*

Policy N.2.3 *Emphasize mitigation methods other than soundwall installation to reduce noise to acceptable levels in residential areas originally constructed without soundwalls.*

Action N.2.3.1 *Adopt a Citywide noise reduction program to reduce traffic noise and other noise levels.*

Policy N.2.4 *Emphasize site planning and project design when noise mitigation measures are required.*

Action N.2.4.1 *Consider the use of noise barriers to meet the noise standards only after all other practical design-related noise mitigation measures, including the use of distance from noise sources, have been integrated into the project.*

TABLE N-2
NOISE LEVEL PERFORMANCE STANDARDS FOR MAXIMUM TRANSPORTATION NOISE EXPOSURE

Land Use	Outdoor Activity Areas[1] Ldn/CNEL, dB	Interior Spaces	
		Ldn/CNEL, dB	Leq, dB[2]
Residential	60[3]	45	--
Residential subject to noise from railroad tracks, aircraft overflights, or similar noise sources which produce clearly identifiable, discrete noise events (e.g., the passing of a single train)	60[3]	40[5]	--
Transient lodging	60[4]	45	--
Hospitals, nursing homes	60[3]	45	--
Theaters, auditoriums, music halls	--	--	35
Churches, meeting halls	60[3]	--	40
Office buildings	--	--	45
Schools, libraries, museums	--	--	45
Playgrounds, neighborhood parks	70	--	--

1 *Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use.*
Where it is not practical to mitigate exterior noise levels at patio or balconies of apartment complexes, a common area such as a pool or recreation area may be designated as the outdoor activity area.
2 *As determined for a typical worst-case hour during periods of use.*
3 *Where it is not possible to reduce noise in outdoor activity areas to 60 dB Ldn/CNEL or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB Ldn/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.*
4 *In the case of hotel/motel facilities or other transient lodging, outdoor activity areas such as pool areas may not be included in the project design. In these cases, only the interior noise level criterion will apply.*
5 *The intent of this noise standard is to provide increased protection against sleep disturbance for residences located near railroad tracks.*

Implementation of the above policies and actions would reduce light rail and transit noise impacts to **less than significant.**

Mitigation Measures

None required.

4.7.4 CUMULATIVE SETTING, IMPACTS AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative noise setting takes into account existing development within the Planning Area, buildout of the General Plan, planned development under the Sacramento County General Plan, potential future urban development within the City of Folsom Sphere of Influence and the City of Elk Grove General Plan, as well as large-scale proposed and approved development projects identified in **Table 4.0-1**. Development in the region would change the intensity of land uses in the region and increase housing, employment, shopping and recreational opportunities, which would result in new noise generators and noise-sensitive land uses, and, in some instances, bring the two into closer proximity to one another than currently exists. This analysis also accounts for regional traffic volume conditions anticipated for year 2030 for US 50, Jackson Highway, Grant Line Road and other major roadways, expansions of light rail and transit service throughout the region, and the continued operations at Mather Airport, Kiefer Landfill,

Sacramento Rendering Company, continued and potential future surface mining, and the industrial uses expected throughout the Planning Area and surrounding communities. The future (cumulative) ambient noise environment will be affected by buildout of the General Plan and planned development in surrounding communities.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Traffic Noise

Impact 4.7.6 Implementation of the proposed General Plan in combination with regional growth and traffic conditions (pass-through traffic) would increase transportation noise along area roadways. This would be a **cumulatively considerable** impact.

Implementation of the proposed General Plan, along with regional growth and traffic conditions, would result in new roadways and increased traffic associated with new residential developments, employment centers, commercial development, services, schools, etc. The anticipated growth of the Planning Area and surrounding communities will cause traffic noise level increases ranging from 0 to 12 dB Ldn over existing traffic noise levels. Because a traffic noise level increase of 3 dB is commonly considered the threshold of significance for the identification of noise impacts, such impacts are expected to occur on many of the roadway segments analyzed in **Table 4.7-9**. Transportation noise projections in **Table 4.7-9** include regional traffic conditions in the Planning Area from anticipated regional growth described in Section 4.0 of this document.

In addition, the expansion of light rail service and other transit service throughout the Planning Area, in combination with light rail and transit service in adjacent communities would increase noise levels associated with the warning horns, track noise, etc. Changes in light rail noise environments in the City and surrounding communities are difficult to predict, as the specific routes and hours of operation which light rail and other transit services will be extended throughout the City and surrounding communities is unknown. As a result, future railroad noise levels could remain at existing levels, or could increase along new light rail lines.

The project's contribution to traffic noise under cumulative conditions is cumulatively considerable.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and action items are contained in the proposed General Plan Noise Element address traffic noise:

Policy N.1.1 *Establish standards and policies consistent with those in Tables N-1 and N-2 to govern maximum sound levels in new development.*

Policy N.1.2 *Ensure that the indoor and outdoor areas of new projects will be located, constructed, and/or shielded from noise sources in compliance with the City's noise standards to the maximum extent feasible.*

Policy N.1.5 *Mitigate noise created by the construction of new transportation noise sources (such as new roadways or new light rail service) to the maximum extent feasible to comply with the City's standards.*

TABLE N-2
NOISE LEVEL PERFORMANCE STANDARDS FOR MAXIMUM TRANSPORTATION NOISE EXPOSURE

Land Use	Outdoor Activity Areas[1] Ldn/CNEL, dB	Interior Spaces	
		Ldn/CNEL, dB	Leq, dB[2]
Residential	60[3]	45	--
Residential subject to noise from railroad tracks, aircraft overflights, or similar noise sources which produce clearly identifiable, discrete noise events (e.g., the passing of a single train)	60[3]	40[5]	--
Transient lodging	60[4]	45	--
Hospitals, nursing homes	60[3]	45	--
Theaters, auditoriums, music halls	--	--	35
Churches, meeting halls	60[3]	--	40
Office buildings	--	--	45
Schools, libraries, museums	--	--	45
Playgrounds, neighborhood parks	70	--	--

1 *Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use.*
Where it is not practical to mitigate exterior noise levels at patio or balconies of apartment complexes, a common area such as a pool or recreation area may be designated as the outdoor activity area.
2 *As determined for a typical worst-case hour during periods of use.*
3 *Where it is not possible to reduce noise in outdoor activity areas to 60 dB Ldn/CNEL or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB Ldn/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.*
4 *In the case of hotel/motel facilities or other transient lodging, outdoor activity areas such as pool areas may not be included in the project design. In these cases, only the interior noise level criterion will apply.*
5 *The intent of this noise standard is to provide increased protection against sleep disturbance for residences located near railroad tracks.*

Policy N.2.2 *Ensure that operational noise levels of new roadway projects will not result in significant noise impacts.*

Action N.2.2.1 *Assess the significance of the noise increase of all roadway improvement projects in existing areas according the following criteria:*

- *Where existing traffic noise levels are less than 60 dB Ldn at the outdoor activity areas of noise-sensitive uses, a +5 dB Ldn increase in noise levels due to roadway improvement projects will be considered significant;*
- *Where existing traffic noise levels range between 60 and 65 dB Ldn at the outdoor activity areas of noise-sensitive uses, a +3 dB Ldn increase in noise levels due to roadway improvement projects will be considered significant; and*
- *Where existing traffic noise levels are greater than 65 dB Ldn at the outdoor activity areas of noise-sensitive uses, a +1.5 dB Ldn increase in noise levels due to roadway improvement projects will be considered significant.*

Policy N.2.3 *Emphasize mitigation methods other than soundwall installation to reduce noise to acceptable levels in residential areas originally constructed without soundwalls.*

Action N.2.3.1 *Adopt a Citywide noise reduction program to reduce traffic noise and other noise levels.*

Policy N.2.4 *Emphasize site planning and project design when noise mitigation measures are required.*

Action N.2.4.1 *Consider the use of noise barriers to meet the noise standards only after all other practical design-related noise mitigation measures, including the use of distance from noise sources, have been integrated into the project.*

Mitigation Measures

While implementation of the above proposed General Plan policies and action items would reduce traffic noise exposure associated with traffic under cumulative conditions, some traffic noise impacts cannot be mitigated to a less than cumulatively considerable level due to the proximity of noise-sensitive land uses to major roadways and highways in the Planning Area and region, and because noise attenuation may not be feasible in all circumstances. It will not be feasible to ensure that no existing residential uses will be exposed to future traffic noise levels in excess of the City's noise standards. In addition, growth within the City of Rancho Cordova will contribute to noise impacts at noise-sensitive land uses located beyond the Planning Area boundaries, that also cannot be mitigated to a level of less than cumulatively considerable. Thus, the project's contribution to cumulative traffic noise impacts is considered **cumulatively considerable** and **significant and unavoidable.**

Cumulative Stationary Noise

Impact 4.7.7 Implementation of the proposed General Plan, in combination with regional growth in surrounding communities outside of the Planning Area, would increase stationary noise. This is considered a **cumulatively considerable** impact.

Implementation of the proposed General Plan in combination with growth in the region and surrounding communities would increase the number of stationary noise sources (e.g., commercial area loading docks, industrial uses, HVAC equipment, car washes, daycare facilities, auto repair, as well as recreational uses, etc.). These uses would result in localized increases in ambient noise conditions that may be in excess of applicable City of Rancho Cordova noise standards or the standards of other jurisdictions, pertaining to non-transportation noise sources. Additionally, noise from existing stationary noise sources such as the Groundwater Extraction Tower (GET) facilities within the Westborough Planning Area, Kiefer Landfill, aggregate operations along Grant Line Road and Jackson Highway, and industrial uses such as the auto dismantlers along Sunrise Boulevard will continue to result in noises that may impact noise-sensitive land uses, including noise-sensitive land uses subsequently located in the vicinity of these stationary noise sources. The project's contribution to cumulative stationary noise would be a cumulatively considerable impact.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and action items are contained in the proposed General Plan Noise Element address stationary noise:

Policy N.1.1 *Establish standards and policies consistent with those in Tables N-1 and N-2 to govern maximum sound levels in new development.*

TABLE N-1
NOISE LEVEL PERFORMANCE STANDARDS FOR STATIONARY NOISE EXPOSURE

Stationary Noise Source	Noise Level Descriptor	Daytime Maximum (7 a.m. to 10 p.m.)	Nighttime Maximum (10 p.m. to 7 a.m.)
Typical	Hourly L_{eq}, dB	55	45
Tonal, impulsive, repetitive, or consist primarily of speech or music	Hourly Leq, dB	50	40

Notes: The City may impose noise level standards which are more or less restrictive than those specified above based upon determination of existing low or high ambient noise levels. The types of uses which may typically produce the noise sources addressed below include, but are not limited to, industrial facilities including pump stations, trucking operations, tire shops, auto maintenance shops, metal fabricating shops, shopping centers, drive-up windows, car washes, loading docks, public works projects, batch plants, bottling and canning plants, recycling centers, electric generating stations, race tracks, landfills, sand and gravel operations, and athletic fields.
These noise level performance standards apply to new projects that are affected by or include non-transportation noise sources, with the exception of residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings).

Policy N.1.2 *Ensure that the indoor and outdoor areas of new projects will be located, constructed, and/or shielded from noise sources in compliance with the City's noise standards to the maximum extent feasible.*

Action N.1.2.1 *Require new development of noise-creating uses to conform with the City's maximum noise levels.*

Action N.1.2.2 *Require an acoustical analysis as part of the environmental review process when noise-sensitive land uses are proposed in areas where current or projected exterior noise levels exceed the City's standards.*

Action N.1.2.3 *Require any potential noise impacts identified during the acoustical analysis to be mitigated in the project design to the maximum extent feasible.*

Policy N.1.3 *Ensure that proposed non-residential land uses likely to exceed the City's standards do not create noise disturbances in existing noise-sensitive areas.*

Action N.1.3.1 *Require an acoustical analysis as part of the environmental review process when proposed non-residential land uses are likely to produce noise levels that exceed the City's noise standards. The acoustical analysis must be prepared by a qualified person experienced in environmental noise assessment and architectural acoustics, and must estimate existing and projected cumulative noise levels and compare those levels to the policies within this Element.*

Action N.1.3.2 *Require any noise impacts identified in the acoustical analysis to be mitigated in conjunction with the project design.*

Policy N.1.4 *Mitigate noise created by proposed non-transportation noise sources to comply with the City's noise standards to the maximum extent feasible.*

Action N.1.4.1 *Limit construction activity to the hours of 7 a.m. to 7 p.m. weekdays and 8 a.m. to 6 p.m. weekends when construction is conducted in proximity to residential uses.*

Action N.1.4.2 *Consider restricting the hours of operation of loading docks, trash compactors, and other noise-producing uses in commercial areas that are adjacent to residential uses.*

Policy N.2.3 *Emphasize mitigation methods other than soundwall installation to reduce noise to acceptable levels in residential areas originally constructed without soundwalls.*

Action N.2.3.1 *Adopt a Citywide noise reduction program to reduce traffic noise and other noise levels.*

Policy N.2.4 *Emphasize site planning and project design when noise mitigation measures are required.*

Action N.2.4.1 *Consider the use of noise barriers to meet the noise standards only after all other practical design-related noise mitigation measures, including the use of distance from noise sources, have been integrated into the project.*

Mitigation Measures

While implementation of the above policies and actions would reduce noise associated with stationary noise sources, some stationary noise impacts cannot be mitigated to a less than significant level due to limitations of the City to control the exact placement of noise-sensitive uses in proximity to noise-generating uses such as playgrounds, car washes, auto repair, water treatment facilities, etc. Accordingly, stationary source noise levels from activities on uses for which the City has limited control could result in noise levels that exceed the City's maximum allowable noise standards. Thus, the project's contribution to stationary noise impacts under cumulative conditions is considered **cumulatively considerable** and **significant and unavoidable.**

Cumulative Airport Noise

Impact 4.7.8 Implementation of the proposed General Plan in combination with regional growth in the Planning Area and surrounding communities would subject more noise-sensitive land uses to airport noise. This is considered a less than **cumulatively considerable** impact.

As discussed under Impact 4.7.4 above, implementation of the General Plan would locate noise-sensitive land uses (e.g., residential) within the 60 dB CNEL noise contours contained in the Mather Airport CLUP. This is a site-specific impact associated with the operation of Mather Airport and would not substantially contribute to other cumulative noise issues in the Planning

Area or region. As would be expected, single-event noise levels for aircraft overflights within the Planning Area would be greatest and most frequent near the airport's primary flight paths. There are no other airports in the immediate vicinity. The General Plan would not contribute to cumulative airport noise impacts.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and action items contained in the General Plan Land Use and Noise Elements address noise:

Policy LU.3.10 *Ensure that land uses adjacent to or near Mather Airport are subject to the location, use, and height restrictions of the most recently adopted CLUP at the time of development consideration, except when the CLUP is under an update process. In the circumstance of a CLUP update, coordinate with the County in the review of development projects to determine the most appropriate development restrictions for the continued operation of the airport.*

Policy N.1.1 *Establish standards and policies consistent with those in Tables N-1 and N-2 to govern maximum sound levels in new development.*

TABLE N-2
NOISE LEVEL PERFORMANCE STANDARDS FOR MAXIMUM TRANSPORTATION NOISE EXPOSURE

Land Use	Outdoor Activity Areas[1] Ldn/CNEL, dB	Interior Spaces	
		Ldn/CNEL, dB	Leq, dB[2]
Residential	60[3]	45	--
Residential subject to noise from railroad tracks, aircraft overflights, or similar noise sources which produce clearly identifiable, discrete noise events (e.g., the passing of a single train)	60[3]	40[5]	--
Transient lodging	60[4]	45	--
Hospitals, nursing homes	60[3]	45	--
Theaters, auditoriums, music halls	--	--	35
Churches, meeting halls	60[3]	--	40
Office buildings	--	--	45
Schools, libraries, museums	--	--	45
Playgrounds, neighborhood parks	70	--	--

1 *Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use.*
Where it is not practical to mitigate exterior noise levels at patio or balconies of apartment complexes, a common area such as a pool or recreation area may be designated as the outdoor activity area.
2 *As determined for a typical worst-case hour during periods of use.*
3 *Where it is not possible to reduce noise in outdoor activity areas to 60 dB Ldn/CNEL or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB Ldn/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.*
4 *In the case of hotel/motel facilities or other transient lodging, outdoor activity areas such as pool areas may not be included in the project design. In these cases, only the interior noise level criterion will apply.*
5 *The intent of this noise standard is to provide increased protection against sleep disturbance for residences located near railroad tracks.*

Policy N.1.2 Ensure that the indoor and outdoor areas of new projects will be located, constructed, and/or shielded from noise sources in compliance with the City's noise standards to the maximum extent feasible.

Action N.1.2.11 Require new development of noise-creating uses to conform with the City's maximum noise levels.

Action N.1.2.2 Require an acoustical analysis as part of the environmental review process when noise-sensitive land uses are proposed in areas where current or projected exterior noise levels exceed the City's standards.

Action N.1.2.3 Require any potential noise impacts identified during the acoustical analysis to be mitigated in the project design to the maximum extent feasible.

Implementation of the above policies, actions and Mitigation Measure MM 4.7.4 would reduce the site-specific issues associated with Mather Airport noise. General Plan's contribution to cumulative airport noise impacts and conflicts would be **less than cumulatively considerable**.

Mitigation Measures

None required.

REFERENCES

Airport Land Use Commission for Sacramento, Sutter Yolo and Yuba Counties. *Mather Airport Comprehensive Land Use Plan. 1997. Sacramento, CA.*

Federal Highway Administration. 1977. *Highway Traffic Noise Prediction Model FHWA-RD-77-108*.

Rancho Cordova, City of. *Noise Ordinance*. Rancho Cordova, CA.

Sacramento County Planning Department. 1993. *County of Sacramento General Plan*. Sacramento, CA.

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4.8 – Geology and Soils

This section of the General Plan EIR discusses the geologic, soil, and mineral resources conditions of the Planning Area and identifies the related potential environmental impacts and development constraints if the proposed General Plan were implemented. This analysis is based on a review of statutory law, local planning documents, the United States Department of Agriculture (USDA) Soil Survey of Sacramento County, and publications by the California Department of Conservation, California Geological Survey (formerly the Division of Mines and Geology) and the Division of Oil, Gas, and Geothermal Resources.

4.8.1 ENVIRONMENTAL SETTING

REGIONAL GEOLOGIC SETTING

The Rancho Cordova General Plan Planning Area is located within the Great Valley geomorphic province of California. The geology of the Great Valley (Valley) is characterized by thick, Jurassic through Holocene aged sedimentary deposits. The California Geological Survey (CGS) and the United States Geological Survey (USGS) have mapped a large portion of the valley as being underlain by Quaternary-aged Riverbank formation. The Riverbank formation represents alluvial fans, or fan-shaped areas of sediment carried by a watercourse. These geological deposits are generally composed of alluvial gravel, sand, and silt derived from the western slopes of the Sierra Nevada Range. The valley province is bounded by the Klamath and Cascade mountain ranges to the north, the Sierra Nevada Mountains to the east, and the California Coast Mountain Range to the west. The Valley is generally considered to be an elongated sedimentary trough, approximately 450 miles long and 50 miles wide, which has been filled by a thick sequence of Jurassic to Holocene continental and marine sediments. The Valley province is further divided into four geomorphic subunits: the Delta, River Floodplain, Alluvial Floodplain, and Low Foothills. Surface elevations within the Great Valley generally range from several feet below mean sea level (msl) to more than 1,000 feet above sea level. The major topographical feature in the Sacramento Valley is the Sutter Buttes (a volcanic remnant), which rises approximately 1,980 feet above the surrounding valley floor.

The geological formations underlying the majority of the Planning Area consist mostly of Cenozoic Quaternary gravelly alluvial and glacial deposits from the ancestral channel of the American River, which date back to the mid Pleistocene age or approximately 600,000 years. These formations are typically found north of Douglas Road and east of Sunrise Boulevard. The geologic structure east of Grant Line Road consists primarily of Cenozoic Tertiary Mehrten formations of andesitic conglomerate, sandstone, and breccia. The youngest geomorphic features in the Planning Area are low floodplains, which are found primarily along the American River and Cosumnes River. These features include natural levees, alluvial plains, and many smaller channels along both river corridors. Bar and channel topography is evident on the low floodplains adjacent to these river corridors. The floodplains along the Cosumnes River are not protected by levees or dams and are frequently inundated during the rainy season. For a discussion on the Cosumnes River floodplains, the reader is referred to Section 4.9, Hydrology and Water Quality, of this EIR.

SOIL CONDITIONS AND TOPOGRAPHY

The majority of the soils in the Planning Area are the result of alluvial deposits, or river and lake deposits on various geomorphic surfaces. The U.S. Department of Agriculture Soil Conservation Service produces maps classifying soil groups based on physical, hydrologic, and chemical properties. According to the *USDA Soil Survey of Sacramento County* (Soil Survey), the Planning Area contains 59 separate soil types as described in **Table 4.8-1,** below.

Table 4.8-1 also identifies the approximate acres within the Planning Area per soil type, as well as characteristics related to topography and permeability. The majority of these soil units generally have low to moderate water holding capacities. The soil groups displaying high water capacity characteristics are the Hicksville gravelly and Red Bluff loam groups and the Americanos and Rossmoor Urban Land complexes. The Americanos and Rossmoor soil groups are generally associated with existing urban land uses.

TABLE 4.8-1
SOIL TYPES WITHIN THE RANCHO CORDOVA PLANNING AREA

Map Unit Name	Total Approximate Acres	Slopes	Subsoil Permeability (inches)	Water Holding Capacity	Erosion Potential	Runoff
(101) Amador-Gillender complex	18	2 to 15%	4 to 20	Very low to low	Slight to moderate	Very slow to medium
(102) Americanos-Urban land complex	271	0 to 2%	60+	High	Slight	Slow
(112) Bruella sandy loam	1	2 to 5%	60+	High	Slight	Slow
(118) Columbia sandy loam	18	0 to 2%	60+	Moderate	Slight	Very slow to slow
(125) Corning complex	45	0 to 8%	60+	Low to moderate	Slight to moderate	Very slow to medium
(126) Corning-Redding complex	65	8 to 30%	20 to 60+	Low to moderate	Moderate to severe	Medium to rapid
(132) Creviscreek sandy loam	26	0 to 3%	40+	Moderate	Slight	Slow
(135) Dierssen clay loam	1	0 to 2%	40 to 60	Moderate	Slight to none	Very slow
(137) Durixeralfs	4	0 to 1%	10 to 30	Very low to low	Slight to none	Very slow
(145) Fiddyment fine sandy loam	113	1 to 8%	20 to 40	Low	Slight	Slow to medium
(156) Hadselvillee-Pentz complex	106.16	2 to 30%	4 to 20	Very low to low	Slight to moderate	Very slow to medium
(157) Hedge loam	190	0 to 2%	20 to 40	Low to moderate	Slight	Slow
(158) Hicksville loam	18	0 to 2%	60+	Very high	Slight	Slow
(159) Hicksville gravelly loam	56	0 to 2%	60+	High	Slight	Slow
(160) Hicksville sandy clay loam	25	0 to 2%	40 to 60	Moderate	Slight	Slow
(162) Kaseberg-Fiddyment-Urban land complex	<1	2 to 15%	14 to 40	Low	Slight to moderate	Slow to medium
(163) Keyes sandy loam	34	2 to 15%	13 to 20	Very low	Slight to moderate	Slow to medium
(164) Kimball silt loam	47	0 to 2%	60+	Moderate	Slight	Slow
(165) Kimball silt loam	1	2 to 8%	60+	Moderate	Moderate	Medium
(166) Kimball-Urban land complex	35	0 to 2%	60+	Moderate	Slight	Slow

Map Unit Name	Total Approximate Acres	Slopes	Subsoil Permeability (inches)	Water Holding Capacity	Erosion Potential	Runoff
(175) Madera loam	2	2 to 8%	20 to 40	Low	Moderate	Medium
(181) Natomas loam	109	0 to 2%	60+	Very high	Slight	Slow
(182) Natomas-Xerorthents, Dredge tailings complex	34	0 to 50%	60+	Very low to very high	Slight to none	Very slow to slow
(187) Pardee-Ranchoseco complex	44	3 to 15%	4 to 20	Very low	Slight to moderate	Very slow to medium
(188) Pentz-Lithic xerorthents complex	15	30 to 50%	1 to 20	Very low to low	Severe	Rapid
(189) Peter's Clay	9	1 to 8%	10 to 20	Low	Slight	Very slow to medium
(190) PITS	52	1 to 8%	--	--	--	--
(191) Red Bluff loam	275	0 to 2%	60+	High	Slight	Slow
(192) Red Bluff loam	214	2 to 5%	60+	High	Slight to moderate	Slow to medium
(193) Red Bluff-Redding complex	513	0 to 5%	20 to 60+	Low to high	Slight to moderate	Very slow to medium
(194) Red Bluff-Urban land complex	53	0 to 5%	60+	Moderate to high	Slight to moderate	Slow to medium
(195) Red Bluff-Xerarents complex	120	0 to 2%	60+	Moderate to high	Slight	Slow
(196) Red Bluff-Xerorthents, Dredge tailings complex	58	2 to 50%	60+	Very low to high	Slight to moderate	Very slow to medium
(197) Redding loam	60	2 to 8%	23 to 40	Low	Slight to moderate	Slow to medium
(198) Redding gravelly loam	762	0 to 8%	20 to 40	Low	Slight to moderate	Very slow to medium
(199) Reiff fine sandy loam	2	0 to 2%	60+	High	Slight	Slow
(203) Riverwash	9	--	--	--	--	--
(204) Rossmoor-Fine sandy loam	51	0 to 2%	60+	High	Slight	Slow
(205) Rossmoor-Urban land complex	69	0 to 2%	60+	High	Slight	Slow
(213) San Joaquin silt loam	86	0 to 1%	23 to 40	Low	Slight to none	Very slow
(214) San Joaquin silt loam	136	0 to 3%	23 to 40	Low	Slight	Slow
(215) San Joaquin silt loam	13	3 to 8%	23 to 40	Low	Moderate	Medium
(216) San Joaquin-Durixeralfs complex	3	0 to 1%	10 to 40	Very low to low	Slight to none	Very slow

Map Unit Name	Total Approximate Acres	Slopes	Subsoil Permeability (inches)	Water Holding Capacity	Erosion Potential	Runoff
(218) San Joaquin-Galt complex	<1	0 to 3%	20 to 40	Low	Slight to none	Slow to ponded
(219) San Joaquin-Urban land complex	15	0 to 2%	23 to 40	Low	Slight	Slow
(221) San Joaquin-Xerarents complex	6	0 to 1%	23 to 60+	Low to high	Slight to none	Very slow
(223) Slickens	38	0 to 3%	--	Very high to high	Slight	Slow to ponded
(227) Urban Land	140	--	--	--	--	--
(228) Urban land-Natomas	183	0 to 2%	60+	Very high	Slight	Slow
(229) Urban Land-Xerarents-Fiddyment complex	26	0 to 8%	20 to 80	Low to high	Slight to moderate	Slow to medium
(234) Vina fine sandy loam	<1	0 to 2%	60+	High	Slight	Slow
(235) Vleck gravelly loam	13	2 to 15%	20 to 40	Low	Slight to moderate	Slow to medium
(238) Xerarents-Redding complex	32	0 to 1%	23 to 60+	Low to high	Slight to none	Very slow to slow
(239) Xerarents-Redding complex	24	0 to 2%	23 to 60+	Low to high	Slight	Very slow to slow
(240) Xerarents-Urban land-San Joaquin complex	102	0 to 5%	23 to 60+	Low to high	Slight	Very slow to slow
(242) Xerofluvents	46	0 to 2%	60+	Very low to low	Slight to moderate	Very slow to slow
(243) Xerolls	<1	30 to 70%	10 to 80+	Very low to high	Severe	Rapid to very rapid
(245) Xerothents, Dredge tailings	997	2 to 50%	60+	Very low to low	Slight to none	Very slow to slow
(246) Xerorthents, Dredge tailings-Urban land complex	262	0 to 2%	60+	Very low to low	Slight	Very slow

Source: Soil Survey of Sacramento County, California, 1993

In general, the topography of the Planning Area is characterized by flat to gently rolling terrain. Elevations within the Planning Area range from approximately 30 feet near the American River and Cosumnes River to nearly 300 feet in the Sunrise Douglas Community Plan Area, and proposed Rio del Oro, Glenborough and Westborough Planning Areas. Slopes within the Rancho Cordova Planning Area generally range from 0% to 8%. Higher slopes are associated with the Natomas-Xerorthents, Xerothents, and dredge tailings in the northeastern portion of the Planning Area (i.e., Rio del Oro, Westborough, and Glenborough).

In terms of soil characteristics, surface runoff, soil erosion, and expansive soils can create potential problems for engineering designs and land use activities. The majority of the Planning Area consists of soils characterized by slight to moderate erosion potential, and very low to medium runoff rates. The shrink-swell potential (refers to the potential of soils to expand during wet seasons and shrink during dry seasons) of the Planning Area soils range from low to high, with

the majority of the soils having high shrink-swell characteristics. Erosion can affect all land uses. Substantial runoff can erode land and siltation of local drainages can adversely affect water quality. Shrink-swell soil properties can affect pavement and building foundation designs.

SEISMIC HAZARDS

Faults

Earthquakes are generally expressed in terms of *intensity* and *magnitude*. Intensity is based on the observed effects of ground shaking on people, buildings, and natural features. An earthquake's intensity varies from region to region, depending on the location of the observer with respect to the earthquake epicenter. **Table 4.8-2** provides a description and a comparison of *intensity* and *magnitude*.

TABLE 4.8-2
MAGNITUDE AND INTENSITY COMPARISON

Magnitude	Typical Maximum Modified Mercalli Intensity
1.0 to 3.0	I
3.0 to 3.9	II - III
4.0 to 4.9	IV – V
5.0 to 5.9	VI – VII
6.0 to 6.9	VII - IX
7.0 and higher	VIII or higher

Source: USGS

The Modified Mercalli (MM) Intensity Scale is used in the United States to evaluate earthquake movements. The MM scale is composed of 12 increasing levels of intensity designated by Roman numerals. The *intensity* scale consists of a series of certain key responses such as people awakening, movement of furniture, damage to chimneys, and, finally, total destruction. The levels range from imperceptible shaking to catastrophic destruction. The MM scale does not have a mathematical basis; instead, it is an arbitrary ranking based on observed effects. The lower numbers of the intensity scale generally deal with the manner in which the earthquake is felt by people. The higher numbers of the scale are based on observed structural damage. **Table 4.8-3** describes the typical effects observed at locations near the epicenter of earthquakes of different magnitudes.

TABLE 4.8-3
TYPICAL EFFECTS OF EARTHQUAKE ACTIVITY

Typical Maximum Modified Mercalli Intensity	Typical Effects of Earthquake Activity*
I	Not felt except by a very few under especially favorable conditions.
II	Felt only by a few persons at rest, especially on upper floors of buildings.
III	Felt quite noticeably by persons indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibrations similar to the passing of a truck.
IV	Felt indoors by many, outdoors by few during the day. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably
V	Felt by nearly everyone; many awakened. Some dishes, windows broken. Unstable objects overturned. Pendulum clocks may stop.
VI	Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage slight.
VII	Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys broken.
VIII	Damage slight in specially designed structures; considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned.
IX	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations.
X	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Rails bent.
XI	Few, if any (masonry) structures remain standing. Bridges destroyed. Rails bent greatly.
XII	Damage total. Lines of sight and level are distorted. Objects thrown into the air.

Source: USGS
*Notes: *Abbreviated Modified Mercalli Intensity Scale.*

By comparison, an earthquake's *magnitude* is related to the amount of seismic energy released at the hypocenter of the earthquake. *Magnitude* is based on the amplitude of the earthquake waves recorded on instruments, which have a common calibration. The magnitude or strength of earth movement associated with seismic activity is typically quantified using the Richter scale. This scale is a measure of the strength of an earthquake or strain energy released by it, as determined by seismographic observations. This is a logarithmic value originally defined by Charles Richter (1935). An increase of one unit of magnitude (for example, from 4.6 to 5.6) represents a 10-fold increase in wave amplitude on a seismogram, or approximately a 30-fold increase in the energy released. In other words, a magnitude 6.7 earthquake releases over 900 times (30 times 30) the energy of a 4.7 earthquake.

The California Geological Survey (CGS) identifies low, medium, and high severity zones within the state of California. The Planning Area is located within Seismic Zone 3. A Seismic Zone 3 is an area that can expect to experience ground motion of low severity. Based upon seismologic and geologic conditions, the maximum level of ground motion potentially experienced in the

Planning Area would occur as a result of a 6.5 magnitude earthquake on the Foothills Fault zone or Great Valley fault. Minor ground shaking can result in partial collapse of buildings, and extensive damage in poorly built or sub-standard structures.

In accordance with the severity zones, the CGS also defines the following:

- *Fault* – a fracture or zone of closely associated fractures along which rocks on one side have been displaced with respect to those on the other side;
- *Fault Zone* – a zone of related faults, which commonly are braided, and sub parallel, but may be branching and divergent. A fault zone has a significant width (with respect to the scale at which the fault is being considered, portrayed, or investigated), ranging from a few feet to several miles;
- *Potentially Active Fault* – a fault that showed evidence of surface displacement during Quaternary time (last 1.6 million years). The purpose of this designation indicates the evaluation of possible zonation. No longer used;
- *Sufficiently Active Fault* – a fault that has evidence of Holocene (10,000 years) surface displacement along one or more of its segments or branches; and,
- *Well-Defined Fault* – a fault whose trace is clearly detectable by a trained geologist as a physical feature at or just below the ground surface. The geologist should be able to locate the fault in the field with sufficient precision and confidence to indicate that the required site-specific investigations would meet with some success.

"Sufficiently Active Faults" and "Well Defined Faults" are the two criteria used by the State of California in order to determine if a fault should be zoned under the Alquist-Priolo Act, further discussed in Section 4.8.2, Regulatory Framework. No known active faults or Alquist-Priolo earthquake hazard zones (formerly known as special study zones) occur in Sacramento County. However, there are active fault zones just outside of the County and several inactive subsurface faults are identified in the Delta region. There are also pre-quaternary fault zones located near the Rancho Cordova Planning Area. **Table 4.8-4**, below, lists the fault zones within the region, and their approximate location to the Rancho Cordova Planning Area.

TABLE 4.8-4
PROXIMITY OF FAULT ZONES TO THE RANCHO CORDOVA PLANNING AREA

Fault	Activity	Location
Midland	Some activity in 1897; however, no appreciable movement in the last 24 to 36 million years	35 miles west of the Planning Area between the cities of Vacaville and Winters
Bear Mountain	1.6 million years	24 miles northeast of the Planning Area
Great Valley	currently active	58 miles west of the Planning Area
Melones	more than 2 million years	30 miles east of the Planning Area
Dunnigan Hills or Zamora	10,000 years	38 miles northwest of the Planning Area

Fault	Activity	Location
Green Valley	portions active within the past 200 years	54 miles southwest of the Planning Area
Hunting Creek	Not reported	66 miles west of the Planning Area
Healdsburg-Rodgers Creek	Not reported	56 miles southwest of the Planning Area
West Napa	Not reported	49 miles southwest of the Planning Area
Greenville	portions active within the past 200 years	53 miles southwest of the Planning Area
Calaveras	portions active within the past 200 years	60 miles southwest of the Planning Area
Las Positas	portions active within the past 200 years	65 miles south of the Planning Area

The Midland fault and the Bear Mountain fault zones, considered the faults of greatest concern in Sacramento County due to their location and size, are older than 1.6 million years old. The Midland fault zone is considered to be a deep pre-Oligocene subsurface feature extending nearly 50 miles along the west side of the Sacramento Valley. Subsurface data indicate that there has been no appreciable movement on the Midland fault in the last 24 to 36 million years, and no evidence of surface expression has been found.

The Bear Mountain fault zone is the nearest fault to the Planning Area, the closest segment being approximately 24 miles northeast of the Planning Area. The Bear Mountain 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 range.

In the north Central Valley, the width of the Great Valley Fault zone extends from the eastern flanks of the Coast Ranges as far easterly as Dunnigan. This zone of potential faulting may be connected to the Vacaville-Winters earthquakes of 1892 and the Coalinga earthquake of 1983. Earthquake activity within the Great Valley fault zone often occurs on "blind thrusts", in reference to their lack of surface expression and the direction of fault offset.

Secondary Hazards

Tectonic activity can produce a variety of secondary hazards affecting structures and/or adversely affecting human safety. The most common secondary seismic hazards result from ground shaking, liquefaction, and the settlement of underlying soils.

Ground Shaking

Ground shaking is the motion that occurs as energy is released during fault related activity and is considered the most damaging of all seismic activities. In the developed and more populated portions of the Planning Area, the greatest geologic potential for loss of life and property damage is the result of ground shaking from a nearby earthquake. The degree of damage depends on many interrelated factors. Among these factors are the Richter Magnitude, focal depth, distance from the causative fault, source mechanism, duration of shaking, high rock accelerations, type of surficial deposits or bedrock, degree of consolidation of surficial deposits,

presence of high groundwater, topography, and design, type, and quality of building construction.

The risk of damage to manmade structures may be caused by primary ("P") waves or secondary ("S") waves as the ground oscillates back and forth, or side-to-side, and as the P or S waves travel through the earth's subsurface layers in response to a seismic event. The Planning Area is considered to be in a relatively moderate ground shaking zone due to the distance of active faults.

Liquefaction Potential

Liquefaction is the process in which water is combined with unconsolidated soils, generally from ground motion and pressure, which causes the soils to behave like quicksand. Liquefaction potential is determined from a variety of factors, including: soil type, soil density, depth to the groundwater table, and the duration and intensity of ground shaking. Liquefaction is most likely to occur in deposits of water saturated alluvium or areas of considerable artificial fill. Although the Rancho Cordova Planning Area is geologically characterized by alluvial Riverbank deposits, fewer than 28 percent of the soil types within the Planning Area are considered unconsolidated soils. In addition, the depth to the groundwater table and aquifer system is generally greater than 50 feet. Therefore, the potential for liquefaction is considered low.

The potential for other secondary hazards (i.e., ground lurching, differential settlement, or lateral spreading) occurring during or after seismic events in the Planning Area is also considered to be low due to the distance of active faults.

Subsidence

Subsidence is the gradual settling or sinking of surface soil deposits with little or no horizontal motion. Sacramento County is affected by five causes of land subsidence: 1) compaction of unconsolidated soils from earthquakes; 2) compaction by heavy structures; 3) erosion of peat soils; 4) peat oxidation; and 5) groundwater withdrawal. Minor land subsidence was observed and recorded in the County between 1912 and the mid-1960's for all groundwater basins underlying the County. However, subsidence did not exceed 0.40-feet during this time frame. Due to the soils characteristics within the Planning Area, the likeliness of subsidence is considered very low.

Historical Seismic Activity

As indicated previously, no known active faults or Alquist-Priolo earthquake hazard zones occur in Sacramento County. Accurate seismic activity records for Sacramento County have been kept for the past 150 years, which indicate that significant regional seismic activity was recorded in 1869, 1892, 1954, and 1966. Records indicate that the 1869, 1954, and 1966 events were centered in western Nevada and did not result in ground shaking or structural damage in the Sacramento area.

In 1892, an earthquake measuring VI on the Modified Mercali Scale occurred in the Vacaville and Winters areas and resulted in structural damage in downtown Sacramento, including, but not limited to: toppled chimneys, cracked plaster, and moderate masonry damage on several buildings. Other than the 1892 earthquake, no seismic activity of significant magnitude has occurred in Sacramento County resulting in structural damage or human related injuries or deaths.

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 that occur in and around the Rancho Cordova Planning Area primarily consist of fine sand and course gravel construction aggregates, as well as clay. 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 the construction of highways and roads, streets, urban and suburban development, canals, aqueducts, and pond linings, among other uses.

There are two permitted mining operations in the City of Rancho Cordova, both owned by Aerojet and leased to Teichert Aggregates. The Grantline West Mining Site is located adjacent to the Rio del Oro Planning Area. The Aerojet Mining Site is located north of the Sunridge Specific Plan Area. Five additional mining operations occur within the southeastern section of the Planning Area, and a continuation of the Teichert Aggregates operations occur in the northeastern portion of the Planning Area outside of the current City limits. Teichert Aggregates and Granite Construction Materials both own and operate active aggregate extraction and crushing operations on-site. The locations of these mining operations are illustrated in **Figure 4.8-1**.

There are no oil and gas resources within the Rancho Cordova Planning Area. The Florin Gas Field and the Sacramento Airport Gas Field are located within the County but outside of the Planning Area.

The Surface Mining and Reclamation Act (SMARA) (Cal. Pub. Res. Code §§ 2710 et seq.) directs the State Geologist to identify and map the non-fuel mineral resources of the State in order to show where economically significant mineral deposits occur and where they are likely to occur based upon the best available scientific data. As such, the California Geological Survey and the State Mining and Geology Board are the state agencies responsible for the classification and designation of areas containing, or potentially containing, significant mineral resources. Areas known as Mineral Resource Zones (MRZs) are classified on the basis of geologic factors, without regard to existing land use and land ownership. The primary objective of the process is to provide local agencies with information on the location, need, and importance of minerals within their respective jurisdictions. The areas are categorized into four general classifications (MRZ-1 through MRZ-4) and are defined as follows:

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 for their presence exists.

MRZ-3 Areas containing mineral deposits, the significance of which cannot be evaluated from available data.

MRZ-4 Areas where available data is inadequate for assignment to any other MRZ.

Of the four, the MRZ-2 classification is recognized in land use planning because the likelihood for occurrence of significant mineral deposits is high, and the classification may be a factor in the

discovery and development of mineral deposits that would tend to be economically beneficial to society. Approximately 6,076 acres within the City and 8,229 acres within the proposed Planning Area, generally located west of Sunrise Boulevard, are classified as MRZ-2 and considered to encompass primarily aggregate deposits (see **Figure 4.8-1**). In addition, approximately 38 acres of clay deposits included in MRZ-3 are located along Prairie City Road, in the northeastern corner of the Planning Area.

4.8.2 REGULATORY FRAMEWORK

STATE

California Geological Survey

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 (prior to January 1, 1994 known as the Alquist-Priolo Special Studies Zones Act – CCR, Title 14, Section 3600) sets forth the policies and criteria of the State of California in regards to building within active fault zones. The Alquist-Priolo Earthquake Fault Zoning Act outlines cities and counties' responsibilities in prohibiting the location of developments and structures for human occupancy across the trace of active faults. The policies and criteria are limited to potential hazards resulting from surface faulting or fault creep within Earthquake Fault Zones delineated on maps officially issued by the State Geologist.

SURFACE MINING AND RECLAMATION ACT OF 1975

The California Department of Conservation Reclamation Surface Mining and Reclamation Act of 1975 (§ 2710), also known as SMARA, provides a comprehensive surface mining and reclamation policy that permits the continued mining of minerals, as well as the protection and subsequent beneficial use of the mined and reclaimed land. The purpose of SMARA is to ensure that adverse environmental effects are prevented or minimized and that mined lands are reclaimed to a usable condition and readily adaptable for alternative land uses. The production and conservation of minerals are encouraged, while giving consideration to values relating to recreation, wildlife, range and forage, as well as aesthetic enjoyment. Residual hazards to the public health and safety are eliminated. These goals are achieved through land use planning by allowing a jurisdiction to balance the economic benefits of resource reclamation with the need to provide other land uses.

If a use is proposed that might threaten the potential recovery of minerals from an area that has been classified MRZ-2, SMARA would require the City to prepare a statement specifying its reasons for permitting the proposed use, provide public notice of these reasons, and forward a copy of the statement to the State Geologist and the State Mining and Geology Board (Cal. Pub. Res. Code Section 2762).

LOCAL

Sacramento County General Plan

The County of Sacramento General Plan was adopted by the County Board of Supervisors in December 1993 and is currently undergoing an update. The County General Plan policies and implementation measures apply to development within the Rancho Cordova Planning Area that are outside of the City limits, until such time those areas are annexed into the City of Rancho Cordova. The Conservation Element within the County General Plan includes policies and implementation measures relevant to soils and mineral resource impacts within Sacramento

County. County General Plan Policies and associated implementation measures that are of particular note include: Policies CO-41 and CO-42 pertaining to the protection of mineral resources; Policies CO-43, CO-44, CO-45, CO-46, and CO-47, pertaining to the extraction of minerals and subsequent reclamation of mined areas, as well as impacts to aquifers, streams, scenic values, and surrounding residential uses; and CO-49, pertaining to the recycling of building materials so as to reduce the demand for aggregate materials. The reader is referred to **Figure 4.8-2**, below, which illustrates the County of Sacramento Mineral Overlay Zones within the City of Rancho Cordova and the Planning Area.

Cordova Community Plan

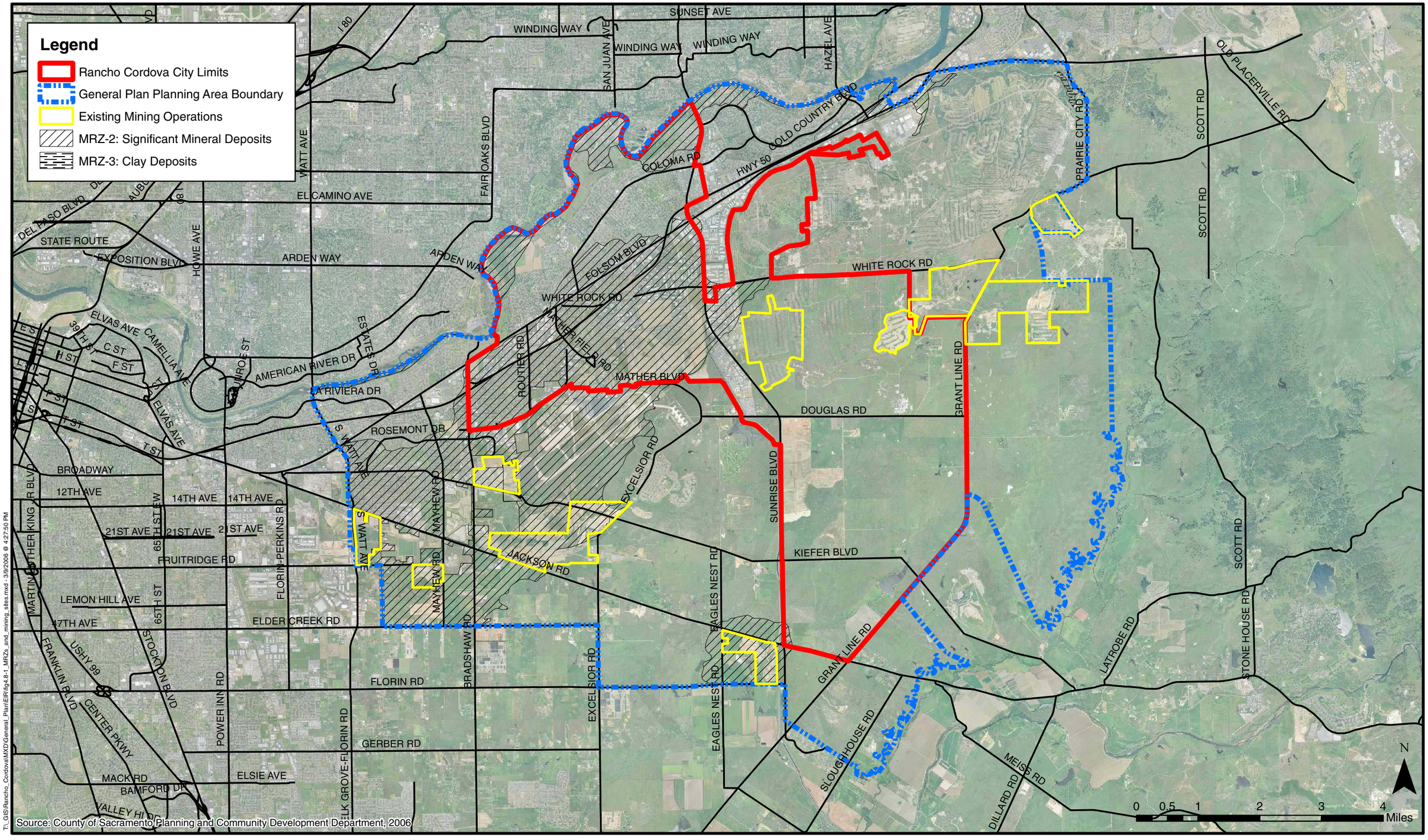
The Sacramento County Board of Supervisors adopted the Cordova Community Plan on May 21, 2003 (Resolution No 2003-0551) in order to further refine land use policies for the Rancho Cordova Community. The Community Plan does not include specific recommendations relative to the geological or mineral resources within the Planning Area and is not further discussed in this chapter.

City of Rancho Cordova Erosion Control Ordinance

Upon incorporation, the City of Rancho Cordova adopted the Sacramento County Department of Water Resources (DWR) Grading and Erosion Control Ordinance (Chapter 16.44 of the existing County Code) which establishes administrative procedures, a minimum standard of review, and implementation and enforcement procedures for controlling erosion, sedimentation, and other pollutant runoff from new development projects. The ordinance also addresses grading, filling, land excavation, construction activities, and drainage as they relate to a particular project. The ordinance applies to any development project resulting in the excavation of 350 cubic yards of soil or more. Grading and erosion control permits, and amendments thereto, are subject to the requirements of the California Environmental Quality Act (CEQA) if they have not been addressed in a previous environmental document. Individual project applicants are required to furnish a copy of the permit application to the City for review and approval. The City reviews all grading and erosion control permits and geotechnical studies and reports in accordance with the Ordinance to ensure geologic and soil stability have been properly addressed.

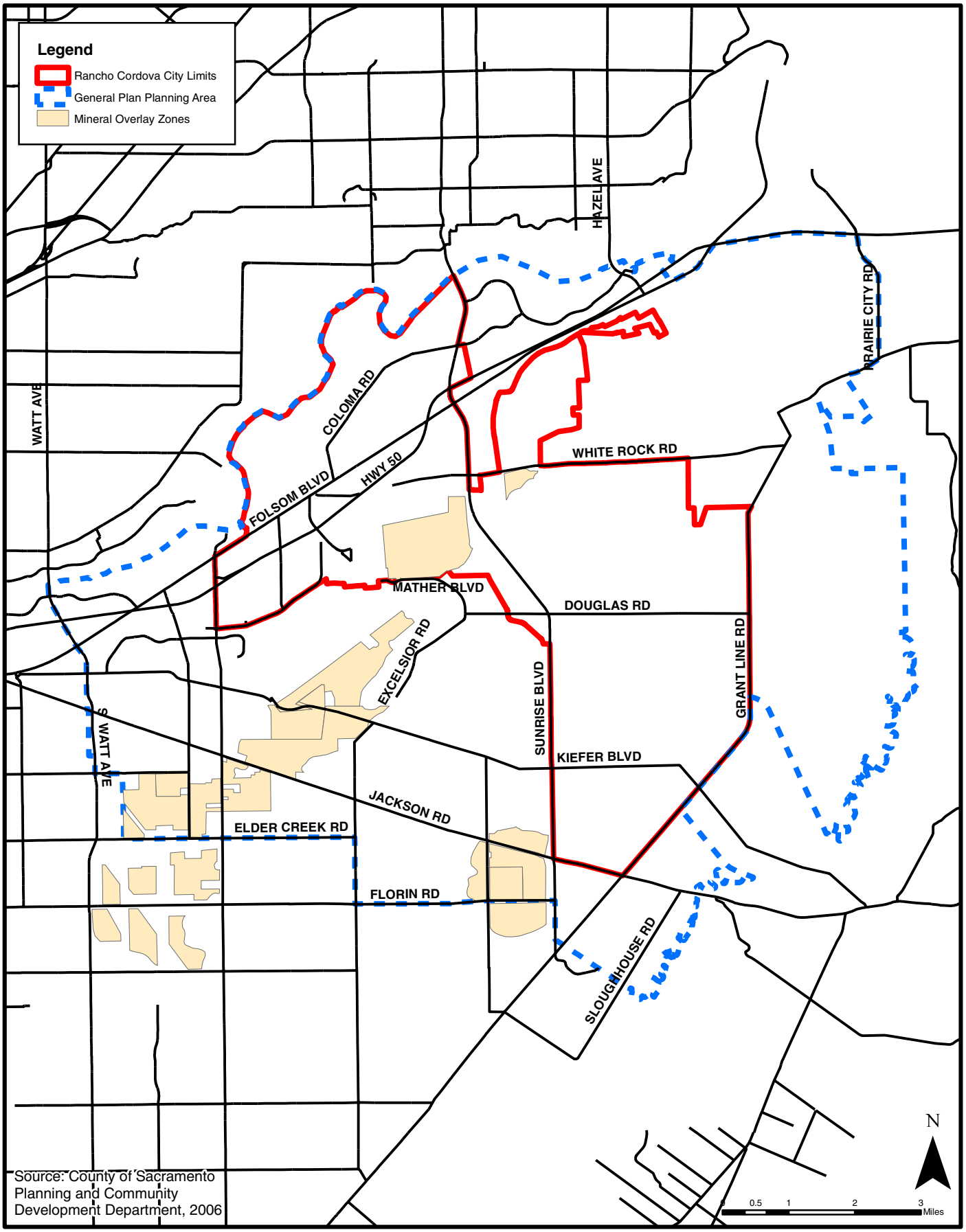
City of Rancho Cordova NPDES Permit

The City of Rancho Cordova, along with the cities of Citrus Heights, Folsom, and Galt, and the County of Sacramento, operate under a National Pollutant Discharge Elimination System (NPDES) renewed in December 2002 to discharge urban runoff from Municipal Separate Storm Sewer Systems (MS4s) in their municipal jurisdictions (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 NPDES Permit is to attain water quality standards and protection of beneficial uses consistent with the 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.



City of Rancho Cordova
Planning Department

Figure 4.8-1
Mineral Resource Zones and Aggregate Operations
Within the General Plan Planning Area



Source: County of Sacramento Planning and Community Development Department, 2006

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City of Rancho Cordova
Planning Department

Figure 4.8-2
County of Sacramento Mineral Overlay Zones
Within the General Plan Planning Area

A key component of the NPDES permit is the implementation of the Stormwater Quality Improvement Plan (SQIP) for the City, which consists of six Minimum Control elements (public education and outreach, public involvement and participation, detection and elimination of illicit discharges, construction stormwater control, postconstruction stormwater control for new development and redevelopment, and pollution prevention/good housekeeping for municipal operations. The City has identified a range of Best Management Practices (BMPs) and measurable goals to address the stormwater discharges in the City. As part of the SQIP, there are several regulations/procedures in place that implement the SQIP that include the Grading and Erosion Control Ordinance (Chapter 16.44 of the existing County Code) and construction standards. 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.

Postconstruction stormwater quality controls for new development requires use of control measures set forth in the Guidance Manual for On-Site Stormwater Quality Control Measures (City of Sacramento and County of Sacramento, 2000). This includes use of regional water quality control features (e.g., detention basins) for large developments (over 100 acres), use of treatment-control measures (swales, filter strips, media filters and infiltration), housing keeping practices (e.g., spill prevention, proper storage measures and clean-up procedures).

Grading and Erosion Control Ordinance

As discussed above, the City of Rancho Cordova adopted the existing Sacramento County General Plan to guide development in the city. The City also adopted the Sacramento County Department of Water Resources (DWR) Grading and Erosion Control Ordinance (Chapter 16.44 of the existing County code), which establishes administrative procedures, minimum standard of review, and implementation and enforcement procedures for controlling erosion, sedimentation and other pollutant runoff from new development projects. The ordinance also addresses grading, filling, land excavation, construction activities and drainage as they relate to a particular project. The ordinance applies to any development project resulting in the excavation of 350 cubic yards of soil or more. The ordinance also ensures compliance with the City's National Pollutant Discharge Elimination System (NPDES) Permit, which is issued by the California Regional Water Quality Control Board (CRWQCB). The City of Rancho Cordova is co-permittee on a NPDES Permit along with Sacramento County and the cities of Sacramento, Folsom, Galt, and Citrus Heights, and Elk Grove. The ordinance requires a separate permit for work on each site unless sites are contiguous, have the same ownership, and are included in the approved plan. The ordinance sets forth performance standards and a permit can be denied, based on the following findings:

a) The applicant has failed to provide sufficient or adequate plans, information or other data necessary to allow determinations respecting compliance with the provisions of Chapter 16.44 or Sacramento County Specifications;

b) The environmental review has not been completed, or other provisions of this code or of state law pertaining to environmental review have not been satisfied, or the activity will have significant adverse environmental impacts, which cannot be substantially mitigated. Where the activity will have significant adverse impacts, the Administrator may approve the permit in accordance with Chapter 16.44, Title 20, and CEQA (1970).

c) The proposed activity will violate provisions of Chapter 16.44, Sacramento County Specifications, or state or federal laws, and such violation cannot be resolved by the imposition of conditions pursuant to Section 16.44.170.

d) The proposed activity will adversely affect surrounding properties and public rights-of-way, the water quality of watercourses, and existing drainage (SCC 102 Section 3, 1995; SCC Section 2, 1993).

City of Rancho Cordova Adoption of the UBC and CBC

The City of Rancho Cordova adopted the 1997 edition of the Uniform Building Code (UBC) upon incorporation. The purpose of the Uniform Building Code (UBC) is to provide minimum standards to preserve the public peace, health, and safety by regulating the design, construction, quality of materials, certain equipment, location, grading, use, occupancy, and maintenance of all buildings and structures. UBC standards address foundation design, shear wall strength, and other structural related conditions.

In addition, upon incorporation, the City of Rancho Cordova adopted the 2001 California Code of Regulations, Title 24, also known as the California Building Standards Code or California Building Code (CBC). The State of California provides minimum standards for building design through the CBC. The CBC, based on the federal Uniform Building Codes, applies to building design and construction in the state of California. The CBC modified UBC regulations for specific conditions found in California and included a large number of more detailed and/or more restrictive regulations. For example, CBC includes common engineering practices requiring special design and construction methods that reduce or eliminate potential expansive soil related impacts. The CBC requires structures to be built to withstand ground shaking in areas of high earthquake hazards, and the placement of strong motion instruments in larger buildings to monitor and record the response of the structure and the site of seismic activity. Compliance with CBC regulations ensures the adequate design and construction of building foundations to resist soil movement. In addition, the CBC also contains drainage related requirements in order to control surface drainage and reduce seasonal fluctuations in soil moisture content.

All development projects associated with the proposed General Plan are subject to UBC and CBC standards, which require a seismic evaluation and particular seismic design criteria to reduce ground shaking effects.

4.8.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Based on Appendix G of the CEQA Guidelines, a geology, soils, or mineral resources impact is considered significant if project implementation would result in any of the following:

1) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:

    i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence or other substantial evidence of a known fault. (Refer to Division of Mines and Geology Special Publication 42);

    ii) Strong seismic ground shaking;

    iii) Seismic-related ground failure, including liquefaction; or

iv) Landslides;

2) Result in substantial soil erosion or the loss of topsoil;

3) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse;

4) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property; or

5) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

A project's mineral resources impacts are considered significant if project implementation would result in any of the following:

1) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state; or,

2) 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.

It should be noted that this analysis does not discuss significance standard "2" under mineral resource impacts because there are no resource recovery sites delineated on any local general plan, specific plan, or land use plan. Therefore, the issue of important mineral resource recovery sites is not discussed in this EIR.

METHODOLOGY

The geology and soils analysis is based on a review of published information, surveys, and reports regarding regional geology, soils, and mineral resources. Information was obtained from private and governmental agencies and Internet web sites, including: the USDA Natural Resources Conservation Service, the California Geological Survey, and the United States Geological Survey.

PROJECT IMPACTS AND MITIGATION MEASURES

Seismic Events

Impact 4.8.1 Implementation of the proposed General Plan, and the resulting increase in population, employment, and development activity within the Planning Area, may expose people, structures, and development to ground shaking and seismic hazards as a result of fault activity. This is considered a **less than significant** impact.

Ground shaking can result in significant structural damage or structural failure in the absence of appropriate seismic design. However, as previously discussed, the Planning Area is not located within an Alquist-Priolo earthquake hazard zone and there are no known active faults occurring within Sacramento County. The Planning Area, as with virtually all sites within the State of California, is, however, subject to minor ground shaking and potential secondary hazards (i.e.,

liquefaction and subsidence) as a result of earthquakes. The Planning Area is in the area of Seismic Zone 3, which is considered an area of relatively low ground shaking potential, as defined by the California Department of Mines and Geology on the Preliminary Map of Maximum Expectable Earthquake Intensity in California, and the Sacramento County General Plan Safety Element. A Seismic Zone 3 is an area that can expect to experience ground motion of low severity. Based upon the seismologic and geologic conditions discussed above, the maximum level of ground motion potentially experienced in the Planning Area would occur as a result of a 6.5 magnitude earthquake on the Foothills Fault zone or Great Valley fault. Minor ground shaking can result in partial collapse of buildings, and extensive damage in poorly built or sub-standard structures.

The potential for soil liquefaction due to earthquakes and ground shaking is considered minimal, because of the site-specific characteristics of the Planning Area, and also because development would have to comply with the UBC and CBC. As discussed above, liquefaction is the process in which water is combined with unconsolidated soils as a result of seismic activities involving ground motions and pressure. The depth to groundwater beneath the Planning Area is generally greater than 50 feet, rendering the potential for liquefaction low. In addition, the potential for liquefaction is considered low due to the nature of on-site soils underlying the Planning Area. As indicated in **Table 4.8-1**, the majority of these soil units generally have low to moderate water holding capacities.

The low risk to liquefaction due to the depth of groundwater and the nature of soils underlying the Planning Area would be further reduced by proper design of all proposed structures in conformance with the UBC and CBC. As discussed above, the City adopted the UBC and CBC upon incorporation. The CBC requires structures to be built to withstand ground shaking in areas of high earthquake hazards, and the placement of strong motion instruments in larger buildings to monitor and record the response of the structure and the site of seismic activity. Compliance with CBC regulations ensures the adequate design and construction of building foundations to resist soil movement. In addition, the CBC also contains drainage related requirements in order to control surface drainage and reduce seasonal fluctuations in soil moisture content. All development projects associated with the proposed General Plan are subject to UBC and CBC standards, which require a seismic evaluation and particular seismic design criteria to reduce ground shaking effects.

The combination of the Planning Area characteristics and compliance with the UBC and CBC would be sufficient to prevent significant damage from ground shaking during seismic events resulting from movement on any of the faults or fault systems described within this EIR.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and action items are identified in the General Plan Safety Element that address seismic hazards:

Policy S.3.1 *The City supports efforts by Federal, State, and other local jurisdictions to investigate local seismic and geological hazards and supports those programs that effectively mitigate these hazards.*

Action S.3.1.1 *Continue to implement the Uniform Building Code to ensure that structures meet all applicable seismic standards.*

Policy S.3.2 *The City shall ensure that new structures are protected from damage caused by geologic and/or soil conditions to the greatest extent feasible.*

Action S.3.2.1 *Continue to require that all new construction projects complete a geotechnical report or conduct other appropriate analysis to determine the soils characteristics and associated development constraints.*

Action S.3.2.2 *Impose the appropriate mitigation measures for new development located in seismic and geologically sensitive areas.*

Implementation of the above General Plan policies and associated action items, in addition to adherence to the Uniform Building Code and the California Building Code, as well as Mitigation Measure MM 4.8.3 would reduce to a minimum the exposure of people and structures to potential substantial adverse effects, including the risk of loss, injury or death, resulting from earthquakes, ground shaking, liquefaction, and other secondary hazards within the Planning Area, and are considered to be **less than significant**.

Mitigation Measures

None required.

Soil Erosion

Impact 4.8.2 Implementation of the proposed General Plan would include substantial construction and site preparation activities. These activities increase soil erosion, especially from wind and water, and siltation of local drainages during construction, excavation and grading activities. Implementation of the proposed General Plan policies and future development's compliance with the City's NPDES Permit and the City's Erosion Control Ordinance would reduce these impacts to **less than significant**.

Implementation of the proposed General Plan would include new roadways, improvements to existing roadways, substantial infrastructure (water and sanitary sewer facilities), and varying densities of commercial, residential, and industrial development. Approximately 18,142 acres within the City and 47,074 acres of the entire Planning Area (including the City) are anticipated to be disturbed and altered with urban levels of development at buildout under this General Plan.

The grading and site preparation activities associated with the proposed development would remove topsoil, disturbing and potentially exposing the underlying soils to erosion from a variety of sources, including wind and water. In addition, construction activities generally involve the use of water, which may further erode the topsoil as the water moves across the ground. The proposed development would involve paving and other site improvements, substantially increasing the amount of impervious surfaces (incapable of being penetrated by water). These impervious surfaces generate higher levels of urban runoff (i.e., erosion from site preparation, sediment deposition from storm water runoff, and automobile fluids). The increased urbanized runoff has the potential to adversely affect surface and groundwater quality in the area. If not properly managed, the runoff could greatly affect the quality of wetlands and vernal pools, which are located throughout the Planning Area. The Reader is referred to Section 4.9, Hydrology and Water Quality, for a further discussion regarding erosion and water quality.

Certain soil types within the Planning Area are especially susceptible to erosion, and thus increase the potential to siltation of local drainages. The following soil types within the Planning Area are characteristic of moderate to severe soil erosion potential: Corning-Redding complex, Kimball silt loam, Madera loam, Pentz-lithic xerothents complex, and San Joaquin silt loam. Of

these, the Corning-Redding complex, the Kimball silt loam, the Madera loam, and the San Joaquin silt loam soil types are found within the Rancho Cordova City limits, and the Corning-Redding complex, Kimball silt loam, Pentz-lithic xerothents complex, and the San Joaquin silt loam soil types are found within the Planning Area, outside of the City limits.

Construction activities involving clearing, grading, or excavation that causes soil disturbance on one or more acres (or any project involving less than one acre that is part of a larger development plan and includes clearing, grading, or excavation) would be subject to coverage under the State's National Pollutant Discharge Elimination System (NPDES) General Construction Storm Water Permit. Project applicants are required to prepare and comply with a Storm Water Pollution Prevention Plan (SWPPP) that specifies Best Management Practices (BMPs) to avoid soil erosion and associated pollution of waterways and are also required to report any water pollution and remediate the pollution occurrence.

As previously discussed, the City adopted the Sacramento County Grading and Erosion Control Ordinance (Chapter 16.44 of the existing County Code), which establishes administrative procedures, minimum standards of review, and implementation and enforcement procedures for controlling erosion, sedimentation, and other pollutant runoff from new development projects. The ordinance also addresses grading, filling, land excavation, construction activities, and drainage as they relate to a particular project site or development project. The ordinance applies to any new or redevelopment project resulting in the excavation of 350 cubic yards of soil or more. Individual project applicants are required to furnish a copy of the permit application to the City for review and approval. The City reviews all grading and erosion control permits and geotechnical studies and reports in accordance with the Ordinance to ensure geologic and soil stability have been properly addressed.

The Grading and Erosion Control Ordinance also ensures compliance with the City's NPDES Permit, issued by the RWQCB. As discussed above, the City of Rancho Cordova is co-permittee on a NPDES Permit along with Sacramento County and the cities of Sacramento, Folsom, Galt, and Citrus Heights. The joint NPDES permit regulates all wet and dry weather runoff discharge in the County, including the City of Rancho Cordova. Management of compliance is conducted by the Sacramento County Water Agency. The joint permit requires implementation of a storm water management program, including the use of BMPs.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and action items are identified in the General Plan Natural Resources Element that address soil erosion:

Policy NR.5.5 *Minimize erosion to stream channels resulting from new development in urban areas.*

Action NR.5.5.1 *Require community and specific plans to contain urban runoff control strategies and requirements that are consistent with Master Drainage Plans and the City's urban runoff management program.*

Action NR.5.5.2 *Require development within newly urbanizing areas to incorporate runoff control measures into their site design or to participate in an area-wide runoff control management effort consistent with standards developed by the Public Works Department.*

Action NR.5.5.3 Encourage new development to incorporate features such as grassy swales, multi-use retention or detention basins, and integrated drainage systems to enhance water quality. Work with the Cordova Recreation and Park District to establish standards for integrating retention/detention basins into park sites and create examples of desirable and innovative natural drainage features.

Action NR.5.5.4 Establish and require the use of best management practices to protect receiving waters from the adverse effects of construction activities, sediment and urban runoff.

The Planning Area is subject to the NPDES Permit under which the City is a co-permittee. As such, projects are evaluated for potential soil erosion impacts on a site-by-site basis. Impacts due to soil erosion can vary, depending on the type of development, intensity of development, and amount of lot coverage of a particular project. However, compliance with the City's Erosion Control Ordinance and NPDES and SWPPP requirements, as well as implementation of the above General Plan policies and associated action items, would ensure that the proposed General Plan's soil erosion related impacts are **less than significant**.

Mitigation Measures

None required.

Soil Stability

Impact 4.8.3 Implementation of the proposed General Plan may place development in areas with unstable soils. This impact is considered a **less than significant** impact.

The majority of the soils in the Planning Area are characterized as having a high shrink/swell potential, which refers to the potential of soils to expand during wet seasons and shrink during dry seasons. In addition, soils with moderate to high shrink/swell potential generally have low plasticity levels, which affects a soils expansion potential. The following soil types possess characteristics of soils with moderate to high shrink/swell potential and are located within the Rancho Cordova City limits: Americanos-urban land complex, Hicksville loam, Hicksville gravelly loam, Kimball silt loam, Kimball urban land complex, Natomas loam, Red Bluff loam, Red Bluff-urban land complex, Red Bluff-Xeraents complex, Reiff fines sandy loam, Rossmoor-fine sand loam, Rossmoor-urban land complex, and the Slickens soil types. The following soil types possess characteristics of soils with moderate to high shrink/swell potential and are located within the Rancho Cordova Planning Area, outside of the City limits: Americanos-urban land complex, Bruella sandy loam, Columbia sandy loam, Creviscreek sandy loam, Dierssen clay loam, Hicksville loam, Hicksville gravelly loam, Hicksville sandy clay loam, Kimball silt loam, Kimball urban land complex, Natomas loam, Red Bluff loam, Red Bluff-urban land complex, Red Bluff-Xeraents complex, Reiff fines sandy loam, Rossmoor-fine sand loam, Rossmoor-urban land complex, and Slickens (see Figure 4.8-1). Such areas of the Planning Area could contain layers of highly expansive soils, which could pose development constraints as structures or improvements constructed on expansive soils could suffer severe damage from the expansion.

As discussed previously, the City of Rancho Cordova adopted the 1997 Uniform Building Code and the 2001 California Code of Regulations (CCR), Title 24, also known as the California Building Standards Code or California Building Code (CBC). The CBC includes common engineering practices requiring special design and construction methods that reduce or eliminate potential expansive soil related impacts. Compliance with CBC regulations ensures the adequate design

and construction of building foundations to resist soil movement. In addition, the CBC also contains drainage related requirements in order to control surface drainage and reduce seasonal fluctuations in soil moisture content.

Geotechnical reports are a tool used by public agencies and developers to identify specific site conditions and to develop design and construction recommendations for infrastructure improvements, and commercial and residential development projects. Geotechnical reports generally contain a summary of all subsurface exploration data, including: a subsurface soil profile, exploration logs, laboratory or in situ test results, and groundwater information. The reports also interpret and analyze the subsurface data, recommend specific engineering design elements, provide a discussion of conditions for the solution of anticipated problems, and recommend special geotechnical provisions. As site-specific soil erosion and runoff hazards are dependent on terrain, elevations, slope changes, and amount of impervious surfaces, only property specific sub-surface investigations have been performed for development projects within the proposed Planning Area.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and action items are identified in the General Plan Safety Element address soil and geologic stability:

Policy S.3.2 *The City shall ensure that new structures are protected from damage caused by geologic and/or soil conditions to the greatest extent feasible.*

Action S.3.2.1 *Continue to require that all new construction projects complete a geotechnical report or conduct other appropriate analysis to determine the soils characteristics and associated development constraints.*

Action S.3.2.2 *Impose the appropriate mitigation measures for new development located in seismic and geologically sensitive areas.*

Compliance with the adopted Uniform Building Code and California Building Code requirements, as well as implementation of the above General Plan polices, action items would ensure that the expansive or unstable soil related impacts are **less than significant**.

Mitigation Measures

None required.

Septic System Operation

Impact 4.8.4 Implementation of the proposed General Plan could impact areas where soils are may be incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems. This would be a **less than significant** impact.

Although implementation of the General Plan would require all commercial and industrial developments, and all residential development with lots smaller than two acres, to connect to a public sewer system, septic systems or alternative wastewater disposal systems would be permitted on residential lots of two acres or more in size. Soils within rural residential areas that do not adequately support the use of septic systems or alternative wastewater disposal systems could lead to the contamination of groundwater. Impacts would be limited to those areas

along the Planning Area boundaries, which under the proposed General Plan, provide for densities (e.g. 0.1 to 0.5 dwelling units per acre) that could support the use of septic systems.

Currently, the Sacramento County Environmental Management Department is responsible for oversight of the design and installation of onsite sewage disposal systems throughout Sacramento County, pursuant to Chapter 6.32, Sanitary Sewage Systems. This includes any area within City limits or outside of City limits. The regulations for Sacramento County are dictated by the geology of the region where the system is installed. The type of system parcels require depends primarily on where the parcel is located. The most frequently installed system is the standard pit system. This type of system is used in areas where it has been determined that the system would be less likely to degrade the water table, and the soil conditions are such that effluent will be more readily absorbed into the pit area. If the parcel to be developed is in an area where the water table is high, or soil conditions are poor, a leach field or deep trench may be required.

In cases where it is not possible to install a standard pit system or a leach field system, an alternative system is required, but it must be approved for use in Sacramento County. Although the Sacramento County Environmental Management Department would have to approve any future proposed septic system, the following General Plan policies and action items would also reduce impacts.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and action items are identified in the General Plan Infrastructure, Services, and Finance Element that address septic and wastewater systems:

Policy ISF.3.4 *Ensure that water supply and delivery systems are available in time to meet the demand created by new development, or are guaranteed to be built by bonds or sureties.*

Policy ISF.4.2 *Ensure that sewage conveyance and treatment capacity are available in time to meet the demand created by new development, or are guaranteed to be built by bonds or other sureties.*

Action ISF.2.6.1 *Require all subdivision developments to adhere to the following provisions, to the extent permitted by state law:*

- *Sewage/wastewater treatment capacity shall be available at the time of tentative map approval.*
- *The agency providing sewer service to the subdivision shall demonstrate prior to the approval of the Final Map by the City that sufficient capacity shall be available to accommodate the subdivision plus existing development, and other proposed or approved projects which have received sewage treatment capacity commitment.*
- *Onsite and offsite sewage conveyance systems required to serve the subdivision shall be in place prior to the approval of the Final Map, or their financing shall be assured to the satisfaction of the City, consistent with the requirements of the Subdivision Map Act.*

- *Sewage conveyance systems within the subdivision shall be in place and connected to the sewage disposal system prior to the issuance of any building permits. Model homes may be exempted from this policy as determined appropriate by the City, and subject to approval by the City.*

Action ISF.2.6.2 *Generally, the City shall not allow construction of independent community sewer systems to serve new development.*

Action ISF.2.6.3 *Require all commercial or industrial development, as well as all residential development with lots smaller than two acres, to connect to a public sewer system.*

Compliance with the Sacramento County Environmental Management Department's requirements for the approval and installation of septic systems, including Chapter 6.32, Sanitary Sewage Systems, as well as implementation of the above General Plan policies and associated action items, would ensure that impacts due to soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems within the Planning Area are mitigated to **less than significant**.

Mitigation Measures

None required.

Mineral Resources

Impact 4.8.5 Implementation of the proposed General Plan would result in the loss of availability of aggregate resources, which are locally important due to their use by the construction community in development of the area. This is considered to be a **significant** impact.

The sand and gravel currently mined in the region is used primarily for construction according to the City of Rancho Cordova (pers. comm., Bill Campbell). Construction aggregates are an important, fundamental building material used extensively as a foundation and road base material. In terms of volume and price, there is presently no economically viable substitute for aggregate products. The demand for aggregate products in the region has increased with the region's population and corresponding physical growth. Under the proposed General Plan, demand is expected to increase, as population and physical growth continue to increase. Should known resources become depleted or unavailable, the aggregates industry will need to relocate or begin importing, at a much higher cost, from more distant areas.

Approximately one third of the Planning Area is designated MRZ-2 by the California Geological Survey and the State Mining and Geology Board. An MRZ-2 classification identifies areas in which significant mineral deposits are known to exist. There are approximately 6,076 acres within the City of Rancho Cordova identified as MRZ-2 and approximately 8,229 acres within the Planning Area outside the City limits identified as MRZ-2 (see **Figure 4.8-1**). Any development of the portions of the Planning Area that are identified as MRZ-2 could result in preventing mineral resources located in those areas from being mined. As illustrated in **Figure 4.8-2**, the proposed General Plan would conflict with the Mineral Overlay Designations that are currently designated under the Sacramento County General Plan.

The west-central portion of the Planning Area that is within the City limits and identified as MRZ-2 consists entirely of existing residential, commercial, and industrial development. This development was initiated prior to or shortly following incorporation of the City of Rancho Cordova. Implementation of the General Plan could cause additional resources to become unavailable as a result of the transition to urban land uses. In addition, land use conflicts between urban uses and mining operations could also result in the closure of existing mining operations, and therefore indirectly result in the loss of availability of aggregate resources.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and action items are identified in the General Plan Natural Resources Element and Land Use Element regarding land use compatibility:

Policy NR.6.1 *Ensure that the environmental effects of mining and reclamation on aquifers, streams, scenic values, and surrounding residential uses are prevented or minimized.*

Action NR.6.1.1 *Regulate surface mining operations as required by California's Surface Mining and Reclamation Act of 1975 ("SMARA"), Public Resources Code Section 2207 (relating to annual reporting requirements), and State Mining and Geology Board regulations for surface mining and reclamation practice.*

Action NR.6.1.2 *Coordinate mining operations and urban development to minimize conflicts between residents and mining, particularly where mining is required before urbanization.*

Action NR.6.1.3 *Require inactive mined lands to be reclaimed to a usable condition that is readily adaptable to the future, anticipated land uses.*

Policy LU.1.4 *Promote high quality, efficient, and cohesive land utilization that minimizes negative impacts (e.g., traffic congestion and visual blight) and environmental hazards (e.g. flood, soil instability) on adjacent neighborhoods and infrastructure and preserve existing and future residential neighborhoods from encroachment of incompatible activities and land uses.*

Mitigation Measures

MM 4.8.5 The following will be added under Goal NR.8 as a new policy:

While mining activities are anticipated to be phased out within the City, the City recognizes the right of these uses to continue, and will require setbacks, buffers, screening and other appropriate measures to allow for the continued operation of mining activities.

Implementation of the above General Plan policies and action items and Mitigation Measure MM 4.8.5 would minimize the loss of availability of important mineral resources in the Planning Area. However, buildout of the Planning Area (as set forth in the proposed General Plan) would still result in the ultimate loss of availability of mineral resources. Thus, this impact is considered **significant and unavoidable**.

4.8.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

Site-specific topography, soil conditions, and surrounding development generally determine geological, soil, and mineral resource related impacts, which generally are not considered cumulative in nature. However, surficial deposits, namely erosion and sediment deposition, can be cumulative in nature, depending on the type and the amount of development proposed in a given geographical area. Further, land uses that contribute to the prevention of mining mineral resources recovery can contribute to the cumulative loss of availability of such resources. Development pressures in the region are resulting in the consideration of the conversion of mineral resource and mining sites to urban uses (e.g., City of Rocklin has converted aggregate mining areas along Highway 65 to urban development over the past 10 years). The cumulative setting for soil erosion and mineral resources consists of existing, planned, proposed and reasonably foreseeable land use conditions in the region, as described in Section 4.0 of this document.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Geologic and Soils Impacts

Impact 4.8.6 Implementation of the proposed General Plan, in combination with existing, planned, proposed and reasonably foreseeable development, would not contribute to cumulative geologic and soil impacts, as the impacts would be site-specific and not additive in character. Thus, the General Plan's contribution would be **less than cumulatively considerable**.

Geology and soil related impacts are generally site specific and are determined by a particular site's soil characteristics, topography, and proposed land uses. Impacts associated with geology and soils are generally site-specific in nature, based on conditions relating to the subsurface materials that underlie a project site. These inherent conditions are an end-result of natural historical events that have played out through vast periods of geologic time. Development projects are analyzed on an individual basis and must comply with established requirements of the City and the UBC as they pertain to protection against known geologic hazards and potential geologic and soil related impacts. Given that there are no active faults in Sacramento County, and low incidence of historical geologic activity in the vicinity, the General Plan's contribution to cumulative geology related impacts is considered less than cumulatively considerable.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and action items are identified regarding soil and geologic stability:

Policy NR.5.5 *Minimize erosion to stream channels resulting from new development in urban areas.*

Action NR.5.5.1 *Require community and specific plans to contain urban runoff control strategies and requirements that are consistent with Master Drainage Plans and the City's urban runoff management program.*

Action NR.5.5.2 *Require development within newly urbanizing areas to incorporate runoff control measures into their site design or to participate in an area-wide runoff control management effort consistent with standards developed by the Public Works Department.*

Action NR.5.5.3 *Encourage new development to incorporate features such as grassy swales, multi-use retention or detention basins, and integrated drainage systems to enhance water quality. Work with the Cordova Recreation and Park District to establish standards for integrating retention/detention basins into park sites and create examples of desirable and innovative natural drainage features.*

Action NR.5.5.4 *Establish and require the use of best management practices to protect receiving waters from the adverse effects of construction activities, sediment and urban runoff.*

Policy S.3.2 *The City shall ensure that new structures are protected from damage caused by geologic and/or soil conditions to the greatest extent feasible.*

Action S.3.2.1 *Continue to require that all new construction projects complete a geotechnical report or conduct other appropriate analysis to determine the soils characteristics and associated development constraints.*

Action S.3.2.2 *Impose the appropriate mitigation measures for new development located in seismic and geologically sensitive areas.*

Adherence to all federal, state, and local requirements, in addition to implementation of the above General Plan policies and their associated action items and Mitigation Measure MM 4.8.3 would further minimize soil related impacts and protect water quality. The reader is referred to Section 4.9, Hydrology and Water Quality, for additional information regarding soil erosion and water quality. The General Plan's contribution to cumulative geologic and soil impacts are **less than cumulatively considerable**.

Mitigation Measures

None required.

Cumulative Mineral Resources

Impact 4.8.7 Implementation of the proposed General Plan, together with past, present, and probable future projects in the area, would result in a cumulatively significant loss of mineral resources in the region. The General Plan's incremental contribution to the loss of mineral resources is **cumulatively considerable**.

As discussed under Impact 4.8.5, implementation of the proposed General Plan would result in the loss of land areas known to contain important mineral resources (i.e., zoned MRZ-2). Although General Plan policies would minimize loss of availability of such resources, this impact would remain incrementally significant. The proposed General Plan would add to cumulative development pressures to convert such land areas to urban uses.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and action items are identified in the General Plan Natural Resources Element and Land Use Element regarding land use compatibility:

Policy NR.6.1 *Ensure that the environmental effects of mining and reclamation on aquifers, streams, scenic values, and surrounding residential uses are prevented or minimized.*

Action NR.6.1.1 *Regulate surface mining operations as required by California's Surface Mining and Reclamation Act of 1975 ("SMARA"), Public Resources Code Section 2207 (relating to annual reporting requirements), and State Mining and Geology Board regulations for surface mining and reclamation practice.*

Action NR.6.1.2 *Coordinate mining operations and urban development to minimize conflicts between residents and mining, particularly where mining is required before urbanization.*

Action NR.6.1.3 *Require inactive mined lands to be reclaimed to a usable condition that is readily adaptable to the future, anticipated land uses.*

Policy LU.1.4 *Promote high quality, efficient, and cohesive land utilization that minimizes negative impacts (e.g., traffic congestion and visual blight) and environmental hazards (e.g. flood, soil instability) on adjacent neighborhoods and infrastructure and preserve existing and future residential neighborhoods from encroachment of incompatible activities and land uses.*

Mitigation Measures

Implementation of the above General Plan policies, associated action items and Mitigation Measure MM 4.8.5 would minimize local impacts to mineral resources. However, development of areas in MRZ-2 zones within the Planning Area, in combination with past, present, and reasonably foreseeable future growth in the region, creates significant impacts to mineral resources. Cumulative impacts to mineral resources are **cumulatively considerable** and are considered a **significant and unavoidable** impact.

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4.9 – Hydrology and Water Quality

This section of the DEIR identifies the hydrological resources, the existing drainage conditions, and the surface and groundwater quality in the General Plan Planning Area. This section also evaluates the potential impacts with respect to flooding, drainage, erosion, water quality, and water supply, and identifies appropriate mitigation measures to lessen the identified impacts.

4.9.1 EXISTING SETTING

REGIONAL HYDROLOGY

Surface watersheds are those land areas that catch rain or snow and drain to specific marshes, streams, rivers, lakes, or the groundwater table. There are several watersheds in Sacramento County, including: the Lower Sacramento, the Lower American, the North Fork of the American, the Upper Butte, the Upper Yuba, the South Fork of the American, and the Upper Cosumnes. The largest watershed in the County is the Lower Sacramento Watershed, which covers approximately 27,000 square miles and drains the Sacramento Valley, the Modoc Plateau, and parts of the Cascade Range and Sierra Nevada Range. The Lower Sacramento Watershed is one of the largest watersheds in the United States and covers most of northern California. The main tributaries in the Lower Sacramento Watershed are the Feather, Yuba, Pit, and American Rivers. The Lower American, North Fork American, South Fork American, and Upper Cosumnes watersheds are adjacent to the Lower Sacramento Watershed. In addition to the natural hydrologic processes of rainfall runoff, snowmelt, and base flow from groundwater, the flows in the Sacramento River are greatly affected by reservoir releases, water diversions, irrigation return flows, and diversions through bypasses. Both the Sutter and Yolo bypasses have the capacity to carry larger volumes of water than the Sacramento River channel, and are used to prevent flooding during wetter years and higher flows.

SURFACE WATER RESOURCES

Major surface waters in the vicinity of the Rancho Cordova Planning Area include the American River, Folsom Reservoir, and Lake Natoma to the north; the Sacramento River to the west; and the Consumnes River to the southeast. Other surface waters within the Rancho Cordova Planning Area include the Folsom South Canal, Deer Creek, and the Morrison Creek Stream Group (Morrison, Laguna, Elder, Gerber, Unionhouse, Florin, Buffalo, and Frye Creek, as well as Rebel Hill Ditch) which generally flow in a southwesterly direction southeast of the General Plan Planning Area, as illustrated in **Figure 4.9-1**. The topography within the Planning Area includes gently rolling terrain, such as that found in the eastern Great Central Valley interrupted by numerous seasonal creeks and streams. These creeks and streams are largely ephemeral and intermittent, which is typical of areas that experience dry summers and cool, wet winters, as in this part of the Central Valley. Preliminary mapping conducted in preparation of the Draft South Sacramento County Habitat Conservation Plan (SSHCP) identified approximately 625 acres of vernal pools and approximately 212 acres of fresh water marshes within the Planning Area. Additionally, approximately 20,728 acres of Vernal Pool Grassland exist within the Planning Area. The reader is referred to Section 4.10 (Biological Resources) regarding wetland resources in the Planning Area.

Sacramento River

The Sacramento River drainage basin upstream of the Planning Area encompasses approximately 23,500 square miles and produces an average annual runoff of about 17,000,000 acre-feet (AF) at the Freeport gauging station (below the confluence with the American River). Principal reservoirs on the mainstream and tributaries to the Sacramento River and controlling flows in the lower Sacramento River include Lake Shasta, Trinity Lake, Lake Oroville, and Folsom Reservoir. Based on the 30-year record of data for the period 1968–1998, which spans a variety

of water year types, individual monthly average flows have ranged from a low of 4,500 cubic feet per second (cfs) in October 1978 to a maximum of 87,000 cfs in January 1997. The average monthly flow for the 30-year period ranges between 13,000 cfs and 40,600 cfs with the lowest flows occurring in October and peak flows in February. (EDAW, 2006)

American River, Folsom Reservoir, and Lake Natoma

The American River drainage basin encompasses approximately 1,900 square miles. Folsom Reservoir is the principal reservoir in the basin with a storage capacity of 975,000 AF. Several smaller reservoirs upstream of Folsom Reservoir contribute an additional 820,000 AF of storage capacity. Nimbus Dam impounds Lake Natoma downstream of Folsom Dam and regulates releases from Folsom Reservoir to the lower American River. The entrance facilities to the Folsom South Canal are located along the south shore of Lake Natoma immediately upstream of Nimbus Dam. Mean annual flow in the lower American River is 3,300 cfs; the design capacity of the channel for flood flows is 115,000 cfs. (EDAW, 2006)

Cosumnes River

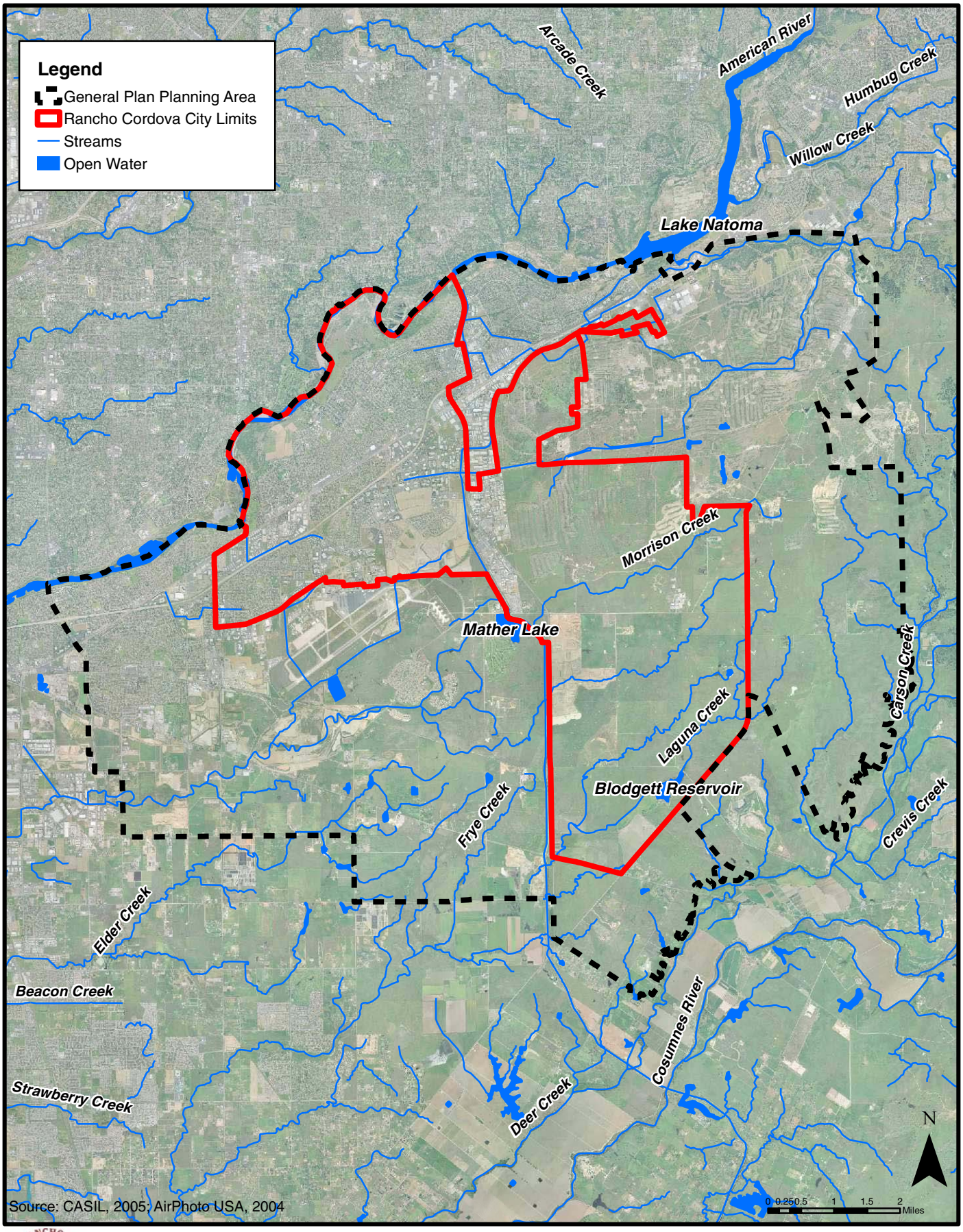
The Cosumnes River watershed extends from its headwaters, at an elevation of approximately 7,500 feet on the western slope of the Sierra Nevada, to the confluence with the Mokelumne River, near Interstate and the Town of Mokelumne City. The Cosumnes River is the last major river on the western slope of the Sierra Nevada with no major dams. Minor dams on the river are used for recreational and agricultural irrigation purposes. (EDAW, 2006) During September and October, flows in the river are 27-30 cfs. Currently, surface flow ceases in a 5- to 10-mile section of the river (between Meiss Road and State Route 99) nearly every year at the end of California's dry season.

Cosumnes River Studies

The University of California, Davis has collaborated with the Cosumnes River Preserve, the United States Fish and Wildlife Service (USFWS), and other non-profit organizations to create a university/agency/foundation partnership with the purpose of advancing watershed science to support more effective and sustainable watershed restoration practices and addressing the information needs of adaptive management in the North Delta and the Cosumnes and Mokelumne River watersheds. A number of studies were conducted in a wide range of disciplines, including: hydrology, geology, engineering, ecology, and wildlife biology. The focus of the studies was to identify the interaction between regional groundwater elevations and surface water flows in the Lower Cosumnes River.

According to the studies, declining flows on the Cosumnes River in the past may have been linked to decreasing base-flows and the overall decline of groundwater tables; however, unequivocal proof of this relationship is difficult due to the limited amount of historical records on ground- and surface-water conditions in Sacramento County. The studies determined that groundwater levels around the river channel were possibly hydraulically connected with the river in the 1940's.

The UC Davis Center for Watershed Sciences (UCDCWS) conducted field investigations in 2003 concluding that under current conditions the Lower Cosumnes River (miles 0 to 36) is largely hydraulically disconnected from the regional aquifer. When a river and underlying aquifer are hydraulically disconnected, the only exchange between the two systems is seepage losses from the river to the aquifer. The hydraulic disconnect is the greatest in the middle reaches of the River (river miles 11 to 25.8), near Highway 99 and Meiss Road).



City of Rancho Cordova
Planning Department

Figure 4.9-1
Surface Water Resources
Within the General Plan Planning Area

However, UCDCWS simulations show that even under a no groundwater pumping scenario, the upper reaches of the Cosumnes (between Michigan Bar and Dillard Road) experiences net losses, which indicates that the Cosumnes River, even under natural conditions in its upper reaches, may have alternated between gaining and losing flows. This was concluded using historical data that suggests that the River along these reaches were most likely in hydraulic contact and received base flows along its entire length before major groundwater development and pumping occurred in the 1950's and 1960's.

UCDCWS simulations indicate that annual seepage losses ranged from 10,000 AF to 20,000 AF in both the lower and upper reaches of the River. Reducing seepage losses by reconnecting the regional aquifer would require enormous amounts of water. Based on UCDCWS simulations, annual groundwater pumping reductions from the groundwater basin of 166,000 acre-feet (AF) would be required to reconnect the River along its upper reaches and up to 250,000 AF of reductions would be required to hydraulically reconnect the River along its lower reaches where the disconnect is most pronounced (miles 0 to 36).

Based on historical groundwater data and conditions in Sacramento County, groundwater levels tend to decline for approximately 20 years due to groundwater pumping that exceeds the level of groundwater recharge. However, after the approximately 20 years of decline, groundwater recharge (mainly from stream recharge and subsurface boundary inflows) responds to the lowering of groundwater levels and eventually reaches a quasi-equilibrium position, in which groundwater levels stabilize with the long-term average levels remaining the same. When the County approved the SDCP/SRSP in 2001, based on historical data and extensive groundwater modeling, concluded that groundwater levels in the project area had been stabilized since 1993.

Given the current condition of the groundwater aquifer underlying southern Sacramento County, available data suggests that proposed groundwater extraction by SCWA Zone 40 (discussed below) will not significantly impact flows in either Deer Creek or the Cosumnes River. The evidence supporting this assertion is that the existing groundwater elevation and topographic data indicate that Deer Creek and as previously discussed the Cosumnes River are not in direct hydraulic connection with the underlying or adjacent unconfined groundwater system for the majority of their reaches through the central portion of Sacramento County. Based upon detailed groundwater modeling conducted by SCWA, the aquifer is not in direct connection with the Cosumnes River except at two places, upstream of Dillard Road and downstream of Twin Cities Road. Where there is no hydraulic connection, groundwater pumping would not affect Cosumnes River flows.

There are two locations where there is a hydraulic connection and the groundwater modeling evidence has shown that changes in groundwater elevations are less than 2 feet (and typically less than 1 foot) therefore, impacts resulting from proposed groundwater pumping (as part of implementation of Zone 40's WSMP, described below) on Deer Creek and the Cosumnes River would be very small and insignificant. This conclusion is based on SCWA's negotiated levels of acceptable impacts associated with operating the sub-basin as a specified extraction amount, defined in the Water Forum as a long-term sustainable average annual yield of 273,000 AF from the regional aquifer.

The impacts of long-term groundwater pumping in the region on the Cosumnes River were extensively studied in SCWA's Environmental Impact Report for its 2002 Zone 40 Water Supply Master Plan (discussed in more detail below). Based on detailed modeling, SCWA concluded that its proposed groundwater pumping would not, either alone or cumulatively with other development, have any adverse impact on Cosumnes River flows or adversely change the

duration, timing or frequency of surface flows in the Cosumnes River. Impacts on other resources (i.e., biology, water quality, etc) resulting from the cumulative pumping proposed as part of the Water Forum Agreement (WFA) and the Zone 40 Water Supply Master Plan (WSMP) were also addressed in the EIR for the Water Forum (State Clearinghouse Number 95082041), which was certified by the Sacramento County Board of Supervisors in 1999, and in the 2002 Zone 40 WSMP FEIR, which was certified by SCWA in 2005.

As described below, the Zone 40 conjunctive use process, which is the planned joint use of surface and groundwater to improve the overall water supply reliability, decreases the reliance on groundwater use throughout Zone 40It should be noted that under the Memorandum of Agreement for Management of Water and Environmental Resources Associated with the Lower Cosumnes River, Sacramento County Water Agency will provide 5,000 acre-feet or a contribution of capital towards the purchase of an alternative supply for the Cosumnes River Flow Augmentation Project (EDAW, 2006). The Cosumnes River Augmentation Project was established to attenuate flood flows, increase groundwater recharge, preserve and maintain existing remnant riparian habitats and reestablish floodplain habitats and not in response to historical or projected groundwater pumping from the regional aquifer.

Precipitation

According to the National Weather Service, the annual average precipitation for Sacramento County and the Rancho Cordova Planning Area ranges from 15 to 20 inches. There is very little snow that falls in the Sacramento Valley, so it is not considered a climatic feature of the valley floor. More characteristic of the valley is the dense fog occurring in mid-winter. Fog usually occurs in the morning hours, and may continue for several days in a row if atmospheric conditions are stagnant.

Drainage and Flooding

The Planning Area contains both natural waterways and constructed features (e.g., channel, siphons, overchutes, detention basins) that convey drainage. As shown in **Figure 4.9-1**, flows in the Planning Area primarily drain in a southwest direction into existing natural waterways. Major drainage/flood control features in the Planning Area include detention basins, channels, levees along the American River and Folsom Dam. The northern portion of the City and Planning Area (along US 50 and north) are located within the 500-year floodplain predictions by FEMA and the U.S. Army Corps of Engineers or as a result of complete failure of Folsom Dam. Failure of either the Cordova Meadows Levee or the Sunriver Levee along the American River could potentially result in the inundation of properties within the northern portion of the Planning Area. However, such an event has an extremely low probability of occurring and is not considered to be a reasonably foreseeable event. Currently, there are planning efforts by the U.S. Army Corps of Engineers to improve the flood capacity of Folsom Reservoir and there have been improvements made to security at Folsom Dam to minimize the threat of an intentional act of sabotage.

Currently the City experiences localized flooding issues associated with undersized drainage facilities in existing developed and developing areas. This includes existing drainage issues along Sunrise Boulevard south of White Rock Road where surface water flows exceed the capacity of drainage facilities (siphons and overchutes) of the Folsom South Canal. Existing 100-year peak flows are exceeded in several of these facilities and result in localized flooding along Sunrise Boulevard as well as discharge of drainage into the Folsom South Canal (Sacramento County, 2001; Wood Rogers, 2005).

The Federal Emergency Management Agency (FEMA) manages the National Flood Insurance Program (NFIP). The National Flood Insurance Program works with local units of government to assist them in education, technical assistance, and flood plain management. In addition, FEMA produces Flood Insurance Rate Maps (FIRM), which contain historic, meteorological, hydrologic, and hydraulic data, to determine open-space conditions, flood plain control and management, and potential development constraints. In addition, FIRM maps illustrate both 100- and 500-year floodplains and the Base Flood Elevation (BFE), which is the elevation associated with the flood having a one-percent annual chance of being equaled or exceeded in any given year. In addition, FIRM maps generally include:

- Common physical features, such as major highways, secondary roads, lakes, railroads, streams, and other waterways
- Special Flood Hazard Areas
- Base (1 percent annual chance) flood elevations or depths
- Flood insurance risk zones
- Areas subject to inundation by the 0.2 percent annual chance flood
- Areas designated as regulatory floodways
- Undeveloped coastal barriers

It is important to note that the term "100-year flood" is misleading. It is not the flood that will occur once every 100 years. Rather, it is the flood elevation that has a 1- percent chance of being equaled or exceeded each year. Thus, the 100-year flood could occur more than once in a relatively short period of time. The 100-year flood, which is the standard used by most Federal and state agencies, is used by the NFIP as the standard for floodplain management and to determine the need for flood insurance. A structure located within a special flood hazard area shown on an NFIP map has a 26 percent chance of suffering flood damage during the term of a 30-year mortgage. The Sacramento County Department of Water Resources has prepared its Local Floodplain Management Plan (2001), which is required for a community to participate in the NFIP. The Plan is reviewed annually by DWR to update factual data and to fully comply with the NFIP. The 100-year floodplain, streams, and the Planning Area's proximity to the American River and Cosumnes River are depicted in **Figure 4.9-2**.

Cosumnes River Floodplain Modeling

On January 2, 1997, the Cosumnes River experienced one of the most extensive flood events ever recorded. The flow was estimated to exceed a 100-year storm event and triggered numerous levee breaks that flooded over 24,000 acres. Over 80 homes were inundated, public roads and infrastructure were damaged, and watershed health was impaired. The Governor's Flood Emergency Action Team (FEAT) recommended that the County of Sacramento and Resource Conservation Districts form the Cosumnes River Task Force (CRTF) explore options for flood management.

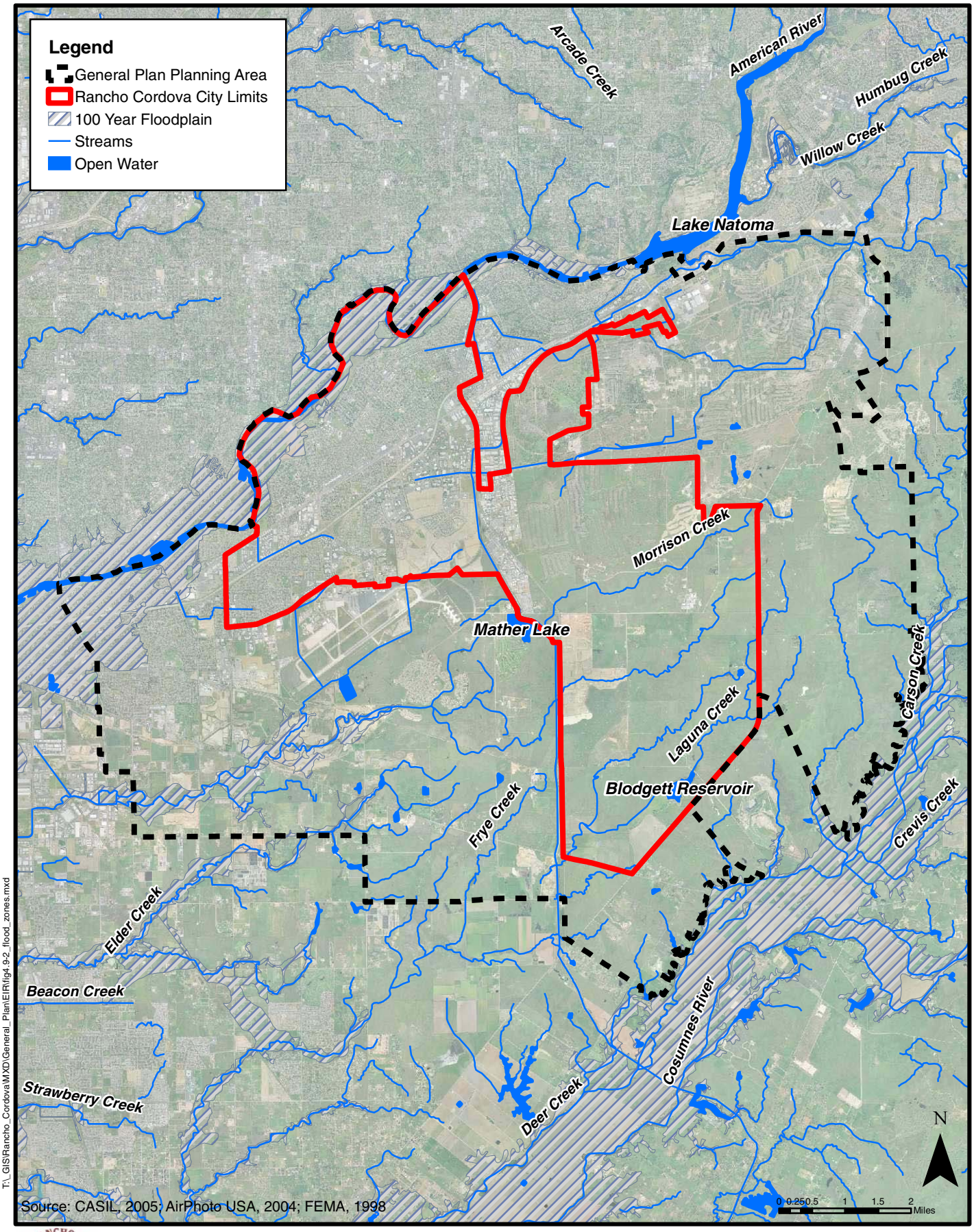
The primary purpose of the CRTF is to develop a Coordinated Resource Management Plan (CRMP) to identify resource concerns, plan and implement improvements, and collaborate on common goals to improve watershed health. Through the CRMP, stakeholders are made aware that any potential solutions for improved flood management must also address concerns beyond the immediate impacts associated with flooding. The Task Force will also be examining

resource issues such as land use; infrastructure; water quality and supply; riparian and terrestrial wildlife habitat needs; channel maintenance; channel management including levee, floodway, easement, non-structural options; and other issues identified during the planning process. A major objective of the Task Force planning process is to provide a forum for discussion, education and understanding with regard to the complex issues surrounding watershed management. During the planning process, the Task Force hopes to develop consensus, form partnerships and provide opportunities to collaborate on alternative solutions for watershed improvement.

As described previously, several organizations and agencies are coordinating with the CRTF efforts in order to assess and restore the quality of the Cosumnes River watershed from impacts associated with historical groundwater pumping. The Mokelumne-Cosumnes Watershed Alliance is an organization made up of representatives from different groups (e.g., California Cattlemen's Association, California Rangeland Trust, CALFED Bay-Delta Program, City of Lodi, Delta Protection Commission, Department of Water Resources Central District, East Bay Municipal Utility District, Florin Resource Conservation District, Lodi-Woodbridge Winegrape Commission, Mountain Counties Water Resource Association, Natural Resource Conservation Service Sacramento County, The Nature Conservancy, North Delta Water Agency, The Reclamation Board, Reclamation District 38, Sacramento Area Flood Control Agency, Sacramento County Water Resources Division, San Joaquin Council of Governments, San Joaquin County Public Works, San Joaquin County Resource Conservation District, Sloughhouse Resource Conservation District, UC Davis Center for Integrated Watershed Science and Management, U.S. Army Corps of Engineers Sacramento District, U.S. Fish and Wildlife Service, and Woodbridge Irrigation District) that work together to preserve and improve the integration of environmental, flood control, and beneficial use opportunities in the Mokelumne and Cosumnes watersheds. Projects and studies involving the CRTF include, but are not limited to: the Cosumnes River Task Force Plan 2002, which provides direction for agencies and interested individuals of the issues, impacts and possible solutions regarding the watershed's overall health. The CRTF has also prepared the Cosumnes River Watershed and Assessment and Inventory Phase II Final Report, which outlines a watershed management plan to guide resource planning, restoration, enhancement, and water quality improvements in the watershed. Other studies and collaborative efforts include the Lower Cosumnes and Mokelumne Rivers Feasibility Study, and the Cosumnes Research Group. The Cosumnes Research Group, is a joint venture/partnership of the University of California, Davis and the Cosumnes River Preserve focusing on advancing watershed science to support more effective and sustainable watershed restoration practices and addressing the information needs of adaptive management in the North Delta and the Cosumnes and Mokelumne River watersheds.

GROUNDWATER RESOURCES

The Central Valley contains the largest basin-fill aquifer system in the state. The valley is in a structural trough about 400 miles long and from 20 to 70 miles wide and extends over more than 20,000 square miles. The trough is filled to great depths by marine and continental sediments, which are the result of millions of years of inundation by the ocean and erosion of rocks that form the surrounding mountains. Sand and gravel beds in this great thickness of basin-fill material form an important aquifer system. From north to south, the aquifer system is divided into the Sacramento Valley, the Sacramento-San Joaquin Delta, and the San Joaquin Valley groundwater basins, based on the various characteristics of the corresponding surface-water basins. These groundwater basins are further divided into subbasins. The Sacramento Valley Groundwater Basin and South American (or Central Area) Subbasin underlie the Rancho Cordova Planning Area.



City of Rancho Cordova
Planning Department

Figure 4.9-2
Flood Zones
Within the General Plan Planning Area

The Sacramento Valley Groundwater Basin is formed primarily of sand and gravel with significant amounts of silt and clay, all of which have been eroded mainly from older rocks at the boundaries of the valley. The environments in which the continental sediments were deposited varied, although most were deposited in fluvial environments with resulting beds and lenses composed of fine-grained materials, such as silt and clay. In most parts of the valley, fine-grained materials compose 50 percent or more of the aquifer system. The most extensive clay bed, which is informally named "E-clay", consists primarily of Corcoran Clay. Because beds of silt and clay do not readily transmit water under natural conditions, they act as barriers to vertical flow and cause differences in hydraulic head with depth.

The South American Subbasin is bounded on the east by the Sierra Nevada Mountains, on the west by the Sacramento River, on the north by the American River, and on the south by the Cosumnes and Mokelumne Rivers. As part of the South American Subbasin, the Rancho Cordova Planning Area covers a shallow unconfined aquifer system, known as the water table aquifer, approximately 200 hundred feet below ground surface, and a deeper confined groundwater aquifer system ranging from a few hundred feet to over 2,000 feet below ground surface. The deeper aquifer system that becomes confined with depth is separated from the shallow aquifer by a discontinuous clay layer, not completely impermeable.

Prior to urban development, the Sacramento Valley groundwater aquifer system was under steady-state conditions in which natural recharge balanced natural discharge. Groundwater in the shallow part of the aquifer system flowed from areas of high altitude at the valley margins, where most of the recharge took place, down gradient to discharge into rivers and marshes near the valley axis. Under predevelopment conditions, streams emanating from the Coast and Cascade Ranges and the Sierra Nevada Mountain Range primarily recharged the aquifer system. Most of the recharge was in the northern and eastern parts of the Sacramento Valley. Precipitation falling on the valley floor during the rainy season provided only a small part of the total recharge. For the most part, precipitation evaporates or transpires through plants. In the Sacramento Valley groundwater aquifer system, precipitation was also carried by the Sacramento and the San Joaquin Rivers, and then drained to San Francisco Bay or the Tulare Basin.

Hydraulic head is a measurement used to indicate the amount of energy in groundwater per unit weight flowing through an aquifer. Under predevelopment conditions in the Sacramento Valley, the hydraulic head in the shallow unconfined aquifer was greater where water entered the aquifer system at the valley margins than the hydraulic head in the deeper confined groundwater aquifer. Thus, groundwater moved downward. Conversely, the head gradient was reversed where water left the aquifer. Typically, as water discharged to surface-water bodies, the hydraulic head in the unconfined aquifer was less than the hydraulic head in the confined aquifer. Here, the difference in hydraulic head created upward movement of the groundwater toward rivers and marshes. Precipitation that fell on the valley floor, and that was not lost to evapotranspiration, recharged the shallow water table aquifer and moved down the head gradient toward the rivers and surrounding marshes. Upward vertical flow from the confined aquifer was impeded by confining clay beds, which caused a pressure head in the deeper parts of the aquifer system. Because of the pressure head, wells that penetrated the deep aquifer in low-lying areas near rivers and marshes flowed during the early years of valley development, and did not require additional groundwater extraction.

By the early 1960's, urban development and agricultural activities had lowered groundwater elevations and altered groundwater flow patterns in the Sacramento Valley Groundwater Basin. Because the magnitude of the withdrawals caused hydraulic heads in the confined parts of the aquifer system to fall far below the elevation of the water table, the vertical hydraulic gradient

was reversed over much of the Sacramento Valley. As a result, much of the water in the upper unconfined zone of the aquifer system that flowed laterally toward the rivers under predevelopment conditions, instead, began flowing downward through the confining beds into the lower confined aquifer. Concurrent with an increase in surface-water imports in the early 1970's, groundwater withdrawals in the aquifer system decreased, which allowed groundwater levels in many areas to recover in the confined part of the aquifer system, in some cases to pre-1960 levels. With few exceptions, the groundwater flow patterns in the aquifer system today are similar to those in the mid 1970's (USGS, 1995).

As mentioned above, there is a potential for some vertical movement of groundwater between the shallow and deeper aquifer systems. Generally, the movement of groundwater occurs when a head differential exists between the aquifer systems. For instance, if heavy pumping in the deeper aquifer reduces the pressure head, then groundwater from the shallow aquifer will be induced to recharge the deeper aquifer. Conversely, if groundwater levels are decreased (by increased pumping) in the shallow aquifer, then the potential exists for the upward movement of groundwater to recharge the shallow aquifer. Groundwater recharge within the Rancho Cordova Planning Area occurs from a combination of three main sources: stream recharge (primarily from the Cosumnes and American Rivers within their channels and floodplains) subsurface inflows from adjacent areas; and percolation of rainfall and applied water. However, due to soil characteristics within the Planning Area, groundwater recharge capabilities are considered low.

WATER QUALITY

Surface Water Quality

The following waterways in or near the Planning Area are identified as impaired waterways by the State Water Resources Control Board under Section 303d of the Clean Water Act:

- American River (mercury and unknown toxicity)
- Elder Creek (chlorpyrifos and diazinon)
- Morrison Creek (diazinon)
- Sacramento River (diazinon, mercury and unknown toxicity)

Chlorpyrifos and diazinon are organophosphorus pesticides used for urban and agricultural pest control, while the source of mercury for the Sacramento and American rivers is associated with abandoned mines within their watersheds. Morrison Creek has been included in the Total Maximum Daily Load (TMDL) Report for Diazinon and Chlorpyrifos Impaired Urban Creeks in Sacramento County (September 2004). The Sacramento River water quality issues with diazinon have been addressed in a TMDL for the Sacramento and Feather rivers.

Water quality sampling has been conducted for Morrison Creek (near Bradshaw Road) during dry weather and wet weather conditions for 2003 and 2004 associated with the Sacramento County Coordinated Monitoring Program. Wet weather sampling has identified low levels of conventional inorganic minerals, but have shown elevated levels of coliform bacteria, total suspended solids and several polycyclic aromatic hydrocarbons (byproducts of combustion and are contained in asphalt sealants).

Groundwater Quality

The thickness of the aquifer saturated with freshwater (water with less than 1,000 milligrams per liter dissolved-solids concentration) in the aquifer system varies greatly and depends, for the

most part, on the depth to and permeability of the rocks that underlie continental deposits. In the Planning Area, the base of freshwater generally coincides with the base of continental deposits. The several isolated lenses of saline water that are within the freshwater zone may be evaporation residues or estuarine water that was trapped by subsequent sedimentation. The depth to the base of freshwater is as much as 2,500 feet in some portions of the Sacramento Valley.

Freshwater is available throughout the Central Valley. The concentration of dissolved solids in the groundwater reflects the general character of water in the streams that recharge the aquifer system. Dissolved-solids concentrations in the streams, in turn, are directly related to the type of rocks that form the geologic conditions of the area. Thus, groundwater in the Sacramento Valley has generally lower dissolved-solids concentrations than other sub-regions in the Central Valley. In general, dissolved-solids concentrations increase as the depth increases in the aquifer system. Therefore, the deeper wells are likely to produce water with larger dissolved-solids concentrations than the shallower wells in the aquifer system.

Groundwater Contamination

As discussed in Section 4.4, Hazards and Human Health, Planning Area groundwater has been contaminated and N-nitrosodimethylamine (NDMA), trichloroethylene (TCE), and ammonium perchlorate have been detected in groundwater plumes emanating from former McDonnell Douglas and Aerojet operations.

The reader is referred to Section 4.4 for a discussion on the Aerojet groundwater contamination and monitoring and remediation efforts currently ongoing.

WATER SUPPLY

The following information is a summary of technical data provided in the Water Supply Evaluation for the City of Rancho Cordova General Plan (EDAW, 2006), which is provided in **Appendix 4.9**. This Water Supply Evaluation was prepared to identify water supply needs of the proposed General Plan under buildout of proposed land uses in the City's current boundaries as well as the Planning Area outside of the City under the state law providing for coordination between cities and counties and water planning activities of water purveyors and agencies. This work involved consultation with the current public and private water purveyors in the Planning Area as well as requests for formal consultation regarding water supply availability by the City consistent with State CEQA Guidelines Section 15083.5 and Water Code sections 10910-10915.

Water Service Providers in the Planning Area

There are 3 water purveyors within the City's planning area: Sacramento County Water Agency (SCWA), Zone 40; Golden State Water Company (GSWC); and California-American Water Company (Cal-Am) (see **Figure 4.9-3**).

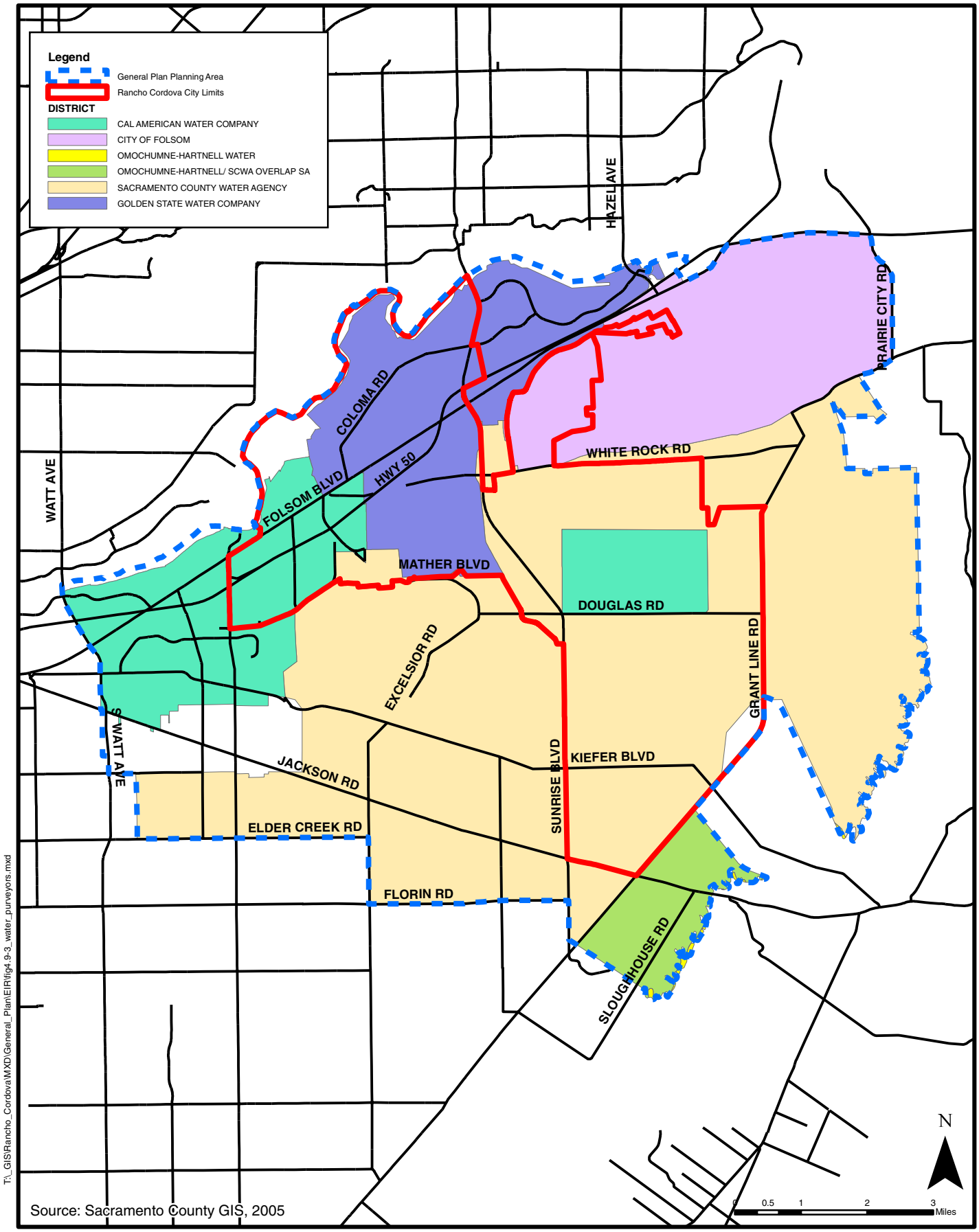
Urban Water Management Plans (UWMP) for all water purveyors were obtained and used in this evaluation. The UWMPs identified the purveyor's existing and projected future water supplies and projected water demands through 2030 within each of their service areas.

Sacramento County Water Agency (SCWA)

SCWA's service area (i.e., Zone 40) encompasses approximately 70 percent of the City's planning area and SCWA would be the primary water purveyor within the City. SCWA has engaged in a long-term water supply planning process through its participation in the regional Water Forum planning process and the recent adoption of its Zone 40 Water Supply Master Plan (WSMP) (2005) (described further below). The WSMP identifies the acreage of land area that could be served by existing and projected future water supplies through 2030 for an expected growth area of Sacramento County (as identified in the Sacramento County General Plan [1994]), based on planned land use pattern and density information available at the time the report was prepared. This area is known as the 2030 Study Area. SCWA's water supplies include surface water and groundwater resources that would, over the long-term, be conjunctively used to ensure that adequate groundwater levels are maintained throughout the Central Sacramento Groundwater Basin (Basin) and that both surface water and groundwater supplies are adequate to meet projected demands through 2030. While a majority of the City's planning area falls within Zone 40, only a portion falls within a subarea known as the 2030 Study Area.

The Planning Area is located within the SCWA Zone 40 North Service Area (NSA). Existing water demands for that part of the Planning Area within the NSA are 2,404 afy, and are projected to reach 37,314 afy by year 2030 (EDAW, 2006). SCWA has identified water supplies in the amount of 37,314 afy by year 2030 to serve that part of the City's Planning Area that is within SCWA Zone 40 NSA. With implementation of the Zone 40 WSMP, Zone 41 Urban Water Management Plan (UWMP), and Zone 41 Water System Infrastructure Plan (WSIP), and the NSA WSIP, Zone 40's NSA service area would be served with reliable, long-term water supplies. SCWA is a groundwater appropriator and intends to continue to extract groundwater to meet its customer demands within the limits of the negotiated sustainable yield of the Central Basin. SCWA has secured and is in the process of securing surface water entitlements that would allow SCWA to meet its projected 2030 water demands (see below). Because SCWA intends to continue pumping groundwater, it has secured most of its surface water rights, has secured rights to beneficial reuse of remediated groundwater within its service area, and is proceeding with development of several water supply treatment and conveyance facilities, SCWA water supplies are considered to have a high reliability of being delivered (see **Appendix 4.9**). However, additional conveyance and treatment facilities would need to be approved and constructed to deliver these supplies to the NSA.

Providing reliable service to NSA is perhaps the most challenging of the three (i.e., North, Central, and South) SCWA service areas. Challenges surrounding the provision of water to the NSA are: 1) the presence of groundwater contamination, 2) agreements prescribing the priority uses for replacement water supplies, 3) constructing the conveyance and treatment facilities to serve new development within Aerojet lands, 4) constructing the infrastructure necessary to serve new development in the Sunrise Douglas Community Plan area, 5) substantial changes in ground surface elevation creating a need for pressure zones, and 6) the relatively low yield of groundwater in the upper elevations where new development is taking place.



Source: Sacramento County GIS, 2005

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City of Rancho Cordova
Planning Department

Figure 4.9-3
Water Purveyors
Within the General Plan Planning Area

SCWA's use of replacement water supplies to serve the NSA and Aerojet lands is considered a challenge because the amount of replacement water supplies that SCWA has available to serve new growth and development is dependent upon the amount of water that is ultimately delivered to other water purveyors for replacement water supplies (see below). For example, GSWC has an agreement for replacement water supplies; 5,000 acre feet per year (afy) for diversion at the Folsom South Canal, and up to an additional 10,200 afy through SCWA Zone 40 facilities. SCWA has also indicated that it anticipates entering into an agreement with Cal-Am to provide replacement water supplies and is currently planning on providing 5,000 afy. However, a separate replacement water supply agreement does not currently exist between SCWA and Cal-Am. The highest priority use for remediated groundwater is for replacement water for GSWC and Cal-Am. Once replacement water supply obligations are met (maximum of 20,200 afy combined for GSWC and Cal-Am), SCWA would use excess replacement water supplies (approximately 15,000 afy) to serve new growth and development on Aerojet lands (Rio del Oro, Westborough, etc.).

While SCWA has planned for adequate infrastructure (see below) and the water supplies, themselves, are considered to have a high reliability of implementation (i.e., delivery to a designated user), SCWA could be limited in the amount of replacement water supplies (i.e., 15,000 afy) it is able to deliver to new development because GSWC's and Cal-Am's agreements to receive replacement water supplies have priority over SCWA's delivery of replacement water supplies to new development.

Water Supply Sources

Table 4.9-1 summarizes current and planned SCWA water supplies for Zone 40.

TABLE 4.9-1
AVERAGE ANNUAL CURRENT AND PLANNED WATER SUPPLIES
FOR SCWA ZONE 40 THROUGH YEAR 2030

Source	Water Supply (afy)
U.S. Bureau of Reclamation CVP Supply (SMUD 1, SMUD 2, and Fazio Water)	45,000
Appropriative Water Supplies [1]	14,586
Wholesale Water Agreement to serve the portion of Zone 40 that lies within the City of Sacramento's American River POU	9,300
Other Water Transfer Supplies[2]	5,200[2]
Zone 40 Groundwater[3]	40,900
Recycled Water (current use)[4]	4,400
Total Supplies	**114,186[5]**

Notes:
afy = acre-feet per year; CVP = Central Valley Project; GW = groundwater; POU = Place of Use; SMUD = Sacramento Municipal Utility District

1 *This reflects the expected long term average yield and not the contract amount*
2 *This is an estimate of water that would be purchased only in dry and critically dry water years e.g. years when rainfall and hence water supplies are below and substantially below average and is not included in the total supply calculation.*

3 Long-term annual average supply.
4 A master plan by Sacramento Regional County Sanitation District is currently under way to evaluate the potential of expanding deliveries of recycled water.
*5 Total water supplies identified in this table exceed those identified in Table 1 of the Water Supply Evaluation for the City of Rancho Cordova General Plan (see **Appendix 4.9**) because Table 1 reflects a scenario whereby SCWA's conjunctive use program would ensure water supplies did not exceed the WSMP Zone 40 water demands of 113,064 afy. Table 2 of the Water Supply Evaluation for the City of Rancho Cordova General Plan shows average-annual supplies, whereby the average annual groundwater supply may not be reflective of the total amount that is pumped in a year to meet the actual demand, but rather the long-term average groundwater supply that is projected to be available.*

Source: EDAW, 2006

As noted in **Table 4.9-1**, these water supply sources consist of the following:

- **Surface Water**

  - Appropriative Water Rights – SCWA has submitted an application to the SWRCB for the appropriation of water from the American and Sacramento Rivers. This water is considered "intermittent water" that typically would be available during the winter months of normal or wet years (e.g. years when rainfall and hence water supply are greater than average). This water could be used to meet system demands and possibly for future groundwater recharge through recharge percolating groundwater basins or direct injection of surface water into the aquifer. Based on water supply modeling (i.e., Calsim II) performed for the Zone 40 WSMP and the Freeport Regional Water Authority for the FRWP project, the maximum, minimum, and average annual use of appropriative water are projected to be 71,000 acre-feet (AF), 0 (acre-feet) AF, and 21,700 AF, respectively. In close to 30% of the years, 12,000 AF or less of appropriative water is projected to be used. The contract amount is based on the maximum water supply requirement of 71,000 afy.

  - Sacramento Utility District (SMUD) 1 Assignment - Under the terms of a three-party agreement (SCWA, SMUD, and the City of Sacramento), 15,000 acre-feet per year (afy) of SMUD's Central Valley Project (CVP) contract water to SCWA for municipal and industrial use. This CVP contract assignment is complete.

  - SMUD 2 Assignment - SMUD's PSA directs SMUD to assign a second 15,000 afy of surface water to SCWA for municipal and industrial uses and for SCWA to construct groundwater facilities necessary to provide water to meet SMUD's dry-year water shortage demand of up to 10,000 afy at its cogeneration facility. This CVP contract assignment is complete.

  - CVP Water Public Law 101-514 - In April 1999, SCWA obtained a CVP water service contract pursuant to Public Law 101-514 that provides a permanent water supply of 22,000 afy with 15,000 afy allocated to SCWA. This water supply is known as "Fazio" water.

  - Based on modeling performed for the Zone 40 WSMP, the maximum, minimum, and average annual use of CVP (SMUD 1, SMUD 2, and Fazio) water were projected to be 45,000 AF, 8,700 AF, and 38,000 AF, respectively. The 45,000 AF maximum reflects the firm supply of CVP water in most years. Lesser amounts result from CVP deficiencies or cutbacks in dry years as per the terms of the municipal supply contract.

- **Groundwater**

  - Over the long-term average, SCWA's extraction of groundwater would not exceed 40,900 afy. However, during drought years when surface water availability is limited,

groundwater production would increase to 70,000 afy to make up for the reduction in surface water deliveries (i.e., drought year cut backs). SCWA's source of groundwater supply comes from the Central Basin through a series of extraction wells and groundwater treatment plants. **Table 4.9-2** summarizes historic and projected groundwater pumping in Zone 40. This groundwater source would include (in the future) 15,000 afy for future growth in the Planning Area from the Eastern County Replacement Water Supply Project (see below).

TABLE 4.9-2
HISTORICAL AND PROJECTED GROUNDWATER PUMPING IN ZONE 40

Basin Name	Pumping by Year (afy)									
	2000	2001	2002	2003	2004	2010	2015	2020	2025	2030
Central Sacramento Zone 40	20,022	22,306	22,949	22,745	25,790	34,125	28,837	40,470	31,324	39,097

Notes:
afy = acre-feet per year. Projected groundwater pumping based on modeling performed for the Urban Water Management Plan and Zone 40 WSMP. Long-term average annual groundwater supply of 40,900 afy agreed to in the WFA used for planning purposes. The decrease in groundwater extractions in 2015 and in 2025 is a result of increase surface water treatment capacity coming on-line.
Source: EDAW, 2006

Existing SCWA Water Agreements

SCWA has entered into agreements that require the provision of water to other area water purveyors and interests. These are summarized below:

- *Aerojet and Boeing* – The Aerojet and Boeing agreements transfer ownership of remediated groundwater (associated with clean-up activities, see Section 4.4 [Hazards and Human Health]) to SCWA to be used as a replacement water supply for groundwater capacity lost by SCWA, Golden State Water Company (GSWC), and California-American Water Company (Cal-Am) as a result of past groundwater contamination.

- *Golden State Water Company* – SCWA's agreement with GSWC specifies delivering 5,000 afy of replacement to their intake facilities on the Folsom South Canal. GSWC's need for additional replacement water (i.e., water amounts greater than 5,000 afy) would be determined annually in a meet-and-confer session with SCWA. Regardless of demonstrated need, GSWC's maximum allocation of replacement water supply in any year could not exceed 15,200 AF (less the 5,000 afy delivered to GSWC at the Folsom South Canal).

- *California-American Water Company* – Currently, no separate replacement water supply agreement exists between SCWA and Cal-Am. However, it is the intent of SCWA to negotiate such an agreement. During negotiations SCWA has been working cooperatively with the City of Sacramento to investigate ways to deliver Place of Use (POU) surface water (or replacement water in dry years) to Cal-Am's service area that lies within the POU (this includes up to 5,000 afy of either POU or replacement water). This would allow groundwater currently being extracted in the POU area to be imported into areas affected by groundwater contamination.

- *Memorandum of Agreement (MOA) for Management of Water and Environmental Resources Associated with the Lower Cosumnes River* – Under the terms of this agreement,

SCWA would provide 5,000 afy of remediated groundwater or provide a contribution of capital towards the purchase of an alternative supply for the Cosumnes River Flow Augmentation Project. In any year that water is not required to fulfill the objectives of the Cosumnes River Augmentation Project SCWA reserves the right to use the 5,000 AF of water for other purposes. Remediated water would be conveyed down the Folsom South Canal for delivery to the Cosumnes River from October through December. This water would be delivered though facilities constructed as part of the Eastern County Water Supply Project.

Existing and Planned Water Supply Infrastructure Projects

The following are major water supply infrastructure projects that would provide water service to the Planning Area:

- *Zone 40 Central Water Treatment Plant* – SCWA plans to construct the 78-acre Central Water Treatment Plant (CWTP) and associated water supply facilities to provide up to 85 million gallons per day (mgd) of potable water to existing and approved urban development within the SCWA Zone 40 area. The CWTP site is located at the northeast corner of Florin and Knox Roads, west of the Florin Road/Excelsior Road intersection in Sacramento County. An associated SCWA corporation yard to house facilities and store equipment would be colocated on the site, along with a groundwater treatment facility. The CWTP would have the capacity to treat 85 mgd of raw surface water and 13 mgd of raw groundwater to serve approved land uses in the Zone 40 service area. Initial phases of facility construction are anticipated to be completed by 2010 with full buildout by 2019.

- *Freeport Regional Water Project (FRWP)* – SCWA and East Bay Municipal Utility District are constructing a diversion structure on the Sacramento River near the community of Freeport and a raw-water conveyance pipeline from the diversion structure to the central portion of Zone 40. SCWA is would construct a 85-mgd surface-water treatment facility in the central portion of Zone 40 (CWTP and described above), and the associated treated-water conveyance pipelines to deliver water to SCWA customers. This project is anticipated to be completed by 2010.

- *North Vineyard Well Field (formerly Excelsior Road Well Field) Project* – This well field would provide for the extraction of up to 10,000 afy of groundwater for replacement and/or new water supplies to serve existing or proposed development within Zone 40. Ultimately it would consist of up to eight wells located near Excelsior Road and Florin Road with a 30-inch raw-water pipeline to convey water to a new water treatment plant (Anatolia Water Treatment Plant located near the southeast corner of the intersection of Sunrise Boulevard and Douglas Road in the Sun Ridge Specific Plan area). The first phase consists of three wells (4,500 gallons per minute [gpm]) and would be expanded as new development or replacement supplies are needed. If wells within SCWA's Mather/Sunrise system (in the south west portion of the Planning Area) are shut down because of past groundwater contamination, any additional capacity remaining in the well field can be claimed as a replacement supply (as opposed to a new water supply) by SCWA. This project is currently being constructed, with the initial phase estimated to be complete at the end of 2006. The project is expected to be built out by 2011. Water from this project has been allocated to the approved Sun Ridge Specific Plan area within the City and is also anticipated to be the initial water source for the proposed The Preserve at Sunridge project immediately south of the Sun Ridge Specific Plan area (see **Appendix 4.9**).

- *Eastern County Replacement Water Supply Project* – This project is a proposal by SCWA to use remediated groundwater supplies obtained through the agreements between the

County, SCWA, Aerojet, and McDonnell Douglas Corporation for replacement water lost as a result of past groundwater contamination in the Sunrise corridor area. The remediated groundwater would replace lost groundwater supplies of Cal-Am or GSWC or would be used to serve new urban development on lands known as Aerojet lands in the northern portion of Zone 40 and for enhanced fishery flows along the Cosumnes River. This project currently is under environmental review and facilities included within this project are anticipated to be constructed by 2010.

Golden State Water Company

Golden State Water Company (GSWC) also serves a portion (generally the northeastern portion) of the Planning Area. All of GSWC's service area is within the City's Planning Area. GSWC owns and operates the Cordova System, a water treatment and conveyance system that serves GSWC's service area. GSWC relies on both surface and groundwater to meet water demands within its service area. GSWC is projecting buildout within its service area by 2020.

Current (2005) water demands in the Cordova System is estimated at 16,413 afy with future (year 2030) water demands projected at 20,829 afy. GSWC has identified sufficient water supplies to meet this projected 2030 demand. The Cordova System obtains its water supply from three sources: surface water, local groundwater, and replacement water under the settlement agreement with Aerojet. In general, GSWC's supply is expected to be 100% reliable through 2030. This reliability is a result of: a highly reliable surface water supply from the American River, implementation of the settlement agreement prescribing priority uses for SCWA replacement water supplies (see above), and historically reliable groundwater supply from the Central Basin (see **Appendix 4.9**).

Water Supply Sources

Table 4.9-3 summarizes existing and planned water supply sources for GSWC.

TABLE 4.9-3
CURRENT AND PLANNED WATER SUPPLIES FOR THE GSWC CORDOVA SYSTEM (AFY)

Source	Year					
	2005	2010	2015	2020	2025	2030
Surface water from American River[1]	5,000	5,000	5,000	5,000	5,000	5,000
SMUD Water Transfer[2]	5,000	0	0	0	0	0
Aerojet Replacement Water via Folsom South Canal[3]	0	5,000	5,000	5,000	5,000	5,000
GSWC Untreated Groundwater[4]	8,116	7,450	4,500	4,500	4,500	4,500
Aerojet Replacement Water through SCWA[5]	0	2,068	5,999	6,314	6,329	6,329
Recycled Water	0	0	0	0	0	0
Total	**18,116**	**19,518**	**20,499**	**20,814**	**20,829**	**20,829**

Notes:
afy = acre-feet per year; GSWC = Golden State Water Company; SCWA = Sacramento County Water Agency; SMUD = Sacramento Municipal Utility District

[1] *GSWC American River rights.*
[2] *Under this water transfer from SMUD, GSWC is entitled to divert up to 10,000 afy from the American River through July 29, 2007, and for additional years upon request. However, GSWC plans to use only 5,000 afy of this entitlement because of limited surface-water treatment capacity and its desire to maintain its groundwater rights through the Aerojet replacement-water operations.*
[3] *Aerojet replacement-water obligation.*
[4] *Based on GSWC's maximum annual extractions before 2005 and projected changes to groundwater supply through 2030.*
[5] *SCWA would recapture, treat, and deliver groundwater to GSWC up to an additional 10,200 afy of groundwater discharged by Aerojet into the American River. Please note that GSWC is relying on a total of 11,329 afy of replacement supplies from SCWA. For amounts greater than 10,000 afy (i.e., 1,329 afy), GSWC and SCWA would need to negotiate the provision of these supplies on a yearly meet-and-confer basis.*

Source: EDAW, 2006

As noted in **Table 4.9-3**, these water supply sources consist of the following:

- **Surface Water**

  - Pre-1914 American River Water Rights – GSWC possesses a pre-1914 appropriative right to divert up to 10,000 afy from the American River via the Folsom South Canal at a maximum withdrawal rate of 20 cubic feet per second (cfs) or 13 million gallons per day (mgd). Appropriative surface water rights initiated prior to 1914 are not subject to the Water Commission Act and successor laws relating to water right permitting requirements, and thus do not require a permit from the State Water Resources Control Board. In 1994, GSWC entered into an "Agreement for Reallocation of Water under Co-Tenancy Agreement" with the City of Folsom to lease 5,000 afy of its water rights to the City of Folsom. The company preserved 5,000 afy of the remaining water right which is diverted from the Folsom South Canal for use within the Cordova System. During the last 20 years, GSWC has used as much as 4,784 afy of this entitlement.

- **Groundwater**

  - GSWC pumps groundwater for the Cordova System from 15 production wells located in the Central Basin. The Cordova System has a total normal-year capacity of 21,669 gpm (31,500 afy). In some areas of the basin, groundwater has been impaired by contaminants, including volatile organic compounds (VOCs), perchlorate, and N-nitrosodimethylamine (NDMA) from Aerojet's rocket propellant manufacturing and testing facility located immediately east of the Cordova System. Groundwater contamination forced GSWC to decommission some wells. However, decommissioning the wells has not lowered GSWC's overall system production capacity because non-contaminated groundwater wells have been modified to increase their rated capacity.

  - It has been predicted that by 2015 all but two of GSWC's wells would experience contamination levels that may cause their inactivation. The two remaining wells, Wells 17 and 23, are not expected to be affected by contamination until at least 2032. These wells have a combined production capacity of 3,100 gallons per minute (gpm).

  - Groundwater lost as a result of contamination would be replaced by Aerojet under its replacement water obligations. Approximately 5,000 afy of remediated groundwater would be discharged to the American River system. This water would be wheeled through, and withdrawn from, the Folsom South Canal: GSWC's current surface water point of diversion. Up to an additional 10,200 afy of remediated groundwater could be delivered to GSWC via SCWA's FRWP and Central WTP.

Table 4.9-4 presents the projected groundwater pumping volumes by the Cordova System. As a result of changes in groundwater quality, the groundwater supply for the Cordova System is expected to decrease between 2005 and 2015.

TABLE 4.9-4
GSWC'S PROJECTED GROUNDWATER PUMPING VOLUMES BY CORDOVA SYSTEM (AFY)

Basin Name	Year					
	2005	2010	2015	2020	2025	2030
Central Sacramento	8,116	7,450	4,500	4,500	4,500	4,500

Note: afy = acre-feet per year
Source: EDAW, 2006

Existing Water Supply Infrastructure

The Cordova System's distribution facilities have been designed with several interconnections to neighboring water purveyors for emergency purposes. GSWC maintains three 6-inch interconnections with the Cal-Am's distribution system on the west side of the Cordova System, and a 12-inch interconnection with the City of Folsom's distribution system at the eastern edge of the Cordova System. In addition, the Cordova System has five water storage reservoirs with a total capacity of 9.5 million gallons; one additional reservoir with additional 5.0 million gallons of storage capacity is scheduled to be online in spring 2006. Water treatment occurs at the Coloma Water Treatment Plant (WTP) and the Pyrites WTP.

California-American Water Company (Cal-Am)

Cal-Am is a privately owned water purveyor that provides urban water supply to portions of Rancho Cordova located near Sunrise Boulevard and Douglas Road. Cal-Am purchases wholesale water from SCWA. Cal-Am's Northern Division consists of nine distinct water systems forming one operational entity that is the largest private water operation in Sacramento County with a total of about 43,100 connections serving an estimated 170,500 people. The 9 systems are not all contiguous, but are surrounded by numerous other utilities. The 9 systems that comprise the Northern Division include: Antelope, Arden, Lincoln Oaks, Parkway, Suburban/Rosemont, Sunrise, West Placer, Isleton and Walnut Grove. The Sunrise system is also known as Security Park; however, it is referred to as Sunrise in the Cal-Am's Urban Water Management Plan (UWMP). Suburban/Rosemont and Sunrise are the two Cal-Am systems that provide water to a portion of the Planning Area.

Current (2005) water demands in that part of the Planning Area served by Cal-Am is estimated at 14,334 afy with future (year 2025) water demands projected at 14,477 afy. Cal-Am has identified sufficient water supplies to meet this projected water demand of 14,477 afy by year 2025. Cal-Am operates more than 100 groundwater wells in the Northern Division (inside and outside the Central Basin) for a total theoretical capacity of approximately 100,000 afy. It should be noted that while Cal-Am's system could pump up to 100,000 afy of groundwater, it is highly unlikely that Cal-Am would undertake such an aggressive groundwater pumping scenario in the Central Basin because of its commitments to adhere to the negotiated sustainable yield of the Central Basin (i.e., 273,000 afy), in the Water Forum Agreement (described below). Further, this pumping capacity is for Cal-Am's Northern Division, of which some service areas are located outside the Central Basin. While all Cal-Am service areas, except for Isleton and Walnut Grove, have interties with other neighboring water purveyors; it is unknown what amount of Cal-Am's groundwater pumping capacity is available to exclusively serve the Sunrise and Suburban/Rosemont service area within the Planning Area. Nonetheless, the presence of intertie connections between service areas at a minimum indicates that sufficient emergency groundwater reserves are available within its system. Further, groundwater currently pumped to serve the Northern Division and projected future pumping amounts are considered to have a high reliability of being delivered because Cal-Am has historically pumped a reliable supply of groundwater from its system. Cal-Am would tailor the Northern Division's water supply mix during dry and very dry years in cooperation with the Sacramento Groundwater Authority and the Central Sacramento Groundwater Forum determinations as to how much surface water would be available under conjunctive use programs in any given year. Cal-Am projects that they would be able to use as much as 23,300 af of imported surface water supplies during normal years. In a very dry year, or the third year of a multiple dry year scenario, Cal-Am projects 100% of the Division's total water supply would be groundwater.

Similar to the other water purveyors that rely on groundwater from the Central Basin, Cal-Am's groundwater wells within the Sunrise and Suburban/Rosemont service area could at some future point become impaired by the local contamination problem associated with past operations at Aerojet. Cal-Am has however has not entered into an agreement with SCWA for replacement water supplies. However, it is SCWA's intention to enter into an agreement for replacement water supplies with Cal-Am; and as a result, SCWA has planned for approximately 5,000 afy of replacement water supplies allocated to Cal-Am (see above). Although Cal-Am has not relied upon replacement water supplies to meet future demands in its UWMP, water supplies potentially lost from groundwater contamination (up to 5,000 afy) and replaced by SCWA are considered to have a high reliability of being delivered.

Water Supply Sources

Table 4.9-5 summarizes both projected water demands and sources of water supply for Cal-Am.

TABLE 4.9-5
SUMMARY OF CURRENT AND PROJECTED WATER DEMAND AND SOURCES OF WATER SUPPLY (AFY) FOR CAL-AM

Year	2005	2010	2015	2020	2025
Projected Demand	**47,620**	**50,510**	**52,500**	**54,380**	**56,190**
Projected Supply by Source					
Cal-Am Groundwater	43,600	33,650	34,180	33,550	33,910
Wholesale Surface Water Supply Purchases:					
Placer County Water Agency (West Placer Service Area)	140	1,360	2,720	4,080	5,440
SCWA (Parkway)	2,420	3,500	3,500	4,000	4,000
Citrus Heights Water District (Lincoln Oaks Intertie with SSWD)	20	9,000	9,000	9,500	9,500
City of Sacramento (Arden Intertie)	1,440	3,000	3,100	3,250	3,340
Transfers and Exchanges	(See "Wholesale Purchases" above. Transfers and exchanges of water occur pursuant to conjunctive-use agreements.)				
Total Water Supply	**47,620**	**50,510**	**52,500**	**54,380**	**56,190**
Sunrise Service Area Demands	48	48	48	48	48
Suburban/Rosemont Service Area Demands	14,286	14,322	14,358	14,394	14,429
Total Cal-Am Water Demands within City planning area[1]	**14,334**	**14,370**	**14,406**	**14,442**	**14,477**

Notes:
afy = acre-feet per year; Cal-Am = California-American Water Company; SCWA = Sacramento County Water Agency; SSWD= Sacramento Suburban Water District
[1] *Estimated demands for City's Planning Area based on projected population growth and percentage of water use for service areas within planning area compared to the total Northern Division service area.*
Source: EDAW, 2006

Sunrise Service Area

Citizens Utilities (a private water utility provider which was later purchased by Cal-Am) purchased the Sunrise service area (also known as Security Park) from McDonnell Douglas in the early 1980s. It consists of approximately 2.8 square miles of land located immediately north of Douglas Road and east of Sunrise Boulevard, approximately 1.5 miles east of Mather Airport. Presently, this area is mostly undeveloped, serving approximately 20 commercial customers. The system includes five groundwater wells, only one of which is in regular use, with other wells available as needed for backup. The Sunrise Service area accounts for less than 0.1% of the Northern Division's production and sales.

Suburban Service Area

The Suburban service area consists of two systems, the Suburban system and the Rosemont system. These systems lie adjacent to each other and span the north and south sides of U.S. Highway 50 about 9 miles east of downtown Sacramento. This service area (i.e., Suburban /Rosemont) is located entirely within the City's planning area, south of the American River, and north of Mather Airport and includes portions of the developed (i.e., urban) areas of Rancho Cordova. There are approximately 17,000 customers in the Suburban/Rosemont area, which are served via 8 groundwater wells for the Rosemont subarea and 20 wells within the Suburban subarea. In all, the Suburban service area accounts for approximately 30% of the Northern Division's production.

Omochumne-Hartnell Water District

Omochumne-Hartnell Water District (OHWD) is a primarily agricultural water district. While OHWD does not own any water rights, it owns and operates surface water and groundwater distribution facilities for landowners in its service area. Land use within OHWD's service area is primarily in agriculture. Landowners divert water from the Cosumnes River using flashboards to create diversion dams, which allows flood irrigation for agricultural fields adjacent to the Cosumnes River. Landowners that are not located adjacent to the Cosumnes River have groundwater wells that are pumped for irrigation.

4.9.2 REGULATORY FRAMEWORK

FEDERAL

Clean Water Act

The Clean Water Act (CWA) regulates the water quality of all discharges into waters of the United States including wetlands, perennial and intermittent stream channels. Section 401, Title 33, Section 1341 of the CWA sets forth water quality certification requirements for "any applicant applying for a federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters." Section 404, Title 33, Section 1344 of the CWA in part authorizes the U.S. Army Corps of Engineers to:

- Set requirements and standards pertaining to such discharges: subparagraph (e);
- Issue permits "for the discharge of dredged or fill material into the navigable waters at specified disposal sites": subparagraph (a);
- Specify the disposal sites for such permits: subparagraph (b);
- Deny or restrict the use of specified disposal sites if "the discharge of such materials into such area will have an unacceptable adverse effect on municipal water supplies and fishery areas": subparagraph (c);
- Specify type of and conditions for non-prohibited discharges: subparagraph (f);
- Provide for individual State or interstate compact administration of general permit programs: subparagraphs (g), (h), and (j);

- Withdraw approval of such State or interstate permit programs: subparagraph (i);
- Ensure public availability of permits and permit applications: subparagraph (o);
- Exempt certain Federal or State projects from regulation under this Section: subparagraph (r); and,
- Determine conditions and penalties for violation of permit conditions or limitations: subparagraph (s).
- Section 401 certification is required prior to final issuance of Section 404 permits from the U.S. Army Corps of Engineers.

National Pollutant Discharge Elimination System Permit Program (NPDES)

NPDES was established under the Clean Water Act to address municipal and industrial discharges to surface waters. This includes regulations for point-source discharges (e.g., wastewater treatment plant effluent discharges) and non-point discharges associated with stormwater. In general, NPDES permit provisions consist of discharge restrictions and limitations (including numeric and narrative) intended to protect beneficial uses of the receiving water as well as maintenance of public health and safety.

Phase 1 of NPDES permitting program for municipal discharges of stormwater for urban areas where the population exceeded 1000,000, industrial activity stormwater discharges and general construction activity discharges (disturbance of 5 acres or greater) was established in 1990. Phase 2 of NDPES (2003) addresses municipal discharges of urban areas of less than 100,000 in population as well as for construction activities that disturb 1 acre or greater.

Federal Emergency Management Agency (FEMA)

Sacramento County is a participant in the National Flood Insurance Program (NFIP), a Federal program administered by the Federal Emergency Management Agency (FEMA). Participants in the NFIP must satisfy certain mandated floodplain management criteria. The National Flood Insurance Act of 1968 has adopted as a desired level of protection, an expectation that developments should be protected from floodwater damage of the Intermediate Regional Flood (IRF). The IRF is defined as a flood that has an average frequency of occurrence on the order of once in 100 years although such a flood may occur in any given year. The County is occasionally audited by the DWR to insure the proper implementation of FEMA floodplain management regulations.

STATE

Senate Bill (SB) 610 and Assembly Bill (AB) 901

During the 2001 regular session of the State Legislature, SB 610 and AB 910 – Water Supply Planning, were signed and became effective January 1, 2002. SB 610 amends Public Resources Code section 21151.9, requiring any EIR, negative declaration, or mitigated negative declaration for a qualifying project to include consultation with affected water supply agencies (current law applied only to NOPs). SB 610 also amends the following: Water Code 10656 and 10657 to restrict state funding for agencies that fail to submit their urban water management plan to the Department of Water Resources; and Water Code section 10910 to describe the water supply assessment that must be undertaken for projects referred under PRC Section

21151.9, including an analysis of groundwater supplies. Water agencies would be given 90 days from the start of consultation in which to provide a water supply assessment to the CEQA lead agency; Water Code section 10910 would also specify the circumstances under which a project for which a water supply assessment was once prepared would be required to obtain another assessment. AB 910 amends Water Code section 10631, expanding the contents of the urban water management plans to include further information on future water supply projects and programs and groundwater supplies.

Senate Bill (SB) 221

SB 221 adds Government Code section 66455.3, requiring that the local water agency be sent a copy of any proposed residential subdivision of more than 500 dwelling units within 5 days of the subdivision application being accepted as complete for processing by the city or county. It adds Government Code section 66473.7, establishing detailed requirements for establishing whether a "sufficient water supply" exists to support any proposed residential subdivisions of more than 500 dwellings, including any such subdivision involving a development agreement. When approving a qualifying subdivision tentative map, the city or county must include a condition requiring a sufficient water supply to be available. Proof of availability must be requested of and provided by the applicable public water system. If there is no public water system, the city or county must undertake the analysis described in section 66473.7. The analysis must include consideration of effects on other users of water and groundwater.

Porter-Cologne Water Quality Act

The Porter-Cologne Water Quality Act governs the coordination and control of water quality in the state, and includes provisions relating to non-point source pollution. The California Coastal Commission, pursuant to the coastal act, specified duties regarding the federally approved California Coastal Management Program. This law requires that the State Water Resources Control Board, along with the California Coastal Commission, regional boards, and other appropriate state agencies and advisory groups, prepare a detailed program to implement the state's non-point source management plan on or before February 1, 2001. The law also requires that the state board, in consultation with the Commission and other agencies, submit copies of prescribed state and regional board reports containing information related to non-point source pollution, on or before August 1 of each year.

State Water Resources Control Board

The State Water Resources Control Board (SWRCB) is responsible for the establishment and implementation of statewide water quality policy and delegates some of this responsibility to the nine regional water quality control boards in the state. SWRCB has established the state's nondegradation policy as well as the State Implementation Policy of Toxics Standards for Inland Surface Waters, Enclosed Bays and Estuaries.

Regional Water Quality Control Board, Central Valley Region

The RWQCB Central Valley Region provides planning, monitoring, and enforcement techniques for surface and groundwater quality in the Central Valley region. A basin plan provides more specific information for specific waterways within the region, in terms of establishing monitoring techniques to control pollutant levels within the waterways. The RWQCB also monitors storm water quality from construction activities through a National Pollutant Discharge Elimination System (NPDES) permitting process.

Central Valley Regional Water Quality Control Plan (Basin Plan)

The Central Valley Regional Water Quality Control Plan covers all the drainage basin areas for the Sacramento and San Joaquin rivers, extending approximately 400 miles from the California-Oregon border to the headwaters of the San Joaquin River. This plan describes the beneficial uses to be protected in these waterways, water quality objectives to protect those uses, and implementation measures to make sure those objectives are achieved.

National Pollutant Discharge Elimination System (NPDES)

The City of Rancho Cordova, along with the cities of Citrus Heights, Folsom, and Galt, and the County of Sacramento, operate under a National Pollutant Discharge Elimination System (NPDES) renewed in December 2002 to discharge urban runoff from Municipal Separate Storm Sewer Systems (MS4s) in their municipal jurisdictions (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 NPDES Permit is to attain water quality standards and protection of beneficial uses consistent with the 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 Stormwater Quality Improvement Plan (SQIP) for the City, which consists of six Minimum Control elements (public education and outreach, public involvement and participation, detection and elimination of illicit discharges, construction stormwater control, postconstruction stormwater control for new development and redevelopment, and pollution prevention/good housekeeping for municipal operations). The City has identified a range of Best Management Practices (BMPs) and measurable goals to address the stormwater discharges in the City. As part of the SQIP, there are several regulations/procedures in place that implement the SQIP that include the Grading and Erosion Control Ordinance (Chapter 16.44 of the existing County Code) and construction standards. 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. Postconstruction stormwater quality controls for new development require use of control measures set forth in the Guidance Manual for On-Site Stormwater Quality Control Measures (City of Sacramento and County of Sacramento, 2000). This includes use of regional water quality control features (e.g., detention basins) for large developments (over 100 acres), use of treatment-control measures (swales, filter strips, media filters and infiltration), house-keeping practices (e.g., spill prevention, proper storage measures and clean-up procedures).

LOCAL

Sacramento County General Plan

The County of Sacramento General Plan was adopted by the County Board of Supervisors in December 1993 and is currently undergoing an update. The County General Plan policies and implementation measures apply to development within the Rancho Cordova General Plan Planning Area that are outside of the City limits, until such time that areas are annexed into the City of Rancho Cordova. The Conservation Element, Open Space Element, and the Safety Element within the County General Plan include policies and implementation measures relevant to the surface and groundwater resources as well as water quality protection and flooding issues within Sacramento County. Key policies include urban runoff control and water quality (policies CO-9 through CO-13), water supply considerations (policies CO-17 through CO-20 and CO-26),

groundwater protection (policies CO-25, CO-27, CO-28 and CO-29) and drainage/flooding (policies CO-103 and CO-104).

Sacramento Area Flood Control Agency

The Sacramento Area Flood Control Agency (SAFCA) was formed in 1989 by the California Legislature to coordinate regional flood control. SAFCA is a joint powers agency, combining the efforts of the City of Sacramento, the counties of Sacramento and Sutter, the American River Flood Control District, and Reclamation District 1000. The main goal of the agency was to provide for 200-year flood protection levels.

Water Forum Agreement

Initiated in 1993, the Water Forum process brought together a diverse group of stakeholders that included business and agricultural leaders, citizens' groups, environmentalists, water managers, and local governments to evaluate available water resources and the future water needs of the Sacramento metropolitan area. These stakeholders identified two coequal objectives to guide the development of the Water Forum Agreement (WFA):

- Provide a reliable and safe water supply for the region's economic health and planned development through the year 2030.
- Preserve the fishery, wildlife, recreational, and aesthetic values of the lower American River.

After a 6-year consensus-based stakeholder process, the WFA was completed. The WFA prescribes a regional conjunctive-use water program for the lower American River and the connected groundwater basin. The Water Forum also completed an environmental impact report (EIR) for the Water Forum Proposal. This document was certified by the two lead agencies (the City of Sacramento and the County) in December 1999. Please note that the WFA was formerly named the Water Forum Proposal. At the time that the City and County of Sacramento adopted the project and they and other stakeholders adopted their purveyor specific agreements (PSAs), the name was changed to the WFA because it was an agreed-to proposal by all stakeholders.

The WFA includes PSAs that define the benefits each water purveyor will receive as a stakeholder and the actions each must take to receive these benefits. PSAs for the County of Sacramento/SCWA, the City of Sacramento, and Sacramento Municipal Utility District (SMUD) also describe commitments by these entities to address issues related to wheeling and wholesaling of surface water, CVP water transfers, and dry-year water supply in SCWA Zone 40.

The Water Forum process initiated a coordinated effort for regional water supply planning within the Sacramento region. Because of limited water supplies, the sensitive ecological values of the lower American River, and existing groundwater contamination within the Sacramento groundwater basins, purveyors and stakeholders came together and agreed to resolve longstanding conflicts through an interest-based negotiation process that led to formulation of the seven elements of the WFA and individual PSAs for each purveyor. In addition, all signatories to the WFA became members of the Water Forum successor effort, which is responsible for overseeing, monitoring, and reporting on the implementation of the WFA.

The WFA is a long-term water supply plan that addresses water supplies and demands to 2030 for existing (as of January 2000) purveyors and agencies. The WFA did not address water supplies beyond 2030 and did not account for new incorporations for the cities of Elk Grove and Rancho

Cordova. Rather, the WFA analysis was based on existing land use plans that were available at the time it was prepared (i.e., the *County of Sacramento General Plan* [1994] and other relevant agency general plans). Since the WFA was adopted in 2000, the cities of Elk Grove and Rancho Cordova have incorporated and pursued development and implementation of long-term land use plans. For demands that exceed those accounted for and evaluated in the WFA and EIR, the City may need to consult with regional water purveyors and stakeholders to the WFA (e.g., environmental and business interests) to determine how its proposed water demands fit within the overall regional water supply planning context.

SCWA Zone 40 Water Supply Master Plan

In response to the requirements of the WFA, SCWA has undertaken a comprehensive water supply planning process through its Zone 40 Water Supply Master Plan (WSMP) to identify available water supplies, the land area that could be served by these supplies, and necessary infrastructure to deliver water to a subarea within Zone 40 known as the 2030 Study Area. The 2030 Study Area encompasses approximately 46,600 acres (including portions of the cities of Elk Grove and Rancho Cordova) where development of industrial, commercial, office, and residential land uses is expected to occur and where demand for water is expected to be concentrated during the planning horizon of the WSMP (i.e., 2030).

As a signatory to the WFA, SCWA would ensure that water conservation and demand management—necessary steps to achieve WFA objectives—are integrated into future growth and water planning activities in its service area. SCWA identified a total acreage of land that could be served by existing and projected future water supplies and achieve the objectives of the WFA.

The Zone 40 WSMP provides a flexible plan of water management options that can be implemented and modified if conditions that affect the availability and feasibility of water supply sources change in the future. The goal of the Zone 40 WSMP is to define a conjunctive-use program of groundwater, surface water, remediated water, and recycled water supplies and a financing program for the construction of a new surface-water diversion structure, surface-water treatment plant, water conveyance pipelines, and groundwater extraction, treatment, and distribution facilities. The Zone 40 WSMP evaluates several options for facilities to deliver surface water and groundwater to development within Zone 40, as well as the financing mechanisms to provide water to the 2030 Study Area.

Urban Water Management Plans for Municipal Water Purveyors

The following 2005 UWMPs have been adopted by municipal water purveyors within the Planning Area:

- SCWA Zone 41 Urban Water Management Plan
- GSWC Cordova System Urban Water Management Plan
- California American Water Company Northern Division Urban Water Management Plan

SCWA Groundwater Management Plan

SCWA prepared a Groundwater Management Plan (GMP) for Zone 40. While GMPs are typically prepared for entire groundwater basins (in this case the Central Groundwater Basin), SCWA's GMP addresses only the boundaries of Zone 40, which encompasses most but not all of the Central Sacramento County Groundwater Basin (Central Basin). The decision to limit the extent of this GMP to Zone 40 was intentional because deliberations and discussion are currently under

way between interested stakeholders regarding future governance and management of a "groundwater authority" for the Central Basin. The Zone 40 GMP is intended to be a document that can grow into, and perhaps be superseded by, the GMP that would be needed for the entire Central Basin.

The purpose of the GMP is to maintain a sustainable, high-quality groundwater resource for the users of the groundwater basin underlying Zone 40. Development of the Central Basin GMP would be through the governance structure currently under negotiations by the Central Sacramento County Groundwater Forum (CSCGF) (discussed below).

Central Sacramento County Groundwater Forum

Acting on behalf of the Water Forum successor effort, Department of Water Resources (DWR) initiated the CSCGF by signing a Memorandum of Understanding with the Sacramento City-County Office of Metropolitan Water Planning (funded by SCWA and the City of Sacramento) to support discussions among stakeholders representing all segments of the community with an interest in developing a groundwater management structure and ultimately a GMP for the Central Basin. Stakeholders are organized into six interest groups: agriculture, agriculture/residential, business, environmental/community organizations, local governments/public agencies, and water purveyors. Each interest group is represented by five individuals who participate in the collaborative process known as the CSCGF.

The CSCGF is developing a GMP, which is currently in draft form and being reviewed by local stakeholder groups. It is anticipated that the new GMP would be adopted within the next 6 months (by August 2006). This plan would supersede the Zone 40 GMP described above.

Grading and Erosion Control Ordinance

As discussed above, the City of Rancho Cordova adopted the existing Sacramento County General Plan to guide development in the city. The City also adopted the Sacramento County Department of Water Resources (DWR) Grading and Erosion Control Ordinance (Chapter 16.44 of the existing County code), which establishes administrative procedures, minimum standard of review, and implementation and enforcement procedures for controlling erosion, sedimentation and other pollutant runoff from new development projects. The ordinance also addresses grading, filling, land excavation, construction activities and drainage as they relate to a particular project. The ordinance applies to any development project resulting in the excavation of 350 cubic yards of soil or more. The ordinance also ensures compliance with the City's National Pollutant Discharge Elimination System (NPDES) Permit, which is issued by the California Regional Water Quality Control Board (CRWQCB). The City of Rancho Cordova is co-permittee on a NPDES Permit along with Sacramento County and the cities of Sacramento, Folsom, Galt, and Citrus Heights, and Elk Grove. The ordinance requires a separate permit for work on each site unless sites are contiguous, have the same ownership, and are included in the approved plan. The ordinance sets forth performance standards and a permit can be denied, based on the following findings:

a) The applicant has failed to provide sufficient or adequate plans, information or other data necessary to allow determinations respecting compliance with the provisions of Chapter 16.44 or Sacramento County Specifications;

b) The environmental review has not been completed, or other provisions of this code or of state law pertaining to environmental review have not been satisfied, or the activity will have significant adverse environmental impacts, which cannot be

substantially mitigated. Where the activity will have significant adverse impacts, the Administrator may approve the permit in accordance with Chapter 16.44, Title 20, and CEQA (1970).

c) The proposed activity will violate provisions of Chapter 16.44, Sacramento County Specifications, or state or federal laws, and such violation cannot be resolved by the imposition of conditions pursuant to Section 16.44.170.

d) The proposed activity will adversely affect surrounding properties and public rights-of-way, the water quality of watercourses, and existing drainage (SCC 102 Section 3, 1995; SCC Section 2, 1993)

4.9.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

A hydrologic or water quality impact of the proposed City of Rancho Cordova General Plan would be considered significant if it would result in any of the following actions based on the following criteria (based on Appendix G of the CEQA Guidelines):

- A violation of any water quality standard or waste discharge requirement;
- A substantial depletion of groundwater supplies or substantial interference with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted);
- Result in the need for new systems or a substantial expansion or alteration to the local or regional water supplies that would result in a physical impact to the environment;
- Result in insufficient water supplies available to serve the project from existing entitlements and resources;
- A substantial alteration of the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion, siltation, and/or environmental harm on- or off –site;
- A substantial increase in the rate or amount of surface runoff during construction and after construction in a manner that would result in flooding on- or off –site;
- Discharge of storm water from material storage areas, vehicle or equipment refueling stations, vehicle or equipment maintenance areas (including washing), waste handling, hazardous materials handling or storage, delivery areas or loading docks, or other outdoor work areas;
- Discharge of storm water that would impair the beneficial uses of the receiving waters or areas that provide water quality benefit;
- Discharge of storm water that would cause significant harm to the biological integrity of the waterways and water bodies;

- A contribution of runoff water exceeding the capacity of existing or planned storm water drainage systems;
- A substantial additional source of polluted runoff;
- Any other action that substantially degrades water quality;
- Placement of housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map, or other flood hazard delineation map;
- Placement of structures within a 100-year flood hazard area that would impede or redirect flood flows;
- Exposure of people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of a failure of a levee or dam.

METHODOLOGY

The hydrology and water quality analysis is based on a review of published information, reports, and plans regarding regional hydrology, climate, geology, water supply, water quality, and regulations. Relevant documents include: the City of Rancho Cordova Water Supply Evaluation for the Rancho Cordova General Plan (see **Appendix 4.9**); Rio del Oro Development Project Groundwater Impact Evaluation Technical Memorandum; SB 610 Water Supply Assessment (WSA) for the proposed Rio del Oro Specific Plan Project (2005); the Sacramento County Water Agency (SCWA) Zone 40 Water Supply Master Plan, Draft Environmental Impact Report, Technical Appendices, and Final Environmental Impact Report; the Water Forum Agreement (2000); the Water Quality Control Plan (Basin Plan) for the California Regional Water Quality Control Board Central Valley Region; the Sacramento County General Plan Update Environmental Impact Report (1993); the Sacramento County Storm Water Quality Improvement Plan (2003); the Local Floodplain Management Plan for the County of Sacramento (2001); and applicable City and Sacramento County ordinances.

Information was also obtained from private and governmental agencies as well as Internet web sites. The analysis takes into account the anticipated buildout density and type of land uses proposed, as well as proposed and anticipated development throughout the Rancho Cordova Planning Area. The reader is referred to Section 3.0 (Project Description) regarding buildout projections for the City and Planning Area.

PROJECT IMPACTS AND MITIGATION MEASURES

Surface Water Quality Impacts

Impact 4.9.1 Implementation of the proposed General Plan could result in the discharge of polluted runoff, discharge that could cause harm to the biological integrity of waterways, adversely impact water quality standards, or otherwise substantially degrade surface water quality. This is considered a **potentially significant** impact.

Implementation of the proposed General Plan would consist of new development that includes construction, residential, commercial, recreation, and landscaping practices that could potentially impact water quality. Approximately 18,142 acres within the City and 47,074 acres of the entire the Planning Area (including the City) are anticipated to be disturbed and altered with urban levels of development at buildout under this General Plan.

Direct and indirect surface water quality impacts could occur from the following general land use activities:

- *Construction* – Grading and vegetation removal activities would result in the exposure of raw soil materials to the natural elements (wind, rain, etc.). During precipitation events, soil erosion can impact the surface runoff by increasing the amount of silt and debris carried by runoff. In addition, refueling and parking of construction equipment and other vehicles onsite during construction may result in spills of oil, grease, or related pollutants that may discharge into Planning Area drainages. Improper handling, storage, or disposal of fuels and hazardous materials or improper cleaning of machinery close to area waterways could cause water quality degradation.

- *Residential* – Residential activities often involve the conventional maintenance of yards, i.e. using fertilizers, herbicides, pesticides, fungicides, and other chemicals in and around the home that can enter storm water runoff. In addition, motor vehicle operation and maintenance introduces oil, anti-freeze, and other petroleum-based products, heavy metals such as copper from brake linings, and surfactants from cleaners and waxes into residential runoff. Uncontrolled 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 provide conventional maintenance of landscaped areas and use fertilizers, herbicides, pesticides, and other chemicals, which can enter into storm water runoff. Motor vehicle operation and maintenance also contributes oil, anti-freeze, and other petroleum-based products, heavy metals such as copper from brake linings, and surfactants into storm water runoff. Auto mechanic shops, farm 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 storm water runoff, as well as groundwater, if not properly maintained and monitored.

- *Recreation* – Parks and golf courses often practice conventional landscaping methods and maintain recreation areas using fertilizers, herbicides, pesticides, and algaecides, which can enter into storm water runoff or flow directly into stream channels (currently there are two existing golf courses in the City of Rancho Cordova).

- *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 storm drainage flows in waterways that could alter natural erosion and siltation conditions that would impact water quality in areas of total dissolved solids, turbidity, dissolved oxygen and other associated water quality parameters.

All total, 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 and source waters. Precipitation during the early portion of the wet season displaces these pollutants into the storm water runoff, resulting in 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. The first flush of heavy metals and hydrocarbons typically occur during the first five inches of seasonal rainfall.

The amount and type of runoff generated by development within the Planning Area would be greater than that under existing conditions due to increases in impervious surfaces. There would be a corresponding increase in urban runoff pollutants and "first flush" roadway contaminants such as heavy metals, oil, grease, as well as an increase in nutrients (i.e., nitrates and phosphates), and pesticides and herbicides from landscaped areas. These constituents could result in water quality impacts to onsite and offsite drainage flows and to downstream area waterways, including the American, Consumnes, and Sacramento Rivers and local waterways and result in violations of applicable federal, state and regional water quality standards (e.g., Basin, state's nondegradation policy and State Implementation Policy of Toxics Standards for Inland Surface Waters, Enclosed Bays and Estuaries).

As described in further detail in Section 4.10, Biological Resources, surface waters provide for a variety of functions for plants and animals, including a water source, habitat, foraging, cover, and migration and movement corridors. Adverse impacts to surface waters in regards to changes to natural flow conditions and water quality can cause detrimental harm to the organisms that rely upon these waters, and to the biological integrity as a whole. The reader is referred to Section 4.10 for further discussion of these biological resource impacts.

As previous noted, the City of Rancho Cordova, along with the cities of Citrus Heights, Folsom, and Galt, and the County of Sacramento, operate under a NPDES permit for 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 NPDES Permit is to attain water quality standards and protection of beneficial uses consistent with the 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 Stormwater Quality Improvement Plan (SQIP) for the City, which consists of six Minimum Control elements (public education and outreach, public involvement and participation, detection and elimination of illicit discharges, construction stormwater control, postconstruction stormwater control for new development and redevelopment, and pollution prevention/good housekeeping for municipal operations). The City has identified a range of Best Management Practices (BMPs) and measurable goals to address the stormwater discharges in the City. As part of the SQIP, there are several regulations/procedures in place that implement the SQIP that include the Grading and Erosion Control Ordinance (Chapter 16.44 of the existing County Code) and construction standards. 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. Postconstruction stormwater quality controls for new development require use of control measures set forth in the Guidance Manual for On-Site Stormwater Quality Control Measures (City of Sacramento and County of Sacramento, 2000). This includes use of regional water quality control features (e.g., detention basins) for large developments (over 100 acres), use of treatment-control measures (swales, filter strips, media filters and infiltration), house-keeping practices (e.g., spill prevention, proper storage measures and clean-up procedures).

Proposed General Plan Policies and Action Items That Provide Mitigation

The following proposed General Plan policies and action items would assist in reducing surface water quality impacts of development under the proposed General Plan Natural Resources Element. However, this impact would still be considered significant.

Policy NR.3.1 *Coordinate with groups such as the Sacramento Urban Creeks Council to restore, enhance, and preserve creeks in Rancho Cordova.*

Policy NR.3.2 *Create or retain the natural topographic relief and meandering alignment of natural creek corridors in the construction of new channels and the modification of existing channels, and discourage the placement of concrete within creeks and channels.*

Action NR.3.2.1 *Develop guidelines for channel creation or modification that will ensure channel meander, naturalized side slope, and varied channel bottom elevation are considered in design.*

Action NR.3.2.2 *Adopt and implement improvement standards for soft bottom channels.*

Policy NR.3.3 *Encourage the creation of secondary flood control channels where the existing channel supports extensive riparian vegetation.*

Action NR.3.3.1 *Work with affected local, state and federal agencies to determine if natural creek corridors can and should accommodate storm flows or if separate storm water conveyance structures are necessary.*

Policy NR.3.4 *Encourage projects that contain wetland preserves or creeks, or are located adjacent to wetland preserves or creeks, to be designed for maximum visibility and, as appropriate, access.*

Action NR.3.4.1 *Establish performance standards for natural resource preserves that accomplish the following:*

- *Provide sufficient width for a mowed firebreak (where necessary), adjacent passive recreation uses, and access for channel maintenance and flood control.*
- *Offer sufficient width in and/or adjacent to preserves to allow for existing and created wildlife habitat, species sensitive to human disturbance, vegetative filtration for water quality, corridor for wildlife habitat linkage, protection from runoff, and other impacts of urban uses adjacent to the corridor.*
- *Allow for sufficient width adjacent to natural resource preserves to allow for trails and greenbelts.*
- *Do not place water quality treatment structures designed to meet pollutant discharge requirements within mitigation preserves.*

Action NR.3.4.2 *Establish standards that allow public access in the floodplain and buffers along creek corridors and preserves. Mitigation measures shall be incorporated into environmental documents and conditions of approval that require open-view fencing adjacent to preserves.*

Action NR.3.4.3 *Establish standards and/or guidelines for development adjoining wetland preserves or creeks to maximize visibility by designing the land plan with public streets on at least one side of the corridor or preserve with vertical curbs, gutters, footpath(s), street lighting, and post and cable barriers to prevent unauthorized vehicular entry into creek corridors and preserves.*

Policy NR.5.3 *Protect surface and ground water from major sources of pollution, including hazardous materials contamination and urban runoff.*

Action NR.5.3.1 *Restrict hazardous materials storage in the 100-year floodplain to prevent surface water contamination.*

Action NR.5.3.2 *Educate the community on laws governing the proper handling of hazardous materials, especially those laws which pertain to discharging materials into creeks.*

Action NR.5.3.3 *Install appropriate signage to deter the discharge of hazardous materials into storm drains.*

Policy NR.5.4 *Prevent contamination of the groundwater table and surface water, and remedy existing contamination to the extent practicable.*

Action NR.5.4.1 *Provide information on pollution prevention, disposal of hazardous waste and chemicals, liability and clean-up on the City's website and in educational materials and brochures.*

Action NR.5.4.2 *Require clean-up of contaminated ground and surface water by current and/or past owners or polluters.*

Action NR.5.4.3 *Encourage pollutant cleansing companies to use the latest technologies available in order to expedite the cleansing process and do the least harm to the environment.*

Policy NR.5.5 *Minimize erosion to stream channels resulting from new development in urban areas.*

Action NR.5.5.1 *Require community and specific plans to contain urban runoff control strategies and requirements that are consistent with Master Drainage Plans and the City's urban runoff management program.*

Action NR.5.5.2 *Require development within newly urbanizing areas to incorporate runoff control measures into their site design or to participate in an area-wide runoff control management effort consistent with standards developed by the Public Works Department.*

Action NR.5.5.3 *Encourage new development to incorporate features such as grassy swales, multi-use retention or detention basins, and integrated drainage systems to enhance water quality. Work with the Cordova Recreation and Park District to establish standards for integrating retention/detention basins into park sites and create examples of desirable and innovative natural drainage features.*

Action NR.5.5.4 *Establish and require the use of best management practices to protect receiving waters from the adverse effects of construction activities, sediment and urban runoff.*

Mitigation Measures

MM 4.9.1a The following shall be added as a new policy under Goal NR.5:

Continue to cooperate and participate with the County, other cities and the Regional Water Quality Control Board regarding compliance with the joint National Pollutant Discharge Elimination System Permit (NPDES No. CAS082597) or any subsequent permit and support water quality improvement projects in order to maintain compliance with regional, state and federal water quality requirements.

MM 4.9.1b The following mitigation measure shall be added as an action item under Policy NR.5.3:

Future land uses that are anticipated to utilize hazardous materials or waste shall be required to provide adequate containment facilities to ensure that surface water and groundwater resources are protected from accidental releases. This shall include double-containment, levees to contain spills, and monitoring wells for underground storage tanks, as required by local, state and federal standards.

Implementation of the above General Plan policies and action items, mitigation measures **MM 4.9.1a and b**, and continued implementation of the provisions of the City's NPDES permit would ensure that City stormwater would attain water quality standards and protect beneficial uses consistent with applicable water quality requirements. Thus, this impact would be reduced to **less than significant**.

Groundwater Quality Impacts

Impact 4.9.2 Implementation of the proposed General Plan could result in the degradation of groundwater quality resulting from future land uses. This is considered a **potentially significant** impact.

As discussed above in **Impact 4.9.1**, development of the Planning Area under the proposed General Plan could generate runoff containing oils, grease, fuel, antifreeze, byproducts of combustion (such as lead, cadmium, nickel, and other metals), household pollutants, nutrients (i.e., fertilizers), and other chemicals from landscaped areas. These pollutants could potentially contaminate groundwater conditions (if not properly treated with water quality controls). However, as noted under **Impact 4.9.1**, the City's NPDES permit requires the provision of water quality control measures that would treat stormwater drainage. Several technical studies have been conducted regarding water quality control feature impacts on groundwater (e.g., City of Fresno Nationwide Urban Runoff Project and California Storm Water Best Management Practices Handbook prepared by the Stormwater Quality Task Force). Theses studies have identified that water quality control features such as infiltration basins have been successful in controlling water quality and avoiding groundwater quality impacts (metals and organic compounds associated with stormwater are typically lost within the first few feet of the soil of the basins).

New commercial and industrial uses could utilize hazardous materials and waste that could be accidentally released and contaminate groundwater. As noted in Section 4.4 (Hazards and Human Health), portions of the Planning Area's underlying groundwater has been contaminated by previous industrial activities. Alterations of ground surface conditions (the introduction of impervious surfaces) could impact current groundwater remediation efforts (see **Figure 4.4-1** regarding groundwater contamination plume location). However, the Rio del Oro Development Project Groundwater Impact Evaluation Technical Memorandum (WRIME, 2005) determined that the alteration of land conditions in the Rio del Oro Planning Area would not substantially impact groundwater levels in the area.

In addition, areas with Rural Residential designations along the boundaries of the Planning Area may utilize individual septic systems that could also contribute to groundwater quality impacts. The City of Rancho Cordova has adopted Sacramento County's approval process for private septic systems. The process includes fee payment, permit submittal, soil testing, design standards, and guidelines for establishing a septic system in relation to wells, property lines, swimming pools, and other locations around the property.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following policies and action items address groundwater issues. However, this impact would still be considered significant.

Policy NR.5.3 *Protect surface and ground water from major sources of pollution, including hazardous materials contamination and urban runoff.*

Policy NR.5.4 *Prevent contamination of the groundwater table and surface water, and remedy existing contamination to the extent practicable.*

Action NR.5.4.1 *Provide information on pollution prevention, disposal of hazardous waste and chemicals, liability and clean-up on the City's website and in educational materials and brochures.*

Action NR.5.4.2 *Require clean-up of contaminated ground and surface water by current and/or past owners or polluters.*

Action NR.5.4.3 *Encourage pollutant cleansing companies to use the latest technologies available in order to expedite the cleansing process and do the least harm to the environment.*

Mitigation Measures

MM 4.9.2 The following shall be added as a new policy under Goal NR.5:

The City shall require groundwater impact evaluations be conducted for the Grant Line West, Westborough, Aerojet, Glenborough, Mather and Jackson Planning Areas to determine whether urbanization of these areas would adversely impact groundwater remediation activities associated with Mather and Aerojet prior to the approval of large-scale development. Should an adverse impact be determined, a mitigation program shall be developed in consultation with applicable local, state and federal agencies to ensure remediation activities are not impacted. This may include the provision of land areas for groundwater remediation facilities, installation/extension of necessary infrastructure or other appropriate measures.

Implementation of the above General Plan policies and action items, the above mitigation measure and mitigation measures **MM 4.9.1a and b,** and continued implementation of the provisions of the City's NPDES permit would ensure that groundwater quality would not be negatively impacted. Thus, this impact would be reduced to **less than significant**.

Flooding Impacts

Impact 4.9.3 Implementation of the proposed General Plan would increase impervious surfaces and alter drainage conditions and storm water runoff rates throughout the Planning Area, which could result in potential flooding impacts. However, the General Plan contains adequate General Plan policies and action items that address drainage and flooding issues. This is considered a **less than significant** impact.

Urban development often includes the addition of impervious surfaces, including roads, parking lots, driveways, and conventional roof tops, such that precipitation does not have the opportunity to saturate the ground and enter the groundwater table. As a result, precipitation runs off as storm water via sidewalks, roadways, and gutters. Surface waters provide a physical conveyance of surface water flows and channels for the handling of large storm water events. Large storms can produce extreme flows that cause bank cutting and sedimentation of ephemeral drainages, streams, lakes, and reservoirs. In addition, flooding can cause problems to area roadways and homes. This could result in new flooding issues (e.g., enlargement of floodplain areas along waterways) as well as the exacerbation of existing flooding issues (e.g., existing flooding along Sunrise Boulevard south of White Rock Road).

The northern portion of the City and Planning Area (along US 50 and north) are located within the 500-year floodplain predictions by FEMA and the U.S. Army Corps of Engineers or as a result of complete failure of Folsom Dam. Failure of either the Cordova Meadows Levee or the Sunriver Levee along the American River could potentially result in the inundation of properties within the northern portion of the Planning Area. However, such an event has an extremely low probability of occurring and is not considered to be a reasonably foreseeable event. Currently, there are planning efforts by the U.S. Army Corps of Engineers to improve the flood capacity of Folsom Reservoir and there have been improvements made to security at Folsom Dam to minimize the treat of an intentional act of sabotage.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and action items address drainage and flooding. As noted in the policies and action items below, the proposed General Plan would ensure that development does not occur within the 100-year floodplain and would prohibit new projects from increasing existing flooding impacts or creating new flood impacts.

Policy S.2.1 *Ensure that flood control facilities do not alter or reduce flows in the Cosumnes or American Rivers.*

Action S.2.1.1 *Support the construction of flood control projects when clear dangers to life and property exist.*

Action S.2.1.2 *Participate in the National Flood Insurance Program by updating the floodplain management ordinance as necessary to help reduce future flood damage. Participation in the National Flood Insurance Program makes federally backed flood insurance available to homeowners, renters, and businesses owners in Rancho Cordova.*

Action S.2.1.3 *Participate with the City of Sacramento, the Army Corps of Engineers, and other Federal, State, and local governments and agencies to develop*

policies to finance, construct, and plan flood improvements to eliminate flooding in the City.

Policy S.2.2 *Manage the risk of flooding by discouraging new development located in an area that is likely to flood.*

Action S.2.2.1 *Disapprove new projects that would result in new or increased flooding impacts on adjoining parcels or upstream and downstream areas.*

Action S.2.2.2 *Use appropriate land use designations as the primary flood prevention measure. Prioritize the construction of new flood control projects only when land use controls are not sufficient to reduce hazards to life and property to acceptable levels.*

Action S.2.2.3 *Preclude development within the 100-year floodplain, as determined by the most recent floodplain mapping available from the Federal Emergency Management Agency (FEMA) or other acceptable source.*

Action S.2.2.4 *On flood-prone parcels, locate development on portions of the site that are not subject to flooding, consistent with other policies of this General Plan.*

Action S.2.2.5 *Require every residential lot to have buildable area sufficient to accommodate a residence and associated structures outside the 100-year floodplain. Discourage the use of fill to create buildable area within the 100-year floodplain, except in extreme circumstances consistent with all other applicable policies and regulations, and after review to determine potential impacts on wildlife, habitat, and flooding on other parcels.*

Action S.2.2.6 *Require vehicular access to the buildable area of all parcels to be at or above the ten-year floodplain elevation.*

Action S.2.2.7 *Preclude the creation of lots whose access will be inundated by flows resulting from a ten-year or greater storm event. Bridges or similar structures may be used to provide access over creeks or inundated areas, subject to applicable local, state, and federal regulations.*

Action S.2.2.8 *Discourage additional crossings of natural creeks in order to reduce potential flooding and access problems, except as needed to provide roadway and trail connections and preserve natural resource areas.*

Action S.2.2.9 *Prohibit new and modified bridge structures that will cause an increase of more than one foot in water surface elevations of the 100-year floodplain, unless analysis clearly indicates that the physical and/or economic use of upstream property will not be adversely affected.*

Policy S.1.13 *Discourage the creation of new parcels when the presence of easements, floodplain, marsh, or riparian habitat, and/or other features would leave insufficient land to build and operate structures. This policy shall not apply to open space lots specifically created for dedication to the City or another appropriate party for habitat protection, flood control, drainage, or wetland maintenance.*

Policy S.2.3 *Ensure that adequate drainage exists for both existing and new development.*

Action S.2.3.1 *Require all new urban development projects to either incorporate runoff control measures to minimize peak flows of runoff or otherwise implement Comprehensive Drainage Plans.*

Action S.2.3.2 *Maintain drainage facilities in order to ensure their proper operation during storms.*

Action S.2.3.3 *Prepare a Comprehensive Drainage Plan for all streams and their tributaries prior to any development within the 100-year floodplain.*

The above proposed General Plan policies and action items would ensure that development does not occur within the 100-year floodplain and would prohibit new projects from increasing existing flooding impacts or creating new flood impacts. Thus, this impact would be **less than significant**.

Mitigation Measures

None required.

Increased Water Supply Demand Impacts

Impact 4.9.4 Implementation of the proposed General Plan would increase demand for water supply and require increased groundwater production and the use of surface water supplies. This additional water supply demand would result in significant effects on the physical environment. This is considered a **significant** impact.

The analysis provided in this impact is based on the Water Supply Evaluation for the City of Rancho Cordova General Plan, which is provided in **Appendix 4.9**. **Table 4.9-6** provides an estimate of water supply demands for the City and Planning Area at buildout of the proposed General Plan, while **Table 4.9-7** compares this demand with current and planned water sources available from the Planning Area water service providers.

TABLE 4.9-6
LAND USE AND WATER DEMANDS AT BUILDOUT OF THE CITY OF RANCHO CORDOVA GENERAL PLAN

Land Use 1	Total Area (Acres)			Unit Water Demand Factor 2	Water Demand (afy)		
	Corporate City Limits	Unincorporated City	Total Acreage Within Planning Area		Corporate City Limits	Unincorporated City	Total Planning Area Water Demands
Public/Quasi-Public	1,138	3,854	4,992	1.04	1,184	4,008	5,192
Parks and Open Space	2,392	1,810	4,202	3.46	8,276	6,263	14,539
Natural Resources	1,864	9,251	11,115	0.00	0	0	0
Rural Residential	0	1,135	1,135	1.33	0	1,510	1,510
Estate Residential	630	3,949	4,579	1.33	838	5,252	6,090

Land Use 1	Total Area (Acres)			Unit Water Demand Factor 2	Water Demand (afy)		
	Corporate City Limits	Unincorporated City	Total Acreage Within Planning Area		Corporate City Limits	Unincorporated City	Total Planning Area Water Demands
Low Density Residential	6,156	10,780	16,936	2.89	17,791	31,154	48,945
Medium Density Residential	3,423	266	3,689	3.70	12,665	984	13,649
High Density Residential	450	249	699	4.12	1,854	1,026	2,880
Residential Mixed Use	62	60	122	2.51	156	151	307
Office Mixed Use	1,788	1,118	2,906	2.75	4,917	3,075	7,992
Commercial Mixed Use	439	352	791	2.75	1,207	968	2,175
Village Center	222	225	447	2.51	557	565	1,122
Local Town Center	68	77	145	2.51	171	193	364
Regional Town Center	112	174	286	2.51	281	437	718
Transit Oriented Town Center	77	154	231	2.51	193	387	580
Light Industrial	961	2,940	3,901	2.71	2,604	7,967	10,571
Heavy Industrial	224	918	1,142	2.71	607	2,488	3,095
Surface Mining [3]	0	871	871	0.00	0	0	0
Developed Land Use	20,006	38,183	58,189		53,301	66,428	119,729
Water System Losses (7.5%)					3,998	4,982	8,980
Total Land and Water Use	**20,006**	**38,183**	**58,189**		**57,299**	**71,410**	**128,709**

Notes:

1 Land use designations and total acreage provided by Rancho Cordova correspond to the General Plan land use map.

2 Unit water demand factors based on Zone 40 WSMP (SCWA 2005a) for land use categories similar to City of Rancho Cordova land use categories. Demand factors reflect 25.6% level of water demand management consistent with the WFA.

3 Aggregate mining typically has a minimal water demand for wash-down and dust control.

Source: EDAW, 2006

TABLE 4.9-7
SUMMARY OF WATER SUPPLY AND DEMAND FOR WATER PURVEYORS IN THE CITY OF RANCHO CORDOVA GENERAL PLAN PLANNING AREA

	Year	2010	2015	2020	2025	2030
SCWA Zone 40	Supply[1]					
	Surface Water	13,060	44,143	48,772	68,700	69,567
	Groundwater	34,125	28,837	40,470	31,324	39,097
	Recycled Water	4,400	4,400	4,400	4,400	4,400
	Total Supply	**51,585**	**77,380**	**93,642**	**104,424**	**113,064**
	Total Demands[1]	**51,585**	**77,380**	**93,642**	**104,424**	**113,064**

	Year	2010	2015	2020	2025	2030
	Surplus/Deficit	**0**	**0**	**0**	**0**	**0**
Supply Allocated for SCWA Zone 40 North Service Area (NSA)—Within City's Planning Area (see Water Supply Evaluation for the City of Rancho Cordova General Plan)	***Supply***					***37,314***[2]
GSWC (all of GSWC's service area is within City's planning area)	Supply[3]					
	Surface Water	15,000	15,000	15,000	15,000	15,000
	Groundwater	9,518	10,499	10,814	10,829	10,829
	Total Supply	**24,518**	**25,499**	**25,814**	**25,829**	**25,829**
	Demands[2]	**19,518**	**20,499**	**20,814**	**20,829**	**20,829**
	Surplus/Deficit	**5,000**	**5,000**	**5,000**	**5,000**	**5,000**
Cal-Am	Supply[3]					
	Groundwater	43,600	33,650	34,180	33,550	33,910
	Wholesale Purchases	4,020	16,860	18,320	20,830	22,280
	Total Supply	**47,620**	**50,510**	**52,500**	**54,380**	**56,190**
	Demands[4]	**47,620**	**50,510**	**52,500**	**54,380**	**56,190**
	Surplus/Deficit	**0**	**0**	**0**	**0**	**0**
Supply Allocated for Cal-Am's Service Area within the City's Planning Area	***Supply***					***14,477***
City of Rancho Cordova General Plan Planning Area	Total Supply Available to City Planning Area from Purveyors					**77,620**[5]
	Projected Demands					
	Corporate City Limits (2030)a					57,299
	Non-City Area					71,410
	Total Demands					**128,709**
	Surplus/(Deficit)					**(51,089)**

Notes:

1. *Data from SCWA Zone 41 UWMP, Table 5-1 and 5-2. Because SCWA would implement a conjunctive use water supply program, water supplies would never exceed projected demands because groundwater would be pumped and surface water would be used to meet, not exceed water demands. Supply and demand based on normal year type. (SWCA 2005b)*
2. *This supply is part of Zone 40's 2030 water supplies of 113,064 afy (SCWA 2005a).*
3. *Data from GSWC UWMP Table 3-1 and 4-9. Supply exceeds demand because GSWC does not plan to use 5,000 afy of its SMUD Water Transfer entitlement due to limited surface water treatment capacity and its desire to maintain its groundwater rights through the Aerojet Replacement Water operations. (GSWC 2005)*
4. *Data from Cal-Am UWMP. (Cal-Am 2006)*
5. *Sum of SCWA (37,314 afy), GSWC (25,829 afy), and Cal-Am's (14,477 afy) water supplies identified for the City's planning area.*

Source: EDAW, 2006

As noted in **Table 4.9-7**, adequate water supplies would likely be available to serve buildout of the City within its current corporate limits. Beyond buildout of its corporate limits, new development projects would be served by SCWA (no other purveyors are located outside the City's corporate limits) on a first-come, first-served basis. While total supplies available (i.e., 77,620 afy) are greater than the City's corporate limit demands (i.e., 57,299 afy), indicating that additional growth beyond its corporate limits may be accommodated, the exact amount of water and corresponding land areas that could be served are currently unknown because SCWA would need to consider requests for service in the context of all water demands throughout the Zone 40 service area. The City may be able to pursue additional growth beyond

its corporate limits; however, the City would need to coordinate with SCWA to determine the total demands that could be met by existing and projected future water supplies. Future urbanization of the Planning Area would also increase impervious surfaces near areas determined to have groundwater recharge capability (e.g., near the Cosumnes River).

If water supplies are not available to meet buildout water demands, the City would either need to stop approving new growth within its jurisdiction, or collaborate with regional water purveyors to investigate potential future water supply options in the context of the regional water supply planning environment. Investigation of future water supply options would likely require involvement from local water purveyors (GSWC, Cal-Am, and SCWA at a minimum, and other neighboring purveyors as appropriate), the Water Forum successor effort, and environmental groups. Because of the long-term and sometimes contentious nature of future water supply planning, the feasibility of implementing new water supply options beyond those described in the WFA are unknown. The following section provides a brief summary of potential new water supply options the City could pursue (in collaboration with local agencies) to develop supplies to meet its planning area buildout water demands.

Additional Future Water Supply Options

To support the level of growth proposed by Rancho Cordova, additional water supplies would need to be acquired and/or the City would need to make efforts to substantially reduce its overall demand for potable water. There are a number of options in which water purveyors for the region could secure additional water supplies to accommodate the additional growth planned by the City. These options presented are considered very preliminary in nature. A combination of one or more of the potential options described below may allow the City to proceed with growth and development beyond its corporate limits.

Water Transfers and Exchanges With Nearby Purveyors

The water purveyors in the Planning Area (SCWA, GSWC, Cal-Am) could enter into agreements with nearby cities and agencies to secure new or surplus water supplies. Cities and agencies who purchase water from SCWA or have jurisdictional boundaries that overlap Zone 40's boundaries would be a likely choice for developing such an agreement because the ability to develop distribution system interties. The interties would allow the easy transfer and exchange of water supplies between neighboring water purveyors without the need to construct substantial new conveyance infrastructure. The potential feasibility of water purveyors located near Rancho Cordova providing new water supplies to the City are discussed below.

City of Folsom

GSWC has entered into an agreement with the City of Folsom to transfer 5,000 afy to the City of Folsom pursuant to its agreement for replacement water supplies with Aerojet. Within the agreement there is the option for the City of Folsom to transfer the 5,000 afy to the SCWA for its use within its conjunctive use water supply system. However, based in indications from the City of Folsom, the City does not anticipate the transfer of these supplies to SCWA would be likely.

Placer County Water Agency

Placer County Water Agency was contacted to determine whether they had any available water supplies that could be exchanged or transferred to SCWA. Staff at Placer County Water Agency indicated that based on their Integrated Water Resources Plan, which is currently under preparation and was not available for review at the time the Water Supply Evaluation was

prepared, Placer County Water Agency would only have enough water supplies to meet its projected buildout water demands. No additional water supplies would be available from Placer County Water Agency for transfer or exchange agreements (EDAW, 2006).

Sacramento Suburban Water District

GSWC currently has an intertie with Sacramento Suburban Water District (SSWD)'s water distribution system. As of the date of the Water Supply Evaluation, no reply has been received from SSWD regarding the potential availability of water transfer or exchange opportunities. The potential may exist for the acquisition of additional supplies to meet City demands; however, the City would need to coordinate with GSWC and SSWD to determine the feasibility of those supplies. If supplies are available, no substantial new infrastructure would need to be constructed because an intertie connection between these two agencies is already available. Additional distribution and treatment facilities may be required to convey the water from GSWC existing distribution to new growth areas to deliver these supplies to SCWA for distribution in the new growth areas.

Natomas Central Mutual Water Company

Natomas Central Mutual Water Company (Natomas Mutual) primarily provides irrigation water to its shareholders for agriculture purposes. Natomas Mutual has historically provided water to more than 33,200 acres of land north and west of the city limits of Sacramento and its service area is bordered on the west by the Sacramento River and stretches into Sutter County to the north. Natomas Mutual has water rights for 120,000 afy of water from the Bureau of Reclamation and diverts this water from the Sacramento River.

In March 2004, Natomas Mutual authorized its staff and consultants to finalize an operating agreement with GSWC to provide water and wastewater services to municipal and industrial users in the Natomas Basin via a separate conveyance system (EDAW, 2006). The partnership allows Natomas Mutual to serve all development within its service area, while preserving habitat, encouraging conservation, and maximizing the value of its shareholders' historic water rights. Just as important, the partnership with GSWC makes certain that the water Natomas draws from the Sacramento River, American River and from groundwater wells stays in northern California. As land is being converted from agricultural (predominantly rice) to residential land uses in Natomas Mutual's service area, the total water demands in the service area has decreased (rice farming is a water intensive use). This has resulted in a potential surplus in Natomas Mutual's available water supplies.

Natomas Mutual has indicated that through the partnership with GSWC; they are looking for opportunities to market (e.g., sell, transfer) their surplus water supply (EDAW, 2006), although information regarding the specific amount of available water supplies is not available. The sale or transfer of water from Natomas Mutual to purveyors within the Planning Area would require approval by the State Water Resources Control Board, Division of Water Rights and the preparation of necessary environmental documentation. Further, additional conveyance and treatment facilities would likely be required to deliver water from Natomas Mutual's service area to the Planning Area.

Improved Groundwater Sustainability

Groundwater use (i.e., by all groundwater users) in the Central Basin is restricted to the WFA, negotiated, long-term sustainable yield of 273,000 afy. The Central Sacramento County Groundwater Forum (CSCGF) is currently preparing a GMP that addresses ways to maintain

groundwater sustainability (EDAW, 2006). The CSCGF identified two primary activities that would result in an improved ability to sustain the viability of the groundwater resources for the Central Basin.

- Continue to investigate conjunctive use opportunities within the Central Basin area. SCWA and other groundwater users within the Central Basin will coordinate all recharge efforts.

- Continue to investigate opportunities for development of direct recharge facilities (e.g., well injection facilities) in addition to in-lieu recharge facilities (e.g., constructed recharge basins, discharge to riverbeds or streambeds).

The City could collaborate with SCWA and the CSCGF to investigate recharge and water banking opportunities available within the Central Basin. Through these investigations and implementation of a recharge program it could be determined that new supplies would be available to accommodate new growth within the region and these supplies could partially meet the City's projected water demands. The feasibility of implementing such a recharge program is currently under investigation by the CSCGF and would likely require the construction of additional facilities (e.g., groundwater injection wells, discharge structures, and new groundwater extraction wells if additional supplies are available).

Through investigation of the feasibility of large-scale groundwater recharge opportunities there may also be the potential opportunity to investigate and study the sensitivity of the negotiated, sustainable yield of the Central Basin. The City could coordinate with the Water Forum successor effort, CSCGF, and other groundwater appropriators to scientifically and comprehensively evaluate whether the Central Basin could support a higher yield what still maintaining the objectives of the WFA. Although dependant on the results of the investigation, it may be possible to pump additional groundwater from the Central Basin, which would facilitate new growth and development. A portion of these supplies could serve new growth within the City.

Expand Use of Recycled Water

Sacramento Regional County Sanitation District (SRCSD) is responsible for the collection, treatment, disposal and reuse (recycled water) of wastewater throughout most of the urbanized areas of Sacramento County, including the majority of service areas retailed water by SCWA.

Through an agreement between SCWA and SRCSD, the SRCSD has successfully implemented a 5 mgd (5,600 afy) water recycling program. This program provides recycled water for SRCSD on-site uses and for large commercial irrigation customers within Zone 40 (e.g., commercial, industrial, right-of-way landscaping, schools, and parks). Recycled water is a desirable source of water for outdoor landscape irrigation and other non-potable uses because of its high reliability and its independence of hydrologic conditions in any given year. By increasing the use of recycled water SRCSD may be able to reduce the amount of treated wastewater discharged to the river which may become a more cost effective solution for the SRCSD's 1.1 million ratepayers as wastewater regulations require ever higher treatment standards (and costs) for discharged effluent. SRCSD's boundary covers the Zone 40 region in the Planning Area. It is expected that the SRCSD's boundary will be expanded further to cover the areas in the Planning Area that are currently undeveloped as development plans are approved.

The most commonly used recycled water is defined as wastewater that has been treated to tertiary standards that meet Title 22 of the California Code of Regulations. Recycled water treated to this level can be used for all outdoor irrigation demands in a community, including;

parks, schools, street medians, residential front and backyard landscaping, public open space, as well as industrial uses such as cooling water. In addition, recycled water is commonly used for environmental purposes such as wetlands and habitat restoration.

The Water Recycling Program on the Sacramento Regional Water Treatment Plant site was designed and constructed to be readily expandable to 10 mgd (11,200 afy) in accordance with SRCSD's Master Reclamation Permit (WDR #97- 146). A planned Water Recycling Facility plant expansion from 5 mgd to 10 mgd could serve new areas of planned and expected growth and public open space and golf course areas within the City of Sacramento. SRCSD will work in partnership with SCWA to serve these Zone 40 areas. The expanded water recycling facility and new water recycling service areas will be called Phase II of the SRCSD Water Recycling Program. Phase II construction will be timed with the need for the higher capacity and is currently expected to be in service by 2008- 2010.

To plan for water recycling projects beyond 2010, SRCSD is developing a Water Recycling Master Plan (WRMP) that would plan for water recycling through 2030. The overall project objective is to increase water recycling usage in the Sacramento region during peak irrigation months to a 30 mgd (33,600 afy) to 40 mgd (44,800 afy) level. Water recycling on this scale will allow SRCSD to better manage its effluent discharged to the Sacramento River and could help Sacramento Area water purveyors improve their water supply availability and reliability in terms of irrigation and industrial water supply. The WRMP effort will include significant outreach to stakeholders that could be associated with SRCSD's future water recycling plans. Stakeholders to be contacted during the WRMP are expected to include, among others; Sacramento Area water purveyors and users, land use planning authorities, land development leaders, and environmental interests. The WRMP will culminate in the development of a SRCSD Water Recycling Master Plan document that is expected to contain numerous water recycling project alternatives that will be evaluated for future SRCSD implementation.

One option being explored as part of the WRMP is the use of recycled water for agriculture that would supplement groundwater supplies. The reduction in groundwater use by agricultural users may "free up" groundwater supplies elsewhere in the same groundwater basin. This WRMP document is expected to be completed in mid-2006.

SCWA has indicated that the use of recycled water for non-potable purposes could reduce potable water demands by as much as 10% to 50% depending on the level of reuse that is prescribed. Using recycled water for public areas such as medians and park strips would reduce potable water demands by approximately 10-15%, while using recycled water for public area and residential outdoor areas (e.g. residential landscaping) could reduce overall potable water demands by as much as 50%.

Environmental Effects Associated With Water Supply Provision

The provision of expanded water service to the City under the proposed General Plan would require the expansion and development of new water infrastructure facilities (e.g., water supply conveyance pipelines, pump stations, water tanks, and treatment facilities) that could result physical effects to the environment. The provision of such facilities within the Planning Area has been programmatically considered in the technical analysis provided in this Draft EIR associated with urbanization of the Planning Area.

In addition, environmental review has been completed for several large SCWA water supply projects identified below. As discussed above, build-out under the General Plan will utilize

projected water supplies from these SCWA projects. Therefore, development under the proposed General Plan would indirectly contribute to these significant environmental effects.

Water Forum Agreement

An EIR was certified on this project and identified the following significant and unavoidable impacts:

- Water quality impacts to the Sacramento River and Delta.
- Impacts to Folsom Reservoir warmwater fisheries
- Impacts to Fall-run Chinook salmon
- Flow and temperature impacts to splittail
- Decreases in deliveries to State Water Project (SWP) customers
- Decreases in deliveries to Central Valley Project (CVP) customers
- Reduced rafting and boating opportunities on the Lower American River
- Reduced Folsom Reservoir boating opportunities
- Reduced availability of Folsom Reservoir swimming beaches
- Land use and growth-inducement impacts water service area
- Cultural resource impacts in Folsom Reservoir from varying water levels

Zone 40 Water Supply Master Plan

An EIR was certified on this project and identified the following significant and unavoidable impacts:

- Direct visual impacts associated with operation of new facilities
- Potential short-term air quality impacts associated with construction of new facilities
- Potential long-term stationary-source noise impacts from operation of new facilities
- Potential short-term construction impacts and long-term operational impacts on special-status plants and wildlife
- Potential short-term construction impacts and long-term operational impacts on sensitive habitats
- Potential loss of habitat from development of facilities that would otherwise be included in the proposed South Sacramento Habitat Conservation Plan if facilities are developed outside of the Zone 40 WSMP 2030 Study Area

North Vineyard Well Field

- An EIR was prepared for this facility as part of the Sunrise Douglas Community Plan and the Sun Ridge Specific Plan. No direct significant and unavoidable impacts to groundwater conditions were identified for this facility.

In addition to these documented significant physical effects to the environment, Table 4.9-8 summarizes additional environmental impacts that could occur from planned and other future new water supply options that could be pursued to serve the Planning Area:

TABLE 4.9-8
TYPES OF POTENTIAL ENVIRONMENTAL IMPACTS THAT COULD BE CAUSED BY NEW WATER SUPPLY PROJECTS, WATER RIGHTS TRANSFERS, AND RELATED INFRASTRUCTURE

Types of Potentially Affected Resources	Related and Potential Impacts
Surface Water Hydrology	Changes in the magnitude and timing of flows in affected streams; changes in the level of affected reservoirs and lakes. Potential cumulative effects on the hydrology of Folsom Reservoir, South Fork American River, Middle Fork American River, and possibly other locations including the Cosumnes River, and Alder and Weber Creeks.
Geology and Soils	Increase in erosion and sedimentation from construction activities; change in sediment transport in streams; geologic hazards could cause problems for new facilities and their operators if they are not sited carefully.
Water Quality	Changes in stream and reservoir/lake temperature, dissolved oxygen, turbidity, total suspended solids, and other water quality parameters of concern during construction and operation of new facilities.
Fishery Resources including Special-status Species	Change in the amount and quality of fishery habitat in affect streams and reservoirs/lakes, and potential fish entrainment at possible diversion sites in lakes and streams.
Wetlands and Riparian Habitat	Changes in the amount or functions and values of various types of wetlands from the construction of new facilities, or in riparian areas from changes in the operation of reservoir/lakes and changes in streamflows. Riparian habitat could be affected by hydrology changes or new construction and is especially important habitat for wildlife and botanical species.
Botanical Resources including Special-status Species	Disturbance to rare plants and their habitat and other types of vegetation from construction activities or changes in hydrology along streams and at reservoirs and lakes.
Wildlife Resources including Special-status Species	Changes in the amount and quality of affected wildlife habitat near affected reservoir/lakes, and streams and where appurtenant facilities would be located.
Recreation	Changes in the quantity or quality of recreation opportunities, including fishing, boating, hiking, and whitewater rafting affected reservoirs/lakes and in affected streams; some impacts could also occur during construction and operation of new conveyance, treatment, storage, and pumping facilities.
Visual Resources	Changes in reservoir/lake levels, and streamflows and the addition of new project facilities could affect the visual environment. New pipelines, pumping stations, or transmission lines near or in residential areas or highly visited areas would cause negative impacts.
Agriculture	Some irrigated land or grazing land could be taken out of production where project conveyance facilities need to be located and to accommodate growth. The availability of surface water supplies for agricultural uses could increase.
Cultural Resources	Historic, prehistoric, and ethnographic resources could be affected by hydrology changes or

Types of Potentially Affected Resources	Related and Potential Impacts
	the construction and maintenance of new facilities.
Compatibility with Existing Land Uses and Other Policies and Plans	Some new project facilities may not be compatible with surrounding land uses, or may be inconsistent with related federal, state, tribal, and local plans and policies (including those of the U.S. Forest Service, USFWS, and California Department of Fish and Game).
Mineral Resources	New project facilities could interfere with the extraction of minerals at known or yet-to-be-discovered mineral sites.
Public Utilities	The routing and sitting of new project facilities could interfere with the operation or maintenance of existing or planned public utilities, including communication and energy infrastructure.
Socioeconomic Resources	Customers of the water purveyors and other would enjoy the socioeconomic benefits associated with a more reliable water supply and related economic growth. Water rates would likely increase to help pay for new facilities. Facility construction would cause short-term and beneficial employment and income impacts. Energy or mineral impacts would also cause related socioeconomic effects.
Air Quality and Noise	Air emissions from construction equipment and traffic and loud noises could occur during the construction phase of new projects. New pumping stations would likely cause adverse noise impacts for nearby residents and recreationists.
Transportation	Local roads would experience traffic increases during construction.
Public Health and Safety	Construction activities could create some safety hazards.
Growth-inducing Effects	New system infrastructure and water supply projects would likely cause growth-inducing impacts.

Source: EDAW 2006

Proposed General Plan Policies and Action Items That Provide Mitigation

The following proposed General Plan policies and action items would assist in reducing water supply impacts of General Plan growth. However, this impact would still be considered significant.

Policy NR.4.2 *Improve overall landscaping quality and sustainability in all areas visible to the public.*

Action NR.4.2.2 - Create development guidelines that address landscaping standards and that require appropriate tree species and densities in buffer areas. The guidelines should also ensure that medians will include native plantings and trees, and will be wide enough to support the long-term viability of the plantings.

Action NR.4.2.3 - Provide leaflets and planting guides that promote the use of drought-tolerant native vegetation in home landscaping.

Policy NR.5.1 *Promote water conservation within existing and future urban uses.*

Action NR.5.1.1 *Install water-conserving landscaping and irrigation on City-owned and operated facilities.*

Action NR.5.1.2 *Require development project approvals to include a finding that all feasible and cost-effective options for conservation and water reuse are incorporated into project design.*

Action NR.5.1.3 *Establish a program that requires per capita water consumption to be reduced by at least 20 percent by 2030. The program shall include the following measures:*

- *Restrict water usage through metering or establishing designated watering days for the City's residences and businesses.*
- *Promote water conservation efforts through education.*
- *Implement standards that require low-flow appliances and fixtures in all new development.*
- *Work with water providers and water conservation agencies to create an incentive program that encourages retrofitting existing development with low-flow water fixtures.*
- *Require new development to utilize state-of-the-art irrigation systems that reduce water consumption (e.g., drip irrigation, gray-water systems).*
- *Encourage drought-tolerant vegetation and use water-efficient irrigation systems in landscaped public areas.*

Policy NR.5.2 *Encourage the use of treated wastewater to irrigate parks, golf courses, and landscaping.*

Action NR.5.2.1 *Establish a Large-Scale Recycled Water Program and Citywide Recycled Water Distribution System Ordinance.*

Action NR.5.2.2 *Coordinate with the City's water purveyors to establish a connected "purple pipe" system throughout the City's new development areas that uses recycled water.*

Policy ISF.2.1 *Ensure the development of public infrastructure that meet the long-term needs of residents and ensure infrastructure is available at the time such facilities are needed.*

Action ISF.2.1.1 *Except when prohibited by state law, require sufficient capacity in all public facilities to maintain desired service levels and avoid capacity shortages, traffic congestion, or other negative effects on safety and quality of life.*

Action ISF.2.1.2 *Adopt a phasing plan for the development of public facilities in a logical manner that encourages the orderly development of roadways, water and sewer, and other public facilities.*

Action ISF.2.1.3 *Withhold public financing or assistance from projects that do not comply with the planned phasing of public facilities, and approve interim facilities only in special circumstances.*

Policy ISF.2.2 *Coordinate with independent public service providers, including schools, parks and recreation, utility, transit, and other service districts, in developing service and financial planning strategies.*

Action ISF.2.2.1 *Establish a Technical Review Committee for continued coordination with outside service agencies, including water and sewer providers, the Cordova Recreation and Park District, and the school districts, during the review of plans and development projects.*

Policy ISF.2.3 *Ensure that adequate funding is available for all infrastructure and public facilities, and make certain that the cost of improvements is equitably distributed.*

Action ISF.2.3.1 *Require secure financing for all components of the transportation system through the use of special taxes, assessment districts, developer dedications, or other appropriate mechanisms. Financing should be sufficient to complete required major public facilities at their full planned capacities in a single phase. Major facilities include roadways of collector size or larger; all wells, water transmission lines, treatment facilities, and storage tanks needed to serve the project; and all sewer trunk and interceptor lines and treatment plants or treatment plant capacity.*

Action ISF.2.3.2 *Require new development to fund its fair share portion of its impacts to all public infrastructure and facilities.*

Action ISF.2.3.3 *Include sufficient funding in fee programs and/or other finance mechanisms to cover the costs of each of the following roadway items:*

- *Design, engineering, environmental compliance, and construction of roadway lanes, traffic signals, and bridges.*
- *Right of way acquisition, design, engineering, environmental compliance, and construction costs.*
- *Drainage and other facilities related to new roadway construction.*
- *Installation of landscaped medians, sidewalks, and streetscaping where appropriate.*

Policy ISF.2.4 *Ensure that water supply and delivery systems are available in time to meet the demand created by new development, or are guaranteed to be built by bonds or sureties.*

Action ISF.2.4.1 *Require all development projects, excluding subdivisions, to adhere to the following provisions:*

- *An assured water supply and delivery system shall be available at the time of project approval. The water agency providing service to the project may provide several alternative methods of supply and/or delivery, provided that each is capable individually of providing water to the project.*

- *All required water infrastructure for the project shall be in place at the time of project approval, or shall be assured through the use of bonds or other sureties to the City's satisfaction. Water infrastructure may be phased to coincide with the phased development of large-scale projects.*

Action ISF.2.4.2 *Require all subdivision developments to adhere to the following provisions, to the extent permitted by state law:*

- *Proposed water supply and delivery systems shall be identified at the time of tentative map approval to the satisfaction of the City. The water agency providing service to the project may provide several alternative methods of supply and/or delivery, provided that each is capable individually of providing water to the project.*

- *The agency providing water service to the subdivision shall demonstrate prior to the approval of the Final Map that sufficient capacity shall be available to accommodate the subdivision plus existing development, and other approved projects in the same service area, and other projects which have received commitments for water service.*

- *Offsite and onsite water infrastructure sufficient to provide adequate water to the subdivision shall be in place prior to the approval of the Final Map or their financing shall be assured to the satisfaction of the City, consistent with the requirements of the Subdivision Map Act.*

- *Offsite and onsite water distribution systems required to serve the subdivision shall be in place and contain water at sufficient quantity and pressure prior to the issuance of any building permits. Model homes may be exempted from this policy as determined appropriate by the City, and subject to approval by the City.*

Policy ISF.2.7 *Minimize visual impacts and physical impediments of utility infrastructure and equipment.*

Action ISF.2.7.1 *Coordinate with utility agencies to underground, strategically place, and screen equipment to the maximum extent feasible.*

Policy LU.2.5 *Phase growth based on market forces, infrastructure financing capacity, and the timing of the design, approval, and construction of transportation facilities and other infrastructure.*

Action LU.2.5.1 *Require market studies, financing plans, phasing plans, and other associated studies as needed as part of all new major development applications in order to evaluate the need for these projects, their*

compliance with established City policy, and the impact of the development on the City and service providers.

Mitigation Measures

The following mitigation measures would involve changes to the following action items:

MM 4.9.4 Modify the text of Action Item ISF.2.4.1 and ISF.2.4.2 as follows:

Action ISF.2.4.1 *The following shall be required for all development projects, excluding subdivisions:*

- *An assured water supply and delivery system shall be available at the time of project approval. The water agency providing service to the project may provide several alternative methods of supply and/or delivery, provided that each is capable individually of providing water to the project. However, assurance of water supply shall identify that the water agency has legal entitlement to the water source and that the water source has long term reliability (at least 20 years) under normal, dry and multiple dry years.*

- *All required water infrastructure for the project shall be in place at the time of project approval, or shall be assured through the use of bonds or other sureties to the City's satisfaction. Water infrastructure may be phased to coincide with the phased development of large-scale projects.*

Action ISF.2.4.2 *The following shall be required for all subdivisions to the extent permitted by state law:*

- *Proposed water supply and delivery systems shall be identified at the time of tentative map approval to the satisfaction of the City. The water agency providing service to the project may provide several alternative methods of supply and/or delivery, provided that each is capable individually of providing water to the project.*

- *The agency providing water service to the subdivision shall demonstrate prior to the approval of the Final Map by the City that sufficient capacity shall be available to accommodate the subdivision plus existing development, and other approved projects in the same service area, and other projects which have received commitments for water service. This assurance of water supply shall identify that the water agency has legal entitlement to the water source and that the water source has long term reliability (at least 20 years) under normal, dry and multiple dry years.*

- *Offsite and onsite water infrastructure sufficient to provide adequate water to the subdivision shall be in place prior to the approval of the Final Map or their financing shall be assured to the*

satisfaction of the City, consistent with the requirements of the Subdivision Map Act.

- *Offsite and onsite water distribution systems required to serve the subdivision shall be in place and contain water at sufficient quantity and pressure prior to the issuance of any building permits. Model homes may be exempted from this policy as determined appropriate by the City, and subject to approval by the City.*

Implementation of the above proposed General Plan policies and action items and Mitigation Measure **MM 4.9.4** would ensure that the new development under the General Plan would not proceed without verification and determination that an adequate water supply exists. As noted above, it is speculative that additional water supply sources would be available to serve buildout of the entire Planning Area. In addition, the proposed General Plan would contribute to identified significant environmental impacts associated with planned water supply projects as well as potential future other water supply sources. Given these conditions, this impact is considered **significant and unavoidable**.

4.9.4 CUMULATIVE SETTING, IMPACTS AND MITIGATION MEASURES

CUMULATIVE SETTING

As previously described, the Plan Area is located within the 27,000 square mile Sacramento River watershed, which includes the Sacramento, American, and Cosumnes Rivers. The American River is located along the northern boundary of the Planning Area and the Consumnes River is located to the south of the Planning Area. More specifically, the Planning Area is part of the Morrison Creek Stream Group, which covers 192 square miles, and includes the waterways of Elder, Rancho Cordova, Florin, Gerber, Laguna (and tributaries), Morrison, Strawberry, Union House, and Whitehouse Creeks. The cumulative water supply analysis focuses on water demand projections in Sacramento County and more specifically, within the South American groundwater Sub-Basin (or Central Area) that underlies southern Sacramento County. Reducing and mitigating the cumulative water impacts from development within the Sacramento Valley groundwater basins was the premise behind the preparation of the Water Forum Agreement. The reader is referred to Section 4.0 regarding a description of development activities within the region that contribute to cumulative water resource impacts

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Water Quality Impacts

Impact 4.9.5 Implementation of the proposed General Plan and potential development of the Planning Area would include substantial grading, site preparation, and an increase in urbanized development. Increased development would contribute to cumulative water quality impacts and is considered **cumulatively considerable**.

As described under **Impact 4.9.1** and **4.9.2**, approximately 47,074 acres with Cordova Planning Area are anticipated to be substantially disturbed with urban levels of development under the implementation of the proposed General Plan. This would add to other potential development activities within Sacramento County and adjacent areas, as described in **Table 4.0-1**, depending on the timing and rate of development. Development of any of these areas will

result in cumulative water quality impacts, which include impacts on surface water and groundwater quality.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following proposed General Plan policies and action items would assist in reducing surface water quality impacts of development under the proposed General Plan Natural Resources Element. However, this impact would still be considered cumulatively considerable.

Policy NR.3.1 *Coordinate with groups such as the Sacramento Urban Creeks Council to restore, enhance, and preserve creeks in Rancho Cordova.*

Policy NR.3.2 *Create or retain the natural topographic relief and meandering alignment of natural creek corridors in the construction of new channels and the modification of existing channels, and discourage the placement of concrete within creeks and channels.*

Action NR.3.2.1 *Develop guidelines for channel creation or modification that will ensure channel meander, naturalized side slope, and varied channel bottom elevation are considered in design.*

Action NR.3.2.2 *Adopt and implement improvement standards for soft bottom channels.*

Policy NR.3.3 *Encourage the creation of secondary flood control channels where the existing channel supports extensive riparian vegetation.*

Action NR.3.3.1 *Work with affected local, state and federal agencies to determine if natural creek corridors can and should accommodate storm flows or if separate storm water conveyance structures are necessary.*

Policy NR.3.4 *Encourage projects that contain wetland preserves or creeks, or are located adjacent to wetland preserves or creeks, to be designed for maximum visibility and, as appropriate, access.*

Action NR.3.4.1 *Establish performance standards for natural resource preserves that accomplish the following:*

- *Provide sufficient width for a mowed firebreak (where necessary), adjacent passive recreation uses, and access for channel maintenance and flood control.*
- *Offer sufficient width in and/or adjacent to preserves to allow for existing and created wildlife habitat, species sensitive to human disturbance, vegetative filtration for water quality, corridor for wildlife habitat linkage, protection from runoff, and other impacts of urban uses adjacent to the corridor.*
- *Allow for sufficient width adjacent to natural resource preserves to allow for trails and greenbelts.*
- *Do not place water quality treatment structures designed to meet pollutant discharge requirements within mitigation preserves.*

Action NR.3.4.2 *Establish standards that allow public access in the floodplain and buffers along creek corridors and preserves. Mitigation measures shall be incorporated into environmental documents and conditions of approval that require open-view fencing adjacent to preserves.*

Action NR.3.4.3 *Establish standards and/or guidelines for development adjoining wetland preserves or creeks to maximize visibility by designing the land plan with public streets on at least one side of the corridor or preserve with vertical curbs, gutters, footpath(s), street lighting, and post and cable barriers to prevent unauthorized vehicular entry into creek corridors and preserves.*

Policy NR.5.3 *Protect surface and ground water from major sources of pollution, including hazardous materials contamination and urban runoff.*

Action NR.5.3.1 *Restrict hazardous materials storage in the 100-year floodplain to prevent surface water contamination.*

Action NR.5.3.2 *Educate the community on laws governing the proper handling of hazardous materials, especially those laws which pertain to discharging materials into creeks.*

Action NR.5.3.3 *Install appropriate signage to deter the discharge of hazardous materials into storm drains.*

Policy NR.5.4 *Prevent contamination of the groundwater table and surface water, and remedy existing contamination to the extent practicable.*

Action NR.5.4.1 *Provide information on pollution prevention, disposal of hazardous waste and chemicals, liability and clean-up on the City's website and in educational materials and brochures.*

Action NR.5.4.2 *Require clean-up of contaminated ground and surface water by current and/or past owners or polluters.*

Action NR.5.4.3 *Encourage pollutant cleansing companies to use the latest technologies available in order to expedite the cleansing process and do the least harm to the environment.*

Policy NR.5.5 *Minimize erosion to stream channels resulting from new development in urban areas.*

Action NR.5.5.1 *Require community and specific plans to contain urban runoff control strategies and requirements that are consistent with Master Drainage Plans and the City's urban runoff management program.*

Action NR.5.5.2 *Require development within newly urbanizing areas to incorporate runoff control measures into their site design or to participate in an area-wide runoff control management effort consistent with standards developed by the Public Works Department.*

Action NR.5.5.3 *Encourage new development to incorporate features such as grassy swales, multi-use retention or detention basins, and integrated drainage systems to enhance water quality. Work with the Cordova Recreation*

and Park District to establish standards for integrating retention/detention basins into park sites and create examples of desirable and innovative natural drainage features.

Action NR.5.5.4 *Establish and require the use of best management practices to protect receiving waters from the adverse effects of construction activities, sediment and urban runoff.*

Mitigation Measures

Implementation of the above General Plan policies and action items, mitigation measures **MM 4.9.1a and b** and **MM 4.9.2**, and continued implementation of the provisions of the City's NPDES permit would ensure that City stormwater would attain water quality standards and protect of beneficial uses consistent with applicable water quality requirements. Thus, the General Plan's contribution to cumulative water quality impacts would be reduced to **less than cumulatively considerable**.

Cumulative Flood Hazards

Impact 4.9.6 Implementation of the proposed General Plan would increase impervious surfaces and alter drainage conditions and rates in the Planning Area, which could contribute to cumulative flood conditions along the American River, Sacramento River, Cosumnes River, and local waterways. However, the General Plan contains adequate General Plan policies and action items that address drainage and flooding issues. This is considered a **less than cumulatively considerable** impact.

As described under Impact 4.9.3, urban development under the proposed General Plan would increase impervious surfaces in the Planning Area that would contribute (in combination with cumulative development in the watershed) to increases in flood conditions for area waterways. The project would also increase the regional population that could be exposed to flooding as a result of levee failure along the American River of failure of Folsom Dam. However, such an event has an extremely low probability of occurring and is not considered to be a reasonably foreseeable event. Currently, there are planning efforts by the U.S. Army Corps of Engineers to improve the flood capacity of Folsom Reservoir and there have been improvements made to security at Folsom Dam to minimize the treat of an intentional act of sabotage.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and action items address drainage and flooding. As noted in the policies and action items below, the proposed General Plan would ensure that development does not occur within the 100-year floodplain and would prohibit new projects from increasing existing flooding impacts or creating new flood impacts.

Policy S.2.1 *Ensure that flood control facilities do not alter or reduce flows in the Cosumnes or American Rivers.*

Action S.2.1.1 *Support the construction of flood control projects when clear dangers to life and property exist.*

Action S.2.1.2 *Participate in the National Flood Insurance Program by updating the floodplain management ordinance as necessary to help reduce future*

flood damage. Participation in the National Flood Insurance Program makes federally backed flood insurance available to homeowners, renters, and businesses owners in Rancho Cordova.

Action S.2.1.3 *Participate with the City of Sacramento, the Army Corps of Engineers, and other Federal, State, and local governments and agencies to develop policies to finance, construct, and plan flood improvements to eliminate flooding in the City.*

Policy S.2.2 *Manage the risk of flooding by discouraging new development located in an area that is likely to flood.*

Action S.2.2.1 *Disapprove new projects that would result in new or increased flooding impacts on adjoining parcels or upstream and downstream areas.*

Action S.2.2.2 *Use appropriate land use designations as the primary flood prevention measure. Prioritize the construction of new flood control projects only when land use controls are not sufficient to reduce hazards to life and property to acceptable levels.*

Action S.2.2.3 *Preclude development within the 100-year floodplain, as determined by the most recent floodplain mapping available from the Federal Emergency Management Agency (FEMA) or other acceptable source.*

Action S.2.2.4 *On flood-prone parcels, locate development on portions of the site that are not subject to flooding, consistent with other policies of this General Plan.*

Action S.2.2.5 *Require every residential lot to have buildable area sufficient to accommodate a residence and associated structures outside the 100-year floodplain. Discourage the use of fill to create buildable area within the 100-year floodplain, except in extreme circumstances consistent with all other applicable policies and regulations, and after review to determine potential impacts on wildlife, habitat, and flooding on other parcels.*

Action S.2.2.6 *Require vehicular access to the buildable area of all parcels to be at or above the ten-year floodplain elevation.*

Action S.2.2.7 *Preclude the creation of lots whose access will be inundated by flows resulting from a ten-year or greater storm event. Bridges or similar structures may be used to provide access over creeks or inundated areas, subject to applicable local, state, and federal regulations.*

Action S.2.2.8 *Discourage additional crossings of natural creeks in order to reduce potential flooding and access problems, except as needed to provide roadway and trail connections and preserve natural resource areas.*

Action S.2.2.9 *Prohibit new and modified bridge structures that will cause an increase of more than one foot in water surface elevations of the 100-year floodplain, unless analysis clearly indicates that the physical and/or economic use of upstream property will not be adversely affected.*

Policy S.1.13 *Discourage the creation of new parcels when the presence of easements, floodplain, marsh, or riparian habitat, and/or other features would leave insufficient land to build and operate structures. This policy shall not apply to open space lots specifically created for dedication to the City or another appropriate party for habitat protection, flood control, drainage, or wetland maintenance.*

Policy S.2.3 *Ensure that adequate drainage exists for both existing and new development.*

Action S.2.3.1 *Require all new urban development projects to either incorporate runoff control measures to minimize peak flows of runoff or otherwise implement Comprehensive Drainage Plans.*

Action S.2.3.2 *Maintain drainage facilities in order to ensure their proper operation during storms.*

Action S.2.3.3 *Prepare a Comprehensive Drainage Plan for all streams and their tributaries prior to any development within the 100-year floodplain.*

Policy NR.5.5 *Minimize erosion to stream channels resulting from new development in urban areas.*

Action NR.5.5.3 *Encourage new development to incorporate features such as grassy swales, multi-use retention or detention basins, and integrated drainage systems to enhance water quality. Work with the Cordova Recreation and Park District to establish standards for integrating retention/detention basins into park sites and create examples of desirable and innovative natural drainage features.*

The above proposed General Plan policies and action items would ensure that development does not occur within the 100-year floodplain and would prohibit new projects from increasing existing flooding impacts or creating new flood impacts. Thus, these provisions would ensure that the proposed General Plan does not contribute to cumulative flood conditions. The General Plan's contribution to this impact is considered **less than cumulatively considerable**.

Mitigation Measures

None required.

Cumulative Water Supply Impacts

Impact 4.9.7 Implementation of the proposed General Plan would contribute to an increased demand for water supply requiring increased groundwater production and the use of surface water supplies that could result in significant environmental impacts. This is considered a **cumulatively considerable** impact.

As noted under **Impact 4.9.4**, there is currently not adequate existing and planned water supplies identified to serve full buildout of the proposed General Plan (51,089 afy shortfall). Future growth in the region (e.g., as identified in the Sacramento Area Council of Government's Region Blueprint process and City of Folsom Sphere of Influence) would further contribute to the need

for additional sources of water supply currently not planned for. This could result in further direct and indirect environmental effects associated with the development of new water supply sources.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following proposed General Plan policies and action items would assist in reducing water supply impacts of General Plan growth. However, this impact would still be considered cumulatively considerable.

Policy NR.4.2 *Improve overall landscaping quality and sustainability in all areas visible to the public.*

Action NR.4.2.2 - Create development guidelines that address landscaping standards and that require appropriate tree species and densities in buffer areas. The guidelines should also ensure that medians will include native plantings and trees, and will be wide enough to support the long-term viability of the plantings.

Action NR.4.2.3 - Provide leaflets and planting guides that promote the use of drought-tolerant native vegetation in home landscaping.

Policy NR.5.1 *Promote water conservation within existing and future urban uses.*

Action NR.5.1.1 *Install water-conserving landscaping and irrigation on City-owned and operated facilities.*

Action NR.5.1.2 *Require development project approvals to include a finding that all feasible and cost-effective options for conservation and water reuse are incorporated into project design.*

Action NR.5.1.3 *Establish a program that requires per capita water consumption to be reduced by at least 20 percent by 2030. The program shall include the following measures:*

- *Restrict water usage through metering or establishing designated watering days for the City's residences and businesses.*
- *Promote water conservation efforts through education.*
- *Implement standards that require low-flow appliances and fixtures in all new development.*
- *Work with water providers and water conservation agencies to create an incentive program that encourages retrofitting existing development with low-flow water fixtures.*
- *Require new development to utilize state-of-the-art irrigation systems that reduce water consumption (e.g., drip irrigation, gray-water systems).*
- *Encourage drought-tolerant vegetation and use water-efficient irrigation systems in landscaped public areas.*

Policy NR.5.2 *Encourage the use of treated wastewater to irrigate parks, golf courses, and landscaping.*

Action NR.5.2.1 *Establish a Large-Scale Recycled Water Program and Citywide Recycled Water Distribution System Ordinance.*

Action NR.5.2.2 *Coordinate with the City's water purveyors to establish a connected "purple pipe" system throughout the City's new development areas that uses recycled water.*

Policy ISF.2.1 *Ensure the development of public infrastructure that meet the long-term needs of residents and ensure infrastructure is available at the time such facilities are needed.*

Action ISF.2.1.1 *Except when prohibited by state law, require sufficient capacity in all public facilities to maintain desired service levels and avoid capacity shortages, traffic congestion, or other negative effects on safety and quality of life.*

Action ISF.2.1.2 *Adopt a phasing plan for the development of public facilities in a logical manner that encourages the orderly development of roadways, water and sewer, and other public facilities.*

Action ISF.2.1.3 *Withhold public financing or assistance from projects that do not comply with the planned phasing of public facilities, and approve interim facilities only in special circumstances.*

Policy ISF.2.2 *Coordinate with independent public service providers, including schools, parks and recreation, utility, transit, and other service districts, in developing service and financial planning strategies.*

Action ISF.2.2.1 *Establish a Technical Review Committee for continued coordination with outside service agencies, including water and sewer providers, the Cordova Recreation and Park District, and the school districts, during the review of plans and development projects.*

Policy ISF.2.3 *Ensure that adequate funding is available for all infrastructure and public facilities, and make certain that the cost of improvements is equitably distributed.*

Action ISF.2.3.1 *Require secure financing for all components of the transportation system through the use of special taxes, assessment districts, developer dedications, or other appropriate mechanisms. Financing should be sufficient to complete required major public facilities at their full planned capacities in a single phase. Major facilities include roadways of collector size or larger; all wells, water transmission lines, treatment facilities, and storage tanks needed to serve the project; and all sewer trunk and interceptor lines and treatment plants or treatment plant capacity.*

Action ISF.2.3.2 *Require new development to fund its fair share portion of its impacts to all public infrastructure and facilities.*

Action ISF.2.3.3 *Include sufficient funding in fee programs and/or other finance mechanisms to cover the costs of each of the following roadway items:*

- *Design, engineering, environmental compliance, and construction of roadway lanes, traffic signals, and bridges.*
- *Right of way acquisition, design, engineering, environmental compliance, and construction costs.*
- *Drainage and other facilities related to new roadway construction.*
- *Installation of landscaped medians, sidewalks, and streetscaping where appropriate.*

Policy ISF.2.4 *Ensure that water supply and delivery systems are available in time to meet the demand created by new development, or are guaranteed to be built by bonds or sureties.*

Action ISF.2.4.1 *Require all development projects, excluding subdivisions, to adhere to the following provisions:*

- *An assured water supply and delivery system shall be available at the time of project approval. The water agency providing service to the project may provide several alternative methods of supply and/or delivery, provided that each is capable individually of providing water to the project.*
- *All required water infrastructure for the project shall be in place at the time of project approval, or shall be assured through the use of bonds or other sureties to the City's satisfaction. Water infrastructure may be phased to coincide with the phased development of large-scale projects.*

Action ISF.2.4.2 *Require all subdivision developments to adhere to the following provisions, to the extent permitted by state law:*

- *Proposed water supply and delivery systems shall be identified at the time of tentative map approval to the satisfaction of the City. The water agency providing service to the project may provide several alternative methods of supply and/or delivery, provided that each is capable individually of providing water to the project.*
- *The agency providing water service to the subdivision shall demonstrate prior to the approval of the Final Map that sufficient capacity shall be available to accommodate the subdivision plus existing development, and other approved projects in the same service area, and other projects which have received commitments for water service.*
- *Offsite and onsite water infrastructure sufficient to provide adequate water to the subdivision shall be in place prior to the approval of the Final Map or their financing shall be assured to the*

satisfaction of the City, consistent with the requirements of the Subdivision Map Act.

- *Offsite and onsite water distribution systems required to serve the subdivision shall be in place and contain water at sufficient quantity and pressure prior to the issuance of any building permits. Model homes may be exempted from this policy as determined appropriate by the City, and subject to approval by the City.*

Policy ISF.2.7 *Minimize visual impacts and physical impediments of utility infrastructure and equipment.*

Action ISF.2.7.1 *Coordinate with utility agencies to underground, strategically place, and screen equipment to the maximum extent feasible.*

Policy LU.2.5 *Phase growth based on market forces, infrastructure financing capacity, and the timing of the design, approval, and construction of transportation facilities and other infrastructure.*

Action LU.2.5.1 *Require market studies, financing plans, phasing plans, and other associated studies as needed as part of all new major development applications in order to evaluate the need for these projects, their compliance with established City policy, and the impact of the development on the City and service providers.*

Mitigation Measures

Implementation of the above proposed General Plan policies and action items and Mitigation Measure **MM 4.9.4** would ensure that the new development under the General Plan would not proceed without verification and determination that an adequate water supply exists. As noted above, it is speculative that additional water supply sources would be available to serve buildout of the entire Planning Area or development beyond. In addition, the proposed General Plan would contribute to identified significant environmental impacts associated with planned water supply projects as well as potential future other water supply sources. Given these conditions, this impact is considered **cumulatively considerable** and thus is **significant and unavoidable**.

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4.10 – Biological Resources

This biological resources section addresses the biological resources present within the City of Rancho Cordova and the City of Rancho Cordova General Plan Planning Area and includes a discussion of the special-status species that potentially occur within the General Plan Planning Area as well as sensitive habitats in the General Plan Planning Area. This section also identifies potential plan-specific and cumulative impacts to these resources due to implementation of the proposed City of Rancho Cordova General Plan. All discussion of biological resources in this section is divided into cover types, rather than separate planning areas as identified in the General Plan.

4.10.1 EXISTING SETTING

The following information is based largely on the Biological Resources Report (2005), prepared by Ecosystem Sciences expressly for the City of Rancho Cordova General Plan. This report relied on literature review and database searches of both the California Natural Diversity Database (CNDDB) and information from the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Vascular Plants of California as well as information drawn from the draft South Sacramento Habitat Conservation Plan (SSHCP). Site visits were conducted by Ecosystem Sciences as well as consultation with responsible agencies. Additional information for this section was provided by a habitat assessment performed for the proposed Rio Del Oro Specific Plan project (EDAW 2005) a Wetland Delineation for the Rio Del Oro Specific Plan project (Ecorp Consulting, Inc. 2005), the Preserve at Sunridge Draft EIR (2005), Sunrise Douglas Community Plan EIR (2001), and various draft documents generated for the SSHCP.

REGIONAL SETTING

Sacramento County lies in the middle of the Central Valley and is bordered by Contra Costa County and San Joaquin Counties on the south, Amador County and El Dorado County on the east, Placer County and Sutter County on the north, and Yolo County and Solano County on the west. Sacramento County extends from the low delta between the Sacramento and San Joaquin rivers northward to the foothills of the Sierra Nevada Mountains with plant communities ranging from cropland and grassland to woodlands and savanna (Ecosystem Sciences, 2005).

LOCAL SETTING

The topography within the Planning Area includes gently rolling terrain, such as that found in the eastern Great Central Valley interrupted by numerous seasonal creeks and streams. These creeks and streams are largely ephemeral and intermittent, which is typical of areas that experience extremely dry summers and cool, wet winters, as in this part of the Central Valley. The most notable creeks in the Planning Area are Morrison Creek, Laguna Creek, Deer Creek, Buffalo Creek, and Carson Creek. The location of these creeks is shown in Section 4.9, Hydrology and Water Quality. Other waterways of note are the American River in the north of the Planning Area, the Cosumnes River south of the Planning Area and Mather Lake located in the center of the Planning Area, Blodgett Reservoir located in the southeast, and the Folsom South Canal that bisects the Planning Area from north to south. (Ecosystem Sciences, 2005)

One primary biological concern within the Planning Area is vernal pools. Vernal pools are seasonal pools that exhibit a four-stage life cycle providing critical habitat to several species of plants and animals, including some species of concern. Preliminary mapping conducted in preparation of the Draft South Sacramento County Habitat Conservation Plan (SSHCP) identified 625 acres of vernal pools and 212 acres of fresh water marshes within the Planning Area. Additionally, 20,728 acres of Vernal Pool Grassland exist within the Planning Area. This grassland

is directly related to the vernal pools and also provides habitat for various species of concern. (Ecosystem Sciences, 2005)

Some portions of the General Plan Planning Area have been set aside for wetland preservation and wetland mitigation/creation. These areas are located generally south of SR-16 in the extreme southern portion of the Planning Area. One exception is the Anatolia Preserve, located within the Sunrise Douglas Community Plan/Sunridge Specific Plan area generally bounded by Sunrise Boulevard, Keifer Boulevard, and Jaeger Road between the Anatolia II and III subdivisions. A mitigation site is also located north of SR-16 immediately southwest of Mather Airport. All known mitigation/preserve sites are listed, along with their approximate acreages, in **Table 4.10-1**. Information on the size and location of these preserves was provided by the Sacramento County Department of Planning and Community Development and was accurate as of September 26, 2005.

TABLE 4.10-1
WETLAND PRESERVES AND MITIGATION SITES WITHIN THE GENERAL PLAN PLANNING AREA – 2005

Name or Affiliated Company	General Location	Approximate Acreage
Sunrise Douglas Mitigation Bank	Between Sunrise Boulevard and Jaeger Road north of Kiefer Boulevard	400
Teichert Mitigation Site 1	Immediately southwest of Mather Airport	100
Mather Regional Park	Immediately southeast of Mather Airport	1,145
Teichert Mitigation Site 2	South of SR-16, approximately 0.9 miles east of Bradshaw Road	80
SVC Preserve 1	South of SR-16, immediately east of Excelsior Road	278
ATK Mitigation Site	South of SR-16, immediately west of Eagles Nest Road	187
Arroyo Seco Mitigation Bank	South of SR-16, immediately east of Excelsior Road, and immediately south of the SVC Preserve	162
SVC Preserve 2	South of SR-16, immediately west of Eagles Nest Road, and immediately south of the ATK Mitigation Site	245
Triangle Rock Mitigation Site	South of SR-16, between Eagles Nest Road and Sunrise Boulevard	164

Source: County of Sacramento Department of Planning and Community Development, 2005

Several plant communities and habitat types occur within the Planning Area. In addition to Vernal Pool and Vernal Pool Grassland, the Planning Area includes cropland, woodlands of various types, pastures and grasslands, mixed riparian scrub, blue oak savannah, open water, fresh water marsh, and streams. Other land uses and cover types found in the Planning Area include High Density Development, Low Density Development, roads, mine tailings, recreation facilities, and an aqueduct (Ecosystem Sciences, 2005). The southern portions of the Planning Area include some undeveloped open space, most of which is or was used for grazing.

PLANT COMMUNITIES AND WILDLIFE HABITATS

The following information is taken directly from the Biological Resources Report prepared for the City of Rancho Cordova by Ecosystem Sciences in March 2005. The Biological Resources Report utilized data from both the Draft South Sacramento Habitat Conservation Plan and the California Wildlife Relationships System. Where information was obtained from sources other than the Biological Resources Report, a citation is included.

Several plant communities and wildlife habitats are found within the Planning Area. Plant communities are found where groups of plant species occur together in the same geographic area. These plant communities are organized into cover types that constitute categories of typical land covers and in some cases the uses of those areas such as aqueducts and roads. Specific wildlife habitats are created by these cover types. Wildlife habitats provide cover, food, and water, which is necessary in order to support a particular animal species or groups of species. Changes in these habitats, both significant and minor, can impact a species' abundance, distribution, and diversity as well as interactions between different species. See **Table 4.10-2** for a listing of the plant communities and wildlife habitats found in the Planning Area as well as their respective areas and the percentage of the Planning Area in which they are found. The location of the cover types shown in **Table 4.10-2** is depicted on **Figure 4.10-1**.

TABLE 4.10-2
COVER TYPES IN THE CITY OF RANCHO CORDOVA PLANNING AREA BY TOTAL ACRES

Cover Type	Acres Within City Boundary	Acres Outside City Boundary and Inside Planning Area	Total Acres	Percent of Total
Vernal Pool Grassland	6,540.5	14,187.2	20,727.8	33.77%
High Density Development	4,180.0	7,089.5	11,269.6	18.36%
Mine Tailings	4,548.7	5,726.3	10,275.0	16.74%
Roads	2,986.9	5,298.3	8,285.2	13.50%
Cropland	298.6	3,109.1	3,407.7	5.55%
Streams	507.7	1,478.4	1,986.0	3.24%
Pasture Grassland	1,088.1	270.8	1,359.0	2.21%
Grassland	230.4	407.2	637.5	1.04%
Vernal Pool	271.0	359.3	630.3	1.03%
Mixed Riparian Woodland	106.6	508.7	615.3	1.00%
Open Water	191.8	269.1	460.9	0.75%
Low Density Development	0.0	435.7	435.7	0.71%
Recreation	0.0	341.7	341.7	0.56%
Blue Oak Woodland	246.6	1.2	247.7	0.40%
Fresh Water Marsh	41.4	170.2	211.5	0.34%
Aqueduct	72.0	134.9	206.9	0.34%
Cottonwood Woodland	0.0	131.6	131.6	0.21%

Cover Type	Acres Within City Boundary	Acres Outside City Boundary and Inside Planning Area	Total Acres	Percent of Total
Blue Oak Savannah	75.6	5.0	80.5	0.13%
Valley Oak Riparian Woodland	0.0	50.2	50.2	0.08%
Mixed Riparian Scrub	0.0	21.0	21.0	0.03%
Upland	0.0	1.8	1.8	0.00%
Total	**21,385.8**	**39,997.2**	**61,383**	**100.0%**

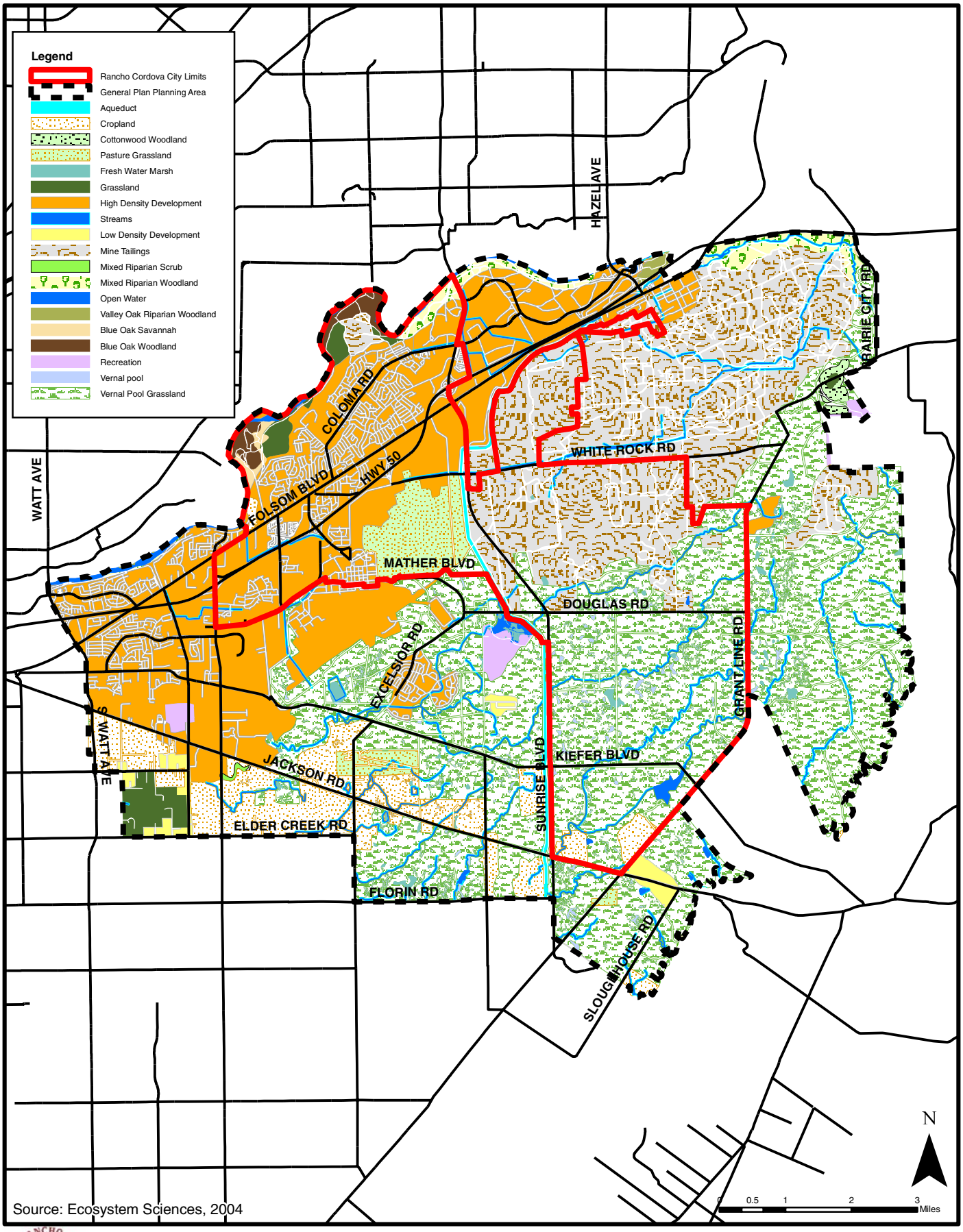
Source: Rancho Cordova Biological Resources Report – Generated from GIS Land Cover Data from the Draft Sacramento County South Sacramento Habitat Conservation Plan.
Note: [1] These two cover types are only found in combination with each other and are therefore discussed together below.
[2] These two cover types are very similar from a biological standpoint and are therefore discussed together below.
[3] These two cover types are located immediately adjacent to each other and are very similar from a biological standpoint; therefore, they are discussed together below.
[4] Classifications for Streams and Roads above are slightly exaggerated, resulting in a larger overall area for those classifications (Ecosystem Sciences 2005).

Some of the above cover types found in the Planning Area are described as sensitive by the California Department of Fish and Game (CDFG). These include vernal pool (identified by the CDFG as "Northern Hardpan Vernal Pool"), which are considered by the CDFG to be "rare or uncommon but not imperiled", and the valley oak riparian woodland (identified by the CDFG as "Great Valley Oak Riparian Forest"), which is considered by the CDFG to be "critically imperiled because of extreme rarity or because some factor of its biology makes it especially vulnerable to extinction." In addition to sensitive cover types within the Planning Area, several special status animal species occur within these cover types and are found within the Planning Area. **Table 4.10-3**, provided in the Regulatory Framework section below, lists these special status species and identifies which cover types they are associated with.

The following discussion describes the biological communities and habitats (cover types) that exist within the General Plan Planning Area. Included in the discussion of each cover type is a description of the community or habitat, any pertinent information on the animal species found within the cover type, and information on plant species found within each cover type, where applicable.

Vernal Pool and Vernal Pool Grassland

As vernal pools within the Rancho Cordova Planning Area are located entirely within vernal pool grassland, both cover types are discussed together. A vernal pool is a type of seasonal wetland habitat that exhibits a four-stage hydrologic cycle and develops as a result of complex interactions between climate, geology, soils, the hydrologic cycle of the area, and chemical and evolutionary processes. The four hydrologic stages include a wetting phase, an aquatic or inundation phase, a water logged terrestrial phase, and a dry or drought phase. Specifically, vernal pools found in the Planning Area are of the Northern Hardpan Vernal Pool classification and vary in size and soil depth. Higher and drier pools integrate closely with wetland and grassland cover types, while more stable, deeper vernal pools are often integrated with freshwater marsh cover types. Both the grassland cover type and fresh water marsh cover type are found within the Planning Area.



Source: Ecosystem Sciences, 2004

T:_GIS\Rancho_Cordova\MXD\General_Plan\EIR\fig4.10-1_cover_types.mxd

City of Rancho Cordova
Planning Department

Figure 4.10-1
Cover Types
in the General Plan Planning Area

Many animal species found in the grassland cover type are also found in the vernal pool grassland cover type. Some species found in vernal pool and vernal pool grassland cover types have adapted to specific conditions and are, thus, only found in those cover types. Of those types, some of these species may utilize the vernal pool and vernal pool grassland habitats only during specific stages of vernal pools, and others can be found year-round.

A group of aquatic crustaceans, known as branchiopods, has adapted to rely almost exclusively on the unique hydrology of vernal pools for their survival. Four species of branchiopods are found within the Planning Area: California linderiella, mid-valley fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp. These particular species are found in vernal pools year-round, surviving the drought period buried in the mud in cyst form. Two species of snail are also found in vernal pools and survive the dry period in a similar manner.

Several species of amphibians and birds are found within the vernal pool and vernal pool grassland cover types. Amphibians utilize vernal pools for breeding and for tadpole habitat during the wet periods, as vernal pools are more viable breeding and rearing sites due to the fact that they do not support predatory fish species, which feed on tadpoles and young amphibians. Birds and vernal pools rely on each other as the pools provide nesting as well as high-protein food sources (especially important for migrating species such as Canada Geese), while birds spread plant seeds as well as invertebrate eggs and cysts from pool to pool as they feed. The dispersal of seeds, eggs, and cysts is key to maintaining ecological diversity and integrity within the vernal pools. The exact nature of the relationship between mammals and vernal pools is not documented, but some evidence is available that shows that smaller species such as rabbits may spread seeds and cysts and abandoned burrows dug by burrowing mammals may provide shelter for some amphibians.

High and Low Density Development

Both high and low density development cover types consist of previously developed land that is "highly constructed, intensely managed, and comprised of mainly ornamental exotic plants" (Ecosystem Sciences, 2005, p. 30). Exotic ornamental plants can be a concern as they may spread from managed, landscaped areas into adjacent wildlands.

Some special status species are found in these cover types in the Planning Area, specifically Sanford's Arrowhead and Cooper's hawk. Other species consist primarily of birds such as the rock pigeon, house sparrow, and starling. Low-density development supports scrub jay, mockingbird, and house finch as well. Some small mammals can be found in these cover types, including raccoon, opossum, and striped skunk – though these are primarily found in less dense urban portions of the Planning Area.

Mine Tailings

Large areas within the Planning Area were subjected to dredge gold mining in the late 1800's and again in the 1950's. The result of this mining is the mine tailings cover type that is characterized by long, linear rows of cobble piles with low-lying areas in between. The piles themselves consist primarily of large cobbles, with some sparse soils and non-native plants such as yellow star-thistle and ripgut brome. Low-lying areas between the piles provide habitat for small vegetative inclusions that support a dominance of riparian associated plant life. These low lying areas have accumulated finer solids resulting from the water used to dredge the tailings, as well as accumulated water from runoff from the piles on either side. Plants in these wetter low-lying areas include wetland shrub and tree species such as willow and Fremont cottonwood. These areas also support valley elderberry shrubs and valley elderberry longhorn beetle.

Lowering of the existing water table and removal of artificial water source from mine activities appears to be causing decline in the health of vegetation with these inclusions.

Though the cobble potions of the mine tailing have limited functions for wildlife, it is expected that raptors and migratory songbirds such as red-winged blackbirds benefit from the trees found in the low-lying areas. While no specific information is available that shows that tricolored blackbirds utilize this cover type, specific inclusion of vegetation found in the mine tailings cover type provides habitat for that species.

Cropland

The cropland cover type consists of land used for production of both vegetable crops, such as broccoli, carrots, celery, cucumbers, and melons, and grain and seed crops such as corn, dry beans, barley, alfalfa, and wheat. Within the City and Planning Area, cropland occur as small family farms consisting of trucks crops such as strawberries. The specific type of crop found on any area of cropland cover type determines the species that may utilize the cover type for food or shelter. For example, cropland located immediately adjacent to cottonwood woodland would likely exhibit use by species specific to the cottonwood woodland cover type. Irrigated cropland has similar biological characteristics as pasture grassland (discussed below). The method of farming can have an impact on species utilization. For example, if waste grain is left in the fields after harvest, that area attracts more waterfowl species than an area where the waste grain was brought in at the end of the season.

Streams

The streams cover type is found throughout the Planning Area and holds a vital role in ecosystem function within that area. Streams found in the Planning Area include ephemeral, intermittent, and perennial streams. While most streams are intermittent, some, such as Alder Creek, contain water year-round. See section 4.9, Hydrology and Water Quality for a depiction of the streams and creeks found in the Planning Area. Streams are interspersed with other cover types. For example, Alder Creek is interspersed with the mixed riparian forest cover type and Laguna Creek is interspersed with the vernal pool grassland cover type found in the Planning Area.

Streams are important to biological resources in the Planning Area as they convey water to habitats and cover types, attenuate storm flows through the action of vegetation found in the streams, provide habitat for nesting, mating, and migrating birds, and provide migration routes for animals between cover types. As the majority of streams found within the Planning Area are intermittent and have at least one dry period in which no water is located in the channel, fish species are not commonly found in this cover type within the Planning Area. Additionally, many streams in the area vary in their ecological integrity and condition due to being heavily altered and impacted in the past, prior to current regulations by state and federal agencies. Special status species found in the streams cover type include northwestern pond turtle and the giant garter snake.

Pasture Grassland

This cover type is characterized by generally flat to rolling terrain and consists of land currently or previously used to graze livestock. The plant species and animal species found on this cover type are largely determined by the adjacent cover types as well as the management practices of the land (i.e. irrigation practices, type of livestock pastured, fertilization, etc.). Animal species found in this cover type include ground-nesting birds such as waterfowl, pheasant, and crane. If

pastures are flood-irrigated then many wetland-associated bird species may utilize the pasture for feeding and roosting. Deer have also been observed in the pasture grassland cover type.

Grassland

The grassland cover type is similar to the vernal pool grassland cover type, though it differs significantly in hydrological characteristics and lacks the hardpan soil layer that allows for the formation of vernal pools. Plant species found in the grassland cover type were once native grasses, but introduced annual grasses have replaced the native species. The non-native annuals that now dominate this cover type are considered naturalized and thus prevent native perennials from re-establishing themselves in the area.

The grassland cover type supports several animal species by providing food plants and to some extent breeding, resting, and cover – though generally only in grassland that includes features such as cliffs, ponds, woody plants, or streams. Animal species found in the grassland cover type within the Planning Area include coyote, badger, Swainson's hawk, and smaller mammals such as mice and voles.

Mixed Riparian Woodland

The mixed riparian woodland cover type is found mainly adjacent to year-round waterways such as the American River and Alder Creek. Mixed riparian woodland is characterized by tall, dense, winter-deciduous, mixed broadleaf trees such as Fremont cottonwood and California sycamore, shade tolerant shrubs such as wild grape, and blue elderberry, as well as grasses and sedges. As mixed riparian woodland is found along year-round waterways, this cover type provides important linkages between the aquatic environment and terrestrial habitats. Mixed riparian woodland also provides food, water, and movement corridors for dispersal and migration, as well as nesting and cover sites for several species of amphibians, birds, and mammals.

Special status species found in the mixed riparian woodland cover type within the Planning Area include Cooper's hawk, great egret, great blue heron, Swainson's hawk, and yellow-breasted chat.

Open Water

The open water cover type is characterized by large areas of permanently flooded land including rivers and lakes. In addition to the American River in the northern portion of the Planning Area, both Mather Lake and Blodgett Reservoir are considered open water. Open water supports aquatic plants both on the surface of the water and along the edges of water bodies and, in turn, provides food for insects and wildlife. Algae and plankton populations are also supported by open water, therefore providing food for fish and invertebrates. Over 100 species of birds and 13 mammal species are known to utilize this cover type within the Planning Area, including bank swallow and north-western pond turtle. See **Table 4.10-3** for a complete listing of special status species found in this cover type.

Recreation

The recreation cover type is found within the Planning Area in areas immediately adjacent to low-density and high-density development cover types and is therefore very similar in ecological characteristics. Recreation areas are generally characterized by non-native plant species that are chemically and physically managed. However, native species are also found in the

recreation cover type. Within the Planning Area, some special status plant species such as Sanford's arrowhead are found within recreation areas.

Blue Oak Woodland and Blue Oak Savannah

As the blue oak woodland and blue oak savannah occur adjacent to each other and exhibit similar characteristics, they are discussed together. These cover types are found in areas with drier, rocky, and generally infertile, well-drained soils. They are characterized by a canopy dominated by blue oak, and include other oaks such as the valley oak. Blue oak woodland includes an understory of shrubs such as gooseberry and California lilac. The blue oak savannah cover type does not exhibit such shrubs and instead supports grasses and forbs. While conclusive data is not available on direct relationships between oaks and wildlife, small mammals such as squirrels are known to bury acorns and thus improve the chances of germination and survival of new oaks.

The blue oak woodland and blue oak savannah cover types provide food and breeding habitat for 29 species of amphibians and reptiles, 57 species of birds, and 10 mammal species. Oak trees generally provide leaves, twigs, bark, and sap as food sources and nesting materials, as well as shelter and perches for bird species. Mammals found within these cover type include deer, band-tailed pigeons, jays, and woodrats. Both Cooper's hawk and Swainson's hawk were found in these cover types within the Planning Area.

Fresh Water Marsh

Two types of fresh water marsh are found within the Planning Area. These two types are delineated by surrounding cover types and the associated plant species found in them. Fresh water marsh areas found within or adjacent to vernal pool grassland exhibit many of the characteristics of vernal pools and can support plant species such as sedges, umbrella sedges, dock, and rushes, as well as animal species similar to those found in vernal pools. Fresh water marsh areas that are inundated year round exhibit tall reeds, bulrushes, and cattails in addition to the animal species found in vernal pools.

This cover type provides very productive habitat for wildlife, especially for the 160 plus species of birds that utilize this cover type. A number of mammal, amphibian, and reptile species utilize the fresh water marsh cover type as well. The fresh water marsh cover type provides abundant food for animal species, as well as nesting, resting, and breeding sites. Several special status bird species are found within this cover type in the Planning Area, including tricolored blackbird, great egret, and great blue heron. Fresh water marsh also provides habitat for the north-western pond turtle, which is a special status species as well.

Aqueduct

The Folsom South Canal is the only portion of the Planning Area designated as the aqueduct cover type. The canal itself is man-made and consists of concrete sides and bottom, therefore it does not provide quality habitat for either plant or animal species. However, some hydrophytic vegetation is found along or near the canal, and includes rushes, cattail, sedges, and other wetland and riparian species similar to those found in the fresh water marsh and streams cover types. Some black flies and mayflies may use the aquatic environment of the canal as habitat, and thus insectivorous birds such as swallows, swifts, and flycatchers utilize these flies as a source of food and may, therefore, be found in this cover type. According to the November 2005 California Natural Diversity Database (CNDDB) data, no occurrences of any special status species have been found in the aqueduct cover type within the Planning Area.

Cottonwood Woodland

The cottonwood woodland cover type is characterized by Fremont cottonwoods mixed with other winter-deciduous, broadleaved trees such as black willow, narrow-leaf willow, box elder, and California sycamore. Non-native grasses such as those found in the grassland and vernal pool grassland cover types dominate the ground cover, interspersed with California wild grape. The cottonwood woodland cover type requires periodic flooding and the support of some type of subsurface irrigation to support the plant species found in it. The mapped cottonwood woodlands in the Planning Area occur in the north east corner of the Planning Area (Figure 4.10-1). Cottonwood patches also occur within mine tailings. Please see Mine Tailings for a more detailed discussion of the resource in this landscape setting. The cottonwood woodland cover type provides escape and movement corridors as well as nesting and cover sites for raptors, migratory songbirds, and other species found in adjacent habitats. Special status species found within this cover type in the Planning Area include the western spadefoot toad, Swainson's hawk, white tailed kite, and the American badger.

Valley Oak Riparian Woodland

The valley oak riparian woodland cover type is similar to mixed riparian woodland cover type but is instead dominated by valley oak and includes other tree species such as blue oak, black oak, and California sycamore. The groundcover is generally made up of grasses; therefore, the edges of this cover type can be similar to the grassland cover type. The valley oak riparian woodland cover type is found adjacent to the American River in the Planning Area, on higher floodplain surfaces and maintains a connection to the □iverine water table.

The valley oak riparian woodland cover type provides both forage and cover for many species of birds and mammals including red-shouldered hawk, western grey squirrels, and special status species such as great egret, great blue heron, and Swainson's hawk, among others.

Mixed Riparian Scrub

The mixed riparian scrub cover type is characterized by mixed species of winter-deciduous shrubs, small trees, and herbaceous cover found along streams within the Planning Area. Shrubs found in this cover type include willows, oaks, coyote brush, and poison oak. California wild grape is also found in this cover type. This vegetation community also occurs as inclusions in mine tailings. Please see Mine Tailing or more discussion.

Mixed riparian scrub provides migration corridors, water, and forage opportunities for several species of birds, mammals, invertebrates, and reptiles. As the streams that this cover type surrounds are wet for a large percentage of the year, aquatic habitat suitable for amphibians and reptiles is found within this cover type as well. Special status species known to utilize this cover type in the Planning Area include great egret, great blue heron, northern harrier, and loggerhead shrike. Riparian communities can provide important movement corridors for biota as they generally occur in long linear continuous and discontinuous segments along with waterways and traverse a variety of habitat types. Within the Planning Area, riparian communities associated with the American River Parkway and smaller streams and creeks with inclusions of riparian habitat act as movement corridors.

4.10.2 REGULATORY FRAMEWORK

The following section describes the federal, State, and local environmental laws, policies, plans, and agencies that are relevant to the proposed General Plan and the Planning Area.

FEDERAL

Federal Endangered Species Act

The United States Congress passed the federal Endangered Species Act (FESA) (16 United States Code Sections 460 et seq.) in 1973 to protect those species that are endangered or threatened with extinction. The FESA is intended to operate in conjunction with the National Environmental Policy Act (NEPA) to help protect the ecosystems upon which endangered and threatened species depend.

The FESA prohibits the "take" of endangered or threatened wildlife species. "Take" is defined as harassing, harming (including significantly modifying or degrading habitat), pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species or any attempt to engage in such conduct (16 U.S.C. Section 1532, 50 Code Fed. Regs. Section 17.3). Actions that result in a "take" can result in civil or criminal penalties.

Under the FESA, federal agencies must ensure that the actions they fund, authorize, or carry out are not likely to jeopardize protected species. For example, the FESA and Section 404 of the federal Clean Water Act (CWA) prohibit the issuance of wetland permits for projects that would result in the take of a threatened or endangered wildlife or plant species. Under FESA, the U.S Army Corps of Engineers (USACE) must inquire of the U.S. Fish and Wildlife Service (USFWS) and/or the National Marine Fisheries Service (NMFS) whether any protected species or their critical habitat may be present in the area of the proposed federal action. 16 U.S.C. §§ 1536(a)(2), (c)(1). If they may be present, the USACE must prepare a "biological assessment" analyzing whether the action is likely to affect such species. If the assessment concludes that a protected species or a critical habitat is likely to be affected, the agency must formally consult with the USFWS or NMFS. In the context of the General Plan Planning Area, the federal ESA would be triggered if development resulted in take of a threatened or endangered species or if issuance of a Section 404 permit or other federal agency action could result in the take of a threatened or endangered species.

Clean Water Act

The USACE regulates discharge of dredged or fill material into "waters of the United States" under Section 404 of the CWA. "Discharges of fill material" are defined as the addition of fill material into waters of the U.S., including, but not limited to the following: placement of fill that is necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; and fill for intake and outfall pipes and subaqueous utility lines [33 C.F.R. Section 328.2(f)]. In addition, Section 401 of the CWA (33 U.S.C. 1341) requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into waters of the United States to obtain certification that the intended dredge or fill activity will comply with the state's effluent limitations and water quality standards.

Jurisdictional Waters of the U.S.

Waters of the U.S. that are subject to the jurisdiction of the USACE include navigable waters of the United States, interstate waters, all other waters where the use or degradation or destruction of the waters could affect interstate or foreign commerce, tributaries to any of these waters, and wetlands that meet any of these criteria or that are adjacent to any of these waters or their tributaries. Wetlands are defined as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" [33 C.F.R. §328.3(b)]. Presently, to be considered a wetland, a site must exhibit three criteria: hydrophytic vegetation, hydric soils, and wetland hydrology existing under the "normal circumstances" for the site. Furthermore, jurisdictional waters of the U.S. can be defined by exhibiting a defined bed and bank and ordinary high water mark.

> *The lateral extent of non-tidal waters is determined by delineating the ordinary high water mark (OHWM) [33 C.F.R. §328.4l(1)]. The OHWM is defined by the Corps as "that line on shore established by the fluctuations of water and indicated by physical character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" [33 C.F.R. §328.3(e)].*

Isolated wetlands are not subject to USACE jurisdiction under Section 404 of the CWA, pursuant to the "SWANCC" decision. *Solid Waste Agency of Northern Cook County vs. United States Army Corps of Engineers (2001) 531 U.S. 159*. According to the SWANCC decision, wetlands that are non navigable, isolated, and intrastate may not be subject to USACE jurisdiction. Although isolated wetlands are not subject to USACE jurisdiction under Section 404 of the CWA, they are considered "waters of the State" under California's Porter Cologne Act (Cal. Water Code §§ 13020, et seq.) and, as such, are subject to regulation by the Central Valley Regional Water Quality Control Board (RWQCB). The RWQCB generally takes jurisdiction over "waters of the State" that are not subject to USACE jurisdiction under the federal CWA in cases where the USACE has determined that certain features do not fall under its jurisdiction. Mitigation requiring a no-net-loss of wetlands functions and values of waters of the state is typically required.

Potential jurisdictional waters of the U.S. in Genera Plan Planning Area include lakes and ponds, intermittent and perennial creeks, irrigation ditches, perennial and seasonal marsh, river, seasonal wetland, and vernal pools. The most prevalent forms of jurisdictional waters of the U.S. in the Planning Area include vernal pools, depressional seasonal wetland□iverineine seasonal wetlands (seasonal swales), and ephemeral drainages.

Vernal Pools

The term vernal pool has been used to describe a variety of features. For the purposes of this document, the term vernal pool refers to seasonally inundated shallow depressions underlain by an impermeable layer of soil, generally hardpan or bedrock, which provides a specialized habitat for plant species adapted to this environment. Native annual herbs and grasses are the dominant species in vernal pool communities. The pools are inundated with water for various periods of times depending on the depression depth, extent and duration of rainfall, and ambient temperatures. Surface flow from the surrounding upland habitat (annual grassland) provides a primary source of hydrology of these systems.

Depressional Seasonal Wetlands

Depressional seasonal wetlands are seasonal wetlands where saturation rather than inundation is the dominant hydrologic regime. These wetlands support vegetation that is adapted to long-term saturation rather than inundation (non vernal pool vegetation). Annual grasses and herbs dominate the seasonal wetland communities. These wetlands, though not supporting a dominance of vernal pool associated plants, are habitat for federally listed vernal pool fairy shrimp, vernal pool tadpole shrimp, and western spadefoot toad. Depressional seasonal wetlands may also support common wildlife species similar to those that inhabit vernal pools.

Riverine Seasonal Wetlands (Seasonal Swales)

Riverine seasonal wetlands are represented in the Planning Area as seasonal swales. These linear features collect and carry seasonal surface flow to receiving aquatic water bodies. The flows in these features do not achieve the energy necessary to create a defined bed and ordinary high water mark and therefore are not considered drainages. These features remain saturated or inundated for prolonged periods of time sufficient to support wetland vegetation.

Ephemeral Drainages

The Planning Area contains some complexes of unnamed ephemeral drainages. This drainage typically functions for the collection and transport of stormwater, conveying flows during and immediately after storm events to other water bodies such as Morrison Creek and Laguna Creek (see section 4.9, Hydrology and Water Quality for the location of these creeks). Wetland vegetation occurs intermittently in this drainage where slower flows and seasonal water availability is present. Depressional areas occur within the reach of the drainage where water pools and remains after the primary channel is dried. According to wetland delineations performed by Foothill and Associates in 2004 in connection with a development project within the City, these depressional areas can support vernal pool and seasonal wetland vegetation in the spring (Foothill and Associates, 2004).

U.S Fish and Wildlife Service Draft Vernal Pool Recovery Plan

The U.S. Fish and Wildlife Service (USFWS) designated critical habitat for certain vernal pool crustaceans and plants in 34 counties in California, including Sacramento County, and identified such habitat in its final rule of the vernal pool recovery plan on February 10, 2006, entitled, "Endangered and Threatened Wildlife and Plants; *Final Designation of Critical Habitat for Four Vernal Pool Crustaceans and Eleven Vernal Pool Plants in California and Southern Oregon; Evaluation of Economic Exclusions From August 2003 Final Designation.*" 71 Fed. Reg. 28 (2006) (to be codified at 50 CFR Part 17). The Recovery Plan identifies a five-part strategy to ameliorate or eliminate threats to affected species and to preserve intact vernal pools. The five key elements of the Recovery Plan are: habitat protection; adaptive habitat management, restoration, and monitoring; status surveys; research; and participation and outreach. The Recovery Plan identifies habitat loss, fragmentation, and isolation of functional vernal pool ecosystems as the greatest threat to the survival and recovery of listed species and species of concern that are found in vernal pools. According to the Recovery Plan, habitat loss is generally the result of urbanization, agricultural conversion, and mining. Habitat loss may also occur from habitat alteration and degradation as a result of changes to natural hydrology; invasive species; incompatible grazing regimes, including insufficient grazing for prolonged periods; and infrastructure projects such as roads, water storage and conveyance, and utilities. In addition, recreational activities such as off-highway vehicles and hiking, erosion, contamination, and inadequate management and monitoring may result in habitat loss. Habitat fragmentation is

generally the result of activities associated with habitat loss due to road and other infrastructure projects that contribute to the isolation and fragmentation of vernal pool habitats.

Migratory Bird Treaty Act

Raptors (birds of prey), migratory birds, and other avian species are protected by a number of State and federal laws. The federal Migratory Bird Treaty Act (MBTA) (42 U.S.C. Sections 703-712) prohibits the killing, possessing, or trading of migratory birds except in accordance with regulations prescribed by the Secretary of Interior. Section 3503.5 of the California Fish and Game Code states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto."

STATE

California Endangered Species Act

The State of California enacted the California Endangered Species Act (CESA) in 1984 (Cal. Fish & Game Code Sections 2050, at seq.). The CESA is similar to the FESA but pertains to state-listed endangered and threatened species. It requires state agencies to consult with the California Department of Fish and Game (CDFG) when preparing California Environmental Quality Act (CEQA) documents to ensure that the state lead agency actions do not jeopardize the existence of listed species. It directs agencies to consult with CDFG on projects or actions that could affect listed species, directs CDFG to determine whether jeopardy would occur, and allows CDFG to identify "reasonable and prudent alternatives" to the project consistent with conserving the species.

The state ESA prohibits the taking of state-listed endangered or threatened plant and wildlife species. CDFG exercises authority over mitigation projects involving state-listed species, including those resulting from CEQA mitigation requirements. CDFG may authorize a taking through an incidental take permit, if the impacts of the take are minimized and fully mitigated. Mitigation often takes the form of an approved habitat management plan or management agreement that avoids or compensates for possible jeopardy. CDFG requires preparation of mitigation plans in accordance with published guidelines.

California Department of Fish and Game Species of Special Concern

In addition to formal listing under FESA and CESA, plant and wildlife species receive additional consideration during the CEQA process. Species that may be considered for review are included on a list of "Species of Special Concern," developed by the CDFG. It tracks species in California whose numbers, reproductive success, or habitat may be threatened. See the subsection titled Federal and State – Special Status Species, below, for more information on CDFG Species of Special Concern.

California Native Plant Society

The California Native Plant Society (CNPS) maintains a list of plant species native to California that are found in low numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. Potential impacts to populations of CNPS-listed plants receive consideration under CEQA review. The following identifies the definitions of the CNPS listings:

- 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 We Need More Informati–n - A Review List.
- List 4: Plants of Limited Distribution - A Watch List.

FEDERAL AND STATE - SPECIAL STATUS SPECIES

The USFWS and the CDFG maintain a list of species that warrant special attention due to their respective rarity as well as the condition and availability of habitat suitable for those species. Also of concern are species limited to small areas of limited or unique distribution. Both agencies have regulatory authority over these public resources and maintain lists that group species in one of five categories:

- Species of Concern (USFWS) or Species of Special Concern (CDFG): This is an informal category that describes species for which information is available that the species may be in need of conservation actions to prevent decline, and species that are being considered as a candidate for listing as endangered or threatened. Species of Concern, however, are not legally protected under the Endangered Species Act and may not require listing.
- Candidate: Sufficient information indicates that the poor quantity or condition of the species or habitat utilized by the species qualifies them for listing with the USFWS and the CDFG, but they are not officially assigned a category and listed.
- Proposed: This category describes candidate species for which the formal process has been initiated by the USFWS or CDFG in order to add them to the list, but formal listing has not yet occurred.
- Threatened: This is a formal listing category used by both the USFWS and the CDFG to identify species that are likely to become endangered within the foreseeable future.
- Endangered: This is the formal listing category given to species for which information indicates they could potentially become extinct within the foreseeable future. This is the highest level of listing and denotes the highest level of protection under the law.
- Other special status species include species that are not included on USFWS and CDFG lists, but information is available that the species are rare, threatened, or endangered in the Sacramento County area.

For the purposes of this document, the term "special status species" refers to species that are:

- Legally protected or proposed for protection under the California Endangered Species Act or the Federal Endangered Species Act (any species in the above categories);

- Defined as endangered or rare under the California Environmental Quality Act (CEQA) (CEQA Guidelines Section 15380);
- Designated as a species of concern by the USFWS or the CDFG;
- Animal species listed as "fully protected" in the Fish and Game Code of California (Sections 3511, 4700, 5050, 5515); and/or,
- Plant species listed in the California Native Plant Society's *Inventory of Rare and Endangered Vascular Plants of California* (2001).
- Plant or animal species that have been designated locally (by a city of county) as important through an ordinance (e.g., tree protection ordinance) or policy.

Several special status species are found within and around the Rancho Cordova Planning Area. **Table 4.10-3**, below, identifies each of those species, as well as their ranking in the CNDDB database, classification by other species lists, their State and Federal listing status (if any), and the cover types that these species are commonly associated with.

TABLE 4.10-3
SPECIAL STATUS SPECIES OCCURRING WITHIN THE RANCHO CORDOVA PLANNING AREA

Scientific name	Common Name	CNDDB Ranks	Other Protections or Rankings	State Listing Status	Federal Listing Status	Associated Cover-types
Plant Species						
Downingia pusilla	Dwarf downingia	G3, S3.1	CNPS: 2 R-E-D: 1-2-1	None	None	Vernal Pool, Vernal Pool Grassland.
Gratiola heterosepala	Boggs Lake hedge-hyssop	G3, S3.1	CNPS: 1B R-E-D: 1-2-2 USFWS: SC	Endangered	None	Fresh Water Marsh, Vernal Pool.
Juncus leiospermus	Ah'rt's dwarf rush	G2T1, S1.2	CNPS: 1B R-E-D: 3-2-3 USFWS : SC	None	None	Grassland, Vernal Pool Grassland, Vernal Pool.
Legenere limosa	Legenere	G2, S2.2	CNPS: 1B R-E-D: 2-3-3 USFWS : SC	None	None	Vernal Pool.
Narvarretia myersii ssp. myersi	Pincushion navarretia	G1T1, S1.1	CNPS: 1B R-E-D: 3-3-3] USFWS : SC	None	None	Vernal Pool.
Orcuttia tenuis	Slender orcutt grass	G3, S3.1	CNPS: 1B R-E-D: 2-3-3	Endangered	Threatened	Vernal Pool.
Orcuttia viscida	Sacramento orcutt grass	G1, S1.1	CNPS: 1B R-E-D: 3-3-3	Endangered	Endangered	Vernal Pool.
Sagittaria sanfordii	Sanf'rd's arrowhead	G3, S3.2	CNPS: 1B R-E-D: 2-2-3 USFWS : SC	None	None	Fresh Water Marsh, Vernal Pool.

Scientific name	Common Name	CNDDB Ranks	Other Protections or Rankings	State Listing Status	Federal Listing Status	Associated Cover-types
Amphibian Species						
Spea (Scaphiopus) hammondii	Western spadefoot	G3, S3	CDFG: CSC USFWS: SC	None	None	Vernal Pool and Vernal Pool Grassland, Grassland, Cottonwood Woodland, Upland
Bird Species						
Accipiter cooperii	Coo'er's hawk	G5, S3	CDFG: CSC	None	None	Blue oak savanna, Grassland, Blue Oak Woodland, High Density Development, Mixed Riparian Woodland, Mine Tailings.
Agelaius tricolor	Tricolored blackbird	G2G3, S2	CDFG: CSC USFWS : SC	None	None	Grassland, Vernal Pool Grassland, Fresh Water Marsh.
Ardea alba	Great egret	G5, S4		None	None	Fresh Water Marsh, Cropland, Pasture Grassland, Mixed Riparian Scrub, Mixed Riparian Woodland, Valley Oak Riparian Woodland
Ardea herodias	Great blue heron	G5, S4		None	None	Fresh Water Marsh, Cropland, Vernal Pool Grassland, Pasture Grassland, Mixed riparian scrub, Mixed Riparian Woodland, Valley Oak Riparian Woodland
Asio flammeus (nesting)	Short-eared Owl	G5, S3	CDFG: CSC	None	None	Grassland, Vernal Pool Grassland, Cropland, Fresh Water Marsh
Athene cunicularia (burrow sites)	Burrowing owl	G4, S2	CDFG: CSC USFWS: SC	None	None	Grassland, Vernal Pool Grassland, Pasture Grassland

Scientific name	Common Name	CNDDB Ranks	Other Protections or Rankings	State Listing Status	Federal Listing Status	Associated Cover-types
Buteo swainsoni	Swainson's hawk	G5, S2		Threatened	None	Blue Oak Woodland and savanna, Mixed Riparian Woodland, Valley Oak Riparian Woodland, Cottonwood Woodland, Vernal Pool Grassland, Grassland, Pasture Grassland, Cropland
Circus cyaneus (nesting)	Northern harrier	G5, S3	CDFG: CSC	None	None	Fresh Water Marsh, Grassland, Vernal Pool Grassland Mixed Riparian Shrub, Pasture Grassland, Cropland
Elanus leucurus	White-tailed kite	G5, S3	CDFG: Fully Protected	None	None	Fresh Water Marsh, Cottonwood Woodland, Grassland, Vernal Pool Grassland, Pasture Grassland, Cropland
Eremophila alpestris actia	California horned lark	G5T3, S3	CDFG: CSC	None	None	Grassland, Vernal Pool Grassland, Pasture Grassland
Icteria virens (nesting)	Yellow-breasted chat	G5S3	CDFG: CSC	None	None	Mixed riparian scrub, Mixed Riparian Woodland, Valley Oak Riparian Woodland
*Lanius ludovicianus (*nesting*)*	Loggerhead shrike	G4, S4	CDFG: CSC USFWS: SC	None	None	Grassland, Vernal Pool Grassland, Mixed Riparian Shrub, Valley Oak Riparian Woodland, Cottonwood Woodland, Cropland, Pasture Grassland
*Plegadis chihi (*rookery site*)*	White-faced ibis	G5, S1	CDFG: CSC USFWS: SC	None	None	Fresh Water Marsh, Vernal Pool Grassland, Pasture Grassland, Cropland

Scientific name	Common Name	CNDDB Ranks	Other Protections or Rankings	State Listing Status	Federal Listing Status	Associated Cover-types
Riparia riparia	Bank swallow	G5, S2S3		Threatened	None	Mixed Riparian Shrub, Mixed Riparian Woodland, Valley Oak Riparian Woodland, Open water
Invertebrate Species						
Branchinecta lynchi	Vernal pool fairy shrimp	G3, S2S3		None	Threatened	Vernal Pool
Branchinecta mesovallensis	Midvalley fairy shrimp	G2, S2	USFWS: SC	None	None	Vernal Pool
Desmocerus californicus dimorphus	Valley elderberry longhorn beetle	G3T2, S2		None	Threatened	Grassland, Vernal Pool Grassland, Blue Oak Woodland Savanna, Mixed Riparian Shrub
Lepidurus packardi	Vernal pool tadpole shrimp	G3, S2S3		None	Endangered	Vernal Pool
Linderiella occidentalis	California linderiella (fairy shrimp)	G3, S2S3	USFWS: SC	None	Endangered	Vernal Pool
Mammal Species						
Antrozous pallidus	Pallid bat	G5, S3	CDFG: CSC	None	None	Grassland, Vernal Pool Grassland, Pasture Grassland
Bassariscus astutus	Ringtail	G5	CDFG: CFP	None	None	Mine Tailings, Valley Oak Riparian Woodland, Mixed Riparian Shrub & woodland
Myotis ciliolabrum	Western small-footed myotis	G5	USFWS: SC	None	None	Cottonwood Woodland, Mine Tailings, Mixed Riparian Shrub & woodland, Blue Oak Woodland & savanna

Scientific name	Common Name	CNDDB Ranks	Other Protections or Rankings	State Listing Status	Federal Listing Status	Associated Cover-types
Myotis evotis	Long-eared myotis	G5, S4	USFWS: SC	None	None	Cottonwood Woodland, Mixed Riparian Shrub & woodland, Blue Oak Woodland & savanna, Grassland, Vernal Pool Grassland
Myotis thysanodes	Fringed myotis	G4T3T4, S2S3	USFWS: SC	None	None	Grassland, Vernal Pool Grassland, Valley Oak Riparian Woodland, Mixed Riparian Shrub, Cottonwood Woodland, Mine Tailings
Myotis volans	Long-legged myotis	G5	USFWS: SC	None	None	Cottonwood Woodland, Mine Tailings, Mixed Riparian Woodland, Valley Oak Riparian Woodland, Grassland, Vernal Pool Grassland
Myotis yumaensis	Yuma myotis	G5, S4	USFWS: SC	None	None	Cottonwood Woodland, Mine Tailings, Mixed Riparian Woodland, Valley Oak Riparian Woodland
Taxidea taxus	American badger	G5, S4	CDFG: CSC	None	None	Pasture Grassland, Grassland, Vernal Pool Grassland, Cottonwood Woodland, Blue Oak Woodland & savanna
Reptile Species						
Emys (=Clemmys) marmorata marmorata	North-western pond turtle	G3G4T3, S3	CDFG: CSC USFWS: SC	None	None	Fresh Water Marsh, Streams, Open water

Key to Ranks and Lists	
CDFG: CSC	California Species of Special Concern
CDFG: CFP	California Fully Protected
USFWS: SC	USFWS Species of Concern
CNDDB Ranks:	
G	Global rank indicator; denotes rank based on rangewide status.
T	Trinomial rank indicator; denotes global status of infraspecific taxa.
S	State rank indicator; denotes rank based on status.
1	Critically imperiled because of extreme rarity or because some factor of its biology makes it especially vulnerable to extinction (typically 5 or fewer occurrences).
2	Imperiled because of rarity or because other factors demonstrably make it very vulnerable to extinction (typically 6 to 20 occurrences).
3	Rare or uncommon but not imperiled (typically 21 to 100 occurrences).
4	Not rare and apparently secure, but with cause for long-term concern (usually more than 100 occurrences).
5	Demonstrably widespread, abundant, and secure.
U	Unrankable.
H	Historical occurrence (formerly part of the native biota; implied expectation that it might be rediscovered or possibly extinct).
X	Presumed extinct or extirpated.
Q	Indicates uncertainty about taxonomic status.
?	Uncertainty exists about the stated rank.
NR	Not ranked.
NA	Conservation status rank is not applicable.
CNPS Lists:	
List 1A:	Plants Presumed Extinct in California
List 1B:	Plants Rare, Threatened, or Endangered in California and Elsewhere
List 2:	Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
List 3:	Plants About Which We Need More Information - A Review List
List 4:	Plants of Limited Distribution - A Watch List
CNPS R-E-D Codes:	
R	Rarity
1	Rare, but found in sufficient numbers and distributed widely enough that the potential for extinction is low at this time
2	Distributed in a limited number of occurrences, occasionally more if each occurrence is small
3	Distributed in one to several highly restricted occurrences, or present in such small numbers that it is seldom reported
E	Endangerment
1	Not endangered
2	Endangered in a portion of its range
3	Endangered throughout its range
D	Distribution
1	More or less widespread outside California
2	Rare outside California
3	Endemic to California

Source: Ecosystem Sciences, March 2005 and California Department of Fish and Game (CDFG). 2006. California Natural Diversity Database. Wildlife & Habitat Data Analysis Branch, Department of Fish and Game (Version: 09 December 2005)

Distribution and Life History of Federal and State Listed Species

Suitable habitat for plant and animal species listed as endangered, threatened, proposed, candidate, or List 1B is found within the Planning Area. This section, based on the Biological Resources Report prepared by Ecosystem Sciences in March 2005, provides general information

on the distribution and life history of these species. For more information on these species including their CNDDB ranking and the cover types they are associated with, see **Table 4.10-3** above. The location of special status animal species found within the General Plan Planning Area is shown on **Figure 4.10-2**. The location of special status plant species found within the General Plan Planning Area is shown on **Figure 4.10-3**.

Federal and State Listed Plant Species

Bogg's Lake Hedge-Hyssop (Gratia heterosepala)

The Bogg's lake hedge-hyssop is a small, semi-aquatic, herbaceous annual that grows to approximately 4 inches tall and produces flowers that bloom from April to June. The Bogg's lake hedge-hyssop is listed as endangered by the CDFG and is found in 10 locations within the vernal pool and fresh water marsh cover types in the Planning Area.

Slender Orcutt Grass (Orcuttia tenuis)

Slender orcutt grass is a grass that exhibits a particular pattern of flowering for Orcuttieae, thus differentiating it from other orcutt grasses. This plant flowers between June and July primarily, though flowering may continue into August and September in wetter years. Slender orcutt grass is listed as threatened by the USFWS and as Endangered by the CDFG. It is found in two locations within the vernal pool cover type in the Planning Area.

Sacramento Orcutt Grass (Orcuttia viscida)

The life history and habitat for Sacramento orcutt grass is very similar to the slender orcutt grass. Eight of the nine documented occurrences of Sacramento orcutt grass occur within the Planning Area inside the vernal pool cover type. Both the USFWS and the CDFG list Sacramento orcutt grass as endangered.

Federal and State Listed Bird Species

Swainson's Hawk (Buteo swainsoni)

Swainson's hawk nest in large, native trees such as oaks and willows and in nonnative trees as well, primarily in riparian and other wet cover types. Swainson's hawks utilize several cover types found within the Planning Area, both for shelter and nesting sights as well as foraging. Swainson's hawk is listed as threatened by the CDFG and is found in 29 locations within many different cover types in the Planning Area.

Bank Swallow (Riparia riparia)

Bank swallows use cliffs and banks as nesting sites, digging into the cliff side where soft soils are found. They eat primarily insects in flight and are therefore found in a wide range of habitats. The Bank swallow is listed as threatened by the CDFG and is found in five locations within several cover types in the Planning Area.

Federal and State Listed Invertebrate Species

Vernal Pool Fairy Shrimp (Branchinecta lynchi)

Vernal pool fairy shrimp inhabit primarily vernal pools but are also found in ephemeral drainages, rock outcrop pools, ditches, and other seasonal wetlands. Vernal pool fairy shrimp live out their entire life cycle within those pools, surviving the dry phase of vernal pools in cysts within the mud and sediment found at the bottom of such ephemeral wetlands. Endemic to California, this species is listed as threatened by the USFWS and is located in the vernal pool cover type in the Planning Area in 30 locations.

Valley Elderberry Longhorn Beetle (Desmocerus californicus ssp. Dimorphus)

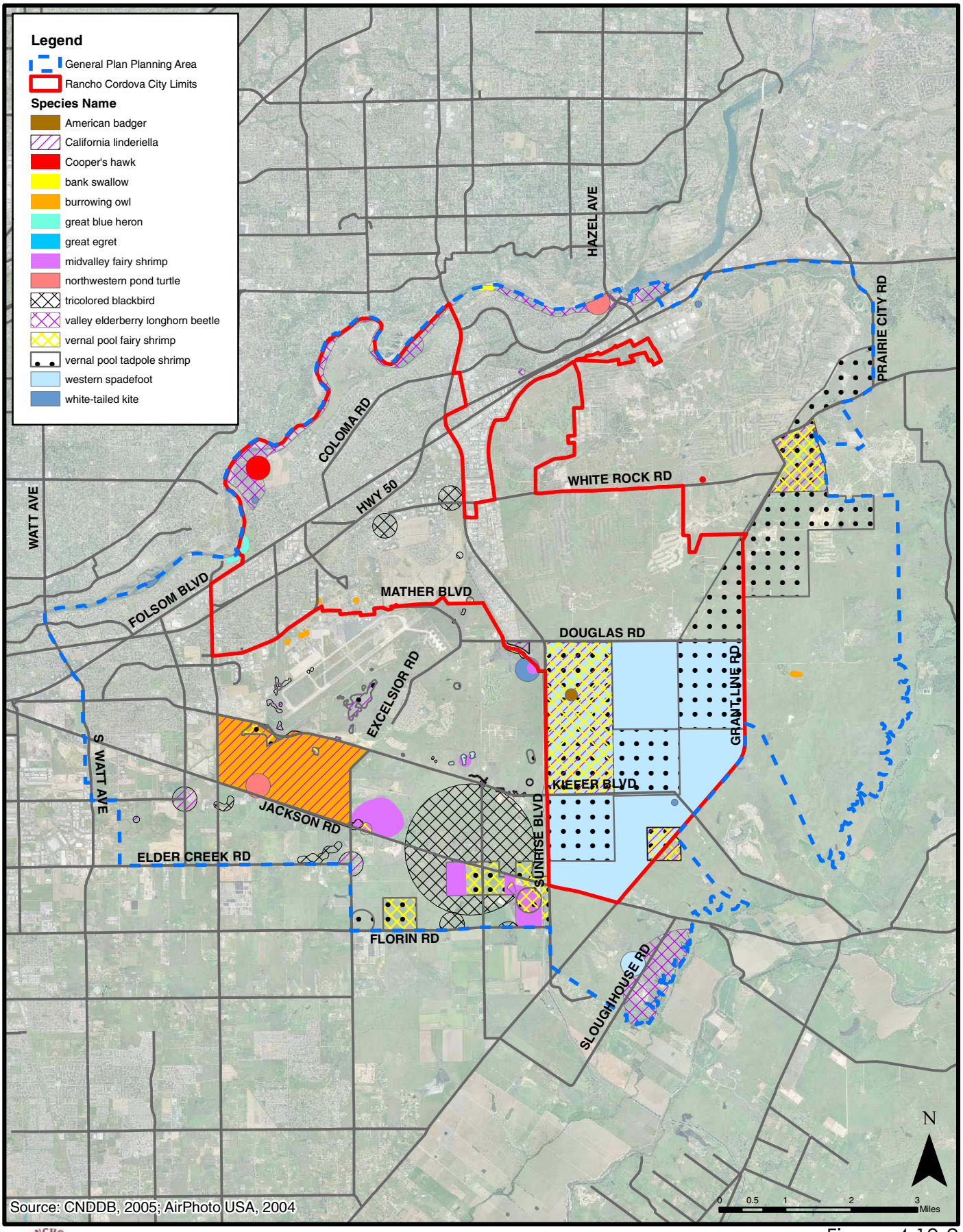
Valley elderberry longhorn beetle utilize elderberry plants for food, shelter for eggs, and cover. This species is listed as threatened by the USFWS and is found in 17 locations within several cover types in the Planning Area.

Vernal Pool Tadpole Shrimp (Lepidurus packardi)

Vernal pool tadpole shrimp are similar in life history to vernal pool fairy shrimp but differ by morphology and physical characteristics as well as dispersion and numbers within their associated cover types. Vernal pool tadpole shrimp are found in vernal pools as well as ephemeral drainages, seasonal wetlands, clay flats, stock ponds, and ditches. Also endemic to California, vernal pool tadpole shrimp were recorded in 22 locations within the vernal pool cover type in the Planning Area. Vernal pool tadpole shrimp are listed as endangered by the USFWS.

California Linderiella (Linderiella occidentalis)

California linderiella are also similar to the other species of vernal pool shrimp discussed above. A type of fairy shrimp, California linderiella inhabit similar habitats, though they show some tolerance for higher temperatures and inhabit clear water pools more readily than the vernal pool fairy shrimp (who are often found in more tea-colored pools). Also endemic to California,



Source: CNDDB, 2005; AirPhoto USA, 2004

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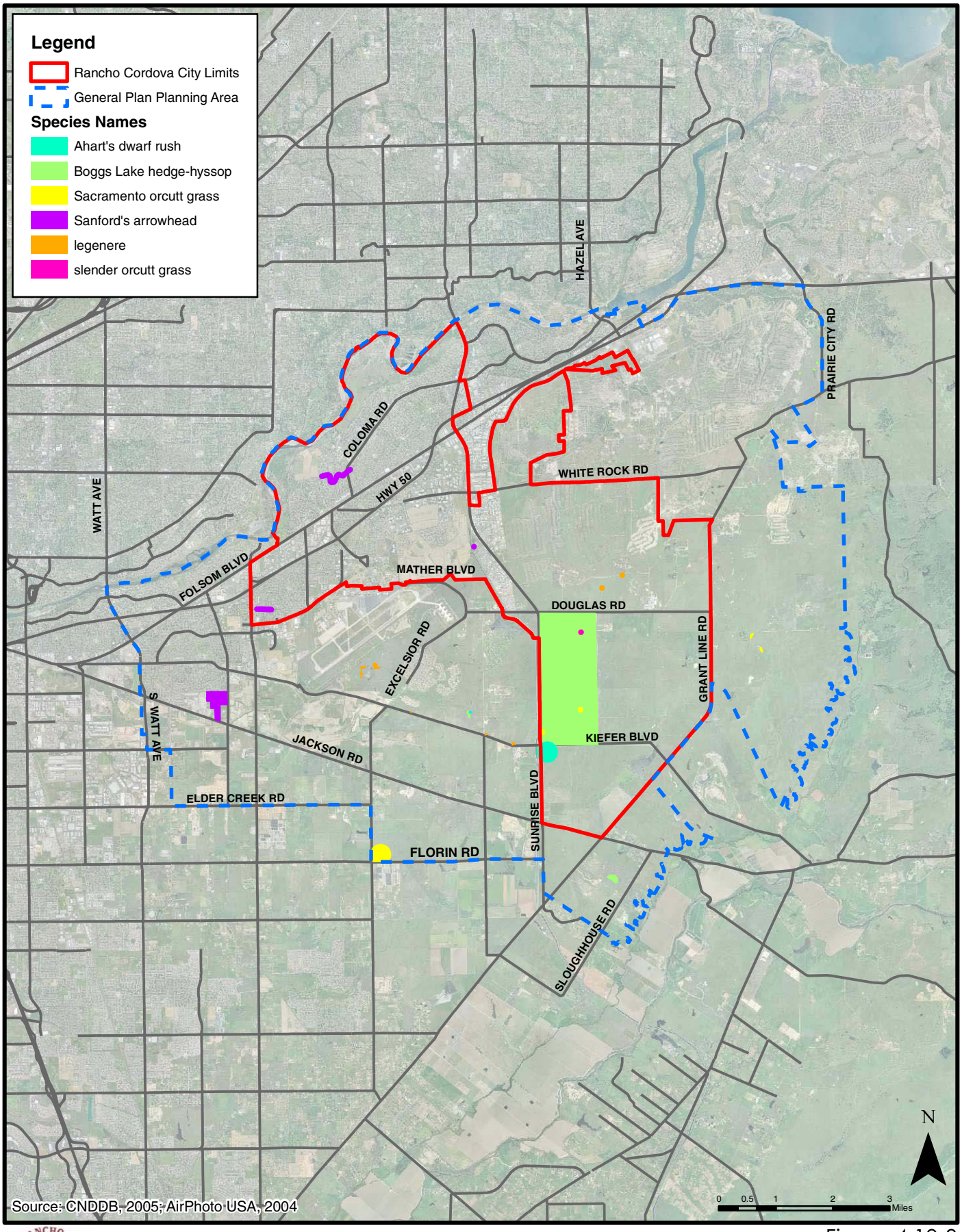
City of Rancho Cordova
Planning Department

Figure 4.10-2
Recorded Occurrences
of Special-Status Animal Species (CNDDB)
Within the General Plan Planning Area



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City of Rancho Cordova
Planning Department

Figure 4.10-3
Recorded Occurrences
of Special-Status Plant Species (CNDDB)
Within the General Plan Planning Area

California linderiella are listed as endangered by the USFWS. While the CNDDB does not identify any occurrences of this species in the Planning Area, a Habitat Assessment performed by EDAW for the Rio Del Oro Specific Plan found several occurrences of this species in vernal pools throughout the central and eastern portions of the General Planning Area (EDAW, 2005). Sufficient habitat for this species exists in the Planning Area; therefore, it is discussed in this document.

LOCAL

Sacramento County General Plan and Land Use Map

The Sacramento County General Plan is used as the "blueprint" to guide future development in unincorporated portions of the County; it will continue to be the blueprint for those sections of the Planning Area that are outside the current city limits, unless and until such areas are annexed into the City, sometime during the planning horizon of the proposed General Plan. The Sacramento County General Plan Land Use Map was created to form an efficient community, focusing on the elimination of low density, auto-dependent land use patterns. The map's intention was to concentrate growth in specific areas to preserve open space, and to reduce air pollutant emissions, commute times, and vehicle miles traveled.

Sacramento County is required to maintain a supply of land within the Urban Policy Area (UPA) to accommodate urban activity and growth for the unincorporated areas, which includes the portion of the Planning Area located outside the existing city limits. The UPA is sub-area of the ultimate growth area - the Urban Services Boundary (USB) where the majority of growth is anticipated to occur and is designated for urbanized uses. The UPA encompasses those areas in the County, which are most likely to be developed during the current planning horizon of the County's existing General Plan (2010). The intent of the UPA is to provide a 20-year supply of developable land sufficient to accommodate projected growth.

The Conservation Element of the County's General Plan provides specific policies to protect natural resources within the County. Specific applicable policies that relate to the portion of the Planning Area located outside existing city limits provide for the conservation of stream corridors; wildlife, plant and fishery resources; native and landmark trees; and vernal pool, marsh and riparian wetland habitats.

Sacramento County is currently in the process of updating its General Plan. This will be the first update since it was last adopted in 1993. According to Sacramento County's website, "the General Plan update is necessary to plan for growth in the next planning cycle (2005-2030) as well as to address new emerging planning issues." The County General Plan Update will focus on an Open Space Vision Map to protect important open space that can serve multiple uses including habitat protection, and policies that will support the implementation of an adopted Habitat Conservation Plan including policies regarding preserving of resources and annexations.

Cordova Community Plan

Prior to the incorporation of the City of Rancho Cordova, Sacramento County completed a lengthy process preparing the Cordova Community Plan (CCP). The boundaries for the CCP are described as the area bordered by the American River and the City of Folsom on the north; Prairie City Road, Grant Line Road, and White Rock Road on the east; Douglas Road, Kiefer Boulevard, and Jackson Road (Highway 16) on the south; and the City of Sacramento and Watt Avenue on the west. The CCP area covered approximately 37,650 acres, and included a portion of the current City of Rancho Cordova as well as portions outside the current city limits

but within the General Plan Planning Area boundaries. The CCP is a policy document, which implemented the County's General Plan at a more detailed and specific level. The CCP did not address the entire Rancho Cordova General Plan Planning Area and in particular did not cover the area south of Douglas Road (the Sunrise Douglas Community Plan Area) where much of the future development in the City will occur. The Sacramento County Board of Supervisors adopted the Cordova Community Plan in 2003.

The following statements were identified as guiding visions for the CCP:

- Overcoming obstacles created by physical, neighborhood, and jurisdictional boundaries
- Redesigning Folsom Boulevard to be more pedestrian friendly
- Creating a better balance of housing and jobs
- Revitalizing the community's older neighborhoods; and
- Creating more diversity in the community's housing stock, in particular, through the development of more "move-up" housing choices.

South Sacramento Habitat Conservation Plan

The draft South Sacramento County Habitat Conservation Plan (SSHCP), which is managed by the Sacramento County Planning and Community Development Department, is a long-term conservation plan that seeks strategies that allow commercial, residential, and other development, while balancing the needs of sensitive plant and animal species and the preservation of agricultural operations. The SSHCP is currently being developed by several public agencies and other interested stakeholders. The City of Rancho Cordova is a participating agency in the SSHCP, and may ultimately become a permittee under the SSHCP. Currently, the SSHCP is a draft; however, it is considered at length in this EIR in part because there are no adopted habitat conservation plans applicable to the Planning Area. The geographic scope of the SSHCP includes approximately 340,000 acres in the unincorporated County area bounded by US-50 to the north, the County line to the east and south; excluding the Delta, and Interstate 5 to the west. The SSHCP covers land within the cities of Rancho Cordova, Elk Grove and Galt. Approximately 76.5% of the area within the City Limits and 86.6% of the area within the Planning Area is encompasses by the SSHCP Plan Area.

The SSHCP is intended to consolidate environmental efforts to protect and enhance wetlands (primarily vernal pools) and upland habitats to provide ecologically viable conservation areas. The SSHCP will also minimize regulatory hurdles and streamline the development permit process for projects that are consistent with the HCP. The SSHCP will be an agreement between state/federal wildlife and wetland regulators (e.g., USFWS and the USACE) and the plan participants to allow land owners to engage in "incidental take" of listed species (i.e., destruction or degradation of habitat in connection with economic based activities) in return for conservation commitments of the plan participants. Funding for the SSHCP is expected to come from a per-acre fee levied on new developments to mitigate associated habitat impacts.

The critical future steps to be taken in completion of the SSHCP include the: finalization of species and habitat account; development of conservation strategies, and completion of draft chapters of the SSHCP (land use, physical resources, biological resources, and cultural resources). The County is making progress towards the goal of acquiring a Clean Water Act Section 404 permit. The County will collaborate with five other counties in the region to lobby Congress for appropriations for fiscal year 2006.

Sacramento County Swainson's Hawk Ordinance

The Sacramento County Swainson's Hawk Ordinance, Chapter 16.130 of Title 16 of the County Code, establishes certain requirements and guidelines for the mitigation of Swainson's hawk foraging habitat that may be impacted due to a project. The Ordinance applies only to projects of 5 acres or greater within the unincorporated area of the County that are not within an approved Habitat Conservation Plan area and have been determined through the CEQA process to result in a significant impact or significant cumulative impact to Swainson's hawk foraging habitat. The Ordinance establishes an in-lieu fee option for mitigation of projects that are 40 acres or less, but disallows use of the fee as mitigation for projects that are greater than 40 acres. The Ordinance specifies that the fee will be used for the specific acquisition of lands in the unincorporated area of the County outside the Urban Services Boundary, to be preserved in perpetuity as Swainson's hawk foraging habitat, and states that fees shall be established and periodically updated by resolution. The current fee amount for the County was broken down as follows: $16000 per acre for land purchase, $2375 per acre for operations and maintenance, and $500 per project for administrative processing. The alternative mitigation option established by the ordinance, which can be used by projects of any size, is the direct purchase (through fee title or easement) of land by the project applicant. Use of this option requires approval of the land acquisition by the County and payment of an operations and maintenance fee to the County. As stated in the Ordinance, the establishment of mitigation measures by the Ordinance does not preclude the approval of other measures that are determined to mitigate impacts to Swainson's hawk foraging habitat, nor does it expressly allow all projects to utilize mitigation options established within. The City of Rancho Cordova is currently developing a Swainson's Hawk Ordinance that will embody many of the elements of the County Ordinance.

Sacramento Country and City of Rancho Cordova Tree Ordinance and Tree Preservation Ordinance

The Sacramento County Tree Ordinance, Chapter 19.04 of Title 19 of the County Code, establishes requirements for the planting and removal of public trees, and protection of public trees, as well as heritage and landmark trees. This Ordinance defines a heritage tree as: "a California oak tree growing on any land in Sacramento County, including privately owned land, with a trunk sixty inches or greater in girth measured four and one-half feet above the ground", and defines a landmark tree as "an especially prominent or stately tree on any land in Sacramento County, including privately owned land". This Ordinance calls for the Public Works Director to develop a Master Tree (planting) Plan for the County, and for project applicants to convey planting easements on private projects to the County. The manipulation of any public tree without a permit is prohibited, and special protection of landmark and heritage trees, specifically in relation to variance applications and road projects is required by this Ordinance.

The Sacramento County Tree Preservation Ordinance, Chapter 19.12 of Title 19, establishes requirements for the protection and removal of oak trees that do not fall within the scope of a discretionary project as well as guidelines for the protection and mitigation of trees that do fall within the scope of a discretionary project. This Ordinance requires protection of all native oak trees having a single trunk of 6" diameter at breast height (dbh, measured 4.5 feet above ground level) or greater, or with multiple trunks having an aggregate diameter of 10" dbh or greater. Removal of these trees must be authorized by an approving body as designated by the Ordinance, through a tree removal permitting process. Penalties, including stop work orders, monetary fines, and jail time are specified for violations of the Ordinance. In addition, this Ordinance allows the collection of a security deposit for projects that may impact oak trees and may, therefore, require mitigation. This Ordinance also requires limitation of grading beneath oak trees and establishes mitigation for damage to oak trees during construction.

The City of Rancho Cordova adopted both County ordinances upon incorporation in 2003.

4.10.3 PROJECT IMPACTS AND MITIGATION MEASURES

METHODOLOGY

Preliminary Investigation/Document Review

Preliminary investigation into biological resources in the Planning Area was conducted via literature review and document gathering. The purpose of such review was to identify the extent of resources to be analyzed in this document as well as to prepare for field investigations and to identify any data gaps that may exist in the records. A complete list of technical documents and records used is available in the Biological Resources Report prepared by Ecosystem Sciences, included in **Appendix 4.10** of this document. The assembled documents, including any digital data and aerial photos, were studied and interpreted in order to infer site conditions prior to field investigations. Additional information for this section was provided by a habitat assessment performed for the proposed Rio Del Oro Specific Plan project (EDAW 2005) a Wetland Delineation for the Rio Del Oro Specific Plan project (Ecorp Consulting, Inc. 2005), the Preserve at Sunridge Draft EIR (2005), Sunrise Douglas Community Plan EIR (2001), and various draft documents generated for the SSHCP. Additionally, the following agencies, firms, and individuals were consulted:

- Sacramento County, HCP Steering Committee
- U.S. Army Corps of Engineers, Sacramento District
- ECORP Consulting
- EDAW
- California Native Plant Society
- Dawn Lawson, Local Resident
- Judy and George Waegell, Local Resident

The cover types described and used for this document were based on classifications in the Draft South Sacramento Habitat Conservation Plan in consultation with the Sacramento County HCP Steering Committee.

Field Studies

A variety of field studies in the Planning Area were conducted by Sacramento County in support of the SSHCP effort. Vegetation mapping (land cover) was initially through aerial photography interpretation. Field studies provide the ground truthing exercise that increased the accuracy of the mapping effort. The City further refined the mapping through reconnaissance–level surveys conducted in 2004. Surveys were conducted by staff of Ecosystem Sciences and were performed in order to characterize existing conditions in the Planning Area and to determine the presence of special status species (plants and wildlife) and/or the presence of suitable habitat for such species. In order to identify potential species, the California Natural Diversity Database as well as the CNPS's Inventory of Rare and Endangered Vascular Plants of California were utilized. Consultations with the above agencies, firms, and individuals were used for this purpose as well. Database searches were conducted for both the Carmichael and Buffalo Creek minute quadrangles in which the Planning Area is located as well as Rio Linda, Citrus Heights, Folsom, Clarksville, Sacramento East, Folsom SE, Florin, Elk Grove, Sloughhouse, and Carbondale quadrangles.

STANDARDS OF SIGNIFICANCE

Section 15064.7 of the State CEQA Guidelines encourages local agencies to develop and publish the thresholds that the agency uses in determining the significance of environmental effects caused by projects under its review. However, agencies may also rely upon the guidance provided by the expanded Initial Study checklist contained in Appendix G of the CEQA Guidelines. Appendix G provides examples of impacts that would normally be considered significant. For purposes of CEQA a biological resource impact is considered significant if implementation of the project would result in any of the following:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies or regulations or by CDFG or USFWS.

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFG or USFWS.

- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, rivers, etc.) through direct removal, filling, hydrological interruption, or other means.

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

- Although listed species are protected by specific federal and state statutes, the California Environmental Quality Act (CEQA) Guidelines Section 15380(d) 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 the criteria specified in Section 15380(b) as follows:

    - (1) "Endangered" when its survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors; or

    - (2) "Rare" when either:

    - (A) Although not presently threatened with extinction, the species is existing in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or

    - (B) The species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered "threatened" as that term is used in the Federal Endangered Species Act.

Additionally, according to the Mandatory Findings of Significance [State CEQA Guidelines Section 15065(a)], an impact is considered significant if implementation of the project would:

- Substantially degrade the quality of the environment, substantially reduce the habitat of a fish and wildlife species, cause a fish or wildlife species to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare or threatened species.

An evaluation of whether or not an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or local context. Substantial impacts would be those that would diminish, or result in the loss of, an important biological resource, or those that would obviously conflict with local, state, or federal resource conservation plans, goals, or regulations. Impacts are sometimes locally important, but not significant for purposes of CEQA. The reason for this is that although the impacts would result in an adverse alteration of existing conditions, they would not substantially diminish, or result in the permanent loss of, an important resource on a population-wide or region-wide basis.

PROJECT IMPACTS AND MITIGATION MEASURES

Impacts to Endangered, Threatened, and Other Listed Species

Impact 4.10.1 Implementation of the proposed General Plan would result in direct and indirect loss of habitat and individuals of endangered, threatened, rare, proposed, and candidate status as well as plant species identified by the California Native Plant Society with a rating of List 1B (i.e. rare, threatened or endangered plants). This would be a **significant** impact.

Direct Impacts of the Proposed General Plan

As discussed above, suitable habitat for plant and animal species listed as endangered, threatened, rare, proposed, candidate, or List 1B (collectively referred to in this EIR as "listed species" is found within the Planning Area. Development under the proposed General Plan could directly impact such habitat. Most direct impacts would occur from development of large areas of generally undeveloped land in the southern half of the Planning Area. However, additional impacts would occur from infill development and redevelopment in the City's center and northern portions. See **Figure 4.10-2** and **Figure 4.10-3** as well as **Table 4.10-3** for those listed species known to exist in the Planning Area.

Development under the proposed General Plan Land Use Map and associated land use maps for the Planning Areas could potentially cause direct impacts to approximately 28,543.5 acres of cover types that serve as occupied or potential habitat for listed species. See **Table 4.10-4** for a listing of each cover type in which listed plant and animal species have been found in the Planning Area as well as the acres of each cover type that exist within the Planning Area. In addition to these cover types, mining tailings cover types are known to support valley elderberry shrubs (a host plant for valley elderberry longhorn beetle). As the final design of future development is not currently known, the acreages listed in **Table 4.10-4**, below, represent the maximum area that could be directly affected. Actual direct impacts to these cover types may be less, depending on the ultimate design of individual developments as determined through application of proposed General Plan policies on a project specific basis and project specific compliance with state and federal agency requirements. As discussed in further detail in Section 1.0, this EIR is a programmatic analysis of the broad environmental effects of the overall proposed General Plan. Goals, polices and action items contained within the proposed

General Plan would apply to all future improvement plans within the Planning Area. Future proposed projects that have the potential to cause a direct or reasonably foreseeable indirect physical change in the environment will undergo additional, project-specific CEQA-review, as required by statute. Those future projects will also be subject to the FESA and CESA, as appropriate.

TABLE 4.10-4
COVER TYPES CONTAINING HABITAT FOR LISTED SPECIES IN THE RANCHO CORDOVA GENERAL PLAN PLANNING AREA

Cover Type	Listed Species (Common Name)	Acres Within City Boundary	Acres Outside City Boundary and Inside Planning Area	Total Acres
Vernal Pool Grassland	Ahart's dwarf rush Swainson's hawk Valley elderberry longhorn beetle	6,540.6	14,187.2	20,727.8
Cropland	Swainson's hawk	298.6	3,109.1	3,407.7
Pasture Grassland	Swainson's hawk	1,088.1	270.8	1,359.0
Grassland	Ahart's dwarf rush Swainson's hawk Valley elderberry longhorn beetle	230.4	407.2	637.5
Vernal Pool	Boggs lake hedge-hyssop Ahart's dwarf rush Legenere Pincushion navarretia Slender orcutt grass Sacramento orcutt grass Sanford's arrowhead Swainson's hawk Vernal pool fairy shrimp Vernal pool tadpole shrimp California linderiella	271.0	359.9	630.3
Mixed Riparian Woodland	Swainson's hawk Bank swallow	106.6	508.7	615.3
Open Water	Bank swallow	191.8	269.1	460.9
Blue Oak Woodland	Swainson's hawk Valley elderberry longhorn beetle	246.6	1.2	247.7
Fresh Water Marsh	Boggs lake hedge-hyssop Sanford's arrowhead	41.4	170.2	211.5
Cottonwood Woodland	Swainson's hawk	0.0	131.6	131.6
Blue Oak Savannah	Swainson's hawk Valley elderberry longhorn beetle	75.6	5.0	80.5
Valley Oak Riparian Woodland	Swainson's hawk Bank swallow	0	50.2	50.2
Mixed Riparian Scrub	Bank swallow Valley elderberry longhorn beetle	0	21.0	21.0
Total Acres		**9,090.7**	**19,491.2**	**28,581.0**

Source: Ecosystem Sciences, March 2005

In addition to direct impacts to listed species due to development within the Planning Area, further direct impacts to listed species could occur with implementation of the Rancho Cordova Circulation Plan, specifically: construction, expansion and improvement of City roadways as identified in the General Plan Roadway System Sizing Map (see **Figure 3.0-19**). **Table 4.10-5** lists the approximate direct impacts to habitats within the Planning Area by implementation of the General Plan Roadway Sizing Map. These impacts are approximate, and conservative for CEQA purposes, however, as they assume that no allowances in the final alignment or design of these roadways were given in order to minimize such impacts. Additionally, impacts due to the construction of conceptual roadways included in the General Plan Roadway System Sizing Map are approximated since the ultimate alignment of these roadways is not known and cannot be accurately determined at this time. The reader is referred to Section 4.5 (Transportation and Circulation) regarding further discussion of proposed General Plan roadway improvement impacts.

TABLE 4.10-5
DIRECT IMPACTS TO COVER TYPES CONTAINING HABITAT FOR LISTED SPECIES BY ROADWAY IMPROVEMENT AND CONSTRUCTION IN THE RANCHO CORDOVA PLANNING AREA

Cover Type	Acres Within City Boundary	Acres Outside City Boundary and Inside Planning Area	Total Acres
Vernal Pool Grassland	250.0	405.5	655.4
Cropland	5.5	125.8	131.3
Pasture Grassland	87.2	8.5	95.6
Grassland	0.0	2.7	2.7
Vernal Pool	6.2	14.3	20.6
Mixed Riparian Woodland	0.6	8.8	9.4
Open Water	1.3	0.3	1.5
Fresh Water Marsh	2.1	2.4	4.5
Cottonwood Woodland	0.0	1.5	1.5
Blue Oak Savannah	0.0	0.3	0.3
Mixed Riparian Scrub	0.0	0.2	0.2
Total	**352.8**	**570.3**	**923.0**

Source: City of Rancho Cordova Planning Department and South Sacramento Habitat Conservation Plan Dataset
Notes: Impacts identified in this table are compiled from SSHCP data and estimated roadway widths and alignments. Actual impacts may vary as roadways are redesigned and realigned. All impacts listed are direct impacts and do not take into account indirect impacts to adjacent habitat.

Indirect Impacts of the Proposed General Plan

Suitable habitat for listed plant and animal species exists within the Planning Area and could be indirectly impacted by both development under the proposed General Plan (as identified in the Land Use Element of the Rancho Cordova General Plan), and roadway improvement and construction (as identified in the Circulation Plan and the Circulation Element of the General Plan). Listed species include those species listed by the USFWS or the CDFG as endangered, threatened, rare, proposed, or candidate. Additionally, plant species identified by the CNPS as List 1B are considered in this document to be listed species. Information regarding these species, including their location, is included in **Figure 4.10-3**, **Figure 4.10-4**, and **Table 4.10-3**.

Just as direct impacts would occur to habitat in which listed species are found, indirect impacts would occur as well. Indirect impacts occur for a number of reasons, though primarily through increased human/wildlife interactions, habitat fragmentation, encroachment by exotic weeds, and area-wide changes in surface water flows due to development of previously undeveloped areas.

Increased Human/Wildlife Interactions

The major circulation features identified in the Circulation Element of the General Plan would be heavily traveled with vehicular traffic and pedestrians, increasing the amount and severity of indirect impacts to wildlife and habitat in the Planning Area. Additionally, the Circulation Plan for the City proposes a network of bicycle and pedestrian trails throughout the City, further exposing habitat and species to possible indirect impacts associated with pedestrian and bicycle use of areas that are currently inaccessible. Additionally, development of previously undeveloped land for residential uses can expose species to impacts from feral and unconfined pets.

Habitat Fragmentation

Much of the habitat within the Planning Area used by listed species is currently interconnected with large areas of open space and sparse development that has a minor impact on plant and animal species in the Planning Area. However, wide-scale development of the Planning Area consistent with the proposed General Plan could result in small pockets of conserved habitat that are no longer connected by streams and open space, resulting in indirect impacts to species diversity and movement within the Planning Area.

Encroachment by Exotic Weeds

Generally, landscaping installed as part of development in the region has relied heavily on exotic, non-native plant species for decoration. However, some of these species can spread to natural areas, causing native plant life to be replaced by exotic species. As native plants are replaced by exotic species, indirect impacts to the habitat of listed species would occur such as modification or degradation of habitat.

Changes in Surface Water Flows

As development occurs, surface water flows normally increase due to an increase in impermeable surfaces through, for example, the placement of building materials and paving over permeable surfaces. In addition, surface water flows are modified due to changes in surface flow by point source stormwater infrastructure installed in order to handle greater flows from the increasing impermeable surfaces as well as from the introduction of drainage flows during seasons when waterways and wetland features are typically dry (commonly referred to as "summer nuisance flows"). Some cover types that contain habitat for listed species can be indirectly impacted by such changes. For example, vernal pool communities survive along a rigid set of soil, water, and climatic conditions. Alteration of current inundation and desiccation regimes due to altered hydrology could substantially alter the characteristics of vernal pool habitat, resulting in loss or degradation of vernal pool habitat in developed and undeveloped areas of the Planning Area.

Table 4.10-4 shows quantities of these habitats that may be indirectly impacted by development of the proposed General Plan Land Use Map as well as which listed species would be impacted. The actual acreage ultimately indirectly impacted may be less than the estimates shown in **Table 4.10-4**, because future development design proposals will be subject to the application of

General Plan policies that address protection of biological resources, as well as possible further review on a project-by-project basis. These policies and possible further review are expected to reduce the indirect impacts estimated in **Table 4.10-4**, which ensure that the worst case indirect impacts are considered in this EIR. As discussed previously, further environmental review may be necessary, depending on whether the potential environmental impacts of future proposed projects within the Planning Area have the potential to cause one or more direct or reasonably foreseeable indirect physical change in the environment that has not already been adequately considered in this EIR.

General Plan Circulation Improvements and Other Supporting Infrastructure Improvements

Table 4.10-6, below, lists the estimated indirect impacts from implementation of the Circulation Element of the General Plan and the General Plan Roadway System Map (see **Figure 3.0-19**). These acreages and occurrences do not include direct impacts such as those identified in **Table 4.10-5** above. The data shown in **Table 4.10-6** was established by using the approximate widths and alignments of all major roads identified in the General Plan Roadway System Map and used for **Table 4.10-5**, however the following table lists impacts to cover types from the outer limit of the roadway outward for 250 feet. The distance and intensity of indirect effects on adjacent habitats will vary based upon project activities and the resources affected. For the purposes of providing a relative context of these potential impacts, this analysis assumes a distance of 250 feet as a distance at which indirect impacts to habitat and species could occur. In those cases where roadways currently exist, roadways that would be widened by the General Plan Roadway System Sizing Map, for example, may include impacts that are greater than the indirect effects within 250 feet of the original roadway that have already occurred.

TABLE 4.10-6
INDIRECT IMPACTS TO COVER TYPES CONTAINING HABITAT FOR LISTED SPECIES BY ROADWAY IMPROVEMENT AND CONSTRUCTION IN THE RANCHO CORDOVA PLANNING AREA

Cover Type	Acres Within City Boundary	Acres Outside City Boundary and Inside Planning Area	Total Acres
Vernal Pool Grassland	1,157.0	1,735.7	2,892.6
Cropland	40.3	458.8	499.1
Pasture Grassland	264.4	38.1	302.5
Grassland	0.0	30.6	30.6
Vernal Pool	43.6	56.4	99.9
Mixed Riparian Woodland	7.9	34.7	42.7
Open Water	6.0	3.9	9.9
Fresh Water Marsh	13.8	9.2	23.0
Cottonwood Woodland	0.0	13.6	13.6
Blue Oak Savannah	0.0	0.9	0.9
Valley Oak Riparian Woodland	0.0	0.6	0.6
Mixed Riparian Scrub	0.0	3.5	3.5
Total	**1,532.9**	**2,386.1**	**3,919.0**

Source: City of Rancho Cordova and South Sacramento Habitat Conservation Plan Dataset
Notes: Impacts identified in this table are compiled from SSHCP data and estimated roadway widths and alignments. Actual impacts may vary as roadways are redesigned and realigned. All impacts listed are indirect impacts and do not include direct impacts to habitat and species within the boundary of the roadway. All impacts occur between the outer boundary of the

In addition to circulation improvements identified in the General Plan, development provided under the General Plan would also require the expansion of existing public service and infrastructure improvements (e.g., construction of new public schools, fire stations and other community facilities, water and wastewater facilities, electrical and natural facilities). These associated supporting services and improvement could also contribute to impacts on plant and wildlife species.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and action items address biological resource impacts:

Policy NR.1. *Incorporate large and interconnected wildlife corridors in new development areas to provide ample space for animal movement.*

Action NR.1.1.1 *Review projects through the entitlement process and CEQA analysis to ensure that they comply with this policy if the site contains unique habitat, creeks and/or wooded corridors.*

Policy NR.1.2 *Conserve Swainson's hawk habitat.*

Action NR.1.2.1 *Establish a Swainson's Hawk Ordinance in coordination with the California Department of Fish and Game to help guide the process of mitigating for the loss of Swainson's hawk foraging habitat.*

Policy NR.1.3 *Promote educational programs that inform the public about natural resources.*

Action NR.1.3.1 *Coordinate with non-profit groups, educational institutions, and other agencies to provide environmental education programs that inform the public about the City's natural resources, existing preserve sites, and cohabitation with common urban wildlife populations.*

Policy NR.1.4 *Discourage the planting of invasive species.*

Action NR.1.4.1 *Create an educational leaflet that identifies common invasive species and recommends the planting of non-invasive species.*

Policy NR.1.5 *Ensure the protection of wildlife through the establishment of programs to control feral pet populations.*

Policy NR.2.1 *Require mitigation that provides for "no net loss" of wetlands.*

Policy NR.2.2 *Ensure that direct and indirect effects to wetland habitats are minimized by environmentally sensitive project siting and design, to the maximum extent feasible.*

Action NR.2.2.1 *During the environmental review process, evaluate feasible on-site alternatives that will reduce impacts to wetland resources and effectively preserve these resources.*

Policy NR.2.3 *Works with private and non-profit conservation organizations to ensure competitive pricing for mitigation bank credits by allowing government*

agencies, non-profit organizations, and private landowners to establish vernal pool preserves, designate mitigation areas, create and restore vernal pools, and sell credits to developers for off-site mitigation.

Policy NR.2.4 *Educate the public on the importance and benefit of wetlands areas.*

Action NR.2.4.1 *Develop trails and associated educational facilities (e.g., information kiosks, signage) around wetland and vernal pool preserves, where possible while maintaining the integrity of sensitive natural resources.*

Action NR.2.4.2 *Consider constructing elevated board walkways and other low impact trails interior to preserves, in coordination with the U.S. Fish and Wildlife Service and U.S. Army Corps of Engineers.*

Policy NR.3.1 *Coordinate with groups such as the Sacramento Urban Creeks Council to restore, enhance, and preserve creeks in Rancho Cordova.*

Policy NR.3.2 *Create or retain the natural topographic relief and meandering alignment of natural creek corridors in the construction of new channels and the modification of existing channels, and discourage the placement of concrete within creeks and channels.*

Action NR.3.2.1 *Develop guidelines for channel creation or modification that will ensure channel meander, naturalized side slope, and varied channel bottom elevation are considered in design.*

Policy NR.3.3 *Encourage the creation of secondary flood control channels where the existing channel supports extensive riparian vegetation.*

Action NR 3.3.1 *Work with affected local, state and federal agencies to determine if natural creek corridors can and should accommodate storm flows or if separate storm water conveyance structures are necessary.*

Policy NR.3.4 *Encourage projects that contain wetland preserves or creeks, or are located adjacent to wetland preserves or creeks, to be designed for maximum visibility and, as appropriate, access.*

Action NR.3.4.1 *Establish performance standards for natural resource preserves that accomplish the following:*

Provide sufficient width for a mowed firebreak (where necessary), adjacent passive recreation uses, and access for channel maintenance and flood control.

Offer sufficient width in and/or adjacent to preserves to allow for existing and created wildlife habitat, species sensitive to human disturbance, vegetative filtration for water quality, corridor for wildlife habitat linkage, protection from runoff, and other impacts of urban uses adjacent to the corridor.

Allow for sufficient width adjacent to natural resource preserves to allow for trails and greenbelts.

Prohibit the placement of water quality treatment structures designed to meet pollutant discharge requirements within mitigation preserves.

Action NR.3.4.2 *Establish standards that allow public access in the floodplain and buffers along creek corridors and preserves. Mitigation measures shall be incorporated into environmental documents and conditions of approval that require open-view fencing adjacent to preserves.*

Action NR.3.4.3 *Establish standards and/or guidelines for development adjoining wetland preserves or creeks to maximize visibility by designing the land plan with public streets on at least one side of the corridor or preserve with vertical curbs, gutters, footpath(s), street lighting, and post and cable barriers to prevent unauthorized vehicular entry into creek corridors and preserves.*

Policy NR.4.1 *Conserve native oak and landmark tree resources for their historic, economic, aesthetic, and environmental value.*

Action NR.4.1.1 *Adopt a Tree Preservation Ordinance to establish minimum requirements for preserving native trees and landmark trees in the City, including a definition of the size, species, and age requirements of landmark, oak, and other trees to be protected and/or replaced.*

Action NR.4.1.3 *Establish development guidelines that require all oak habitat to be avoided to the maximum extent feasible. When avoidance is not possible, require mitigation efforts that result in preservation of in-kind habitat in the Planning Area.*

Policy NR.5.3 *Protect surface and ground water from major sources of pollution, including hazardous materials contamination and urban runoff.*

Action NR.5.3.1 *Restrict hazardous materials storage in the 100-year floodplain to prevent surface water contamination.*

Action NR.5.3.2 *Educate the community on laws governing the proper handling of hazardous materials, especially those laws which pertain to discharging materials into creeks.*

Action NR.5.3.3 *Install appropriate signage to deter the discharge of hazardous materials into storm drains.*

Policy NR.5.4 *Prevent contamination of the groundwater table and surface water, and remedy existing contamination to the extent practicable.*

Action NR.5.4.1 *Provide information on pollution prevention, disposal of hazardous waste and chemicals, liability and clean-up on the City's website and in educational materials and brochures.*

Action NR.5.4.2 *Require clean-up of contaminated ground and surface water by current and/or past owners or polluters.*

Action NR.5.4.3 *Encourage pollutant cleansing companies to use the latest technologies available in order to expedite the cleansing process and do the least harm to the environment.*

Policy NR.5.5 *Minimize erosion to stream channels resulting from new development in urban areas.*

Action NR.5.5.1 *Require community and specific plans to contain urban runoff control strategies and requirements that are consistent with Master Drainage Plans and the City's urban runoff management program.*

Action NR.5.5.2 *Require development within newly urbanizing areas to incorporate runoff control measures into their site design or to participate in an area-wide runoff control management effort consistent with standards developed by the Public Works Department.*

Action NR.5.5.3 *Encourage new development to incorporate features such as grassy swales, multi-use retention or detention basins, and integrated drainage systems to enhance water quality. Work with the Cordova Recreation and Park District to establish standards for integrating retention/detention basins into park sites and create examples of desirable and innovative natural drainage features.*

Action NR.5.5.4 *Establish and require the use of best management practices to protect receiving waters from the adverse effects of construction activities, sediment and urban runoff.*

Policy NR.6.1 *Ensure that the environmental effects of mining and reclamation on aquifers, streams, scenic views, and surrounding residential uses are prevented or minimized.*

Although application of policies and actions proposed in the Rancho Cordova General Plan would reduce direct impacts to listed species, impacts to such species are expected to still be significant. The proposed policies would not currently require project-by-project surveys to identify possible impacts to species beyond the CNDDB and SSHCP data, nor do they adequately protect existing areas of important habitat from development. Therefore, the following mitigation measures shall be incorporated into the General Plan where identified in the Natural Resources Element.

Mitigation Measures

MM 4.10.1a The following shall be incorporated into the Natural Resources Element as a policy under Goal NR.1:

The City shall require a biological resources evaluation for private and public development projects in areas identified to contain or possibly contain listed plant and/or wildlife species based upon the City's biological resource mapping provided in the General Plan EIR or other technical materials. This evaluation shall be conducted prior to the authorization of any ground disturbance.

MM 4.10.1b The following measure shall be incorporated as an action item immediately under the above policy (MM 4.10.1a):

For those areas in which special status species are found or likely to occur or where the presence of species can be reasonably inferred, the City shall require mitigation of impacts to those species. Mitigation shall be designed by the City in coordination with the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Game (CDFG), and shall emphasize a multi-species approach to the maximum extent feasible. This may include development or participation in a habitat conservation plan.

MM 4.10.1c The following measure shall be incorporated into the Natural Resources Element as a policy under Goal NR.1:

The City shall encourage creation of habitat preserves that are immediately adjacent to each other in order to provide interconnected open space areas for animal movement.

MM 4.10.1d The following measure shall be incorporated into the Natural Resources Element as an action item under Policy NR.1.4:

The City shall adopt and maintain a Noxious Weed Ordinance. The Noxious Weed Ordinance shall include regulatory standards for construction activities that occur adjacent to natural areas to inhibit the establishment of noxious weeds through accidental seed import.

MM 4.10.1e The following measure shall be incorporated into the Natural Resources Element as a policy under Goal NR.2:

The City shall require that drainage improvements that discharge into areas of wetlands to be preserved are, to the maximum extent feasible, designed to mimic the undeveloped surface water flow conditions of the area in terms of seasonality, volume and flow velocity.

Implementation of the above General Plan goals, policies action items and mitigation measures would partially mitigate direct and indirect impacts to special-status listed species in the General Plan Planning Area. However, despite these goals, policies, action items, and mitigation measures there still will be an overall loss of listed species and their habitats in the Planning Area given the extent of change to habitat conditions from implementation of the proposed General Plan Land Use Map. Therefore, implementation of the General Plan will result in **significant and unavoidable** impacts to listed species.

Impacts to Species of Concern and Other Non-Listed Special Status Species

Impact 4.10.2 Implementation of the proposed General Plan would result in direct and indirect loss of habitat and individuals of animal and plant species of concern and other non-listed special status species. This would be a **significant** impact.

Direct Impacts of the Proposed General Plan

Suitable habitat exists in the Planning Area for unlisted but, nonetheless special status species. These species are designated as a species of concern by the USFWS or the CDFG, listed as "fully protected" in the Fish and Game Code of California (Section 3511, 4700, 5050, 5515, and/or listed in the CNPS's *Inventory of Rare and Endangered Vascular Plants of California* (2001) as List

2. For a listing of special status, unlisted species within the Planning Area, see **Table 4.10-3**. For the location of known occurrences of these species, see **Figure 4.10-2** and **Figure 4.10-3**.

In addition to the 28,581.0 acres of habitat for listed species that may be directly impacted by development under the proposed General Plan Land Use Map (see impact 4.10.1, above), an additional 11,269.6 acres of high density development cover type, 435.7 acres of low density development type and 10,275.0 acres of the mine tailings cover type could be potentially impacted. Non-listed special status species have been found in both of these cover types and could also be directly impacted.

In addition to the 923.0 acres of habitat for listed species that may be directly impacted by roadway construction and improvement in the Planning Area, an additional 559.2 acres of mine tailings, 400.7 acres of high density development, 18.1 acres of low density development, and 11.0 acres of recreation could be directly impacted. Non-listed special status species have been found in all of these areas.

Direct impacts to these species would occur for the same reasons and in the same manner as direct impacts to listed species as identified and discussed in Impact 4.10.1 above. See Impact 4.10.1, as well as **Table 4.10-3** and **Table 4.10-4** above for information on the acreages of suitable habitat that would be affected by implementation of the proposed General Plan.

Indirect Impacts of the General Plan

Suitable habitat exists within the Planning Area for unlisted, special status species, identified (along with other listed special status species) in **Table 4.10-3** above. The location of these species is shown in **Figure 4.10-2** and **Figure 4.10-3**. Indirect impacts to these species would occur for similar reasons as those identified in Impact 4.10.1. In addition to the potential indirect impacts to listed species, an additional 11,269.6 acres of the high density development cover type, 435.7 acres of low density development cover type, and 10,275.0 acres of the mine tailings cover type, in which non-listed special status species have been found, could be potentially impacted by implementation of development envisioned under the proposed General Plan.

According to GIS information from the City of Rancho Cordova Planning Department, 2,080.1 acres of high density development, 1,869.4 acres of mine tailings, 160.75 acres of low density development, and 42.60 acres of recreation in addition to the 5,194.08 acres identified in Impact 4.10.2 could be indirectly impacted by roadway construction and improvements in the Planning Area.

Indirect impacts to habitat for non-listed, special status species would most likely be less than the total impact identified above, for a few reasons. First, cover types indirectly impacted by the proposed General Plan Roadway System Map may overlap those indirectly impacted by the proposed General Plan Land Use Plan. Second, the mitigating effect of many of the policies and action items in the proposed General Plan, addressing protection of biological resources, would ultimately reduce actual impacts. In estimating the amount of acreage potentially impacted, this discussion considers the worst-case outcome of implementation of the proposed General Plan to ensure that potential environmental impacts are fully considered. In addition, some future development design proposals will be subject to additional environmental review, depending on whether all of the impacts of such proposals have been adequately considered in this EIR. This environmental review may further reduce the indirect impacts of the proposed General Plan on non-listed special status species. Therefore, the total acres of indirect impacts likely would be less. As the final design of development and roadways to be constructed under the General Plan cannot be known, the actual quantity of habitat impacted may vary greatly.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following proposed General Plan policies and action items address biological resources:

Policy NR.1.1 *Incorporate large and interconnected wildlife corridors in new development areas to provide ample space for animal movement.*

Action NR.1.1.1 *Review projects through the entitlement process and CEQA analysis to ensure that they comply with this policy if the site contains unique habitat, creeks and/or wooded corridors.*

Policy NR.1.2 *Conserve Swainson's hawk habitat.*

Action NR.1.2.1 *Establish a Swainson's Hawk Ordinance in coordination with the California Department of Fish and Game to help guide the process of mitigating for the loss of Swainson's hawk foraging habitat.*

Policy NR.1.3 *Promote educational programs that inform the public about natural resources.*

Action NR.1.3.1 *Coordinate with non-profit groups, educational institutions, and other agencies to provide environmental education programs that inform the public about the City's natural resources, existing preserve sites, and cohabitation with common urban wildlife populations.*

Policy NR.1.4 *Discourage the planting of invasive species.*

Action NR.1.4.1 *Create an educational leaflet that identifies common invasive species and recommends the planting of non-invasive species.*

Policy NR.1.5 *Ensure the protection of wildlife through the establishment of programs to control feral pet populations.*

Policy NR.2.1 *Require mitigation that provides for "no net loss" of wetlands.*

Policy NR.2.2 *Ensure that direct and indirect effects to wetland habitats are minimized by environmentally sensitive project siting and design, to the maximum extent feasible.*

Action NR.2.2.1 *During the environmental review process, evaluate feasible on-site alternatives that will reduce impacts to wetland resources and effectively preserve these resources.*

Policy NR.2.3 *Works with private and non-profit conservation organizations to ensure competitive pricing for mitigation bank credits by allowing government agencies, non-profit organizations, and private landowners to establish vernal pool preserves, designate mitigation areas, create and restore vernal pools, and sell credits to developers for off-site mitigation.*

Policy NR.2.4 *Educate the public on the importance and benefit of wetlands areas.*

Action NR.2.4.1 *Develop trails and associated educational facilities (e.g., information kiosks, signage) around wetland and vernal pool preserves, where possible while maintaining the integrity of sensitive natural resources.*

Action NR.2.4.2 *Consider constructing elevated board walkways and other low impact trails interior to preserves, in coordination with the U.S. Fish and Wildlife Service and U.S. Army Corps of Engineers.*

Policy NR.3.1 *Coordinate with groups such as the Sacramento Urban Creeks Council to restore, enhance, and preserve creeks in Rancho Cordova.*

Policy NR.3.2 *Create or retain the natural topographic relief and meandering alignment of natural creek corridors in the construction of new channels and the modification of existing channels, and discourage the placement of concrete within creeks and channels.*

Action NR.3.2.1 *Develop guidelines for channel creation or modification that will ensure channel meander, naturalized side slope, and varied channel bottom elevation are considered in design.*

Policy NR.3.3 *Encourage the creation of secondary flood control channels where the existing channel supports extensive riparian vegetation.*

Action NR 3.3.1 *Work with affected local, state and federal agencies to determine if natural creek corridors can and should accommodate storm flows or if separate storm water conveyance structures are necessary.*

Policy NR.3.4 *Encourage projects that contain wetland preserves or creeks, or are located adjacent to wetland preserves or creeks, to be designed for maximum visibility and, as appropriate, access.*

Action NR.3.4.1 *Establish performance standards for natural resource preserves that accomplish the following:*

Provide sufficient width for a mowed firebreak (where necessary), adjacent passive recreation uses, and access for channel maintenance and flood control.

Offer sufficient width in and/or adjacent to preserves to allow for existing and created wildlife habitat, species sensitive to human disturbance, vegetative filtration for water quality, corridor for wildlife habitat linkage, protection from runoff, and other impacts of urban uses adjacent to the corridor.

Allow for sufficient width adjacent to natural resource preserves to allow for trails and greenbelts.

Prohibit the placement of water quality treatment structures designed to meet pollutant discharge requirements within mitigation preserves.

Action NR.3.4.2 *Establish standards that allow public access in the floodplain and buffers along creek corridors and preserves. Mitigation measures shall be*

incorporated into environmental documents and conditions of approval that require open-view fencing adjacent to preserves.

Action NR.3.4.3 *Establish standards and/or guidelines for development adjoining wetland preserves or creeks to maximize visibility by designing the land plan with public streets on at least one side of the corridor or preserve with vertical curbs, gutters, footpath(s), street lighting, and post and cable barriers to prevent unauthorized vehicular entry into creek corridors and preserves.*

Policy NR.4.1 *Conserve native oak and landmark tree resources for their historic, economic, aesthetic, and environmental value.*

Action NR.4.1.1 *Adopt a Tree Preservation Ordinance to establish minimum requirements for preserving native trees and landmark trees in the City, including a definition of the size, species, and age requirements of landmark, oak, and other trees to be protected and/or replaced.*

Action NR.4.1.3 *Establish development guidelines that require all oak habitat to be avoided to the maximum extent feasible. When avoidance is not possible, require mitigation efforts that result in preservation of in-kind habitat in the Planning Area.*

Policy NR.5.1 *Promote water conservation within existing and future urban uses.*

Policy NR.5.3 *Protect surface and ground water from major sources of pollution, including hazardous materials contamination and urban runoff.*

Action NR.5.3.1 *Restrict hazardous materials storage in the 100-year floodplain to prevent surface water contamination.*

Action NR.5.3.2 *Educate the community on laws governing the proper handling of hazardous materials, especially those laws which pertain to discharging materials into creeks.*

Action NR.5.3.3 *Install appropriate signage to deter the discharge of hazardous materials into storm drains.*

Policy NR.5.4 *Prevent contamination of the groundwater table and surface water, and remedy existing contamination to the extent practicable.*

Action NR.5.4.1 *Provide information on pollution prevention, disposal of hazardous waste and chemicals, liability and clean-up on the City's website and in educational materials and brochures.*

Action NR.5.4.2 *Require clean-up of contaminated ground and surface water by current and/or past owners or polluters.*

Action NR.5.4.3 *Encourage pollutant cleansing companies to use the latest technologies available in order to expedite the cleansing process and do the least harm to the environment.*

Policy NR.5.5 *Minimize erosion to stream channels resulting from new development in urban areas.*

Action NR.5.5.1 *Require community and specific plans to contain urban runoff control strategies and requirements that are consistent with Master Drainage Plans and the City's urban runoff management program.*

Action NR.5.5.2 *Require development within newly urbanizing areas to incorporate runoff control measures into their site design or to participate in an area-wide runoff control management effort consistent with standards developed by the Public Works Department.*

Action NR.5.5.3 *Encourage new development to incorporate features such as grassy swales, multi-use retention or detention basins, and integrated drainage systems to enhance water quality. Work with the Cordova Recreation and Park District to establish standards for integrating retention/detention basins into park sites and create examples of desirable and innovative natural drainage features.*

Action NR.5.5.4 *Establish and require the use of best management practices to protect receiving waters from the adverse effects of construction activities, sediment and urban runoff.*

Policy NR.6.1 *Ensure that the environmental effects of mining and reclamation on aquifers, streams, scenic views, and surrounding residential uses are prevented or minimized.*

Mitigation Measures

Implementation of the above General Plan policies, action items and mitigation measures MM 4.10.1a through e would partially mitigate any direct or indirect impacts to non-listed special-status species in the General Plan Planning Area though there will an overall loss of non-listed special-status and their habitat in the Planning Area. Therefore, implementation of the General Plan will result in **significant and unavoidable** impacts to listed species.

Loss of Habitat

Impact 4.10.3 Implementation of the proposed General Plan would result in the loss of foraging habitat for raptors, migratory birds, and other wildlife. This would be a **significant** impact.

Wetlands, riparian corridors, as well as large areas of open grassland and other suitable foraging habitat for special-status bird species found within the Planning Area, also provide important habitat for non-listed special status species, as well common wildlife including variety of shore birds, waterfowl, and migratory passerines Additionally, some mammal species such as coyote and black-tailed hare utilize these cover types as forage and denning habitat. Implementation of the General Plan, specifically development in line with the proposed General Plan Land Use Map as well as construction and improvement of roadways identified in the proposed Circulation Element could result in the loss of this habitat, causing a significant impact to occur.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following proposed General Plan policies and action items address biological resources:

Policy NR.1.1 *Incorporate large and interconnected wildlife corridors in new development areas to provide ample space for animal movement*

Action NR.1.1.1 *Review projects through the entitlement process and CEQA analysis to ensure that they comply with this policy if the site contains unique habitat, creeks and/or wooded corridors.*

Policy NR.1.2 *Conserve Swainson's hawk habitat.*

Action NR.1.2.1 *Establish a Swainson's Hawk Ordinance in coordination with the California Department of Fish and Game to help guide the process of mitigating for the loss of Swainson's hawk foraging habitat.*

Policy NR.1.3 *Promote educational programs that inform the public about natural resources.*

Action NR.1.3.1 *Coordinate with non-profit groups, educational institutions, and other agencies to provide environmental education programs that inform the public about the City's natural resources, existing preserve sites, and cohabitation with common urban wildlife populations.*

Policy NR.1.4 *Discourage the planting of invasive species.*

Action NR.1.4.1 *Create an educational leaflet that identifies common invasive species and recommends the planting of non-invasive species.*

Policy NR.1.5 *Ensure the protection of wildlife through the establishment of programs to control feral pet populations.*

Policy NR.2.1 *Require mitigation that provides for "no net loss" of wetlands.*

Policy NR.2.2 *Ensure that direct and indirect effects to wetland habitats are minimized by environmentally sensitive project siting and design, to the maximum extent feasible.*

Action NR.2.2.1 *During the environmental review process, evaluate feasible on-site alternatives that will reduce impacts to wetland resources and effectively preserve these resources.*

Policy NR.2.3 *Works with private and non-profit conservation organizations to ensure competitive pricing for mitigation bank credits by allowing government agencies, non-profit organizations, and private landowners to establish vernal pool preserves, designate mitigation areas, create and restore vernal pools, and sell credits to developers for off-site mitigation.*

Policy NR.2.4 *Educate the public on the importance and benefit of wetlands areas.*

Action NR.2.4.1 *Develop trails and associated educational facilities (e.g., information kiosks, signage) around wetland and vernal pool preserves, where possible while maintaining the integrity of sensitive natural resources.*

Action NR.2.4.2 *Consider constructing elevated board walkways and other low impact trails interior to preserves, in coordination with the U.S. Fish and Wildlife Service and U.S. Army Corps of Engineers.*

Policy NR.3.1 *Coordinate with groups such as the Sacramento Urban Creeks Council to restore, enhance, and preserve creeks in Rancho Cordova.*

Policy NR.3.2 *Create or retain the natural topographic relief and meandering alignment of natural creek corridors in the construction of new channels and the modification of existing channels, and discourage the placement of concrete within creeks and channels.*

Action NR.3.2.1 *Develop guidelines for channel creation or modification that will ensure channel meander, naturalized side slope, and varied channel bottom elevation are considered in design.*

Action NR.3.2.2 *Adopt and implement improvement standards for soft bottom channels.*

Policy NR.3.3 *Encourage the creation of secondary flood control channels where the existing channel supports extensive riparian vegetation.*

Action NR 3.3.1 *Work with affected local, state and federal agencies to determine if natural creek corridors can and should accommodate storm flows or if separate storm water conveyance structures are necessary.*

Policy NR.3.4 *Encourage projects that contain wetland preserves or creeks, or are located adjacent to wetland preserves or creeks, to be designed for maximum visibility and, as appropriate, access.*

Action NR.3.4.1 *Establish performance standards for natural resource preserves that accomplish the following:*

Provide sufficient width for a mowed firebreak (where necessary), adjacent passive recreation uses, and access for channel maintenance and flood control.

Offer sufficient width in and/or adjacent to preserves to allow for existing and created wildlife habitat, species sensitive to human disturbance, vegetative filtration for water quality, corridor for wildlife habitat linkage, protection from runoff, and other impacts of urban uses adjacent to the corridor.

Allow for sufficient width adjacent to natural resource preserves to allow for trails and greenbelts.

Prohibit the placement of water quality treatment structures designed to meet pollutant discharge requirements within mitigation preserves.

Action NR.3.4.2 *Establish standards that allow public access in the floodplain and buffers along creek corridors and preserves. Mitigation measures shall be incorporated into environmental documents and conditions of approval that require open-view fencing adjacent to preserves.*

Action NR.3.4.3 *Establish standards and/or guidelines for development adjoining wetland preserves or creeks to maximize visibility by designing the land plan with public streets on at least one side of the corridor or preserve with vertical curbs, gutters, footpath(s), street lighting, and post and cable barriers to prevent unauthorized vehicular entry into creek corridors and preserves.*

Policy NR.4.1 *Conserve native oak and landmark tree resources for their historic, economic, aesthetic, and environmental value.*

Action NR.4.1.1 *Adopt a Tree Preservation Ordinance to establish minimum requirements for preserving native trees and landmark trees in the City, including a definition of the size, species, and age requirements of landmark, oak, and other trees to be protected and/or replaced.*

Action NR.4.1.2 *Where feasible, require underground utility lines that are in close proximity to oaks and other landmark trees to be designed and installed to minimize impacts to trees. Work with the utility provider(s) to coordinate transmission line location and other potential impacts associated with the undergrounding of the utilities.*

Action NR.4.1.3 *Establish development guidelines that require all oak habitat to be avoided to the maximum extent feasible. When avoidance is not possible, require mitigation efforts that result in preservation of in-kind habitat in the Planning Area.*

Policy NR.4.2 *Improve overall landscaping quality and sustainability in all areas visible to the public.*

Action NR.4.2.2 *Create development guidelines that address landscaping standards and that require appropriate tree species and densities in buffer areas. The guidelines should also ensure that medians will include native plantings and trees, and will be wide enough to support the long-term viability of the plantings.*

Action NR.4.2.3 *Provide leaflets and planting guides that promote the use of drought-tolerant native vegetation in home landscaping.*

Action NR.4.3.1 *Achieve "Tree City USA" status. This will require the City to adopt a tree ordinance, appoint a board, department or commission to advise the city on tree issues, spend two dollars per capita on community forestry activities, and hold an Arbor Day celebration.*

Action NR.4.3.2 *Designate local funds to educate the public on tree planting and preservation.*

Action NR.4.3.3 *Offer programs or other resources to provide property owners with information on proper tree selection, planting, and maintenance.*

Action NR.4.3.4 *Actively participate in the Sacramento County Greenprint Program.*

Policy NR.5.3 *Protect surface and ground water from major sources of pollution, including hazardous materials contamination and urban runoff.*

Action NR.5.3.1 Restrict hazardous materials storage in the 100-year floodplain to prevent surface water contamination.

Action NR.5.3.2 Educate the community on laws governing the proper handling of hazardous materials, especially those laws which pertain to discharging materials into creeks.

Mitigation Measures

MM 4.10.3 The following measure shall be incorporated into the Natural Resources Element as a policy under Goal NR.1:

The City shall require that impacts to riparian habitats be mitigated at a no net loss of existing function and value based on field survey and analysis of the riparian habitat to be impacted. No net loss may be accomplished by avoidance of the habitat, restoration of existing habitat, or creation of new habitat, or through some combination of the above.

While the incorporation of the above policies and action items in the City of Rancho Cordova General Plan (as well as implementation of Mitigation Measure MM 4.10.3) would mitigate impacts to habitat, large open areas of habitat used by these species would be lost and/or degraded directly and indirectly through development under the General Plan. Given the extent of urban development for the Planning Area set forth in the General Plan, this impact is considered **significant and unavoidable**.

Direct and Indirect Impacts to Jurisdictional Waters

Impact 4.10.4 Implementation of the proposed General Plan would result in substantial adverse impacts to and the potential loss of jurisdictional waters of the U.S. This would be a **significant** impact.

Jurisdictional waters of the U.S. provide for a variety of functions for plants and wildlife within the Planning Area. Jurisdictional waters provide habitat, foraging, cover, migration and movement corridors, and water sources for both special-status and other species found in the Planning Area. In addition to habitat functions, jurisdictional waters provide physical conveyance of surface water flows as well as channels for the handling of large stormwater events. Large storms can produce extreme flows that cause bank cutting and sedimentation of ephemeral drainage and water bodies such as open water and streams in the Planning Area. Jurisdictional waters found within the Planning Area can slow these flows and lessen the effects of these large storm events, protecting habitat and other resources.

Implementation of the General Plan, specifically development identified in the General Plan Land Use Map and roadway construction and improvement identified in the Circulation Element could result in direct and indirect impacts to jurisdictional waters within the Planning Area. Improvements identified in the General Plan Roadway System Map could impact as much as 120.5 acres of vernal pools, 27.50 acres of fresh water marsh, 11.4 acres of open water, 478.90 acres of streams, and 60.70 acres of aqueduct. Jurisdictional waters of the U.S. occur within the vernal pool grassland, vernal pool, streams, mixed riparian woodland, open water, fresh water marsh, aqueduct, valley oak riparian woodland, and mixed riparian scrub cover types. Impacts 4.10.1, 4.10.2 and 4.10.3 above contain more information regarding acreages of these cover types and possible direct and indirect impacts to these cover types due to implementation of the proposed General Plan.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following proposed General Plan policies and action items address biological resources:

Policy NR.1.1 *Incorporate large and interconnected wildlife corridors in new development areas to provide ample space for animal movement.*

Action NR.1.1.1 *Review projects through the entitlement process and CEQA analysis to ensure that they comply with this policy if the site contains unique habitat, creeks and/or wooded corridors.*

Policy NR.1.3 *Promote educational programs that inform the public about natural resources.*

Action NR.1.3.1 *Coordinate with non-profit groups, educational institutions, and other agencies to provide environmental education programs that inform the public about the City's natural resources, existing preserve sites, and cohabitation with common urban wildlife populations.*

Policy NR.1.4 *Discourage the planting of invasive species.*

Action NR.1.4.1 *Create an educational leaflet that identifies common invasive species and recommends the planting of non-invasive species.*

Policy NR.1.5 *Ensure the protection of wildlife through the establishment of programs to control feral pet populations.*

Policy NR.2.1 *Require mitigation that provides for "no net loss" of wetlands.*

Policy NR.2.2 *Ensure that direct and indirect effects to wetland habitats are minimized by environmentally sensitive project siting and design, to the maximum extent feasible.*

Action NR.2.2.1 *During the environmental review process, evaluate feasible on-site alternatives that will reduce impacts to wetland resources and effectively preserve these resources.*

Policy NR.2.3 *Works with private and non-profit conservation organizations to ensure competitive pricing for mitigation bank credits by allowing government agencies, non-profit organizations, and private landowners to establish vernal pool preserves, designate mitigation areas, create and restore vernal pools, and sell credits to developers for off-site mitigation.*

Policy NR.2.4 - Educate the public on the importance and benefit of wetlands areas.

Action NR.2.4.1 *Develop trails and associated educational facilities (e.g., information kiosks, signage) around wetland and vernal pool preserves, where possible while maintaining the integrity of sensitive natural resources.*

Action NR.2.4.2 *Consider constructing elevated board walkways and other low impact trails interior to preserves, in coordination with the U.S. Fish and Wildlife Service and U.S. Army Corps of Engineers.*

Policy NR.3.1 *Coordinate with groups such as the Sacramento Urban Creeks Council to restore, enhance, and preserve creeks in Rancho Cordova.*

Policy NR.3.2 *Create or retain the natural topographic relief and meandering alignment of natural creek corridors in the construction of new channels and the modification of existing channels, and discourage the placement of concrete within creeks and channels.*

Action NR.3.2.1 *Develop guidelines for channel creation or modification that will ensure channel meander, naturalized side slope, and varied channel bottom elevation are considered in design.*

Policy NR.3.3 *Encourage the creation of secondary flood control channels where the existing channel supports extensive riparian vegetation.*

Action NR 3.3.1 *Work with affected local, state and federal agencies to determine if natural creek corridors can and should accommodate storm flows or if separate storm water conveyance structures are necessary.*

Policy NR.3.4 *Encourage projects that contain wetland preserves or creeks, or are located adjacent to wetland preserves or creeks, to be designed for maximum visibility and, as appropriate, access.*

Action NR.3.4.1 *Establish performance standards for natural resource preserves that accomplish the following:*

Provide sufficient width for a mowed firebreak (where necessary), adjacent passive recreation uses, and access for channel maintenance and flood control.

Offer sufficient width in and/or adjacent to preserves to allow for existing and created wildlife habitat, species sensitive to human disturbance, vegetative filtration for water quality, corridor for wildlife habitat linkage, protection from runoff, and other impacts of urban uses adjacent to the corridor.

Allow for sufficient width adjacent to natural resource preserves to allow for trails and greenbelts.

Prohibit the placement of water quality treatment structures designed to meet pollutant discharge requirements within mitigation preserves.

Action NR.3.4.2 *Establish standards that allow public access in the floodplain and buffers along creek corridors and preserves. Mitigation measures shall be incorporated into environmental documents and conditions of approval that require open-view fencing adjacent to preserves.*

Action NR.3.4.3 *Establish standards and/or guidelines for development adjoining wetland preserves or creeks to maximize visibility by designing the land plan with public streets on at least one side of the corridor or preserve with vertical curbs, gutters, footpath(s), street lighting, and post and cable barriers to prevent unauthorized vehicular entry into creek corridors and preserves.*

Policy NR.5.1 *Promote water conservation within existing and future urban uses.*

Policy NR.5.3 *Protect surface and ground water from major sources of pollution, including hazardous materials contamination and urban runoff.*

Action NR.5.3. *Restrict hazardous materials storage in the 100-year floodplain to prevent surface water contamination.*

Action NR.5.3.2 *Educate the community on laws governing the proper handling of hazardous materials, especially those laws which pertain to discharging materials into creeks.*

Action NR.5.3.3 *Install appropriate signage to deter the discharge of hazardous materials into storm drains.*

Policy NR.5.4 *Prevent contamination of the groundwater table and surface water, and remedy existing contamination to the extent practicable.*

Action NR.5.4.1 *Provide information on pollution prevention, disposal of hazardous waste and chemicals, liability and clean-up on the City's website and in educational materials and brochures.*

Action NR.5.4.2 *Require clean-up of contaminated ground and surface water by current and/or past owners or polluters.*

Action NR.5.4.3 *Encourage pollutant cleansing companies to use the latest technologies available in order to expedite the cleansing process and do the least harm to the environment.*

Policy NR.5.5 *Minimize erosion to stream channels resulting from new development in urban areas.*

Action NR.5.5.1 *Require community and specific plans to contain urban runoff control strategies and requirements that are consistent with Master Drainage Plans and the City's urban runoff management program.*

Action NR.5.5.2 *Require development within newly urbanizing areas to incorporate runoff control measures into their site design or to participate in an area-wide runoff control management effort consistent with standards developed by the Public Works Department.*

Action NR.5.5.3 *Encourage new development to incorporate features such as grassy swales, multi-use retention or detention basins, and integrated drainage systems to enhance water quality. Work with the Cordova Recreation and Park District to establish standards for integrating retention/detention basins into park sites and create examples of desirable and innovative natural drainage features.*

Action NR.5.5.4 *Establish and require the use of best management practices to protect receiving waters from the adverse effects of construction activities, sediment and urban runoff.*

Mitigation Measures

Incorporation of the above General Plan action items and policies, most importantly Policy NR.2.1, which requires that the City ensure a "no net loss of wetlands" (including vernal pools and other wetland habitats) in a regional context, though there will an overall loss of wetland resources in the Planning Area as well as a reduction in the habitat value. Therefore, implementation of the General Plan will result in **significant and unavoidable** impacts to jurisdictional waters of the U.S. within the Planning Area.

Effects on Wildlife Movement Corridors

Impact 4.10.5 Implementation of the proposed General Plan would interfere substantially with the movement of several special status and common wildlife species. This would be a **significant** impact.

Large complexes of ephemeral drainage, such as those that feed Morrison Creek and Laguna Creek, exist within the Planning Area. Ephemeral Drainage provides key movement corridors for both migratory and local species of wildlife. Streams themselves also provide major movement corridors for species in the Planning Area. Major streams found in the Planning Area include the Alder, Buffalo, Morrison, Laguna, Frye and Elder Creeks. Corridors provided by these streams and drainages provide important routes for species moving through the area as well as local species that use these corridors to spread to new habitat, to mate, and to disperse genetic material. Large riparian areas such as the American River Parkway and the Consumnes River provide movement corridors as well. In addition to ephemeral drainages, streams, and rivers, large areas of undeveloped land such as those found in the southern half of the Planning Area provide habitat and cover for other species moving through the area and between habitats within the Planning Area.

Large-scale development of the Planning Area identified in the General Plan could isolate these areas from one another and adversely impact these areas and movement corridors. Additionally, construction of roadways and improvement of existing roadways as identified in the proposed Circulation Element could sever and/or further sever connections between habitats and cover types in the Planning Area. Roadway improvement and construction also could negatively impact ephemeral drainages and jurisdictional waters of the U.S. Engineered drainages, such as those that would result from proposed roadway improvement and construction, have been shown to reduce opportunities for some species' movement. For example, movement of vernal pool tadpole shrimp does not occur within artificial channels such as those constructed under roadways (Preserve at Sunridge DEIR, 2005).

Proposed General Plan Policies and Action Items That Provide Mitigation

The following proposed General Plan policies and action items address biological resources:

Policy NR.1.1 *Incorporate large and interconnected wildlife corridors in new development areas to provide ample space for animal movement.*

Action NR.1.1.1 *Review projects through the entitlement process and CEQA analysis to ensure that they comply with this policy if the site contains unique habitat, creeks and/or wooded corridors.*

Policy NR.1.2 *Conserve Swainson's hawk habitat.*

Action NR.1.2.1 *Establish a Swainson's Hawk Ordinance in coordination with the California Department of Fish and Game to help guide the process of mitigating for the loss of Swainson's hawk foraging habitat.*

Policy NR.1.3 *Promote educational programs that inform the public about natural resources.*

Action NR.1.3.1 *Coordinate with non-profit groups, educational institutions, and other agencies to provide environmental education programs that inform the public about the City's natural resources, existing preserve sites, and cohabitation with common urban wildlife populations.*

Policy NR.1.4 *Discourage the planting of invasive species.*

Action NR.1.4.1 *Create an educational leaflet that identifies common invasive species and recommends the planting of non-invasive species.*

Policy NR.1.5 *Ensure the protection of wildlife through the establishment of programs to control feral pet populations.*

Policy NR.2.1 *Require mitigation that provides for "no net loss" of wetlands.*

Policy NR.2.2 *Ensure that direct and indirect effects to wetland habitats are minimized by environmentally sensitive project siting and design, to the maximum extent feasible.*

Action NR.2.2.1 *During the environmental review process, evaluate feasible on-site alternatives that will reduce impacts to wetland resources and effectively preserve these resources.*

Policy NR.2.3 *Works with private and non-profit conservation organizations to ensure competitive pricing for mitigation bank credits by allowing government agencies, non-profit organizations, and private landowners to establish vernal pool preserves, designate mitigation areas, create and restore vernal pools, and sell credits to developers for off-site mitigation.*

Policy NR.2.4 *Educate the public on the importance and benefit of wetlands areas.*

Action NR.2.4.1 *Develop trails and associated educational facilities (e.g., information kiosks, signage) around wetland and vernal pool preserves, where possible while maintaining the integrity of sensitive natural resources.*

Action NR.2.4.2 *Consider constructing elevated board walkways and other low impact trails interior to preserves, in coordination with the U.S. Fish and Wildlife Service and U.S. Army Corps of Engineers.*

Policy NR.3.1 *Coordinate with groups such as the Sacramento Urban Creeks Council to restore, enhance, and preserve creeks in Rancho Cordova.*

Policy NR.3.2 *Create or retain the natural topographic relief and meandering alignment of natural creek corridors in the construction of new channels and the*

modification of existing channels, and discourage the placement of concrete within creeks and channels.

Action NR.3.2.1 *Develop guidelines for channel creation or modification that will ensure channel meander, naturalized side slope, and varied channel bottom elevation are considered in design.*

Policy NR.3.3 *Encourage the creation of secondary flood control channels where the existing channel supports extensive riparian vegetation.*

Action NR 3.3.1 *Work with affected local, state and federal agencies to determine if natural creek corridors can and should accommodate storm flows or if separate storm water conveyance structures are necessary.*

Policy NR.3.4 *Encourage projects that contain wetland preserves or creeks, or are located adjacent to wetland preserves or creeks, to be designed for maximum visibility and, as appropriate, access.*

Action NR.3.4.1 *Establish performance standards for natural resource preserves that accomplish the following:*

Provide sufficient width for a mowed firebreak (where necessary), adjacent passive recreation uses, and access for channel maintenance and flood control.

Offer sufficient width in and/or adjacent to preserves to allow for existing and created wildlife habitat, species sensitive to human disturbance, vegetative filtration for water quality, corridor for wildlife habitat linkage, protection from runoff, and other impacts of urban uses adjacent to the corridor.

Allow for sufficient width adjacent to natural resource preserves to allow for trails and greenbelts.

Prohibit the placement of water quality treatment structures designed to meet pollutant discharge requirements within mitigation preserves.

Action NR.3.4.2 *Establish standards that allow public access in the floodplain and buffers along creek corridors and preserves. Mitigation measures shall be incorporated into environmental documents and conditions of approval that require open-view fencing adjacent to preserves.*

Action NR.3.4.3 *Establish standards and/or guidelines for development adjoining wetland preserves or creeks to maximize visibility by designing the land plan with public streets on at least one side of the corridor or preserve with vertical curbs, gutters, footpath(s), street lighting, and post and cable barriers to prevent unauthorized vehicular entry into creek corridors and preserves.*

Policy NR.4.1 *Conserve native oak and landmark tree resources for their historic, economic, aesthetic, and environmental value.*

Action NR.4.1.1 *Adopt a Tree Preservation Ordinance to establish minimum requirements for preserving native trees and landmark trees in the City, including a definition of*

the size, species, and age requirements of landmark, oak, and other trees to be protected and/or replaced.

Action NR.4.1.3 *Establish development guidelines that require all oak habitat to be avoided to the maximum extent feasible. When avoidance is not possible, require mitigation efforts that result in preservation of in-kind habitat in the Planning Area.*

Policy NR.5.1 *Promote water conservation within existing and future urban uses.*

Policy NR.5.3 *Protect surface and ground water from major sources of pollution, including hazardous materials contamination and urban runoff.*

Action NR.5.3.1 *Restrict hazardous materials storage in the 100-year floodplain to prevent surface water contamination.*

Action NR.5.3.2 *Educate the community on laws governing the proper handling of hazardous materials, especially those laws which pertain to discharging materials into creeks.*

Action NR.5.3.3 *Install appropriate signage to deter the discharge of hazardous materials into storm drains.*

Policy NR.5.4 *Prevent contamination of the groundwater table and surface water, and remedy existing contamination to the extent practicable.*

Action NR.5.4.1 *Provide information on pollution prevention, disposal of hazardous waste and chemicals, liability and clean-up on the City's website and in educational materials and brochures.*

Action NR.5.4.2 *Require clean-up of contaminated ground and surface water by current and/or past owners or polluters.*

Action NR.5.4.3 *Encourage pollutant cleansing companies to use the latest technologies available in order to expedite the cleansing process and do the least harm to the environment.*

Policy NR.5.5 *Minimize erosion to stream channels resulting from new development in urban areas.*

Action NR.5.5.1 *Require community and specific plans to contain urban runoff control strategies and requirements that are consistent with Master Drainage Plans and the City's urban runoff management program.*

Action NR.5.5.2 *Require development within newly urbanizing areas to incorporate runoff control measures into their site design or to participate in an area-wide runoff control management effort consistent with standards developed by the Public Works Department.*

Action NR.5.5.3 *Encourage new development to incorporate features such as grassy swales, multi-use retention or detention basins, and integrated drainage systems to enhance water quality. Work with the Cordova Recreation and Park District*

to establish standards for integrating retention/detention basins into park sites and create examples of desirable and innovative natural drainage features.

Action NR.5.5.4 *Establish and require the use of best management practices to protect receiving waters from the adverse effects of construction activities, sediment and urban runoff.*

Policy NR.6.1 *Ensure that the environmental effects of mining and reclamation on aquifers, streams, scenic views, and surrounding residential uses are prevented or minimized.*

Mitigation Measures

Implementation of the above proposed General Plan policies and action items would not provide all feasible mitigation to impacts on movement corridors due to implementation of the proposed General Plan Land Use Map and the Roadway System Map. Therefore, the following mitigation measures shall be incorporated into the City of Rancho Cordova General Plan where indicated.

The following measure identifies changes to policy NR.3.2. Deletions are shown as a ~~strikethrough~~ and new text is underlined.

MM 4.10.5a Modify Policy NR.3.2 to read:

Create or retain the natural topographic relief and meandering alignment of natural creek corridors in the construction of new channels and the modification of existing channels, and ~~discourage~~ prohibit the placement of concrete within creeks and channels.

The following mitigation measures shall be incorporated into the City of Rancho Cordova General Plan as new policies under Goal NR.1.

MM 4.10.5b The following mitigation measures shall be incorporated into the City of Rancho Cordova General Plan as a new policy under Goal NR.1:

The City shall avoid the placement of new roadways within habitat preserves to the maximum extent feasible.

MM 4.10.5c The following mitigation measures shall be incorporated into the City of Rancho Cordova General Plan as a new policy under Goal NR.1:

In such cases where habitat preserves are crossed by a roadway, or where two adjacent preserves are separated by a roadway, the roadway shall be designed or updated with wildlife passable fencing separating the roadway from the preserve and/or shall incorporate design features that allow for the movement of wildlife across or beneath the road without causing a hazard for vehicles and pedestrians on the roadway.

While the proposed General Plan policies, associated action items and mitigation measures MM 4.10.5a through c would assist in minimizing adverse impacts to wildlife movement in Planning Area corridors, whether wooded or another type, they would not fully protect existing corridors formed by grassland and other non-riparian, non-wooded undeveloped land in the City.

Development of currently undeveloped areas containing grassland and similar cover types would still occur and movement corridors would be restricted or impeded by such development. Further mitigation is not feasible without prohibiting development of the majority of undeveloped land in the City as set forth in the proposed General Plan; therefore, overall impacts to movement corridors not associated with wooded areas or wetlands would remain **significant and unavoidable**.

Loss of Trees

Impact 4.10.6 Implementation of the proposed General Plan would result in the loss of native and landmark trees. This would be a **significant** impact.

While large portions of the Planning Area, including those undeveloped areas in the southern half of the City, do not contain large numbers of trees, many other areas of the Planning Area do include many trees that are not special-status species but still provide many benefits to species in the area. Urban trees are a major source of nesting habitat for local bird species. In addition to providing forage, shelter, cover, and other habitat for many bird and mammal species, trees have other benefits for the City including aesthetic impacts due to the removal of large stands of trees. Trees also provide shade and stabilize the soil.

Additionally, many native trees such as blue oak and California sycamore are found in stands of and would be adversely impacted by the removal of surrounding trees. There are currently an estimated 246 acres of blue oak woodland, 76 acres of blue oak savannah, 132 acres of cottonwood woodland, and 50 acres of valley oak riparian woodland in the Planning Area.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following proposed General Plan policies and action items address biological resources:

Policy NR.1.1 *Incorporate large and interconnected wildlife corridors in new development areas to provide ample space for animal movement.*

Action NR.1.1.1 *Review projects through the entitlement process and CEQA analysis to ensure that they comply with this policy if the site contains unique habitat, creeks and/or wooded corridors.*

Policy NR.1.3 *Promote educational programs that inform the public about natural resources.*

Action NR.1.3.1 *Coordinate with non-profit groups, educational institutions, and other agencies to provide environmental education programs that inform the public about the City's natural resources, existing preserve sites, and cohabitation with common urban wildlife populations.*

Policy NR.1.4 *Discourage the planting of invasive species.*

Action NR.1.4.1 *Create an educational leaflet that identifies common invasive species and recommends the planting of non-invasive species.*

Policy NR.2.2 *Ensure that direct and indirect effects to wetland habitats are minimized by environmentally sensitive project siting and design, to the maximum extent feasible.*

Action NR.2.2.1 *During the environmental review process, evaluate feasible on-site alternatives that will reduce impacts to wetland resources and effectively preserve these resources.*

Policy NR.3.1 *Coordinate with groups such as the Sacramento Urban Creeks Council to restore, enhance, and preserve creeks in Rancho Cordova.*

Policy NR.3.2 *Create or retain the natural topographic relief and meandering alignment of natural creek corridors in the construction of new channels and the modification of existing channels, and discourage the placement of concrete within creeks and channels.*

Policy NR.3.4 *Encourage projects that contain wetland preserves or creeks, or are located adjacent to wetland preserves or creeks, to be designed for maximum visibility and, as appropriate, access.*

Action NR.3.4.3 *Establish standards and/or guidelines for development adjoining wetland preserves or creeks to maximize visibility by designing the land plan with public streets on at least one side of the corridor or preserve with vertical curbs, gutters, footpath(s), street lighting, and post and cable barriers to prevent unauthorized vehicular entry into creek corridors and preserves.*

Policy NR.4.1 *Conserve native oak and landmark tree resources for their historic, economic, aesthetic, and environmental value.*

Action NR.4.1.1 *Adopt a Tree Preservation Ordinance to establish minimum requirements for preserving native trees and landmark trees in the City, including a definition of the size, species, and age requirements of landmark, oak, and other trees to be protected and/or replaced.*

Action NR.4.1.3 *Establish development guidelines that require all oak habitat to be avoided to the maximum extent feasible. When avoidance is not possible, require mitigation efforts that result in preservation of in-kind habitat in the Planning Area.*

Mitigation Measures

Implementation of the proposed General Plan policies and action items above would protect landmark and oak trees in the City as well as large wooded areas and urban trees. Therefore, no further mitigation is necessary and impacts to non-native trees from the General Plan would be **less than significant** though losses of native trees including oaks would be **significant and unavoidable.** There are no feasible mitigation measures to fully off-set the loss of native trees.

Conflict with Adopted Federal and State Conservation and Recovery Plans

Impact 4.10.7 Implementation of the proposed General Plan would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or any adopted biological resources recovery or conservation plan of any Federal or State agency. This would result in **no impact**.

Currently there is no adopted Habitat Conservation Plan, Natural Community Conservation Plan, nor any other conservation or recovery plan in effect for the Planning Area, in whole or in part. However, Sacramento County is currently preparing the South Sacramento Habitat Conservation Plan (SSHCP) that will include the Planning Area in its scope. The City of Rancho Cordova is participating in development of this plan.

Additionally, the USFWS is currently finalizing a Vernal Pool Recovery Plan that includes a portion of the Planning Area in its scope. The Draft Recovery Plan concerns 33 plant and animal species that occur exclusively or primarily within the California and southern Oregon vernal pool ecosystem. Species identified in the Plan for the "Southeastern Sacramento Valley Vernal Pool Region", which includes the Planning Area, are slender orcutt grass (*Orcuttia tenuis*),vernal pool fairy shrimp, vernal pool tadpole shrimp, Boggs lake hedge hyssop, Ahart's dwarf rush, legenere, midvalley fairy shrimp (*Branchinecta mesovallensis*), California linderiella, and western spadefoot toad. The draft plan proposes to protect and enhance these species and their associated habitat through habitat protection; adaptive habitat management, restoration, and monitoring; status surveys; research; and participation and outreach. No specific requirements for action by municipalities, either local or State, are stated in the draft plan. The Plan does state that only federal agencies will be required to follow the plan. Therefore, while the City may choose to comply with this plan, it is not required to do so.

Proposed General Plan Policies and Action Items That Provide Mitigation

There are proposed General Plan policies or action items that address the SSHCP.

Mitigation Measures

While efforts are ongoing by some municipalities and federal agencies to form and adopt such plans, no Habitat Conservation Plans, Natural Community Conservation Plans, or Habitat Recovery Plans have been adopted as of this date. Therefore the General Plan cannot have an impact on such plans. Therefore, no mitigation is required and the General Plan would have **no impact**.

4.10.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative setting for this section of the EIR is extensive due to the fact that biological resources that are within the Planning Area also occur in areas adjacent to the Planning Area and exist in a broader regional context. The viability of species populations as well as quality and functions of habitat are dependent on the conditions of these resources in a regional and often statewide context. Thus, the cumulative setting takes into account impacts that are locally related to the General Plan (e.g., vernal pool and associated biological resources in the Laguna Geologic Formation) as well as biological resource impacts for the larger region (e.g., oak tree loss and Swainson's hawk impacts). The reader is referred to Section 4.0 regarding the extent of the cumulative setting and for information on cumulative analyses. For the purposes of this analysis, the cumulative setting is City of Elk Grove, Galt and Folsom as well as unincorporated areas of Sacramento, El Dorado, Sutter and Placer counties

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Biological Resources

Impact 4.10.8 Implementation of the proposed General Plan, together with past, present, and probable future projects in the Planning Area and larger regional context would result in a cumulatively significant loss of biological resources in the region. The General Plan's incremental contribution to this significant cumulative impact is **cumulatively considerable**.

As identified under Impacts 4.10.1 through 4.10.7 above, development of the General Plan would result in direct and indirect impacts to listed and non-listed special status species as well as impacts to jurisdictional waters of the U.S. and non-special status species, trees, habitat, and movement corridors. Further development underway in areas such as the City of Elk Grove, Galt and Folsom as well as unincorporated areas of Sacramento, El Dorado, Sutter and Placer counties would increase indirect impacts on the cumulative area. Additional indirect impacts to the Consumnes River basin to the south of the Planning Area could occur.

The contribution to these impacts by development of the General Plan would be cumulatively considerable as many special status species rely on specific cover types found in the Planning Area for movement and forage, while not necessarily using cover types in the Planning Area on a permanent basis. Migrating birds fall within this category, as well as Swainson's hawk and other raptors that have been known to use the southern portions of the Planning Area as foraging habitat while nesting and breeding in areas south of the Planning Area such as within the City of Elk Grove and along the Consumnes River.

Additionally, a large percentage of the local vernal pools and vernal pool grassland found in the Sacramento County portion of the cumulative setting exists within the Planning Area. Development of the City of Rancho Cordova, as well as development of the incorporated portions of Sacramento County to the south, would impact these cover types, potentially reducing the overall quantity and quality of vernal pools. Many streams and drainages found within the Planning Area feed larger watercourses to the southwest of the City and impacts to these features could impact other areas such as Elk Grove. Both Laguna Creek and Morrison Creek flow to the southwest and ephemeral drainages located within the Planning Area are tributaries to these systems. Development planned upstream of the Planning Area, such as that in the southern portion of the City of Folsom could also impact streams in the cumulative area.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following proposed General Plan policies and action items address biological resources:

Policy NR.1.1 *Incorporate large and interconnected wildlife corridors in new development areas to provide ample space for animal movement*

Action NR.1.1.1 *Review projects through the entitlement process and CEQA analysis to ensure that they comply with this policy if the site contains unique habitat, creeks and/or wooded corridors.*

Policy NR.1.2 *Conserve Swainson's hawk habitat.*

Action NR.1.2.1 *Establish a Swainson's Hawk Ordinance in coordination with the California Department of Fish and Game to help guide the process of mitigating for the loss of Swainson's hawk foraging habitat.*

Policy NR.1.3 *Promote educational programs that inform the public about natural resources.*

Action NR.1.3.1 *Coordinate with non-profit groups, educational institutions, and other agencies to provide environmental education programs that inform the public about the City's natural resources, existing preserve sites, and cohabitation with common urban wildlife populations.*

Policy NR.1.4 *Discourage the planting of invasive species.*

Action NR.1.4.1 *Create an educational leaflet that identifies common invasive species and recommends the planting of non-invasive species.*

Policy NR.1.5 *Ensure the protection of wildlife through the establishment of programs to control feral pet populations.*

Policy NR.2.1 *Require mitigation that provides for "no net loss" of wetlands.*

Policy NR.2.2 *Ensure that direct and indirect effects to wetland habitats are minimized by environmentally sensitive project siting and design, to the maximum extent feasible.*

Action NR.2.2.1 *During the environmental review process, evaluate feasible on-site alternatives that will reduce impacts to wetland resources and effectively preserve these resources.*

Policy NR.2.3 *Works with private and non-profit conservation organizations to ensure competitive pricing for mitigation bank credits by allowing government agencies, non-profit organizations, and private landowners to establish vernal pool preserves, designate mitigation areas, create and restore vernal pools, and sell credits to developers for off-site mitigation.*

Policy NR.2.4 *Educate the public on the importance and benefit of wetlands areas.*

Action NR.2.4.1 *Develop trails and associated educational facilities (e.g., information kiosks, signage) around wetland and vernal pool preserves, where possible while maintaining the integrity of sensitive natural resources.*

Action NR.2.4.2 *Consider constructing elevated board walkways and other low impact trails interior to preserves, in coordination with the U.S. Fish and Wildlife Service and U.S. Army Corps of Engineers.*

Policy NR.3.1 *Coordinate with groups such as the Sacramento Urban Creeks Council to restore, enhance, and preserve creeks in Rancho Cordova.*

Policy NR.3.2 *Create or retain the natural topographic relief and meandering alignment of natural creek corridors in the construction of new channels and the*

modification of existing channels, and discourage the placement of concrete within creeks and channels.

Action NR.3.2.1 *Develop guidelines for channel creation or modification that will ensure channel meander, naturalized side slope, and varied channel bottom elevation are considered in design.*

Action NR.3.2.2 *Adopt and implement improvement standards for soft bottom channels.*

Policy NR.3.3 *Encourage the creation of secondary flood control channels where the existing channel supports extensive riparian vegetation.*

Action NR 3.3.1 *Work with affected local, state and federal agencies to determine if natural creek corridors can and should accommodate storm flows or if separate storm water conveyance structures are necessary.*

Policy NR.3.4 *Encourage projects that contain wetland preserves or creeks, or are located adjacent to wetland preserves or creeks, to be designed for maximum visibility and, as appropriate, access.*

Action NR.3.4.1 *Establish performance standards for natural resource preserves that accomplish the following:*

Provide sufficient width for a mowed firebreak (where necessary), adjacent passive recreation uses, and access for channel maintenance and flood control.

Offer sufficient width in and/or adjacent to preserves to allow for existing and created wildlife habitat, species sensitive to human disturbance, vegetative filtration for water quality, corridor for wildlife habitat linkage, protection from runoff, and other impacts of urban uses adjacent to the corridor.

Allow for sufficient width adjacent to natural resource preserves to allow for trails and greenbelts.

Prohibit the placement of water quality treatment structures designed to meet pollutant discharge requirements within mitigation preserves.

Action NR.3.4.2 *Establish standards that allow public access in the floodplain and buffers along creek corridors and preserves. Mitigation measures shall be incorporated into environmental documents and conditions of approval that require open-view fencing adjacent to preserves.*

Action NR.3.4.3 *Establish standards and/or guidelines for development adjoining wetland preserves or creeks to maximize visibility by designing the land plan with public streets on at least one side of the corridor or preserve with vertical curbs, gutters, footpath(s), street lighting, and post and cable barriers to prevent unauthorized vehicular entry into creek corridors and preserves.*

Policy NR.4.1 *Conserve native oak and landmark tree resources for their historic, economic, aesthetic, and environmental value.*

Action NR.4.1.1 *Adopt a Tree Preservation Ordinance to establish minimum requirements for preserving native trees and landmark trees in the City, including a definition of the size, species, and age requirements of landmark, oak, and other trees to be protected and/or replaced.*

Action NR.4.1.2 - *Where feasible, require underground utility lines that are in close proximity to oaks and other landmark trees to be designed and installed to minimize impacts to trees. Work with the utility provider(s) to coordinate transmission line location and other potential impacts associated with the undergrounding of the utilities.*

Action NR.4.1.3 *Establish development guidelines that require all oak habitat to be avoided to the maximum extent feasible. When avoidance is not possible, require mitigation efforts that result in preservation of in-kind habitat in the Planning Area.*

Policy NR.4.2 *Improve overall landscaping quality and sustainability in all areas visible to the public.*

Action NR.4.2.2 *Create development guidelines that address landscaping standards and that require appropriate tree species and densities in buffer areas. The guidelines should also ensure that medians will include native plantings and trees, and will be wide enough to support the long-term viability of the plantings.*

Action NR.4.2.3 *Provide leaflets and planting guides that promote the use of drought-tolerant native vegetation in home landscaping.*

Action NR.4.3.1 *Achieve "Tree City USA" status. This will require the City to adopt a tree ordinance, appoint a board, department or commission to advise the city on tree issues, spend two dollars per capita on community forestry activities, and hold an Arbor Day celebration.*

Action NR.4.3.2 *Designate local funds to educate the public on tree planting and preservation.*

Action NR.4.3.3 *Offer programs or other resources to provide property owners with information on proper tree selection, planting, and maintenance.*

Action NR.4.3.4 *Actively participate in the Sacramento County Greenprint Program.*

Policy NR.5.3 *Protect surface and ground water from major sources of pollution, including hazardous materials contamination and urban runoff.*

Action NR.5.3.1 *Restrict hazardous materials storage in the 100-year floodplain to prevent surface water contamination.*

Action NR.5.3.2 *Educate the community on laws governing the proper handling of hazardous materials, especially those laws which pertain to discharging materials into creeks.*

Mitigation Measures

Implementation of the above General Plan policies, associated action items and mitigation measures MM 4.10.1a through e, MM 4.10.3, and MM 4.10.5a through c would reduce the General Plan's contribution to cumulative biological impacts in the region. However, the General Plan's contribution to cumulative and significant biological resource impacts for the region would still be **cumulative considerable** and is considered a **significant and unavoidable** impact. The only mitigation for such impacts – restricting the majority of development proposed in the General Plan– is not considered feasible, given that it would fundamentally conflict with the objectives of the General Plan identified in Section 3.0 of this document.

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4.11 – Cultural and Paleontological Resources

This section considers and evaluates the potential impacts of the proposed General Plan on cultural and paleontological resources. Cultural resources include historical buildings and structures, historical districts, historical sites, prehistoric archaeological sites, other prehistoric and historic objects and artifacts, and human remains. Paleontological resources include fossil remains, as well as fossil localities and formations, which have produced fossil material in other nearby areas.

4.11.1 EXISTING SETTING

PREHISTORY

The Central Valley of California has long held the attention of California archaeologists dating to the 1920s. Indeed, archaeological work in the area during the 1920s and 1930s led to the development of the first cultural chronology for Central California. The chronology identified three archaeological cultures, which were named Early, Transitional, and Late. Subsequently the three cultural groups were subsumed into three time periods, designated the Early, Middle, and Late Horizons.

The Windmiller Pattern is representative of the Early Horizon in the Rancho Cordova area. The Early Horizon is highlighted by: large, heavy, stemmed and leaf-shaped projectile points made of a variety of materials; charmstones; shell beads and ornaments; trident fish spears; flat slab millingstones; small numbers of mortars; and ventrally extended burials oriented toward the west. The Windmiller Pattern probably emphasized hunting and fishing, with seed collecting as a supplement to the diet. The Windmiller Pattern dates from 4,500-2,500 Before Present (B.P.).

The Cosumnes Culture is representative of the Middle Horizon in the Rancho Cordova area. The Middle Horizon is highlighted by: large, heavy, lanceolate concave base projectile points made of a variety of materials; charmstones; shell beads and ornaments; cobble mortars and evidence of wooden mortars; numerous bone tools and bone ornaments; and tightly flexed burials with variable orientation and red ochre staining. Middle Horizon cultures are generally quite different from the Windmiller Pattern, but do continue to exhibit some of the characteristics of Windmiller such as similar projectile point forms. The similarities in projectile point forms may be indicative of cultural continuity and/or functional and adaptational success of particular forms. The Middle Horizon dates from 2,500 B.P.-A.D. 500.

The Hotchkiss Culture is representative of the Late Horizon in the Rancho Cordova area. The Late Horizon primarily represents both local innovation and the blending of new cultural traits introduced into the Central Valley primarily from the north. It is distinguished by intensive fishing, extensive use of acorns, elaborate ceremonialism, social stratification, and cremation of the dead. The Hotchkiss Culture dates from A.D. 500-to Euroamerican contact.

For a more detailed description of the prehistoric background of Rancho Cordova and the surrounding area, please refer to the Archaeological and Historical Resources Report for the Rancho Cordova General Plan EIR (Nadolski 2005).

ETHNOGRAPHY

A large population of Native Americans speaking more than 100 different languages and occupying a variety of ecological settings inhabited California prior to the arrival of Euroamericans. Rancho Cordova and the surrounding area are in Valley Nisenan territory.

The basic social and economic group of the Nisenan was the family or household unit, with the nuclear and/or extended family forming a corporate unit. Among the Nisenan these groups combined to form tribelets, which were their largest sociopolitical unit. Each tribelet had a chief or headman, and tribelet populations were as large as 500 persons living in permanent villages that were usually located on raised areas to avoid flooding.

Valley Nisenan used a variety of utilitarian stone tools, with obsidian being a highly valued material for tool manufacture. Other tools and weapons were made of bone, wood, and plant materials including stirring sticks, mush paddles, pipes, hide preparation equipment, and baskets. Fishing formed a large component of Valley Nisenan subsistence activity. Consequently, they used an extensive assemblage of fishing-related implements including: spears; cordage lines with bone fishhooks; harpoons with detachable points; dams for stream diversion; nets of cordage and basketry; weirs; and an array of fish traps. Other food processing equipment included bedrock mortars and pestles for grinding acorns, buckeyes, pine nuts, seeds, berries, and meat. Valley Nisenan also fostered trading relationships with surrounding groups for commodities such as salt, marine shells, and basketry.

For a more detailed description of the ethnographic background of Rancho Cordova and the surrounding area, please refer to the Archaeological and Historical Resources Report for the Rancho Cordova General Plan EIR (Nadolski 2005).

HISTORIC PERIOD

Spanish exploration of the Central Valley dates to the late 1700s, but exploration of the Northern section of the Central Valley and contact with its Native American population did not begin until the early 1800s. At this time, the attention of Spanish missionaries shifted away from the coast and its dwindling Native American population, to the conversion and missionization of interior populations. This time period also marks the beginning of the decline of Native American populations due to Euroamerican diseases and the relocation of many groups to missions, which resulted in not only the loss of life, but also the loss of Native American traditional culture.

The second quarter of the nineteenth century encompasses the Mexican Period (ca. 1821-1848) in California. This period is an outgrowth of the Mexican Revolution, and its accompanying social and political views affected the mission system across California. In 1833, the missions were secularized and their lands divided among the Californians as land grants called ranchos. These ranchos, such as the 35,000-acre Rancho Rio de los Americanos, part of which is located within the Planning Area, facilitated the growth of a semi-aristocratic group that controlled the large ranchos.

During the middle of the 19th century trails were being blazed across the plains and mountains facilitating the westward migration of Euroamericans. Groups such as the 1841 Bartleson-Bidwell party and the 1844 Stevens-Murphy party that traveled to California typify these early immigrants. The commencement of the Mexican-American war in 1846 also affected the exploration and development of California, including the identification of new trails across the Sierra Nevada.

The Rancho Rio de los Americanos was originally granted to William Leidesdorff and subsequently sold to Joseph Folsom. Neither of these individuals, however, developed the rancho, and it does not reflect patterns of rancho development and use that are typical in other parts of California. Regardless, the discovery of gold at Sutter's Mill in Coloma in 1848 caused a dramatic alteration of both Native American and Euroamerican cultural patterns in California. Once news of the discovery of gold spread, a flood of Euroamericans began to enter the

region, and gravitated to the area of the "Mother Lode". Initially, the Euroamerican population grew slowly, but soon exploded as the presence of large deposits of gold was confirmed. The population of California quickly swelled from an estimated 4,000 Euroamericans in 1848 to 500,000 in 1850. This large influx of immigrants had a negative effect on Native American cultures, and marks the beginning of a relatively rapid decline of Native American populations and culture.

The second half of the nineteenth century witnessed an ongoing and growing immigration of Euroamericans into the area, an influx also accompanied by regional cultural and economic changes. These changes are highlighted by the development of the Rancho Cordova area associated with expanding business opportunities related to gold mining, agriculture, and/or ranching.

For a more detailed description of the history of Rancho Cordova and the surrounding area, please refer to the Archaeological and Historical Resources Report for the Rancho Cordova General Plan EIR (Nadolski 2005).

KNOWN CULTURAL RESOURCES IN THE PLANNING AREA

Prehistoric and Historic Native American Cultural Resources

A records search at the North Central Information Center at California State University, Sacramento identified eight prehistoric sites and one prehistoric/historic site within the Planning Area (see **Table 4.11-1**). Most of the prehistoric sites are located along the American River and creeks and some of the sites are known to contain human remains. The prehistoric and historic Native American occupation of the Rancho Cordova area is generally related to the Middle and Late Horizon. Prehistoric sites CA-SAC-155/156 and CA-SAC-319 and prehistoric/historic site CA-SAC-320/H are eligible for inclusion in the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CRHR).

Historic Resources

A records search at the North Central Information Center at California State University, Sacramento identified twenty-three historic resources (e.g., historical archaeological sites, historic buildings, and artifacts) and one prehistoric/historic site within the Rancho Cordova Planning Area (see **Table 4.11-1**). These sites are distributed across the Planning Area and are generally related to the development of transportation networks and agriculture. Historic archaeological site CA-SAC-428-H, prehistoric/historic archaeological site CA-SAC-320/H, the Pfingst Realty building, and the American River Grange Hall are eligible for inclusion in the NRHP and the CRHR. The Sigma Test Area (Nike Hercules Rocket Test Area) is also determined potentially eligible for inclusion in the NRHP.

PALEONTOLOGICAL RESOURCES

Paleontology is defined as a science dealing with the life of past geological periods as known from fossil remains. Paleontological resources include fossil remains, as well as fossil localities and formations, which have produced fossil material in other nearby areas. This resource can be an important educational resource for the reasons mentioned before, and are nonrenewable once destroyed. CEQA offers protection for these sensitive resources and requires that they be addressed during the EIR process.

A search of the University of California Museum of Paleontology (UCMP) collections database did not identify any evidence of significant paleontological resources in the Rancho Cordova Planning Area. The area does not appear sensitive for the presence of paleontological resources.

While no fossils have been identified in the Planning Area, there have been fossils recovered from the Riverbank Formation. These finds have dated to the late Pleistocene period and include fish, frogs, snakes, turtles and plant species. Other fossil remains have included bison, horse, camel, mammoth, ground sloth and wolf.

TABLE 4.11-1
KNOWN CULTURAL RESOURCES IN THE PLANNING AREA

Trinomial/Address	Description	Eligibility for the National Register of Historic Places
CA-Sac-155/156	Prehistoric site with fire-affected rock and debitage; historic refuse (Shields and Williamson Mounds)	Evaluated 1988; **eligible**
CA-Sac-157	Prehistoric midden site with fire-affected rock and debitage; historic refuse (Wamser Mound #1)	Not Evaluated
CA-Sac-158	Prehistoric habitation site with artifacts (Wamser Mound #2)	Not Evaluated
CA-Sac-159	Prehistoric habitation site with fire-affected rocks and debitage (Wamser Mound #3)	Not Evaluated
CA-Sac-205	Prehistoric village with groundstone tools and debitage	Not Evaluated
CA-Sac-308-H	Dredge mine tailings (P-34-335)	Not Evaluated
CA-Sac-319	Prehistoric village with groundstone tools and debitage	Evaluated 1995; **eligible**
CA-Sac-320/H	Prehistoric village with groundstone tools and debitage; historic Chinese occupation site	Evaluated 2001; **eligible**
CA-Sac-428-H	Sacramento Valley Railroad (P-34-455)	Evaluated 1993; **eligible**; Reaffirmed 1997
CA-Sac-435-H	Historic refuse scatter	Evaluated 1994; **ineligible**
CA-Sac-469	Prehistoric midden with fire-affected rock and debitage	Not evaluated
CA-Sac-480-H	Southern Pacific Railroad, Fair Oaks spur	Evaluated 1995; **ineligible**
PA-99-63	Historic well	Evaluated 1999; **ineligible**
PA-99-64	Possible historic cellar	Evaluated 1999; **ineligible**
	Folsom Boulevard	Recognized as historically significant to local government
9878 Folsom Blvd	Pfingst Realty Company building	Evaluated 1993; **eligible**
Dawes Street and Folsom Blvd	Mills Station Building	Evaluated 1993; **ineligible**
9857 Horn Road	Silva Brothers Winery (Currently Rascals Restaurant)	Evaluated 1993; **ineligible**
2720 Kilgore Road	American River Grange Hall	Evaluated 1996; **eligible**
	Aerojet Site 5: Military Personnel Dump	Not evaluated

Trinomial/Address	Description	Eligibility for the National Register of Historic Places
	Air Force Plant 70	**Ineligible**
Rio del Oro Planning Area	Sigma Test Area (Nike Hercules Rocket Test Area)	Evaluated in 2005; **potentially eligible**
10595 Folsom Blvd	Fire Station 61	Ineligible
12395 Folsom Blvd	Fire Station 63	**Ineligible**
12401 Folsom Blvd	Retail/Restaurants	**Ineligible**
12415 Folsom Blvd	Demolished	**Ineligible**
	Hazel Ave/Nimbus Dam	Not evaluated
2909 Mather Field Rd	Dominos Pizza/Vacant	**Ineligible**
2919 Mather Field Rd	Residence	**Ineligible**
10298 McCracken Dr	Residence	**Ineligible**
State Route 16	Highway	**Ineligible**
White Rock Road	Road	Not evaluated
Whiterock Road; 0.2 miles east of Whiterock Road/Sunrise Blvd	15 Mile House (Demolished)	State Historic Landmark #698
Kilgore Road between Trade Center and Sun Center Drive	Kilgore Cemetery	Not evaluated

4.11.2 REGULATORY FRAMEWORK

STATE

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 California 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." Section 21083.2 requires agencies to determine whether proposed projects would have effects on "unique archaeological resources."

"Historical resource" is a term with a defined statutory meaning (Public Resources Code, Section 21084.1 and State CEQA Guidelines, Section 15064.5 [a], [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 purposes of CEQA unless a preponderance of evidence indicates otherwise (Pub. Resources Code, Section 5024.1 and 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 impacted by a proposed project are listed or have been identified in a survey process (Public Resources Code 5024.1 [g]), lead agencies have a responsibility to evaluate them against the CRHR criteria prior to making a finding as to a proposed project's impacts to historical resources (Public Resources Code, Section 21084.1 and State CEQA Guidelines, Section 15064.5 [a][3]). Following CEQA Guidelines Section 21084.5 (a) and (b) an historical resource is defined as any object, building, structure, site, area, place, record, or manuscript that:

a) Is historically or archeologically 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.

Archaeological resources may also qualify as "historical resources". California Public Resources Code 5024 requires consultation with the Office of Historic Preservation when a project may impact historical resources owned by the State.

State CEQA Guidelines Section 15064.5, subdivision (b)(3) and Section 15126.4 subdivision (b) provide mitigation measures related to impacts on historical resources. Following these mitigation measures, including preservation in place, data recovery through excavation, and the United States 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), a project's impact on any historical resources shall generally be considered mitigated to a level of less than significant. Potential eligibility also rests upon the integrity of the resource. Integrity, following 14 California Code of Regulations Section 4852(c), 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 proposed projects will impact "unique archaeological resources." Public Resources Code Section 21083.2, subdivision (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:

- Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.

- Has a special and particular quality such as being the oldest of its type or the best available example of its type.

- Is directly associated with a scientifically recognized important prehistoric or historic event or person."

Treatment options under Public Resources Code Section 21083.2 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, and consult with Native Americans is given in several agency publications such as the Technical Assistance Series produced by the Office of Historic Preservation (OHP) and the Tribal Consultation Guidelines produce by the Office of Planning and Research (OPR). The technical assistance series and the consultation guidelines strongly recommend 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 of the Health and Safety Code and Public Resources Code 5097.9).

When human remains are discovered, the protocol to be followed is specified in California Health and Safety Code, which 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.*

State CEQA Guidelines Section 15064.5, subdivision (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 Native American Heritage Commission (NAHC) must be contacted within 24 hours. At that time, the lead agency must consult with the appropriate Native Americans, if any, as timely identified by the NAHC. Section 15064.5 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.

In addition to the mitigation provisions pertaining to accidental discovery of human remains, the State CEQA Guidelines also require that a lead agency make provisions for the accidental discovery of historical or archaeological resources, generally. Pursuant to Section 15064.5, subdivision (f), these provisions should include "an immediate evaluation of the find by a qualified archaeologist. If the find is determined to be an historical or unique archaeological resource, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or appropriate mitigation should be available. Work could continue on other parts of the building site while historical or unique archaeological resource mitigation takes place."

Senate Bill 18 (Cal. Gov. Code Sections 65352.3, 65352.4) requires that, prior to the adoption or amendment of a general plan proposed on or after March 1, 2005, a city or county must consult with Native American tribes with respect to the possible preservation of, or the mitigation of impacts to, specified Native American places, features, and objects located within that jurisdiction.

Paleontological resources are classified as non-renewable scientific resources and are protected by state statute (e.g., Public Resources Code Section 5097.5 (a), Removal or Destruction; Prohibition), and Appendix G to the CEQA Guidelines. No state or local agencies have specific jurisdiction over paleontological resources. No state or local agency requires a paleontological collecting permit to allow for the recovery of fossil remains discovered as a result of construction-related earth moving on state or private land in a project site.

LOCAL

Sacramento County General Plan

The existing Sacramento County General Plan was adopted in December of 1993 and is currently undergoing update. The Planning Area is subject to the County General Plan (Conservation Element). The County General Plan directly governs the Planning Area that is outside the limits of the City of Rancho Cordova; the County General Plan indirectly governs the portion of the Planning Area within the City limits, because the City adopted the County's General Plan upon its incorporation in 2003. Sacramento County General Plan policies CO-155 to CO-171 for cultural resources are applicable to the Planning Area outside the existing city limits of Rancho Cordova.

General Plan policies CO-155 to CO-171 address the identification, protection, inadvertent discovery, and interpretation of archaeological and historical sites and buildings. These policies include: conducting archaeological and historical studies to identify cultural resources; determining the eligibility for inclusion in the California Register of Historical Resources of cultural resources; implementing mitigation measures for the protection of cultural resources; establishing protocols for inadvertent discoveries of cultural resources; establishing architectural preservation standards; and considering the interpretive potentials of cultural resources.

4.11.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

Following Public Resources Code Sections 21083.2 and 21084.1, and Section 15064.5 and Appendix G of the State CEQA Guidelines, Rancho Cordova considers cultural resource impacts to be significant if a project would:

- Cause a substantial adverse change in the significance of an archaeological resource or an historical resource as defined in Public Resources Code section 21083.2 and CEQA Guidelines section 15064.5, respectively;

- Directly or indirectly destroy a unique paleontological resource or site or unique geological feature; or

- Disturb any human remains, including those interred outside of formal cemeteries.

State CEQA Guidelines Section 15064.5 defines "substantial adverse change" as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource is materially impaired.

METHODOLOGY

Pacific Municipal Consultants (PMC) cultural resources staff performed all archaeological and historical investigations associated with the General Plan. These investigations included a records search at the North Central Information Center at California State University, Sacramento, archival research at other repositories (e.g., California State Library), and field investigation of the Planning Area. These investigations identified thirty-one cultural resources or prehistoric/historic sites within the Planning Area (see **Table 4.11-1**). The archaeological and historical sensitivity of the Planning Area is depicted on **Figure 4.11-1**.

The General Plan process was proposed prior to March 1, 2005 and is therefore not subject to Senate Bill (SB) 18. Regardless, the City of Rancho Cordova understands the importance of contacting local Tribes and values their participation in the planning process. PMC cultural resources staff requested a sacred lands search and a list of Native American contacts and SB 18 contacts from the NAHC for the Planning Area. The sacred lands search did not identify any Native American cultural resources either within or near the Planning Area. All Native American groups and/or individuals identified by the NAHC were contacted, and Tribes were asked to consult regarding the General Plan.

PROJECT IMPACTS AND MITIGATION MEASURES

Prehistoric Resources, Historic Resources, and Human Remains

Impact 4.11.1 Adoption of the City of Rancho Cordova General Plan could result in the potential disturbance of cultural resources (i.e., prehistoric sites, historic sites, and isolated prehistoric/historic artifacts and features) and human remains. This is considered a **potentially significant** impact.

Part of the Planning Area has been subject to archaeological and historical investigations, but the entire area has not been subjected to investigation. Implementation of the proposed General Plan Roadway System Sizing Map is expected to result in significant impacts to at least one known historic resource site considered as potentially eligible under the National Register of Historic Places. Consequently, development under the City of Rancho Cordova General Plan would cause a substantial adverse impact on the significance of known cultural resources, and could also adversely impact undiscovered cultural resources and/or human remains.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and action items address cultural resource issues:

Policy CHR.1.1 *Establish, support, and fund programs that enhance Rancho Cordova's sense of community and identity, such as the collection of oral histories; genealogical research; and the acquisition of collections of historic artifacts, memorabilia, or other information relevant to the history of the City.*

Action CHR.1.1.1 *Establish a permanent museum or cultural center that may be used to display artifacts, documents, and public art relevant to the City's history and cultural diversity.*

Action CHR.1.1.2 *Locate an interim facility to store and exhibit historical artifacts in a central location.*

Action CHR.1.1.3 *Pursue the establishment of a cultural center in which to display artifacts, documents, and public art relevant to the City's history and cultural diversity.*

Action CHR.1.1.4 *Establish a display case at City Hall to showcase items of historical or cultural value.*

Action CHR.1.1.5 *Create a historic resources webpage on the City website to provide a forum to identify and discuss issues related to the history of the community.*

Action CHR.1.1.6 *Compile a thorough record of the City's incorporation, including records, documents, photos, and artifacts.*

Policy CHR.1.2 *Foster the preservation and enhancement of the City's history.*

Action CHR.1.2.1 *Consider creating a heritage park for the relocation of historic buildings and structures, such as the Pfingst Realty Company Building, to facilitate their preservation and increase their educational and cultural value.*

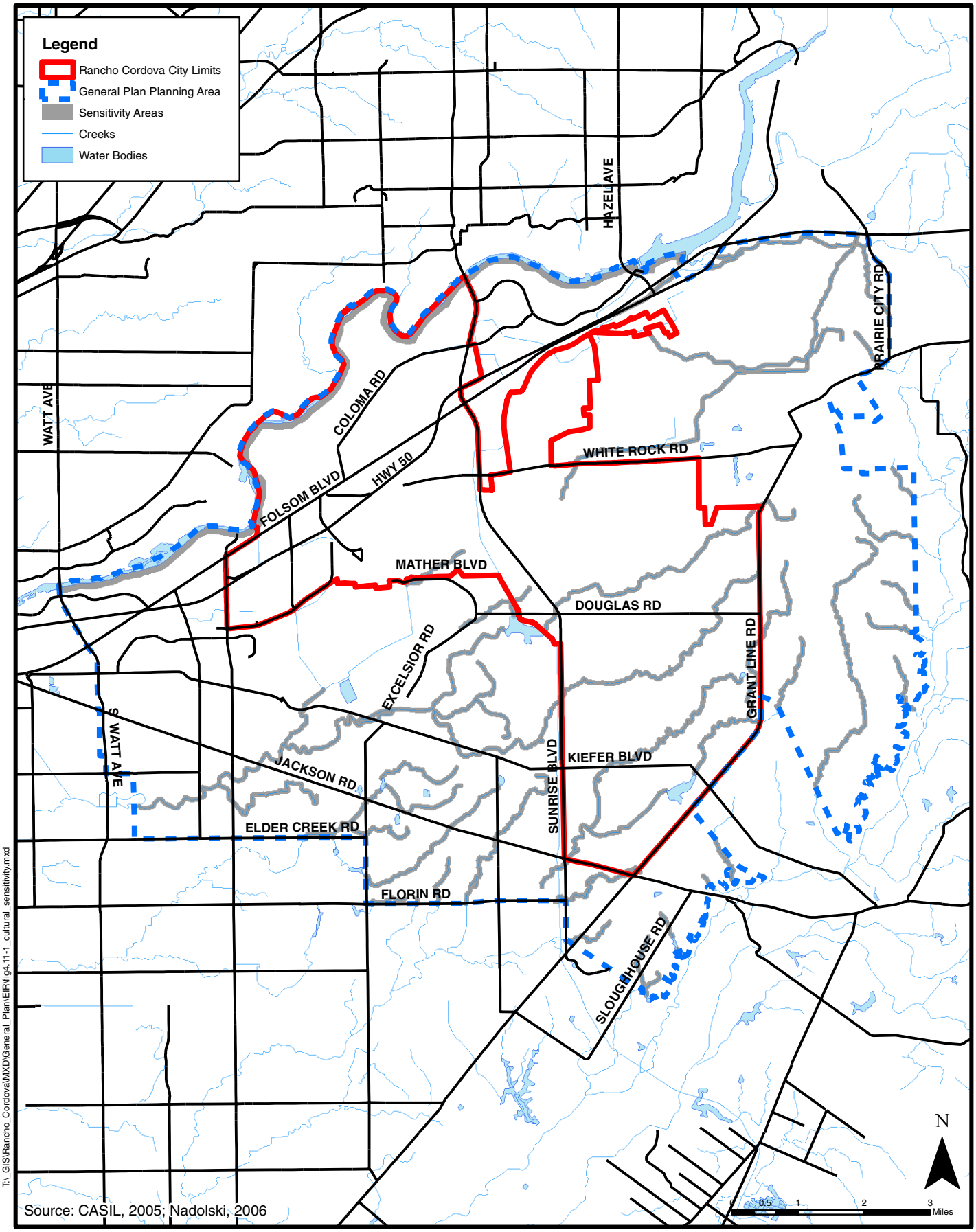
Action CHR.1.2.2 *Improve and interpret Kilgore Cemetery. Interpreting the cemetery will include determining who is buried in the older portion of the site and increasing public awareness of the cemetery's significance.*

Policy CHR.1.3 *Promote the incorporation of monuments, plaques, signs, or artwork identifying Rancho Cordova's diverse history into development projects and on pedestrian and bicycle trails. Possible highlights include the area's agricultural, mining, Pony Express, and aerospace and aviation activities.*

Policy CHR.3.1 *Establish and promote programs that identify, maintain, and protect buildings, sites, or other features of the landscape possessing historic or cultural significance.*

Action CHR.3.1.1 *Develop and regularly update a comprehensive historic resources inventory, coordinating with other agencies as necessary. The inventory will contain a list of all historically significant properties, as well as historic archaeological and paleontological resources in the Planning Area and a map depicting their locations.*

Action CHR.3.1.2 *Working with other groups and agencies, create a repository to store and exhibit historical artifacts. Additionally, collect information on historic and cultural resources not in the City's possession.*



City of Rancho Cordova
Planning Department

Figure 4.11-1
Archaeological and Cultural Sensitivity Areas
Within the General Plan Planning Area

Action CHR.3.1.3 Pursue recognition of all eligible historic properties by the National Register of Historic Places and California Register of Historical Resources.

Policy CHR.3.2 Pursue and provide financial assistance for historic preservation projects to be undertaken by the City, private or non-profit developers, and residents.

Action CHR.3.2.1 Actively apply for grants and other sources of funding for historic preservation. Possible sources of funding may include the Community Development Block Grant program; the California Heritage Fund Grant program, which is provided by the California Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Act of 2002; and funds available through the Certified Local Government program.

Action CHR.3.2.2 Provide financial incentives, such as reduced permit fees, to residents as encouragement to rehabilitate and restore historic buildings and structures.

Action CHR.3.2.3 Supply information on federal and state tax incentive programs for historic preservation to groups involved in the preservation of community history.

Action CHR.3.2.4 Participate in the Mills Act Tax Abatement Program, an economic incentive program for the restoration and preservation of qualified historic buildings by private owners. Private owners that pledge to rehabilitate and maintain the historical and architectural character of their properties for at least a ten-year period receive substantial property tax savings under the Act.

Policy CHR.3.3 Maintain and enhance the historic character of Rancho Cordova by establishing review procedures for the remodeling and reconstruction of buildings and other structures.

Action CHR.3.3.1 Establish a Historic Preservation Committee that provides input to the Planning Department regarding the protection of historic resources in Rancho Cordova.

Action CHR.3.3.2 Adopt a Historic Preservation Ordinance that provides guidelines for the preservation and enhancement of historic buildings and structures.

Action CHR.3.3.3 Require historic resources studies (i.e., archaeological and historical investigations) for all applicable discretionary projects, in accordance with CEQA regulations. The studies should identify historic or cultural resources in the project area, determine their eligibility for inclusion in the California Register of Historical Resources, and provide mitigation measures for any resources in the project area that cannot be avoided.

Action CHR.3.3.4 Incorporate the following two conditions in applicable permits for all discretionary projects.

The Planning Department shall be notified immediately if any cultural resources (e.g., prehistoric or historic artifacts) or paleontological resources (e.g., fossils) are uncovered during construction. All construction must stop in vicinity of the find and an archaeologist that meets the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology or a paleontologist shall be retained to evaluate the finds and recommend appropriate action.

The Planning Department shall be notified immediately if any human remains are uncovered and all construction must stop in vicinity of the find. The Planning Division shall notify the County Coroner according to Section 7050.5 of California's Health and Safety Code. If the remains are determined to be Native American, the procedures outlined in CEQA Section 15064.5 (d) and (e) shall be followed.

Policy CHR.3.4 Promote the integration or maintenance of historically accurate designs and features in residential and commercial structures.

Action CHR.3.4.1 Provide property owners and developers with design assistance, including information on the restoration and adaptive reuse of historic buildings and structures.

Action CHR.3.4.2 Create a program to encourage the reuse of salvaged architectural materials.

Policy CHR.4.1 Promote community participation in the preservation of historic resources in Rancho Cordova.

Action CHR.4.1.1 Recognize citizens who have made a significant contribution to documenting community history or who have demonstrated excellence in maintaining or rehabilitating a historic resource.

Action CHR.4.1.2 Establish education programs to inform the community about local history.

Mitigation Measures

Implementation of the above General Plan policies and action items would assist in reducing significant impacts to one known cultural resource, as well as to any unknown cultural resources. However, it is uncertain whether all significant impacts to unknown cultural resources can be avoided or mitigated to a level of less-than-significant level through implementation of the General Plan. Because of this uncertainty, this impact is considered **significant and unavoidable.**

Paleontological Resources

Impact 4.11.2 Adoption of the Rancho Cordova General Plan could result in the potential disturbance of paleontological resources (i.e., fossils and fossil formations). This is considered a **potentially significant** impact.

A search of the University of California, Berkeley Museum of Paleontology collections database did not identify any evidence of the existence of paleontological resources or potential in the Planning Area. Development under the City of Rancho Cordova General Plan could impact undiscovered paleontological resources, though the likelihood of such paleontological resources existing in the Planning Area is considered low.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following action item addresses paleontological resources:

Action CHR.3.3.4 Incorporate the following two conditions in applicable permits for all discretionary projects.

The Planning Department shall be notified immediately if any cultural resources (e.g., prehistoric or historic artifacts) or paleontological resources (e.g., fossils) are uncovered during construction. All construction must stop in vicinity of the find and an archaeologist that meets the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology or a paleontologist shall be retained to evaluate the finds and recommend appropriate action.

The Planning Department shall be notified immediately if any human remains are uncovered and all construction must stop in vicinity of the find. The Planning Division shall notify the County Coroner according to Section 7050.5 of California's Health and Safety Code. If the remains are determined to be Native American, the procedures outlined in CEQA Section 15064.5 (d) and (e) shall be followed.

Mitigation Measures

MM 4.11.2 The following text change shall be made to Action CHR.3.3.3:

Require historic resources and paleontological studies (i.e., archaeological and historical investigations) for all applicable discretionary projects, in accordance with CEQA regulations. The studies should identify paleontological, historic or cultural resources in the project area, determine their eligibility for inclusion in the California Register of Historical Resources, and provide mitigation measures for any resources in the project area that cannot be avoided.

Implementation of the above General Plan Action Item and Mitigation Measure MM 4.11.2 would ensure that potential paleontological resource impacts are mitigated to **less than significant**.

4.11.4 CUMULATIVE SETTING, IMPACTS AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative setting associated with the Rancho Cordova General Plan includes proposed, planned, reasonably foreseeable, and approved projects and development in the region as described in Section 4.0. Developments and planned land uses within the region would contribute to potential conflicts with cultural and paleontological resources. These resources include archaeological resources associated with Native American activities and historic resources associated with settlement, farming, gold mining, and economic development. Similarly, proposed and approved projects and adoption of the General Plan could impact undiscovered paleontological resources.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Prehistoric Resources, Historic Resources, and Human Remains

Impact 4.11.3 Adoption of the Rancho Cordova General Plan along with foreseeable development in the region could result in the disturbance of cultural resources (i.e., prehistoric sites, historic sites, and isolated artifacts and features) and human remains. This contribution is considered **cumulatively considerable**.

As noted under Impact 4.11.1, the proposed General Plan is expected to result in potentially significant cultural resource impacts and will contribute to the cumulative loss of prehistoric and historic resources in the region. This contribution is expected to be considerable, when combined with other past, present and foreseeable development in the region.

Proposed General Plan Policies and Action Items That Provide Mitigation

Policy CHR.1.1 *Establish, support, and fund programs that enhance Rancho Cordova's sense of community and identity, such as the collection of oral histories; genealogical research; and the acquisition of collections of historic artifacts, memorabilia, or other information relevant to the history of the City.*

Action CHR.1.1.1 *Establish a permanent museum or cultural center that may be used to display artifacts, documents, and public art relevant to the City's history and cultural diversity.*

Action CHR.1.1.2 *Locate an interim facility to store and exhibit historical artifacts in a central location.*

Action CHR.1.1.3 *Pursue the establishment of a cultural center in which to display artifacts, documents, and public art relevant to the City's history and cultural diversity.*

Action CHR.1.1.4 *Establish a display case at City Hall to showcase items of historical or cultural value.*

Action CHR.1.1.5 *Create a historic resources webpage on the City website to provide a forum to identify and discuss issues related to the history of the community.*

Action CHR.1.1.6 *Compile a thorough record of the City's incorporation, including records, documents, photos, and artifacts.*

Policy CHR.1.2 *Foster the preservation and enhancement of the City's history.*

Action CHR.1.2.1 *Consider creating a heritage park for the relocation of historic buildings and structures, such as the Pfingst Realty Company Building, to facilitate their preservation and increase their educational and cultural value.*

Action CHR.1.2.2 *Improve and interpret Kilgore Cemetery. Interpreting the cemetery will include determining who is buried in the older portion of the site and increasing public awareness of the cemetery's significance.*

Policy CHR.1.3 *Promote the incorporation of monuments, plaques, signs, or artwork identifying Rancho Cordova's diverse history into development projects and on pedestrian and bicycle trails. Possible highlights include the area's agricultural, mining, Pony Express, and aerospace and aviation activities.*

Policy CHR.3.1 *Establish and promote programs that identify, maintain, and protect buildings, sites, or other features of the landscape possessing historic or cultural significance.*

Action CHR.3.1.1 *Develop and regularly update a comprehensive historic resources inventory, coordinating with other agencies as necessary. The inventory will contain a list of all historically significant properties, as well as historic archaeological and paleontological resources in the Planning Area and a map depicting their locations.*

Action CHR.3.1.2 *Working with other groups and agencies, create a repository to store and exhibit historical artifacts. Additionally, collect information on historic and cultural resources not in the City's possession.*

Action CHR.3.1.3 *Pursue recognition of all eligible historic properties by the National Register of Historic Places and California Register of Historical Resources.*

Policy CHR.3.2 *Pursue and provide financial assistance for historic preservation projects to be undertaken by the City, private or non-profit developers, and residents.*

Action CHR.3.2.1 *Actively apply for grants and other sources of funding for historic preservation. Possible sources of funding may include the Community Development Block Grant program; the California Heritage Fund Grant program, which is provided by the California Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Act of 2002; and funds available through the Certified Local Government program.*

Action CHR.3.2.2 *Provide financial incentives, such as reduced permit fees, to residents as encouragement to rehabilitate and restore historic buildings and structures.*

Action CHR.3.2.3 *Supply information on federal and state tax incentive programs for historic preservation to groups involved in the preservation of community history.*

Action CHR.3.2.4 *Participate in the Mills Act Tax Abatement Program, an economic incentive program for the restoration and preservation of qualified historic buildings by private owners. Private owners that pledge to rehabilitate and maintain the historical and architectural character of their properties for at least a ten-year period receive substantial property tax savings under the Act.*

Policy CHR.3.3 *Maintain and enhance the historic character of Rancho Cordova by establishing review procedures for the remodeling and reconstruction of buildings and other structures.*

Action CHR.3.3.1 *Establish a Historic Preservation Committee that provides input to the Planning Department regarding the protection of historic resources in Rancho Cordova.*

Action CHR.3.3.2 *Adopt a Historic Preservation Ordinance that provides guidelines for the preservation and enhancement of historic buildings and structures.*

Action CHR.3.3.3 *Require historic resources studies (i.e., archaeological and historical investigations) for all applicable discretionary projects, in accordance with CEQA regulations. The studies should identify historic or cultural resources in the project area, determine their eligibility for inclusion in the California Register of Historical Resources, and provide mitigation measures for any resources in the project area that cannot be avoided.*

Action CHR.3.3.4 *Incorporate the following two conditions in applicable permits for all discretionary projects.*

The Planning Department shall be notified immediately if any cultural resources (e.g., prehistoric or historic artifacts) or paleontological resources (e.g., fossils) are uncovered during construction. All construction must stop in vicinity of the find and an archaeologist that meets the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology or a paleontologist shall be retained to evaluate the finds and recommend appropriate action.

The Planning Department shall be notified immediately if any human remains are uncovered and all construction must stop in vicinity of the find. The Planning Division shall notify the County Coroner according to Section 7050.5 of California's Health and Safety Code. If the remains are determined to be Native American, the procedures outlined in CEQA Section 15064.5 (d) and (e) shall be followed.

Policy CHR.3.4 *Promote the integration or maintenance of historically accurate designs and features in residential and commercial structures.*

Action CHR.3.4.1 *Provide property owners and developers with design assistance, including information on the restoration and adaptive reuse of historic buildings and structures.*

Action CHR.3.4.2 *Create a program to encourage the reuse of salvaged architectural materials.*

Policy CHR.4.1 *Promote community participation in the preservation of historic resources in Rancho Cordova.*

Action CHR.4.1.1 *Recognize citizens who have made a significant contribution to documenting community history or who have demonstrated excellence in maintaining or rehabilitating a historic resource.*

Action CHR.4.1.2 *Establish education programs to inform the community about local history.*

Mitigation Measures

Implementation of the above General Plan policies and action items would assist in reducing significant impacts to known and unknown cultural resources. However, it is uncertain whether all significant cultural resources can be avoided or mitigated to a level of less-than-significant

from implementation of the General Plan. Because of this uncertainty, the General Plan's contribution to cumulative cultural resource impacts is **cumulatively considerable** and is considered a **significant and unavoidable impact**.

Paleontological Resources

Impact 4.11.4 Adoption of the Rancho Cordova General Plan along with any foreseeable development in the region could result in the potential disturbance of paleontological resources (i.e., fossils and fossil formations). This is considered a **less than cumulatively considerable** impact.

As noted in **Impact 4.11.2**, the proposed General Plan is could result in potentially significant paleontological resource impacts. However, implementation of General Plan Action Item CHR.3.3.4 and Mitigation Measure **MM 4.11.2** would ensure that potential contributions to cumulative paleontological resource impacts from the proposed General Plan is reduced to **less than cumulatively considerable**.

Mitigation Measures

None required.

REFERENCES

City of Rancho Cordova. 2006. *City of Rancho Cordova General Plan*. Rancho Cordova, CA.

County of Sacramento Planning Department. 1993. *County of Sacramento General Plan*. Sacramento, CA.

Nadolski, John. 2005. *Archaeological and Historical Investigations for the Rancho Cordova General Plan EIR*. Rancho Cordova, CA.

University of California, Berkeley. 2004. Berkeley Museum of Paleontology collections database. Berkeley, California.

4.12 – Public Services and Utilities

This section describes the public services and utilities that would serve the proposed Rancho Cordova General Plan Planning Area. Specifically, this section includes an examination of fire protection and emergency medical services, police services, water infrastructure, wastewater service, solid waste, schools, parks, and electrical, natural gas and telephone services. Each subsection includes descriptions of existing facilities, service standards, potential environmental impacts resulting from implementation of the General Plan, mitigation measure where appropriate and cumulative impacts.

4.12.1 FIRE PROTECTION AND EMERGENCY MEDICAL SERVICES

EXISTING CONDITIONS

The Sacramento Metropolitan Fire District (SMFD) provides fire protection services, fire suppression, inspection, plan checking, emergency transportation and medical services, public education, advanced life support, and rescue services to the City of Rancho Cordova as well as the unincorporated portions of the Planning Area and southern Sacramento County. SMFD encompasses approximately 417 square miles in the southern portion of Sacramento County and includes both urban and rural areas. SMFD is the largest district in the County of Sacramento and the seventh largest local fire agency in the State of California. SMFD has 42 fire stations with approximately 673 paid personnel on its staff. The District includes 39 engine companies, 5 truck companies, 12 medic transportation units, 8 historical fire apparatus, 5 crash/rescue units, and various watercraft response units.

In the Rancho Cordova General Plan Planning Area, SMFD currently has seven fire stations. **Table 4.12.1-1** displays the location of the current SMFD facilities within the Planning Area boundaries. With the recent addition of the seventh station, the SMFD expanded its personnel base within the Planning Area to approximately 108 employees, which includes 90 line personnel, 8 chief officers and 10 other support related personnel. (Sacramento Municipal Fire District, April 2005; Dobson, April 2005)

TABLE 4.12.1-1
EXISTING RANCHO CORDOVA PLANNING AREA FIRE DEPARTMENT FACILITIES AND LOCATIONS

Name of Facility	Address	Location
Station 54	8900 Frederick Avenue	Planning Area
Station 61	10595 Folsom Blvd	City
Station 62	3646 Bradshaw Road	City
Station 63	12395 Folsom Blvd	City
Station 64	9116 Vancouver Drive	Planning Area
Station 65	11201 Coloma Road	City
Station 66	3180 Kilgore Road	City

Source: Sacramento Metropolitan Fire District, April 2005.

Fire Suppression Fleet

The fire suppression fleets (those vehicles assigned to a fire station) vary from station to station depending on location and the intensity of development in the immediate vicinity. SMFD fire suppression equipment generally consists of engines, aerial platform trucks, rescue boats, grass

units, water tenders, and fully equipped Type 3 modular medical paramedic emergency response units. If a paramedic equipped engine is the first responder to an incident, the on-board paramedic provides emergency medical attention until a Type 3 modular unit arrives and assumes emergency medical service responsibilities.

Emergency Medical Service

The Emergency Medical Service (EMS) Division oversees the SMFD's emergency related services and personnel, including EMT-Paramedics. The SMFD currently deploys ten 24-hour Advanced Life Support (ALS) ambulances, a number of ALS reserve ambulances, and several ALS engine companies. The majority of the stations in the Planning Area are equipped with either an ALS engine/paramedic combination or an ALS Type 3 modular/paramedic combination unit, or both.

Funding Mechanisms

The SMFD is generally funded through property taxes and grant funding. The funding and expenditures for the District are facilitated through the District's Capital Improvement Program (CIP). Measure Q was passed in November 2000 enabling the District to provide services to the communities of Sloughhouse and Rancho Murieta. Measure Q is funded through property taxes. Within the City limits of Rancho Cordova, the SMFD is funded through a variety of sources. Property tax revenue provides the majority of the funding for fire related services. Additional funds are generated through fire impact fees (used exclusively for construction of new growth stations and associated apparatus), ambulance transport fees, and service fees, mostly from fire prevention plan checking charges (Dobson, April 2005).

Service Standards

The Insurance Services Office (ISO) rating is the recognized classification for a fire department or district's ability to defend against major fires. According to the ISO, newly developing urban areas should have a fire station opened within 1 ½ miles of all commercial development and 2 ½ miles from all residential development when "build-out" exceeds 20 percent of the planning area. A rating of 10 generally indicates no protection, whereas an ISO rating of 1 indicates high firefighting capability. The SMFD has an ISO rating of 3 in locations of their service area with established water distribution systems and hydrants, such as the urban areas of the Planning Area. In "unwatered" areas they have an ISO rating of 8 (Dobson, April 2005).

Response Time

The SMFD has established a goal for a response time of five minutes or less for 80 percent of the time in the urbanized portions of the City. The SMFD Master Plan provides policy guidance; objectives, and activities to achieve improved emergency response to the District's citizens, to utilize existing District resources more efficiently, and to improve District essential facilities. Fire and emergency services in the County of Sacramento have developed a Joint Powers Authority (JPA) for a unified dispatch system. Under the JPA, the closest unit available is dispatched to an incident and Fire District boundaries are not an issue when an incident occurs. Additionally, the Regional Fire and Rescue Training Authority is a Joint Powers Authority ("JPA") comprised of three member agencies: California Office of Emergency Services - Fire and Rescue Branch; Sacramento Metropolitan Fire District; and the Sacramento Fire Department (City of Sacramento). One of the major goals of the JPA is to develop and manage a Regional Training Facility on approximately 40 acres of property committed by the United States Air Force to the JPA as part of the re-utilization of McClellan Air Force Base due to its closure.

Structural Fires and Wildland Fires

Structural fires occur in developed area and include structural, chemical, and vehicular related fires. Structural fires can result from mechanical failures, accidental occurrences, or arson (intentional activities). The building materials used in various structures can limit or be a catalyst for the spread of structural fires. Many of the existing structures in the Planning Area may be at risk from fire related hazards.

Wildland fires can result from natural processes or human activities. The main source of wildland fire in the Planning Area occurs where natural resource and habitat areas interface with urbanized development (i.e., along the American River Parkway and northern boundary of the Planning Area). Additionally, several of the new and proposed developments in the Planning Area contain large wetland preserves with natural vegetation, which have the potential to ignite and pose safety risks to adjacent and surrounding developments. Long hot summers often result in these natural areas having flammable vegetation, which provide a substantial source of fuel and a potential for wildland fires posing risks to both structures and human health and safety.

Current Planned Fire Facilities

The Fire Station Replacement Program proposed construction of eight new fire stations around Sacramento County. In Rancho Cordova, the existing Station 54 would be replaced by a new Station 54 at Vintage Park Drive and Bradshaw Road, and the existing Station 64 would be replaced by a new Station 64 at Manlove Road and Casals Street in Glenbrook. The proposed new Station 68 in the Sunrise Boulevard/Douglas Road area of Rancho Cordova would have 16,000 square feet and space for 13 firefighters. Additionally, two conceptual sites have been identified in the Rio Del Oro Planning Area. Additional stations are planned for Arden Park, Fair Oaks, Orangevale, Rio Linda, and North Highlands. Seven or the eight stations are scheduled to be completed by the end of 2006 (Werkman 2003, Sacramento Metropolitan Fire District 2004). No timetable has been established for completion of Station 68 due to construction delay.

4.12.1.2 REGULATORY FRAMEWORK

STATE

California Occupational Safety and Health Administration

In accordance with California Code of Regulations Title 8 Sections 1270 "Fire Prevention" and 6773 "Fire Protection and Fire Equipment" the California Occupational Safety and Health Administration (Cal/OSHA) has established minimum standards for fire suppression and emergency medical services. The standards include, but are not limited to, guidelines on the handling of highly combustible materials, fire hose sizing requirements, restrictions on the use of compressed air, access roads, and the testing, maintenance and use of all fire fighting and emergency medical equipment.

City Emergency Response/Evacuation Plans

The State of California passed legislation authorizing the Office of Emergency Services (OES) to prepare a Standard Emergency Management System (SEMS) program, which sets forth measures by which a jurisdiction should handle emergency disasters. Non-compliance with SEMS could result in the State withholding disaster relief from the non-complying jurisdiction in the event of an emergency disaster.

The City of Rancho Cordova is responsible for emergency response and evacuation plans within the City limits. Because the City of Rancho Cordova incorporated in July 2003, it is not under any time constraints to prepare an emergency management plan. Until such time that it prepares an emergency management plan, the City has implemented the County of Sacramento's program.

LOCAL

Sacramento County General Plan

The existing Sacramento County General Plan was adopted in December of 1993 and is in the process of being updated. The 1993 Sacramento County General Plan fire and emergency medical service polices applicable to the unincorporated portions of the Planning Area are as follows. Policies PF-61 through PF-65 establish flow requirements, fire equipment (fire hydrants and associated water systems) installation, and emergency signal activation. Policies PF-66 though PF-69 discuss the possibility the County establishing a fire mitigation fee, and the incorporation and use of this fee.

Cordova Community Plan

Adopted by the Sacramento County Board of Supervisors on May 21, 2003, this document is an extension of the Sacramento County General Plan, but is much more specific in terms of the objectives and implementation strategies; and is intended to address issues that are most important to this community. It includes several elements (e.g., land use, circulation, and housing), that are similar to those contained in the County's General Plan and provides goals, objectives and implementation actions for the Plan area. Please note, while the Plan area covers a large portion of the General Plan Planning Area and all areas within the existing City limits, it does not cover the entire Planning Area. The Jackson, Grant Line South, East Planning Areas are not within the Cordova Community Plan. Objectives pertaining to fire protection include PS-8 providing support to SMFD in the location and restructuring of fire facilities and PS-9 promoting fire protection in new developments.

Fire Codes and Guidelines

The availability of sufficient water flows and pressure are a basic requirement of the SMFD. Fire District requirements are determined for specific development projects at the design stage and are based on the Uniform Building Code (UBC). In addition to meeting minimum fire flow requirements, all development projects within the Planning Area are required to meet other various fire protection requirements identified in the plan check and review process. The Fire District requires that fire sprinklers be installed in all new commercial construction that exceeds 3,600 square feet and some residential properties exceeding 2,999 square feet. Also, for structures exceeding 3,600 square feet, the district requires water pressure of at least 20 pounds per square inch residual pressure at 1,000 gallons per minute flow. The district also requires that all signals installed on the project site include traffic control devices (Opticom) that allow the Fire District to activate the light and therefore control the flow of traffic in order to maintain a response time of 5 minutes. Fire lanes must be installed and dedicated prior to project approval. (Dobson, April 2005)

Sacramento Metropolitan Fire District Master Plan

The SMFD Master Plan provides policy guidance, objectives, and activities in an effort to improve emergency response to the district's citizens, use existing resources more efficiently, and improve district facilities. As part of the master plan, a Fire Station Replacement Program was recommended to actively address deficiencies with existing fire stations, including age and condition issues; noncompliance with building codes, such as the ability to respond to emergencies following an earthquake; and lack of apparatus rooms of sufficient size to store present-day emergency-response equipment. In addition, the program would improve emergency response to the district's citizens while using existing SMFD resources more efficiently.

4.12.1.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The following threshold standard is based on State CEQA Guidelines (2005) Appendix G. A significant impact to fire protection and emergency services would occur if implementation of the proposed project:

1) Would result in substantial adverse physical impacts associated with the provision of new or physically altered fire related facilities or services, the construction and/or provision of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection and emergency services.

2) Expose people or structures to significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

METHODOLOGY

Evaluation of potential fire service impacts was based on consultation with SMFD staff and review of the proposed City of Rancho Cordova General Plan, Sacramento County General Plan, applicable emergency response and evacuation plans, and other relevant documents. The analysis for the proposed General Plan considered both projected Planning Area growth by year 2030 and growth under buildout conditions.

Fire Protection and Emergency Medical Services

Impact 4.12.1.1 Implementation of the General Plan would result in the need for additional fire protection and emergency medical equipment and facilities that could result in physical environmental impacts. This would be a **less than significant** impact.

Implementation of the General Plan would include development of new residential, commercial, industrial, public facilities, and recreation facilities, which would generate the need for new and physically altered fire protection and emergency medical facilities. Growth in the Planning Area Additional officers would be added and facilities developed in response to population growth and as funding allows. In order to meet established response time goals additional equipment would also be required. Implementation of the General Plan would contribute to the increased demand for these services.

The SMFD standard for a response time of five minutes or less for 80 percent of the time in the urbanized portions of the City would require the additional of new fire stations located in the western and southern portions of the Planning Area as development occurs. Exact number and location of these stations, personnel, and equipment would be dependent on how the Planning Area develops. However, three fire stations are planned east of Sunrise Boulevard near Douglas Road (one within the Sunridge Specific Plan area and two within the Rio del Oro Planning Area).

SMFD reviews all development project proposals for compliance with state and local requirements prior to approval and construction. SMFD has fire protection requirements and standards for new development projects, including hydrant spacing, fire flow, access and roadway requirements, and limitations on materials used. All residential, commercial, and industrial developments are subject to Uniform Building Code (UBC) requirements and SMFD fire codes, which would decrease the likeliness of structure related fires.

Typical environmental effects regarding the construction and operation of a fire facility may involve issues with noise (sirens), air quality (during the construction of the facility), biological resources (depending on location), cultural resources (depending on location), public utilities (demand for electric, water and wastewater service) and traffic on a local level due to the interruption of traffic light timing by fire engines. The environmental effects of construction of such facilities in the planning area been considered in the technical analyses of this EIR as part of overall development of the Planning Area.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and action items are identified in the General Plan so as to reduce impacts from fire protection and emergency medical services:

Policy ISF 2.1 *Ensure the development of public infrastructure that meet the long-term needs of residents and ensure infrastructure is available at the time such facilities are needed.*

Action ISF.2.1.1 *Except when prohibited by state law, require sufficient capacity in all public facilities to maintain desired service levels and avoid capacity shortages, traffic congestion, or other negative effects on safety and quality of life.*

Action ISF.2.1.2 *Adopt a phasing plan for the development of public facilities in a logical manner that encourages the orderly development of roadways, water and sewer, and other public facilities.*

Action ISF.2.1.3 *Withhold public financing or assistance from projects that do not comply with the planned phasing of public facilities, and approve interim facilities only in special circumstances.*

Action ISF.2.1.4 *Work with utility providers to coordinate the installation or upgrading of utilities and eliminate multiple trenching of city streets.*

Policy ISF.2.2 *Coordinate with independent public service providers, including schools, parks and recreation, utility, transit, and other service districts, in developing service and financial planning strategies.*

Action ISF.2.2.1 *Establish a Technical Review Committee for continued coordination with outside service agencies, including water and sewer providers, the Cordova*

Recreation and Park District, and the school districts, during the review of plans and development projects.

Policy ISF.2.3 *Ensure that adequate funding is available for all infrastructure and public facilities, and make certain that the cost of improvements is equitably distributed.*

Action ISF.2.3.1 *Require secure financing for all components of the transportation system through the use of special taxes, assessment districts, developer dedications, or other appropriate mechanisms. Financing should be sufficient to complete required major public facilities at their full planned capacities in a single phase. Major facilities include roadways of collector size or larger; all wells, water transmission lines, treatment facilities, and storage tanks needed to serve the project; and all sewer trunk and interceptor lines and treatment plants or treatment plant capacity.*

Action ISF.2.3.2 *Require new development to fund its fair share portion of its impacts to all public infrastructure and facilities.*

Action ISF.2.3.3 *Include sufficient funding in fee programs and/or other finance mechanisms to cover the costs of each of the following roadway items:*

- *Design, engineering, environmental compliance, and construction of roadway lanes, traffic signals, and bridges.*
- *Right of way acquisition, design, engineering, environmental compliance, and construction costs.*
- *Drainage and other facilities related to new roadway construction.*
- *Installation of landscaped medians, sidewalks, and streetscaping where appropriate.*

Policy ISF.2.4 *Ensure that water supply and delivery systems are available in time to meet the demand created by new development, or are guaranteed to be built by bonds or sureties.*

Policy ISF.2.5 *Ensure that water flow and pressure are provided at sufficient levels to meet domestic, commercial, industrial, and firefighting needs.*

Policy S.9.1 *Cooperate with the Sacramento Metropolitan Fire Department (SMFD) to reduce fire hazards, assist in fire suppression, and ensure efficient emergency medical response.*

Action S.9.1.1 *Continue to review new development for adequate water supply and pressure, fire hydrants, and access to structures by fire fighting equipment and personnel.*

Action S.9.1.2 *Continue to review projects for compliance with the Fire Code as part of the building permit process.*

Action S.9.1.3 *Work with SMFD to develop high visibility fire prevention programs, including those that provide voluntary home inspections and awareness of home fire prevention measures.*

Action S.9.1.4 *Require on-site fire suppression systems for all new commercial and industrial development, as well as multi-family residential development with five or more units, to reduce the dependence on fire department equipment and personnel.*

Action S.9.1.5 *Continue to maintain, periodically update, and test the effectiveness of its Emergency Response Plan.*

Action S.9.1.6 *Require the installation of earthquake-triggered automatic gas shut-off sensors in high-occupancy facilities and in industrial and commercial structures.*

Action 9.1.7 *Continue to enforce all existing codes and ordinances regarding fire protection, including building inspection and vegetation management.*

Action 9.1.8 *Coordinate the design and installation of traffic control and calming measures to minimize impacts on emergency vehicle responses.*

Policy S.9.2 *Provide infill development with adequate off-site improvements to meet on-site fire flow requirements.*

Policy S.9.3 *Consider establishing mitigation fees to fund adequate fire protection and emergency medical response facilities, if such fees are critical and necessary to meet the facility funding needs of SMFD and existing methods of financing are inadequate.*

Implementation of Policy ISF 2.5 would require that sufficient and adequate water flows and pressure are maintained to meet all domestic, commercial and industrial firefighting and protection requirements. General Plan Policy ISF 2.1 requires the City to ensure sufficient capacity in fire protection and emergency medical services and that the facilities are available on time to maintain the desired service levels, avoid capacity shortages, and to protect the citizens quality of life and safety. Policy ISF 2.3 requires that fire and emergency medical facilities be phased in a logical manner with other public facilities and Policy ISF 2.5 requires that new development fund its fair share portion of its impacts to all fire related services and facilities.

Policy S 9.1 requires coordination between the City of Rancho Cordova and the SMFD to reduce fire related hazards, assist in fire suppression, and ensure efficient emergency medical response to all Rancho Cordova citizens.

Additionally, Policy S 9.2 would provide that adequate off-site improvements are in place to meet on-site fire flow requirements for the proposed infill and redevelopment activities associated with the General Plan. Policy SA 9.3 addresses funding for fire protection/emergency services and allows the City Council to establish mitigation fees for the purpose of funding adequate fire protection and emergency medical response facilities, provided they find that such fees are critical and necessary to meet the facility funding needs of the fire district and that existing methods of financing are inadequate.

Policies and actions in the proposed General Plan provides for future fire protection in the Planning Area and complements the existing SMFD and Sacramento County standards and

guidelines. Compliance with SMFD standards and regulations and implementation of the General Plan policies and associated action items identified above would reduce the General Plan's fire protection and emergency medical service impacts to **less than significant**.

Mitigation Measures

None required.

Wildland Fire

Impact 4.112.1.2 Implementation of the proposed General Plan could result in safety hazards associated with wildland fires in residential areas adjacent to open space and natural areas. This is considered a **less than significant** impact.

As described previously, the Rancho Cordova Planning Area contains portions of the American River Parkway, wetland, and natural areas that support a variety of trees, shrubs, and native grasses. These vegetation types provide a substantial source of fuel and a potential to ignite and pose safety risks to adjacent and surrounding developments. Construction of residential units in these areas has the potential to expose people or structures to significant risk of loss, injury, or death involving wildland fires.

General Plan Policies and Action Items

Policy S.9.1 *Cooperate with the Sacramento Metropolitan Fire Department (SMFD) to reduce fire hazards, assist in fire suppression, and ensure efficient emergency medical response.*

Action S.9.1.1 *Continue to review new development for adequate water supply and pressure, fire hydrants, and access to structures by fire fighting equipment and personnel.*

Action S.9.1.2 *Continue to review projects for compliance with the Fire Code as part of the building permit process.*

Action S.9.1.3 *Work with SMFD to develop high visibility fire prevention programs, including those that provide voluntary home inspections and awareness of home fire prevention measures.*

Action S.9.1.4 *Require on-site fire suppression systems for all new commercial and industrial development, as well as multi-family residential development with five or more units, to reduce the dependence on fire department equipment and personnel.*

Action S.9.1.5 *Continue to maintain, periodically update, and test the effectiveness of its Emergency Response Plan.*

Action S.9.1.6 *Require the installation of earthquake-triggered automatic gas shut-off sensors in high-occupancy facilities and in industrial and commercial structures.*

Action 9.1.7 *Continue to enforce all existing codes and ordinances regarding fire protection, including building inspection and vegetation management.*

Action 9.1.8 *Coordinate the design and installation of traffic control and calming measures to minimize impacts on emergency vehicle responses.*

Policy S.9.2 *Provide infill development with adequate off-site improvements to meet on-site fire flow requirements.*

Policy S.9.3 *Consider establishing mitigation fees to fund adequate fire protection and emergency medical response facilities, if such fees are critical and necessary to meet the facility funding needs of SMFD and existing methods of financing are inadequate.*

Implementation of the General Plan policies and associated action items SA.1.37 and SA.1.37.1 through SA.1.37.7 would require new development to be reviewed by SMFD and install the fire safety infrastructure deemed essential by SMFD for the protection of persons and structures in areas of potential wildfires. Policy SA.1.39 would assist in the development of fire facilities and emergency medical response facilities to protect persons and structures in the Planning Area. These policies would ensure minimal impacts to residential areas within the Planning Area due to wildland fires and safety hazards would be considered **less than significant.**

Mitigation Measures

None required.

4.12.1.4 CUMULATIVE SETTING, IMPACTS AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative setting for fire protection and emergency medical services includes the service area boundaries of the SMFD, which encompasses the entire General Plan Planning Area as well as Sacramento County. Future development proposed within the district boundaries (based on Sacramento County, and the cities of Folsom, Elk Groove, Citrus Heights, Galt, Lodi, and Sacramento General Plans land use projections), would further increase the demand for fire protection, emergency medical services, and related facilities requiring the necessity of new fire stations which could result in environmental impacts. Reader is referred to Section 4.0 for a list and locations of proposed and approved projects in the vicinity of the Planning Area.

Cumulative Fire Protection and Emergency Medical Services

Impact 4.12.1.2 Implementation of the General Plan in combination with other reasonably foreseeable development (based on Sacramento County, and the cities of Folsom, Elk Groove, Citrus Heights, Galt, Lodi, and Sacramento General Plans land use projections), would increase the population within the SMFD service area, requiring additional fire and emergency medical services and related facilities. The City's contribution to the need for expanded fire protection services is considered **less than cumulatively considerable**.

Implementation of the General Plan would require additional fire related services, equipment, and facilities to adequately serve the projected development within the Planning Area and SMFD's service area boundaries. Funding from property taxes, developer fees, impact fees and other alternative sources of funding would provide sufficient resources to serve the projected needs of the fire district under projected buildout conditions within SMFD's service area boundaries (Dobson, 2005). Subsequently, future development proposed in association with the

General Plan would increase revenues for the SMFD and provide funding to accommodate the additional growth. Individual development projects would be subject to SMFD review and approval for consistency with the SMFD Fire Station Master Plan, as well as CEQA review on a project-by-project basis, ensuring that impacts would be less than cumulatively considerable.

On a cumulative basis, future development of residential units in natural areas that support a variety of trees, shrubs, and native grasses have the potential to provide a substantial source of fuel and a potential to ignite and pose safety risks to adjacent and surrounding developments. Development in these areas has the potential to expose people or structures to significant risk of loss, injury, or death involving wildland fires.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and action items are identified in the General Plan so as to reduce impacts from fire protection and emergency medical services:

Policy ISF 2.1 *Ensure the development of public infrastructure that meet the long-term needs of residents and ensure infrastructure is available at the time such facilities are needed.*

Action ISF.2.1.1 *Except when prohibited by state law, require sufficient capacity in all public facilities to maintain desired service levels and avoid capacity shortages, traffic congestion, or other negative effects on safety and quality of life.*

Action ISF.2.1.2 *Adopt a phasing plan for the development of public facilities in a logical manner that encourages the orderly development of roadways, water and sewer, and other public facilities.*

Action ISF.2.1.3 *Withhold public financing or assistance from projects that do not comply with the planned phasing of public facilities, and approve interim facilities only in special circumstances.*

Action ISF.2.1.4 *Work with utility providers to coordinate the installation or upgrading of utilities and eliminate multiple trenching of city streets.*

Policy ISF.2.2 *Coordinate with independent public service providers, including schools, parks and recreation, utility, transit, and other service districts, in developing service and financial planning strategies.*

Action ISF.2.2.1 *Establish a Technical Review Committee for continued coordination with outside service agencies, including water and sewer providers, the Cordova Recreation and Park District, and the school districts, during the review of plans and development projects.*

Policy ISF.2.3 *Ensure that adequate funding is available for all infrastructure and public facilities, and make certain that the cost of improvements is equitably distributed.*

Action ISF.2.3.1 *Require secure financing for all components of the transportation system through the use of special taxes, assessment districts, developer dedications, or other appropriate mechanisms. Financing should be sufficient to complete required major public facilities at their full planned capacities in a single*

phase. Major facilities include roadways of collector size or larger; all wells, water transmission lines, treatment facilities, and storage tanks needed to serve the project; and all sewer trunk and interceptor lines and treatment plants or treatment plant capacity.

Action ISF.2.3.2 *Require new development to fund its fair share portion of its impacts to all public infrastructure and facilities.*

Action ISF.2.3.3 *Include sufficient funding in fee programs and/or other finance mechanisms to cover the costs of each of the following roadway items:*

- *Design, engineering, environmental compliance, and construction of roadway lanes, traffic signals, and bridges.*
- *Right of way acquisition, design, engineering, environmental compliance, and construction costs.*
- *Drainage and other facilities related to new roadway construction.*
- *Installation of landscaped medians, sidewalks, and streetscaping where appropriate.*

Policy ISF.2.4 *Ensure that water supply and delivery systems are available in time to meet the demand created by new development, or are guaranteed to be built by bonds or sureties.*

Policy ISF.2.5 *Ensure that water flow and pressure are provided at sufficient levels to meet domestic, commercial, industrial, and firefighting needs.*

Policy S.9.1 *Cooperate with the Sacramento Metropolitan Fire Department (SMFD) to reduce fire hazards, assist in fire suppression, and ensure efficient emergency medical response.*

Action S.9.1.1 *Continue to review new development for adequate water supply and pressure, fire hydrants, and access to structures by fire fighting equipment and personnel.*

Action S.9.1.2 *Continue to review projects for compliance with the Fire Code as part of the building permit process.*

Action S.9.1.3 *Work with SMFD to develop high visibility fire prevention programs, including those that provide voluntary home inspections and awareness of home fire prevention measures.*

Action S.9.1.4 *Require on-site fire suppression systems for all new commercial and industrial development, as well as multi-family residential development with five or more units, to reduce the dependence on fire department equipment and personnel.*

Action S.9.1.5 *Continue to maintain, periodically update, and test the effectiveness of its Emergency Response Plan.*

Action S.9.1.6 *Require the installation of earthquake-triggered automatic gas shut-off sensors in high-occupancy facilities and in industrial and commercial structures.*

Action 9.1.7 *Continue to enforce all existing codes and ordinances regarding fire protection, including building inspection and vegetation management.*

Action 9.1.8 *Coordinate the design and installation of traffic control and calming measures to minimize impacts on emergency vehicle responses.*

Policy S.9.2 *Provide infill development with adequate off-site improvements to meet on-site fire flow requirements.*

Policy S.9.3 *Consider establishing mitigation fees to fund adequate fire protection and emergency medical response facilities, if such fees are critical and necessary to meet the facility funding needs of SMFD and existing methods of financing are inadequate.*

Implementation of Infrastructure, Services, and Finance Element Policies ISF 2.1, ISF 2.3, ISF 2.5, ISF 3.5 and Safety Element Policies SA 1.37, SA 1.38, and SA 1.39 would reduce the General Plan's contribution to cumulative impacts on fire protection and emergency medical service related impacts to **less than cumulatively considerable**.

Mitigation Measures

None required.

4.12.2 LAW ENFORCEMENT

EXISTING CONDITIONS

City of Rancho Cordova Police Department

The City of Rancho Cordova Police Department (RCPD) is contracted through the Sacramento County Sheriff's Debarment (SCSD) Patrol Services. Patrol Services operate the SCSD towing and parking enforcement, community resources and service centers, emergency operations, and specialized patrol units. Upon incorporation, the City adopted an agreement agreeing that all law enforcement for the City of Rancho Cordova shall be provided by the SCSD and shall include the enforcement of State statutes and City codes and ordinances. The contracted services include patrol, traffic enforcement, investigations, and administrative services. As part of the City's contract with SCSD, the City pays for 100 percent of salaries for 55 sworn and 7 non-sworn staff that work solely in the City and 60 percent of 21 sworn and 8 non-sworn personnel that work not only in the City but also in eastern Sacramento County as well. The Police Station is located at 10361 Rockingham Way in the City of Rancho Cordova.

Service Standards

The City's Police Department utilizes several "in-house" targets for planning purposes, including the goal of providing one officer per every 1,000 citizens and one support staff member for every three officers – a standard that was adopted from the Sacramento County Sheriff's Department. Likewise, the Police Department's goal is to maintain an average response time for Priority One calls for service of five minutes or less. A Priority One call is a violent crime against a person or emergencies requiring an immediate response in order to preserve a life. Daily assessments are conducted on a call-by-call basis with the goal of improving the Department's response times.

Funding Sources

The SCSD and the Rancho Cordova Police Department are funded through Sacramento County tax revenues, including Rancho Cordova tax revenues and special federal and local grants. The SCSD is aggressive in identifying alternative funding sources for current and future problem-solving efforts, at both federal and local levels. Additional funding sources include, but are not limited to, several grants from the Office of Community Oriented Policing Services in Washington, D.C. and the California Office of Traffic Safety. The agreement between the City and the SCSD is funded through the City's General Fund.

Sacramento County Sheriff's Department

The Sacramento County Sheriff's Department provides law enforcement to unincorporated portions of the County and the contract cities of Citrus Heights, Elk Grove (currently, the City of Elk Grove is implementing plans for a city police department), and Rancho Cordova, serving a population of approximately 616,600 people. Patrol Services operate the SCSD towing and parking enforcement, community resources and service centers, emergency operations, and specialized patrol units. The SCSD has personnel totaling 2,332 people, consisting of 1,789 officers and 543 non-sworn members. The SCSD also has a reserve force of 168 officers and roughly 621 volunteer forces.

The Planning Area falls within the jurisdiction of the South Patrol Division, which is divided into four separate zones. The South Patrol Division has a total of 148 personnel, whose primary functions

are patrolling the South Division's Zones. The South Division includes a Captain, 7 lieutenants, 17 sergeants, 117 deputies and 6 civilians. The South Patrol Division's station is located at 9250 Bond Road in the City of Elk Grove. The patrol function is staffed 24 hours each day and is broken up into five different ten-hour shifts. Responsibility of the South Patrol Division extends to the unincorporated area bounded by the American River and the Sacramento City limits to the north, Contra Costa and San Joaquin counties to the south, El Dorado and Amador counties to the east, and the Sacramento River to the west (Rodrigues, 2006). For planning purposes, the SCSD uses a staffing ratio of one patrol officer to every one thousand residents in the unincorporated portions of the county and contract cities. This standard represents an acceptable national standard often used by other law enforcement agencies (Kelly, 2003).

California Highway Patrol

The California Highway Patrol (CHP) provides traffic regulation enforcement, emergency management, and assistance on State roadways and other major roadways in unincorporated portions of the southern Sacramento Valley area. The CHP is responsible for providing patrols on all interstates and state highways within California. The nearest CHP office is the Sacramento Communications Center (214), located in the Planning Area at 3165 Gold Valley Drive in Rancho Cordova. The office is a joint facility shared with Caltrans. This office dispatches all the patrols for Sacramento and Yolo Counties, approximately 75 percent of El Dorado, Nevada, and Placer Counties dispatches, 25 percent of Sierra County dispatches, and approximately 10 percent of the patrols for Yuba County. The Communications Center is primarily staffed by non-uniformed personnel but provides a wide-range of administrative and patrol services including, but not limited to: call box responses; stolen vehicle reports; cellular 911 calls; unit dispatches; and monitoring of the state-wide CHP General Information Hotline. Within the Planning Area, the CHP has jurisdiction over interstates and state highways, including US-50, State Route 99, and SR-16.

4.12.2.2 REGULATORY FRAMEWORK

STATE

Emergency Response/Evacuation Plans

The State of California passed legislation authorizing the Office of Emergency Services (OES) to prepare a Standard Emergency Management System (SEMS) program, which sets forth measures by which a jurisdiction should handle emergency disasters. Non-compliance with SEMS could result in the State withholding disaster relief from the non-complying jurisdiction in the event of an emergency disaster. The City of Rancho Cordova is responsible for emergency response and evacuation plans within the City limits. Because the City of Rancho Cordova incorporated in July 2003, it is not under any time constraints to prepare an emergency management plan. Until such time that it prepares an emergency management plan, the City has implemented the County of Sacramento's program.

LOCAL

Sacramento County General Plan

The existing Sacramento County General Plan was adopted in December of 1993 and is undergoing an update. The 1993 Sacramento County General Plan Public Facilities Element contains law enforcement related policies applicable to the unincorporated portions of the Planning Area. These policies (PF-57, PF-58 and PF-59) include language pertaining to the development of law enforcement programs to reduce and control crime, the planning of future law enforcement facilities concurrently with growth, and crime prevention education.

Cordova Community Plan

Adopted by the Sacramento County Board of Supervisors on May 21, 2003, this document is an extension of the Sacramento County General Plan, but is much more specific in terms of the objectives and implementation strategies; and is intended to address issues that are most important to this community. It includes several elements (e.g., land use, circulation, and housing), that are similar to those contained in the County's General Plan and provides goals, objectives and implementation actions for the Plan area. Please note, while the Plan area covers a large portion of the General Plan Planning Area and all areas within the existing City limits, it does not cover the entire Planning Area. The Jackson, Grant Line South, East Planning Areas are not within the Cordova Community Plan. Objectives include the encouragement of neighborhood policing (PS-12), community communication with the Sheriff (PS-13), and SCSD coordination with regional Transit and local school districts (PS-11 and PS-14).

4.12.2.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The following standards are based on State CEQA Guidelines (2005) Appendix G. A significant impact to police protection would occur if implementation of the proposed project:

1) Would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services.

METHODOLOGY

Evaluation of potential law enforcement impacts was based on consultation with the staff from the Sacramento County Sheriff's Department, including the City of Rancho Cordova Police Department, as well as review of the Sacramento County General Plan and other relevant literature such as the Agreement for Law Enforcement Services Between the County of Sacramento and the City of Rancho Cordova. The following evaluation focuses on the General Plan's specific police protection and law enforcement related impacts and whether these impacts would have a significant effect on the physical environment. The impact analysis considers 2030 conditions as well as buildout of the entire planning area.

Law Enforcement Services and Facilities

Impact 4.12.2.1 Implementation of the General Plan would increase the Planning Area population and would result in additional commercial, industrial and recreational uses in the Planning Area uses, which may result in additional law enforcement protection facilities that could result in physical environmental impacts. This would be a **less than significant** impact.

Implementation of the General Plan would include new residential, commercial, industrial, and recreation development, which would contribute to an increased demand for law enforcement and related services. The potential buildout of the entire Planning Area could result in a permanent population of 310,568 under buildout conditions. Based on the SCSD standard of one officer per 1,000 residents, an estimated total of 311 officers (190 new officers under buildout conditions) and equipment (i.e., patrol cars, radios, etc) would be required to maintain

adequate service levels. Additionally, The growth in the Planning Area may result in the need for a new police station and "service center" style police facilities. A stationhouse facility is typically approximately 20,000 square feet in size with a minimum of 125 parking spaces. A service center style facility is generally a minimum of 5,000 square feet, staffed by one or two officers/sheriffs and support staff, and located within a strip mall or similar site. The number and location for these facilities would be determined at a future date based on the development of the City.

Typical environmental effects regarding the construction and operation of a sheriff's facility may involve issues with noise (sirens), air quality (during the construction of the facility), biological resources (depending on location), cultural resources (depending on location), and public utilities (demand for electric, water and wastewater service). The environmental effects of construction of such facilities in the planning area been considered in the technical analyses of this EIR as part of overall development of the planning area.

General Plan Planning Area – Areas Outside of Existing City Boundaries

Current population within the Planning Area outside of the existing City limits is estimated to be 48,033 persons. Under buildout conditions the projected population this area is 108,069 persons or an increase of 60,036. Based on the SCSD officer per population ratio, an estimated 60 new officers would be needed to serve the increase in population.

General Plan Planning Area – Areas within Existing City Boundaries

With an estimated current City population of 55,109 (DOF, 2005), the City is expected to increase by 237 percent or 130,418 persons under buildout conditions. This increase would result in the need for 130 new sheriff officers to comply with the SCSD officer/population ratio.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies are contained in the General Plan Infrastructure, Services, and Finance Element and the Safety Element, to ensure that proposed land uses associated with the General Plan do not adversely affect law enforcement services or the safety of the citizens of Rancho Cordova:

Policy ISF 2.1 *Ensure the development of public infrastructure that meet the long-term needs of residents and ensure infrastructure is available at the time such facilities are needed.*

Action ISF.2.1.1 *Except when prohibited by state law, require sufficient capacity in all public facilities to maintain desired service levels and avoid capacity shortages, traffic congestion, or other negative effects on safety and quality of life.*

Action ISF.2.1.2 *Adopt a phasing plan for the development of public facilities in a logical manner that encourages the orderly development of roadways, water and sewer, and other public facilities.*

Action ISF.2.1.3 *Withhold public financing or assistance from projects that do not comply with the planned phasing of public facilities, and approve interim facilities only in special circumstances.*

Action ISF.2.1.4 *Work with utility providers to coordinate the installation or upgrading of utilities and eliminate multiple trenching of city streets.*

Policy ISF.2.3 *Ensure that adequate funding is available for all infrastructure and public facilities, and make certain that the cost of improvements is equitably distributed.*

Action ISF.2.3.1 *Require secure financing for all components of the transportation system through the use of special taxes, assessment districts, developer dedications, or other appropriate mechanisms. Financing should be sufficient to complete required major public facilities at their full planned capacities in a single phase. Major facilities include roadways of collector size or larger; all wells, water transmission lines, treatment facilities, and storage tanks needed to serve the project; and all sewer trunk and interceptor lines and treatment plants or treatment plant capacity.*

Action ISF.2.3.2 *Require new development to fund its fair share portion of its impacts to all public infrastructure and facilities.*

Action ISF.2.3.3 *Include sufficient funding in fee programs and/or other finance mechanisms to cover the costs of each of the following roadway items:*

- *Design, engineering, environmental compliance, and construction of roadway lanes, traffic signals, and bridges.*
- *Right of way acquisition, design, engineering, environmental compliance, and construction costs.*
- *Drainage and other facilities related to new roadway construction.*
- *Installation of landscaped medians, sidewalks, and streetscaping where appropriate.*

Policy ISF.2.4 *Ensure that water supply and delivery systems are available in time to meet the demand created by new development, or are guaranteed to be built by bonds or sureties.*

Policy ISF.2.5 *Ensure that water flow and pressure are provided at sufficient levels to meet domestic, commercial, industrial, and firefighting needs.*

Policy S.7.1 *Encourage the use of Crime Prevention Through Environmental Design (CPTED) principles in the design of projects and buildings.*

Action S.7.1.1 *Adopt and periodically update development standards and design guidelines consistent with current Crime Prevention through Environmental Design (CPTED). Specifically, incorporate provisions to address the following:*

- *Natural Surveillance. Intended to keep intruders easily observable, natural surveillance provisions maximize visibility of people, parking areas, and building entrances (e.g., doors and windows that look out on to streets and parking areas, pedestrian-friendly sidewalks and streets, front porches, adequate nighttime lighting).*
- *Territorial Reinforcement. Physical design can create or extend a sphere of influence. Users then develop a sense of territorial control while*

potential offenders, perceiving this control, are discouraged. This design concept is implemented by features that define property lines and distinguish private spaces from public spaces using landscape plantings, pavement designs, gateway treatments, and fences.

- *Natural Access Control. A design concept directed primarily at decreasing crime opportunity by denying access to crime targets and creating a perception of risk for offenders. This design concept is achieved by designing streets, sidewalks, building entrances, and neighborhood gateways to clearly indicate public routes, and also by discouraging access to private areas with structural elements.*

- *Target Hardening. This is accomplished by adding features that prohibit entry or access, including window locks, dead bolts for doors, and interior door hinges.*

Action S.7.1.2 *Adopt and implement a City of Rancho Cordova Uniform Security Code to ensure all structures meet applicable security standards.*

Policy S.8.1 *Monitor and review the level of police staffing provided in the City, and ensure that sufficient staffing and resources are available to serve local needs.*

Action S.8.1.1 *Complete a review of police services in the City on an annual basis and provide funding for additional services as needed and in conjunction with increased development.*

Policy S.8.2 *Develop law enforcement programs through community partnerships, which reduce, as well as prevent, crime.*

Policy S.8.3 *Plan and develop law enforcement facilities according to overall need and the distribution of growth within the City.*

Policy S.8.4 *Use education and crime prevention as integral parts of the practice of law enforcement.*

Safety Element policies S 7.1, S 8.1, and S 8.3 requires the City to regularly monitor and review the level of police staffing to ensure sufficient staffing and resources are available to serve the anticipated needs, that the design of neighborhoods and buildings prevents crime and provides security and encourage the use of Crime Prevention Through Environmental Design (CPTED) principles in the design of development projects and buildings. Additionally, Safety Element policies S 8.2, S 8.3, and S 8.4 require that the City plan and develop law enforcement programs with a perspective toward reducing as well as controlling crime, keep with the overall needs and the distribution of growth, and use education and crime prevention as integral parts of the practice of law enforcement.

Although future development projects would increase demand for law enforcement services, they would also provide additional funding for services associated with growth. Implementation of Infrastructure, Services, and Finance Element policy ISF 2.1 would ensure that sufficient capacity for law enforcement services and facilities will be available in a timely manner to maintain desired service levels and avoid capacity shortages and that the City coordinates with the SCSD and the RDPD during the review of plans and development projects. Additional

Infrastructure, Services, and Finance Element policies (ISF 2.1, ISF 2.3, and ISF 2.5) would ensure facilities are phased in a logical manner, that all new development pay its fair share portion of impacts to law enforcement related services, and that the City will coordinate with the SCSD and the RCPD in developing financial and service planning strategies to ensure adequate funding sources. In addition, development in the City is subject to City Ordinance 13-2003 that levies a special tax on taxable parcels associated with new development that is used for law enforcement service provision.

Therefore, implementation of the General Plan would result in law enforcement related impacts that are considered **less than significant.**

Mitigation Measures

None required.

Design-Related Safety Concerns

Impact 4.12.2.2 The neighborhood design, home design, street design, and other features associated with implementation of the General Plan could reduce the ability of the City of Rancho Cordova Police Department to enforce the law and respond to crime and other emergencies in the project area. This is a **less than significant** impact.

The RCPD has established guidelines to enhance law enforcement and emergency response. These guidelines include the use of design measures to increase the opportunity for residents and occupants of buildings to see into areas deemed as potential sites for crime, such as secluded walkways and parks. While the RCPD understands the usefulness of pedestrian walkways and bikeways, they also recognize the potential for crime in these areas. Therefore, they have also set guidelines for the design of these pedestrian use areas. Street design is also a concern. An improperly designed street can adversely affect the ability of police officers to see clearly into neighborhoods as well as affect safety for pedestrians – especially children and handicapped residents. (Rodrigues, April 2005). In order to prevent intruders from seeking dark areas, parking lots and building entrances should have adequate nighttime lighting. Doors, windows, and porches that look out on the street prevent unwanted entry by intruders. Public spaces must be clearly marked in order to discourage unwanted entry onto private spaces. Structural elements such as landscape plantings, pavement designs, and gateway treatments can be used to reinforce territorial control.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies are identified in the General Plan so as to reduce impacts from design-related safety concerns:

Policy S.7.1 *Encourage the use of Crime Prevention Through Environmental Design (CPTED) principles in the design of projects and buildings.*

Action S.7.1.1 *Adopt and periodically update development standards and design guidelines consistent with current Crime Prevention through Environmental Design (CPTED). Specifically, incorporate provisions to address the following:*

- *Natural Surveillance. Intended to keep intruders easily observable, natural surveillance provisions maximize visibility of people, parking areas, and*

building entrances (e.g., doors and windows that look out on to streets and parking areas, pedestrian-friendly sidewalks and streets, front porches, adequate nighttime lighting).

- *Territorial Reinforcement. Physical design can create or extend a sphere of influence. Users then develop a sense of territorial control while potential offenders, perceiving this control, are discouraged. This design concept is implemented by features that define property lines and distinguish private spaces from public spaces using landscape plantings, pavement designs, gateway treatments, and fences.*

- *Natural Access Control. A design concept directed primarily at decreasing crime opportunity by denying access to crime targets and creating a perception of risk for offenders. This design concept is achieved by designing streets, sidewalks, building entrances, and neighborhood gateways to clearly indicate public routes, and also by discouraging access to private areas with structural elements.*

- *Target Hardening. This is accomplished by adding features that prohibit entry or access, including window locks, dead bolts for doors, and interior door hinges.*

Action S.7.1.2 *Adopt and implement a City of Rancho Cordova Uniform Security Code to ensure all structures meet applicable security standards.*

Policy S.8.1 *Monitor and review the level of police staffing provided in the City, and ensure that sufficient staffing and resources are available to serve local needs.*

Action S.8.1.1 *Complete a review of police services in the City on an annual basis and provide funding for additional services as needed and in conjunction with increased development.*

Policy S.8.2 *Develop law enforcement programs through community partnerships, which reduce, as well as prevent, crime.*

Policy S.8.3 *Plan and develop law enforcement facilities according to overall need and the distribution of growth within the City.*

Policy S.8.4 *Use education and crime prevention as integral parts of the practice of law enforcement.*

Policy ISF.2.2 *Coordinate with independent public service providers, including schools, parks and recreation, utility, transit, and other service districts, in developing service and financial planning strategies.*

Action ISF.2.2.1 *Establish a Technical Review Committee for continued coordination with outside service agencies, including water and sewer providers, the Cordova Recreation and Park District, and the school districts, during the review of plans and development projects.*

Implementation of Policy ISF 2.2 requires the City coordinate with the SCSD and the RCPD during the review of plans and development projects. Additionally, Safety Element policy S 7.1 ensures that neighborhoods and buildings are designed in a manner that prevents crime, and encourage the use of Crime Prevention Through Environmental Design (CPTED) principles in the design of development projects and buildings. Further, policies S 8.1, S 8.2, S 8.3, and 8.4 require the City to plan and develop law enforcement programs with a perspective toward reducing and controlling crime, plan and develop law enforcement facilities in keeping with overall needs and the distribution of growth, and use education and crime prevention programs as integral part of law enforcement in the City of Rancho Cordova. Therefore, with implementation of the General Plan Safety Element and other General Plan policies design-related safety impacts resulting from the General Plan are **less than significant.**

Mitigation Measures

None required.

4.12.2.4 CUMULATIVE SETTING, IMPACTS AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative setting for law enforcement is the Sacramento County Sheriff's service area, which includes the City of Rancho Cordova and the unincorporated portions of Sacramento County. The development associated with the Rancho Cordova General Plan and growth in the Sacramento County service area (based on land use projections identified in the Sacramento County General Plan) would result in population increases contributing to incremental cumulative increase in demand for law enforcement resulting in additional environmental impacts associated with the development of new facilities. The reader is referred to Section 4.0 for a list and locations of proposed and approved projects in the vicinity of the Planning Area.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Impact 4.12.2.3 Implementation of the General Plan and other reasonably foreseeable development in southeastern Sacramento County (based on Sacramento County land use projections) would increase the population within the Planning Area and surrounding area and would require additional law enforcement services and related facilities under cumulative conditions. This is a **less than cumulatively considerable** impact.

Implementation of the General Plan and other development in the County would require additional law enforcement personnel services and equipment to adequately serve the projected development within the Planning Area boundaries and the SCSD service area. Both SCSD and the Rancho Cordova Police Department receive funding from property tax, building impact fees, facility impact fees and bonds, which are supplied through the general fund. As such, cumulative development would provide additional funding sources for the provision of law enforcement services. SACOG Blueprint projections estimate a 2050 population of 2.3 million in Sacramento County or 1.35 million for areas within the SCSD jurisdiction. A population of this size would result in a demand for 1,350 sheriff officers (based on 1 officer per 1,000 persons). Individual development projects would be subject to discretionary review and approval by local law enforcement and the Rancho Cordova City Council to ensure that adequate access, visibility, and security is provided. Additionally, the General Plan policies and action items identified under Impact 4.12.2.1 and Impact 4.12.2.2 would provide for funding commensurate

with development, implementation of educational programs, and that new projects are designed to reduce crime occurrences; therefore, the General Plan's contribution to cumulative impacts on law enforcement are less than cumulatively considerable.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies are identified in the General Plan so as to reduce impacts from design-related safety concerns:

Policy S.7.1 *Encourage the use of Crime Prevention Through Environmental Design (CPTED) principles in the design of projects and buildings.*

Action S.7.1.1 *Adopt and periodically update development standards and design guidelines consistent with current Crime Prevention through Environmental Design (CPTED). Specifically, incorporate provisions to address the following:*

- *Natural Surveillance. Intended to keep intruders easily observable, natural surveillance provisions maximize visibility of people, parking areas, and building entrances (e.g., doors and windows that look out on to streets and parking areas, pedestrian-friendly sidewalks and streets, front porches, adequate nighttime lighting).*
- *Territorial Reinforcement. Physical design can create or extend a sphere of influence. Users then develop a sense of territorial control while potential offenders, perceiving this control, are discouraged. This design concept is implemented by features that define property lines and distinguish private spaces from public spaces using landscape plantings, pavement designs, gateway treatments, and fences.*
- *Natural Access Control. A design concept directed primarily at decreasing crime opportunity by denying access to crime targets and creating a perception of risk for offenders. This design concept is achieved by designing streets, sidewalks, building entrances, and neighborhood gateways to clearly indicate public routes, and also by discouraging access to private areas with structural elements.*
- *Target Hardening. This is accomplished by adding features that prohibit entry or access, including window locks, dead bolts for doors, and interior door hinges.*

Action S.7.1.2 *Adopt and implement a City of Rancho Cordova Uniform Security Code to ensure all structures meet applicable security standards.*

Policy S.8.1 *Monitor and review the level of police staffing provided in the City, and ensure that sufficient staffing and resources are available to serve local needs.*

Action S.8.1.1 *Complete a review of police services in the City on an annual basis and provide funding for additional services as needed and in conjunction with increased development.*

Policy S.8.2 *Develop law enforcement programs through community partnerships, which reduce, as well as prevent, crime.*

Policy S.8.3 *Plan and develop law enforcement facilities according to overall need and the distribution of growth within the City.*

Policy S.8.4 *Use education and crime prevention as integral parts of the practice of law enforcement.*

Policy ISF.2.2 *Coordinate with independent public service providers, including schools, parks and recreation, utility, transit, and other service districts, in developing service and financial planning strategies.*

Action ISF.2.2.1 *Establish a Technical Review Committee for continued coordination with outside service agencies, including water and sewer providers, the Cordova Recreation and Park District, and the school districts, during the review of plans and development projects.*

Implementation of the General Plan Infrastructure, Services and Finance Element policies ISF 2.2 and General Plan Safety Element policies S 7.1, S 8.1, S 8.2, S 8.3, and S 8.4 would ensure that the General Plan's cumulative law enforcement related impacts are **less than significant.**

Mitigation Measures

None required.

4.12.3 WATER SERVICE

The following is discussion and impact analysis regarding water supply infrastructure. A detailed analysis of water supply (existing and planned) is provided in Section 4.9 (Hydrology and Water Quality) as well as **Appendix 4.9**.

EXISTING SETTING

Water Service Providers in the Planning Area

There are 3 water purveyors within the City's planning area: Sacramento County Water Agency (SCWA), Zone 40; Golden State Water Company (GSWC); and California-American Water Company (Cal-Am) (see **Figure 4.9-3**). Urban Water Management Plans (UWMP) for all water purveyors were obtained and used in this evaluation. The UWMPs identified the purveyor's existing and projected future water supplies and projected water demands through 2030 within each of their service areas.

SCWA

SCWA's service area (i.e., Zone 40) encompasses approximately 70 percent of the Planning Area and SCWA would be the primary water purveyor within the City. SCWA has engaged in a long-term water supply planning process through its participation in the regional Water Forum planning process and the recent adoption of its Zone 40 Water Supply Master Plan (WSMP) (2005). The WSMP identifies the acreage of land area that could be served by existing and projected future water supplies through 2030 for an expected growth area of Sacramento County (as identified in the Sacramento County General Plan [1994]), based on planned land use pattern and density information available at the time the report was prepared. This area is known as the 2030 Study Area. SCWA's water supplies include surface water and groundwater resources that would, over the long-term, be conjunctively used to ensure that adequate groundwater levels are maintained throughout the Central Sacramento Groundwater Basin (Basin) and that both surface water and groundwater supplies are adequate to meet projected demands through 2030.

Golden State Water Company

Golden State Water Company (GSWC) also serves a portion (generally the northeastern portion) of the Planning Area. GSWC owns and operates the Cordova System, a water treatment and conveyance system that serves GSWC's service area. GSWC relies on both surface and groundwater to meet water demands within its service area. GSWC is projecting buildout within its service area by 2020.

Cal-Am

Cal-Am is a privately owned water purveyor that provides urban water supply to portions of Rancho Cordova located near Sunrise Boulevard and Douglas Road. Cal-Am purchases wholesale water from SCWA. Cal-Am is projecting buildout within its service area by 2025.

WATER SUPPLY INFRASTRUCTURE

The existing water system in the Planning Area consists of Zone 40 facilities, including various raw and treated water transmission lines, distribution mains, pump stations, inertias, and treatment facilities. The following is an overview of water supply infrastructure in the Planning Area by service provider.

SCWA Existing and Planned Water Supply Infrastructure Projects

Zone 40 Water Supply Infrastructure Plan (WSIP).

In order to achieve the objectives of the Zone 40 Water Supply Master Plan, SCWA requires a steering document to ensure reliable long-term water supplies and adequate water supply infrastructure for its present and future customers in the Sunrise Corridor/Mather/Sunrise Douglas Service areas. The objectives of the Water Supply Infrastructure Plan (WSIP) are to provide a comprehensive evaluation of SCWA's water supplies, and to identify the likely alternative of water diversion(s), treatment, and conveyance facilities to efficiently make use of SCWA's water entitlements.

As a part of the master plan process, SCWA initiated the Zone 40 WSIP. This WSIP is a small piece of a larger strategic plan for conjunctive use of surface water and groundwater as set forth in the Master Plan document. This WSIP was integrated with a larger WSIP that included the entire Master Plan area. Smaller distribution facilities have not been included in the WSIP, but were evaluated and documented in water studies developed for specific projects. Individual water studies require approval by SCWA and may include development specific conditions including requirements for reservation of land for larger water facilities and phasing of water facilities to accommodate logical growth patterns.

The following are major water supply infrastructure projects that would provide water service to the Planning Area:

Existing Zone 40 water facilities include a transmission, distribution, and storage system with approximately 35 million gallons per day (mgd) of groundwater production facilities. Zone 40 has also purchased 11 mgd of nondedicated surface water capacity from the City of Sacramento's Sacramento River Water Treatment Plant. Additional facilities will be required for production, treatment, storage, and conveyance of water supplies to Zone 40 in accordance with the proposed 2002 Zone 40 WSMP.

Zone 40 Central Water Treatment Plant. SCWA plans to construct the 78-acre Central Water Treatment Plant (CWTP) and associated water supply facilities to provide up to 85 million gallons per day (mgd) of potable water to existing and approved urban development within the SCWA Zone 40 area. The CWTP site is located at the northeast corner of Florin and Knox Roads, west of the Florin Road/Excelsior Road intersection in Sacramento County. An associated SCWA corporation yard to house facilities and store equipment would be collocated on the site, along with a groundwater treatment facility. The CWTP would have the capacity to treat 85 mgd of raw surface water and 13 mgd of raw groundwater to serve approved land uses in the Zone 40 service area. Initial phases of facility construction are anticipated to be completed by 2010 with full buildout by 2019.

Freeport Regional Water Project (FRWP). SCWA and East Bay Municipal Utility District are constructing a diversion structure on the Sacramento River near the community of Freeport and a raw-water conveyance pipeline from the diversion structure to the central portion of Zone 40. As discussed above, SCWA would construct a 85-mgd surface-water treatment facility in the central portion of Zone 40 (CWTP), and the associated treated-water conveyance pipelines to deliver water to SCWA customers. This project is anticipated to be completed by 2010.

North Vineyard Well Field (formerly Excelsior Road Well Field) Project. This well field would provide for the extraction of up to 10,000 afy of groundwater for replacement and/or new

water supplies to serve existing or proposed development within Zone 40. Ultimately it would consist of up to eight wells located near Excelsior Road and Florin Road with a 30-inch raw-water pipeline to convey water to a new water treatment plant (Anatolia Water Treatment Plant) located near the southeast corner of the intersection of Sunrise Boulevard and Douglas Road in the Sun Ridge Specific Plan area). The first phase consists of three wells (4,500 gallons per minute [gpm]) and would be expanded as new development or replacement supplies are needed. If wells within SCWA's Mather/Sunrise system (in the south west portion of the Planning Area) are shut down because of past groundwater contamination, any additional capacity remaining in the well field can be claimed as a replacement supply (as opposed to a new water supply) by SCWA. This project is currently being constructed, with the initial phase estimated to be complete at the end of 2006. The project is expected to be built out by 2011. Water from this project has been allocated to the approved Sun Ridge Specific Plan area within the City and is also anticipated to be the initial water source for the proposed The Preserve at Sunridge project immediately south of the Sun Ridge Specific Plan area (see **Appendix 4.9**).

Eastern County Replacement Water Supply Project. This project is a proposal by SCWA to use remediated groundwater supplies obtained through the agreements between the County, SCWA, Aerojet, and McDonnell Douglas Corporation for replacement water lost as a result of past groundwater contamination in the Sunrise corridor area. The remediated groundwater would replace lost groundwater supplies of Cal-Am or GSWC or would be used to serve new urban development on lands known as Aerojet lands in the northern portion of Zone 40 and for enhanced fishery flows along the Cosumnes River. This project currently is under environmental review and facilities included within this project are anticipated to be constructed by 2010.

GSWC Existing Infrastructure Facilities

The Cordova System's distribution facilities have been designed with several interconnections to neighboring water purveyors for emergency purposes. GSWC maintains three 6-inch interconnections with the Cal-Am's distribution system on the west side of the Cordova System, and a 12-inch interconnection with the City of Folsom's distribution system at the eastern edge of the Cordova System. In addition, the Cordova System has five water storage reservoirs with a total capacity of 9.5 million gallons; one additional reservoir with additional 5.0 million gallons of storage capacity is scheduled to be online in spring 2006. Water treatment occurs at the Coloma Water Treatment Plant (WTP) and the Pyrites WTP.

Cal-Am Existing Infrastructure Facilities

Citizens Utilities (a private water utility provider which was later purchased by Cal-Am) purchased the Sunrise service area (also known as Security Park) from McDonnell Douglas in the early 1980s. It consists of approximately 2.8 square miles of land located immediately north of Douglas Road and east of Sunrise Boulevard, approximately 1.5 miles east of Mather Airport. Presently, this area is mostly undeveloped, serving approximately 20 commercial customers. The system includes five groundwater wells, only one of which is in regular use, with other wells available as needed for backup. The Sunrise Service area accounts for less than 0.1% of the Northern Division's production and sales. The Suburban service area consists of two systems, the Suburban system and the Rosemont system. These systems lie adjacent to each other and span the north and south sides of U.S. Highway 50 about 9 miles east of downtown Sacramento. This service area (i.e., Suburban /Rosemont) is located entirely within the City's planning area, south of the American River, and north of Mather Airport and includes portions of the developed (i.e., urban) areas of Rancho Cordova. There are approximately 17,000 customers in the

Suburban/Rosemont area, which are served via 8 groundwater wells for the Rosemont subarea and 20 wells within the Suburban subarea. In all, the Suburban service area accounts for approximately 30% of the Northern Division's production.

4.12.3.2 REGULATORY FRAMEWORK

The reader is referred to the "Regulatory Framework" discussion in Section 4.9 (Hydrology and Water Quality) regarding applicable water supply regulations and policies. Sacramento County General Plan policies that were identified in Section 4.9 that are applicable to water supply infrastructure consideration include: PF-1 requiring new water facilities be planned to minimize impacts to in-stream water flow, PF-2 requiring new development be annexed into an existing water purveyor's service area if it is located outside of a service area, PF-4 connector fees shall cover the fare share costs of water service, and PF-5 requiring new treatment facilities be funded by beneficiaries.

4.12.3.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The following significance thresholds are based on Appendix G from the State CEQA Guidelines (2005) and apply to the proposed project's water supply infrastructure system. A project is considered to have a significant water supply infrastructure impact on the environment when it would:

1) Result in the need for new systems or a substantial expansion or alteration to the local or regional water treatment or distribution facilities that would result in a physical impact to the environment; or

2) Result in the need for new systems or a substantial expansion or alteration to the local or regional water supplies that would result in a physical impact to the environment.

This impact analysis focuses on impacts on infrastructure needs to provide water service to the City and Planning Area. The analysis of water supply and its associated environmental effects is addressed in Section 4.9 (Hydrology and Water Quality).

METHODOLOGY

This section is based on review of applicable General Plan policies and the review of previously prepared environmental documents for other projects in the area, including, but not limited to, Zone 40 Water Supply Master Plan, Water Supply Evaluation for the City of Rancho Cordova General Plan (see **Appendix 4.9**), Sunrise Douglas Community/Sunridge Specific Plan Environmental Impact Report.

Water Supply Infrastructure

Impact 4.12.3.1 Implementation the General Plan would require additional treatment capacity, storage capacity, and other conveyance facilities to meet the projected water demands. This is considered a **significant** impact.

Several new capital groundwater, surface water, and potential recycled water facilities are required to meet Zone 40's conjunctive use objectives and to meet the buildout water service

demands of the Planning Area. Proposed groundwater production and capacity facilities include wells (includes raw water piping to the treatment plant), treatment (water treatment facilities), storage (storage and pumping), and conveyance to the distribution system. SCWA assumes that most treatment facilities would have a maximum day input capacity of approximately 10 mgd per facility (i.e., six wells with a 1,500 gallons per minute [gpm] operating at 75 percent of capacity per day). SCWA anticipates up to seven new groundwater treatment plants would be needed to meet Zone 40's projected water demand through 2030, with two of the WTP anticipated within the Planning Area boundaries.

Surface water production and distribution infrastructure improvements to serve buildout of the Planning Area would include similar facilities as groundwater facilities (raw water pipelines, water storage tanks, pump facilities, treatment, and distribution facilities). As previously noted, major new surface water improvements that would serve the Planning Area consist of the Central Water Treatment Plant (treatment facilities to provide up to 85 million gallons per day (mgd) of potable water and SCWA corporation yard) and the Freeport Regional Water Project (diversion structure on the Sacramento River near the community of Freeport and a raw-water conveyance pipeline).

The recycled water facility component consists of pipelines, storage, and pumping capacity to deliver recycled water to customers within Zone 40. The recycled water component requires a distribution system separate from Zone 40's potable water system. Phase I of this system is complete and operational. Phase II is currently underway and consists of additional transmission pipelines, storage capacity, booster pumps, and localized distribution systems. As noted below, General Plan policy supports the use of recycled water and further expansion of recycled water infrastructure would be required.

Buildout of the proposed General Plan would require timely expansion of these facilities in order to maintain adequate service. These water supply distribution improvements would result in environmental effects to support General Plan and other regional growth. The environmental effects of water supply expansion and improvements have been considered in SCWA Zone 40 Water Supply Master Plan EIR, Water Forum Agreement EIR, and Sunrise Douglas Community Plan and the Sun Ridge Specific Plan EIR, which have identified significant and unavoidable effects of developing water supplies. The reader is referred to Impact 4.9.4 for a detailed discussion of identified and anticipated environmental effects of water supply development.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan Policies and associated Action Items are included in the Infrastructure, Services, and Finance Element, Land Use Element, and Natural Resources Element of the General Plan and would provide partial mitigation of this impact:

Policy ISF.2.1 *Ensure the development of public infrastructure that meet the long-term needs of residents and ensure infrastructure is available at the time such facilities are needed.*

Action ISF.2.1.1 *Except when prohibited by state law, require sufficient capacity in all public facilities to maintain desired service levels and avoid capacity shortages, traffic congestion, or other negative effects on safety and quality of life.*

Action ISF.2.1.2 *Adopt a phasing plan for the development of public facilities in a logical manner that encourages the orderly development of roadways, water and sewer, and other public facilities.*

Action ISF.2.1.3 *Withhold public financing or assistance from projects that do not comply with the planned phasing of public facilities, and approve interim facilities only in special circumstances.*

Action ISF.2.1.4 *Work with utility providers to coordinate the installation or upgrading of utilities and eliminate multiple trenching of city streets.*

Policy ISF.2.2 *Coordinate with independent public providers, including schools, parks, and recreation, utility, transit, and other service districts, in developing service and financial planning strategies.*

Action ISF.2.2.1 *Establish a Technical Review Committee for continued coordination with outside service agencies, including water and sewer providers, the Cordova Recreation and Park District, and the school districts, during the review of plans and development projects.*

Policy ISF.2.3 *Ensure that adequate funding is available for all infrastructure and public facilities, and make certain that the cost of improvements is equitably distributed.*

Action ISF.2.3.1 *Require secure financing for all components of the transportation system through the use of special taxes, assessment districts, developer dedications, or other appropriate mechanisms. Financing should be sufficient to complete required major public facilities at their full planned capacities in a single phase. Major facilities include roadways of collector size or larger; all wells, water transmission lines, treatment facilities, and storage tanks needed to serve the project; and all sewer trunk and interceptor lines and treatment plants or treatment plant capacity.*

Action ISF.2.3.2 *Require new development to fund its fair share portion of its impacts to all public infrastructure and facilities.*

Action ISF.2.3.3 *Include sufficient funding in fee programs and/or other finance mechanisms to cover the costs of each of the following roadway items:*

- *Design, engineering, environmental compliance, and construction of roadway lanes, traffic signals, and bridges.*
- *Right of way acquisition, design, engineering, environmental compliance, and construction costs.*
- *Drainage and other facilities related to new roadway construction.*
- *Installation of landscaped medians, sidewalks, and streetscaping where appropriate.*

Policy ISF.2.4 *Ensure that water supply and delivery systems are available in time to meet the demand created by new development, or are guaranteed to be built by bonds or sureties.*

Action ISF.2.4.1 *Require all development projects, excluding subdivisions, to adhere to the following provisions:*

An assured water supply and delivery system shall be available at the time of project approval. The water agency providing service to the project may provide several alternative methods of supply and/or delivery, provided that each is capable individually of providing water to the project.

All required water infrastructure for the project shall be in place at the time of project approval, or shall be assured through the use of bonds or other sureties to the City's satisfaction. Water infrastructure may be phased to coincide with the phased development of large-scale projects.

Action ISF.2.4.2 *Require all subdivision developments to adhere to the following provisions, to the extent permitted by state law:*

- *Proposed water supply and delivery systems shall be identified at the time of tentative map approval to the satisfaction of the City. The water agency providing service to the project may provide several alternative methods of supply and/or delivery, provided that each is capable individually of providing water to the project.*
- *The agency providing water service to the subdivision shall demonstrate prior to the approval of the Final Map that sufficient capacity shall be available to accommodate the subdivision plus existing development, and other approved projects in the same service area, and other projects which have received commitments for water service.*
- *Offsite and onsite water infrastructure sufficient to provide adequate water to the subdivision shall be in place prior to the approval of the Final Map or their financing shall be assured to the satisfaction of the City, consistent with the requirements of the Subdivision Map Act.*
- *Offsite and onsite water distribution systems required to serve the subdivision shall be in place and contain water at sufficient quantity and pressure prior to the issuance of any building permits. Model homes may be exempted from this policy as determined appropriate by the City, and subject to approval by the City.*

Policy ISF.2.5 *Ensure that water flow and pressure are provided at sufficient levels to meet domestic, commercial, industrial, and firefighting needs.*

Policy ISF.2.6 *Ensure that sewage conveyance and treatment capacity are available in time to meet the demand created by new development, or are guaranteed to be built by bonds or other sureties.*

Policy ISF.2.7 *Minimize visual impacts and physical impediments of utility infrastructure and equipment.*

Action ISF.2.7.1 *Coordinate with utility agencies to underground, strategically place, and screen equipment to the maximum extent feasible.*

Policy ISF.2.8 *Ensure accessibility to the latest technology for our residents and businesses.*

Action ISF.2.8.1 *Develop an Information Technology Strategic Plan with input from community stakeholders and experts.*

Action ISF.2.8.2 *Explore ways to improve the City's website to provide service in new ways.*

Policy ISF.3.1 *Foster the provision of comprehensive services targeted to meet the needs of the City's growing population.*

Action ISF.3.1.1 *City Staff shall actively work with other agencies and jurisdictions in the development/expansion and funding of a wide range of public services including, but not limited to neighborhood services, social and cultural services, special needs services, housing services, educational and community services, and recreational services.*

Action ISF.3.1.2 *Regularly survey or otherwise identify the service needs and priorities of Rancho Cordova residents.*

Action ISF.3.1.3 *Pursue grants and other funding opportunities to create new services or expand existing services targeted to meet the needs of Rancho Cordova residents and employees.*

Action ISF.3.1.4 *Encourage the co-location of public service providers into commercial, office, and mixed use sites that are accessible to persons in need of services.*

Mitigation Measures

Implementation of the above General Plan policies and action items as well as Mitigation Measure MM 4.9.4 would ensure that the new development under the General Plan would not proceed without verification and determination that an adequate water supply and adequate water supply infrastructure exists. However, the proposed General Plan would contribute to identified significant environmental impacts associated with planned water supply and infrastructure projects as well as environmental effects from potential future other water supply sources and infrastructure projects. Given these conditions, this impact is considered **significant and unavoidable**.

4.12.3.4 CUMULATIVE SETTING, IMPACTS AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative water supply analysis focuses on water demand projections in Sacramento County and more specifically, within the South American groundwater Sub-Basin (or Central Area) that underlies southern Sacramento County. Reducing and mitigating the cumulative water impacts from development within the Sacramento Valley groundwater basins was the premise behind the preparation of the Water Forum Agreement. The reader is referred to Section 4.0 regarding a description of development activities within the region that contribute to cumulative water resource impacts. The cumulative setting includes the service areas of SCWA Zone 40, GSWC and Cal-Am.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Water Service Impacts

Impact 4.12.3.2 Implementation of the General Plan would contribute to the need for additional treatment capacity, storage capacity, and other conveyance facilities to meet cumulative water demands with SCWA, GSWC and Cal-Am. The General Plan's contribution would be **cumulatively considerable**.

As previously discussed, the land uses associated with the Rancho Cordova General Plan would require considerable modifications and improvements to the existing water supply delivery system to meet the projected water demands. Additional water treatment, storage capacity, and the extension of the existing water system including pipelines and other transmission and conveyance infrastructure would be needed to meet the demand for both General Plan growth and other regional growth (e.g., City of Elk Grove and Sacramento County). As indicated above and under Impact 4.9.4, the expansion of water supply infrastructure and the development of planned and potential future water supply sources would result in significant environmental effects that the proposed General Plan would contribute to.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies and associated Action Items are included in the Infrastructure, Services, and Finance Element, Land Use Element, and Natural Resources Element of the General Plan and would provide partial mitigation of this impact:

Policy ISF.2.1 *Ensure the development of public infrastructure that meet the long-term needs of residents and ensure infrastructure is available at the time such facilities are needed.*

Action ISF.2.1.1 *Except when prohibited by state law, require sufficient capacity in all public facilities to maintain desired service levels and avoid capacity shortages, traffic congestion, or other negative effects on safety and quality of life.*

Action ISF.2.1.2 *Adopt a phasing plan for the development of public facilities in a logical manner that encourages the orderly development of roadways, water and sewer, and other public facilities.*

Action ISF.2.1.3 *Withhold public financing or assistance from projects that do not comply with the planned phasing of public facilities, and approve interim facilities only in special circumstances.*

Action ISF.2.1.4 *Work with utility providers to coordinate the installation or upgrading of utilities and eliminate multiple trenching of city streets.*

Policy ISF.2.2 *Coordinate with independent public providers, including schools, parks, and recreation, utility, transit, and other service districts, in developing service and financial planning strategies.*

Action ISF.2.2.1 *Establish a Technical Review Committee for continued coordination with outside service agencies, including water and sewer providers, the Cordova Recreation and Park District, and the school districts, during the review of plans and development projects.*

Policy ISF.2.3 *Ensure that adequate funding is available for all infrastructure and public facilities, and make certain that the cost of improvements is equitably distributed.*

Action ISF.2.3.1 *Require secure financing for all components of the transportation system through the use of special taxes, assessment districts, developer dedications, or other appropriate mechanisms. Financing should be sufficient to complete required major public facilities at their full planned capacities in a single phase. Major facilities include roadways of collector size or larger; all wells, water transmission lines, treatment facilities, and storage tanks needed to serve the project; and all sewer trunk and interceptor lines and treatment plants or treatment plant capacity.*

Action ISF.2.3.2 *Require new development to fund its fair share portion of its impacts to all public infrastructure and facilities.*

Action ISF.2.3.3 *Include sufficient funding in fee programs and/or other finance mechanisms to cover the costs of each of the following roadway items:*

- *Design, engineering, environmental compliance, and construction of roadway lanes, traffic signals, and bridges.*
- *Right of way acquisition, design, engineering, environmental compliance, and construction costs.*
- *Drainage and other facilities related to new roadway construction.*
- *Installation of landscaped medians, sidewalks, and streetscaping where appropriate.*

Policy ISF.2.6 *Ensure that sewage conveyance and treatment capacity are available in time to meet the demand created by new development, or are guaranteed to be built by bonds or other sureties.*

Action ISF.2.6.1 *Require all subdivision developments to adhere to the following provisions, to the extent permitted by state law:*

- *Sewage/wastewater treatment capacity shall be available at the time of tentative map approval.*
- *The agency providing sewer service to the subdivision shall demonstrate prior to the approval of the Final Map by the City that sufficient capacity shall be available to accommodate the subdivision plus existing development, and other proposed or approved projects which have received sewage treatment capacity commitment.*
- *Onsite and offsite sewage conveyance systems required to serve the subdivision shall be in place prior to the approval of the Final Map, or their financing shall be assured to the satisfaction of the City, consistent with the requirements of the Subdivision Map Act.*

- *Sewage conveyance systems within the subdivision shall be in place and connected to the sewage disposal system prior to the issuance of any building permits. Model homes may be exempted from this policy as determined appropriate by the City, and subject to approval by the City.*

Action ISF.2.6.2 *Generally, the City shall not allow construction of independent community sewer systems to serve new development.*

Action ISF.2.6.3 *Require all commercial or industrial development, as well as all residential development with lots smaller than two acres, to connect to a public sewer system.*

Policy ISF.2.7 *Minimize visual impacts and physical impediments of utility infrastructure and equipment.*

Action ISF.2.7.1 *Coordinate with utility agencies to underground, strategically place, and screen equipment to the maximum extent feasible.*

Policy NR.5.1 *Promote water conservation within existing and future urban uses.*

Action NR.5.1.1 *Install water-conserving landscaping and irrigation on City-owned and operated facilities.*

Action NR.5.1.2 *Require development project approvals to include a finding that all feasible and cost-effective options for conservation and water reuse are incorporated into project design.*

Action NR.5.1.3 *Establish a program that requires per capita water consumption to be reduced by at least 20 percent by 2030. The program shall include the following measures:*

- *Restrict water usage through metering or establishing designated watering days for the City's residences and businesses.*
- *Promote water conservation efforts through education.*
- *Implement standards that require low-flow appliances and fixtures in all new development.*
- *Work with water providers and water conservation agencies to create an incentive program that encourages retrofitting existing development with low-flow water fixtures.*
- *Require new development to utilize state-of-the-art irrigation systems that reduce water consumption (e.g., drip irrigation, gray-water systems).*
- *Encourage drought-tolerant vegetation and use water-efficient irrigation systems in landscaped public areas.*

Policy NR.5.2 *Encourage the use of treated wastewater to irrigate parks, golf courses, and landscaping.*

Action NR.5.2.1 *Establish a Large-Scale Recycled Water Program and Citywide Recycled Water Distribution System Ordinance.*

Action NR.5.2.2 *Coordinate with the City's water purveyors to establish a connected "purple pipe" system throughout the City's new development areas that uses recycled water.*

Policy NR.5.3 *Protect surface and ground water from major sources of pollution, including hazardous materials contamination and urban runoff.*

Action NR.5.3.1 *Restrict hazardous materials storage in the 100-year floodplain to prevent surface water contamination.*

Action NR.5.3.2 *Educate the community on laws governing the proper handling of hazardous materials, especially those laws that pertain to discharging materials into creeks.*

Action NR.5.3.3 *Install appropriate signage to deter the discharge of hazardous materials into storm drains.*

Policy NR.5.4 *Prevent contamination of the groundwater table and surface water, and remedy existing contamination to the extent practicable.*

Action NR.5.4.1 *Provide information on pollution prevention, disposal of hazardous waste and chemicals, liability and clean-up on the City's website and in educational materials and brochures.*

Action NR.5.4.2 *Require clean-up of contaminated ground and surface water by current and/or past owners or polluters.*

Action NR.5.4.3 *Encourage pollutant cleansing companies to use the latest technologies available in order to expedite the cleansing process and do the least harm to the environment.*

Policy NR.5.5 *Minimize erosion to stream channels resulting from new development in urban areas.*

Action NR.5.5.1 *Require community and specific plans to contain urban runoff control strategies and requirements that are consistent with Master Drainage Plans and the City's urban runoff management program.*

Action NR.5.5.2 *Require development within newly urbanizing areas to incorporate runoff control measures into their site design or to participate in an area-wide runoff control management effort consistent with standards developed by the Public Works Department.*

Action NR.5.5.3 *Encourage new development to incorporate features such as grassy swales, multi-use retention or detention basins, and integrated drainage systems to enhance water quality. Work with the Cordova Recreation and Park District to establish standards for integrating retention/detention basins into park sites and create examples of desirable and innovative natural drainage features.*

Action NR.5.5.4 Establish and require the use of best management practices to protect receiving waters from the adverse effects of construction activities, sediment and urban runoff.

Mitigation Measures

Implementation of the above General Plan policies and action items as well as implementation of Mitigation Measure MM 4.9.4 would ensure that the new development under the General Plan would not proceed without verification and determination that an adequate water supply and adequate water supply infrastructure exists, and not contribute to service area shortfalls in service. However, the proposed General Plan would contribute to identified significant environmental impacts associated with planned water supply and infrastructure projects as well as environmental effects from potential future other water supply sources and infrastructure projects. This contribution is **cumulatively considerable** and thus is considered **significant and unavoidable**.

4.12.4 WASTEWATER SERVICE

EXISTING CONDITIONS

Wastewater Service

The Sacramento Regional County Sanitation District (SRCSD) provides public wastewater conveyance, treatment, and disposal in the urbanized portions of Sacramento County. SRCSD is a publicly owned wastewater agency serving over one million people in the major Sacramento Metropolitan Area through its three contributing agencies: the City of Folsom; the City of Sacramento; and the Sacramento County Sanitation District 1 (CSD-1). Under the Master Interagency Agreement (MIA) that defines the operational, financial, and administrative responsibilities of the SRCSD, the County of Sacramento and the Contributing Agencies SRCSD is responsible for the planning and financing of any new sewer facilities.

The Rancho Cordova General Plan Planning Area falls within the CSD-1 and SRCSD district boundaries and its sphere of influence. The current CSD-1 district boundary coincides with the Urban Policy Area (UPA) which identifies areas in Sacramento County anticipated for development during the planning horizon of the County's General Plan. Within the Planning Area, SRCSD treats the wastewater and maintains the wastewater interceptors, while CSD-1 maintains the rest of the conveyance system.

The main CSD-1 collection system includes over 2,400 miles of sewer pipelines ranging in size from four to 75 inches in diameter. The collection system pipelines are categorized and based on size, function and hydraulic capacity. In general, sewer collectors are pipes that receive flows from homes and businesses and are 10-inches or smaller in diameter. In contrast, trunk sewers are pipes that function as conveyance facilities to transport the collected wastewater flows to the SRCSD interceptor system and are 12-inches in diameter or larger. Interceptors are a massive system of pipes (up to 10 feet in diameter) and pump stations, which carry wastewater directly to the Sacramento Regional Water Treatment Plant (SRWTP). At times of peak use, the interceptor system carries as much as 400 million gallons of wastewater per day. The existing SRCSD interceptor system in the Planning Area consists of the Cordova (COR) Interceptor, the Folsom Interceptor Trunks (FOI) and the Northeast Interceptor Trunks (NEI). The SRWTP receives and treats an average of 165 million gallons per day (mgd) (as of 2005). The SRWTP has a permitted dry weather flow design capacity of 181 mgd. Effluent discharges from the Planning Area are collected and conveyed through the CSD-1 trunk and SRCSD interceptors to the SRWTP and ultimately discharged into the Sacramento River near the unincorporated town of Freeport in Sacramento County.

Septic Service

The majority of the Planning Area is serviced by the CSD-1 facilities; however, portions of the Planning Area outside the CSD-1 boundaries are served by private septic systems. The portions of the Planning Area east of Sunrise Boulevard and south of Douglas Road consist of agriculture and rural residential land uses and are served by individual septic systems. The majority of this area is planned for CSD-1 facilities during the planning horizon of the General Plan. The Sacramento County Environmental Management Department (EMD) provides mandated regulatory services for solid waste facilities and septic service. The EMD is responsible for all septic tanks and systems in the County and all sewer disposal methods of any new development must meet the requirements of the EMD prior to approval as provided in the adopted Sacramento County Codes and Regulations.

4.12.4.2 REGULATORY FRAMEWORK

LOCAL

Sacramento County General Plan

The existing Sacramento County General Plan was adopted in December of 1993 and is currently undergoing an update. The 1993 Sacramento County General Plan contains wastewater related policies applicable to the unincorporated portions of the Planning Area. Specific policies which may affect the General Plan Planning Area include PF-8 which does not allow projects to be developed if they would exceed trunk and interceptor capacity, PF-11 which states that the County will not support extension of the regional interceptor system beyond the urban service boundary, and PF-14 which does not allow independent community sewer systems.

The Sacramento Regional County Sanitation District

As previously discussed, the Sacramento Regional County Sanitation District (SRCSD) provides public wastewater treatment, and disposal in the unincorporated and urbanized portions of Sacramento County under the direction of the County of Sacramento's Water Quality Division. SRCSD has prepared the following documents to guide the development of wastewater facilities in Sacramento County:

- **Regional Interceptor Master Plan 2000 -** The SRCSD has prepared a long-range master plan for the large diameter interceptors that transport wastewater to the Sacramento Regional Wastewater Treatment Plant and includes interceptor upgrades/expansions to accommodate anticipated growth through 2035. **See Figure 4.12.4-1**.

The differences between the Sacramento Sewerage Expansion Study (1993 Plan) and the Interceptor Master Plan 2000 (Plan 2000) are revised land use and population projections. Plan 2000 uses geographically based sewer-billing information to predict existing flows and SACOG geographically based population projections to predict areas of future growth and development densities. Plan 2000 assumes that all existing and future development will eventually be built out to an average density of 6 equivalent single-family dwellings per acre (6 ESDs/acre). Whereas the 1993 Plan assumed existing development would remain at a density of 2-4 ESDs/acre. The standard figure used to measure wastewater flow is 310 gallons per day (gpd) per ESD. The new ESD value of 6 assumes that in-fill development will occur during the useful life of the interceptor.

The 1993 Plan assumed a no-flow contribution from property zoned industrial; whereas, the Plan 2000 assumes extensive flow contribution from industrial uses. The SRWTP treatment and discharge capacity must either be increased, or another regional wastewater treatment plant must be built. Facilities scheduled to be built over the next 35 years, when operational, are projected to provide enough capacity for all planned development within the Urban Services Boundary and West Sacramento. Temporary service to new development areas is provided by developer-financed interim facilities.

There are also proposed changes in the interceptor framework, which include a new interceptor to serve Aerojet, a realignment of a segment of the Interceptor through the Mather Field area, and relocating the Deer Creek Interceptor to Grantline Road.

- **Regional 2020 Master Plan -** The Sacramento Wastewater Treatment Plant Master Plan (2020 Master Plan) for the SRWTP provides a phased program of recommended wastewater treatment facilities and management programs to accommodate planned growth and to meet existing and anticipated regulatory requirements through the year 2020. The 2020 Master Plan addresses both public health and environmental protection issues while ensuring reliable service at affordable rates for SRCSD customers. The key goals of the 2020 Master Plan are to provide sufficient capacity to meet growth projections and an orderly expansion of SRWTP facilities, to comply with applicable water quality standards, and to provide for the most cost-effective facilities and programs from a watershed perspective.

New regulations and policies will have a significant influence of the operation of the wastewater treatment plant. The discharge permit adopted by SRWTP in 2000 contains new, more stringent requirements at both the state and federal levels that are designed to restrict discharges of toxic pollutants into surface waters. Water recycling will become an important compliance strategy. Innovative biosolids recycling technologies may be implemented. The allowable total maximum daily loads of pollutants discharged into the Sacramento River as well as prohibitions on elevated temperature of discharges into the Sacramento River will be future concerns.

County Sanitation District 1

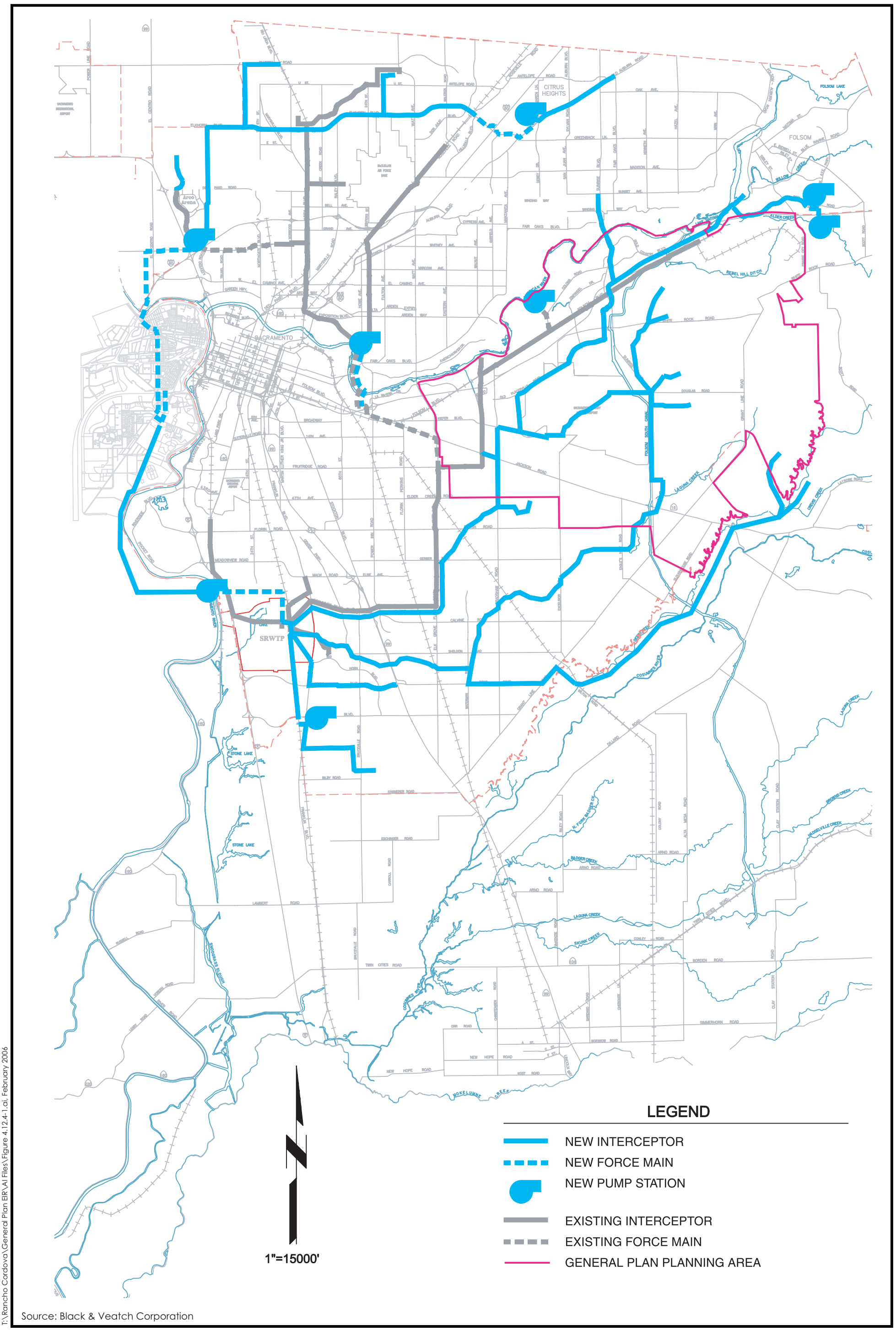
In 1999, CSD-1 agreed to prepare its own studies, separate from that of SRCSD, which is known as CSD-1 Sewerage Facilities Expansion Master Plan and CSD-1 Rehabilitation Master Plan.

- **County Sanitation District 1 Sewerage Facilities Expansion Master Plan** - The overall goal of the CSD-1 Sewerage Facilities Master Plan (Master Plan) is to estimate the future capital improvement needs of the CSD-1 trunk sewer system, both in capacity relief projects for the existing system and expansion projects to serve newly developed areas. This plan provides for sewerage facilities and relief sewers to address future development within CSD-1's service area and to minimize the risk from potential sewer overflows that could occur during storm events. This plan also addresses the financial aspects of the CSD-1 Trunk Expansion Program. See **Figure 4.12.4-2.**

There are two trunk systems in the Planning Area, the Cordova Trunk System and the Folsom Interceptor Trunk System. The Cordova Trunk System consists of four projects for the proposed relief plan. These include a diversion at Gold Express Drive to the future Sunrise Interceptor, which would relieve the predicted downstream capacity deficiencies in the existing 24-inch trunk sewer upstream of the Cordova Pump Station; better distribution of the flow between the parallel trunk sewers upstream of the Cordova Pump Station; and additional capacity for the influent sewer to the pump station.

There are six proposed relief projects in the Folsom Interceptor Trunk system. They include capacity upgrades to three existing pump stations (Mills Park, Zinfandel, and Sunrise-White Rock); abandonment of the Capital Center Pump Station by diversion of flows to the future Bradshaw Interceptor; and upsizing of sewers in Mills Park Drive and Sunrise Boulevard.

- **County Sanitation District 1 Rehabilitation Master Plan** - The CSD-1 Rehabilitation Master Plan provides a process for prioritizing and scheduling repair and replacement of the collection system and for improving the reliability of the existing wastewater collection, treatment, and disposal system.

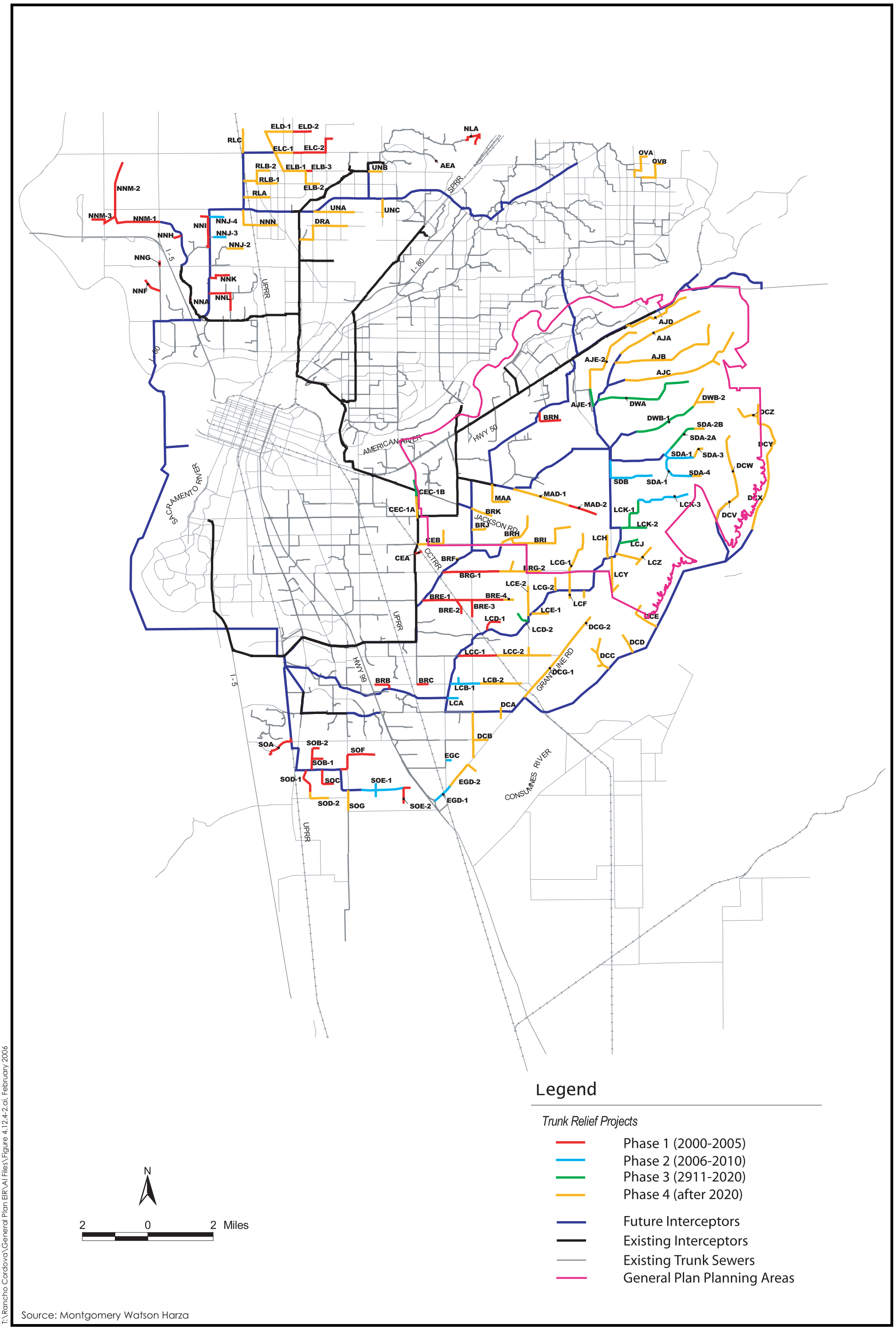


Source: Black & Veatch Corporation

T:\Rancho Cordova\General Plan EIR\AI Files\Figure 4.12.4-1.ai, February 2006

City of Rancho Cordova
Planning Department

Figure 4.12.4-1
SRCSD Interseptor Upgrades and Expansions



Source: Montgomery Watson Harza

T:\Rancho Cordova\General Plan EIR\AI Files\Figure 4.12.4-2.ai, February 2006

City of Rancho Cordova
Planning Department

Figure 4.12.4-2
CSD-1 Trunk Expansion Projects

Rehabilitation is a program specific not project specific plan. It is a system wide area wide plan. They review maintenance records and age of system to determine what needs to be done. Sometimes it includes cleaning or replacing or relining a pipe. It is an ongoing program. Areas with many service calls or older pipes will receive more maintenance and rehabilitation. (Paul Philleo, Department of Water Quality CSD-1).

4.12.4.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The following standards are based on State CEQA Guidelines (2005) Appendix G. A significant impact to wastewater service would occur if implementation of the proposed General Plan would result in the following:

1) Project exceeds wastewater treatment requirement of the applicable Regional Water Quality Control Board;

2) Require or result in the construction of new water or wastewater treatment facilities or expansion or existing facilities, the construction of which could cause significant environmental effects; or,

3) A determination by the wastewater treatment provider, which serves or may serve the project, that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

METHODOLOGY

Evaluation of potential impacts on wastewater facilities and services was based on consultation with SRCSD and CSD-1 staff and review of the Master Plans and Expansion Plans from each agency. The impact analysis considers both 2030 conditions and buildout of the entire planning area.

IMPACTS AND MITIGATION MEASURES

Wastewater Conveyance and Treatment

Impact 4.12.4.1 Implementation of the Rancho Cordova General Plan would substantially increase wastewater flows and require additional infrastructure and may require additional treatment capacity to accommodate anticipated demands that would result in a physical effect on the environment. This impact is considered **significant**.

Wastewater Conveyance

Implementation of the General Plan would allow for increased development which would require improvements and modifications to existing SRCSD and CSD-1 facilities and require new wastewater conveyance infrastructure including collectors, trunks and interceptor sewer lines and appurtenances. Wastewater flow estimates and ultimate buildout wastewater demands are calculated using equivalent single family dwelling units (ESDs) per acre, with one ESD representing the effluent generated by one single family residence. The ESD projections are used to determine the located and capacity of future wastewater conveyance facilities and

trunk sheds[1]. Projected wastewater generation rates by year 2030 are estimated to be 36.5 mgd and under buildout conditions 42.2 mgd.[2]

The CSD-1 Sewerage Facilities Master Plan (Master Plan) translates existing and future land use projections to estimate wastewater flows and determine near-term and buildout system demands. The Master Plan also identifies improvements and modifications needed to ensure sufficient capacity in both conveyance and treatment facilities through 2020 and includes construction and operation costs associated with the proposed facilities. The Master Plan identifies several future trunk sheds proposed in the Planning Area to accommodate the estimated effluent flows including AJ Aerojet, BR Zinfandel, BE Gravel East, MA Mather/Kiefer, AJ Douglas White Rock, DC Upper Deer Creek, AJ Sunrise Douglas, and the LC Upper Laguna Creek.

Project developers initially finance construction of trunk lines, collector lines, and appurtenances, with some of the costs being reimbursed by SRCSD. Trunk facilities (including the lift station and force mains) are fully reimbursable over a period of time when the developer enters into a Reimbursement Agreement with CSD-1. All interceptor expenses are fully funded by SRCSD. Impact and service fees are collected based on acreage and use to finance projects funded or reimbursed by CSD-1 and /or SRCSD.

The Interceptor Master Plan 2000 uses revised land use and population projections. The Plan uses geographically based sewer-billing information to predict existing flows and SACOG geographically based population projections to predict areas of future growth and development densities. The Plan assumes that all existing and future development will eventually be built out to an average density of 6 equivalent single-family dwellings per acre (6 ESDs/acre). The standard figure used to measure wastewater flow is 310 gallons per day (gpd) per ESD. The new ESD value of 6 assumes that in-fill development will occur during the useful life of the interceptor. As the SRCSD Interceptor Master Plan uses SACOG projected population growth the Plan considers all projected growth within its service area boundaries, including development associated with the proposed Rancho Cordova General Plan.

The SRCSD Regional Interceptor Master Plan EIR (State Clearinghouse No. 200112085) addressed the potential environmental effects associated with the expansion of and construction of existing and future interceptors.

Sacramento County evaluated the environmental impacts of constructing trunk and interceptor sewers that would serve the Planning Area, as well as most of the Sacramento region, in the following EIRs:

- "CSD-1 Sewerage Facilities Expansion Master Plan, Final EIR." Sacramento County Department of Environmental Review and Assessment (April 2004). Project-related facilities evaluated included trunk sewers in the AJ Aerojet and AJ Douglas White Rock trunk sheds (along with other trunk sewers in the south and southeast part of the County).

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[1] Trunk shed refers to the area of flow much like a watershed.

[2] Year 2030 wastewater generation rates are calculated as follows: total commercial, industrial, office square footage in acres (1,288.8 ac) times 6 = 7732.9 ESD plus total dwelling units (109,884) = 117,616.9 ESD. 117,616.9 ESD times 310 gpd of wastewater = 36.5 mgd.
Buildout generation rates are as follows: total commercial, industrial, office square footage in acres (1,634.8ac) times 6 = 9808.5 ESD plus total dwelling units (126,241) = 136,050.5 ESD. 136,050.5 ESD times 310 gpd of wastewater = 42.2 mgd.

- "Sacramento regional County Sanitation District Interceptor Master Plan 2000, Final Program EIR." Sacramento County Department of Environmental Review and Assessment (February 2003). Project-related facilities evaluated included the Bradshaw, Aerojet, and Laguna Creek Interceptors.

Both EIRs were certified and the Master Plans were approved. Because these facilities would be constructed to serve the project, as well as other development in the region, the environmental impacts of these facilities are associated with development of the project. These impacts would also occur without development of the project; because the trunk and interceptor lines are required to serve regional development, they would be required whether or not the project is developed.

Implementation of the General Plan would require the construction of sewer lines to serve future growth. The following impacts were identified in the EIRs listed above as those that would remain significant or potentially significant after mitigation implementation:

- Temporary direct disruption or property access (interceptor construction);
- Permanent direct loss of agricultural productivity (interceptor construction and operation) and potential indirect conversion of agricultural land by expansion of urban services through agricultural lands within the Urban Services Boundary (run sewers);
- Short-term direct visual impacts associated with construction activities (trunk sewers);
- Potential direct impacts on a variety of biological resources, including wetlands and riparian resources (interceptor); loss of trees and other sensitive habitats (interceptor and trunk sewers); and loss or disturbance of special status plant and animal species, including valley elderberry longhorn beetle, freshwater invertebrates, tiger salamanders, western spadefoot toads, giant garter snakes, and Swainson's hawk nests (interceptor);
- Air quality emissions (direct) of oxides of nitrogen (NOx) during construction (trunk and interceptors);
- Noise (direct) during construction (trunk and interceptors); and
- Cultural resources (direct) (interceptor).

Supplying service of the entire Planning Area will require portions of the Planning Area to be annexed annexation into CSD-1 service area (the majority of the Planning Area is currently in the CSD-1 service area, however portions of the Planning Area are in CSD-1 sphere of influence but not within current service boundaries).

Treatment Capacity

The SRWTP currently has a permitted capacity of 181 mgd for Average Dry Weather Flows (ADWF) and 400 mgd of Average Wet Weather Flows (AWWF). Currently, SRCSD is in the process of expanding the SRWTP to accommodate 250 ADWF and maintaining the 400 mgd for AWWF. The ADWF at the SRWTP is expected to be 218 mgd in the year 2020, approximately 32 mgd under capacity with proposed expansion improvements in place. These expansions are projected to accommodate all projected regional growth through the year 2020.

The capacity of the SRWTP is determined by regional population estimates; therefore, is not related to any specific land uses or designations and is location independent (Seyfried, 2006). The SRWTP Master Plan considered all projected growth within its service area boundaries, which includes development proposed in association with the Rancho Cordova General Plan. Note that this does not represent a buildout population total for the SRCSD; rather, it represents the amount of growth expected within the SRCSD based on projections. Thus, if new development is approved prior to 2020, it is assumed that it would not change the rate of growth in the district; rather, it would change the potential location within the SRCSD of where the growth would occur. Expansion is planned to be phased to provide for sufficient long-term capacity. However, as the Master Plan for the treatment plant only has a horizon to 2020, wastewater generated from the potential development with implementation of the General Plan may impact operations at the SRWTP or cause its planned capacity to be exceeded.

Projected wastewater generation rates by year 2030 are estimated to be 36.5 mgd and under buildout conditions 42.2 mgd.[3]

Components of the Master Plan optimize the SRWTP's wastewater treatment capacity via storage to minimize treatment costs. The Master Plan provides for a capital program for expansion that addresses regulatory and industry changes in advanced treatment for potential "add-on" to conventional facilities and recycling and other alternative processes including source control improvements, evaluation of watershed offsets, and expanded recycling programs to meet the Master Plan objectives.

As described in the Sacramento Regional Wastewater Treatment Plant 2020 Master Plan Final EIR, construction and operation of the expanded SRWTP would result in several environmental impacts, most of which would be reduced to a less-than-significant level through mitigation implementation. The only significant and unavoidable impact related to the treatment plant that was identified would be from short-term increases in NOx during construction of SRWTP facilities. However, as potential future additional plant expansion may be required, this could result in environmental effects beyond what the Master Plan EIR noted. The following are potentially significant environmental impacts from further plant expansion of the wastewater treatment plant.

- Degradation of water quality in (creeks) downstream of the WWTP. Any expansion of the WWTP would require a National Pollutant Discharge Elimination System (NPDES) permit from the CVWQCB. This would substantially reduce the possibility of significant water quality impacts.

- Adverse impacts on riparian habitat and wildlife, and aquatic and recreation resources from water quality degradation.

- Physical disturbance of cultural resources, rare plants, vegetation and other wildlife habitat, and other natural resources from the construction and maintenance of new pipelines and lift stations.

[3] Year 2030 wastewater generation rates are calculated as follows: total commercial, industrial, office square footage in acres (1,288.8 ac) times 6 = 7732.9 ESD plus total dwelling units (109,884) = 117,616.9 ESD. 117,616.9 ESD times 310 gpd of wastewater = 36.5 mgd.
Buildout generation rates are as follows: total commercial, industrial, office square footage in acres (1,634.8ac) times 6 = 9808.5 ESD plus total dwelling units (126,241) = 136,050.5 ESD. 136,050.5 ESD times 310 gpd of wastewater = 42.2 mgd.

- Adverse noise, air quality, and visual impacts during the construction of new or expanded wastewater infrastructure.

- Adverse noise and odor impacts during the operation of expanded or new lift stations.

Supplying wastewater treatment to the entire Planning Area will require portions of the Planning Area to be annexed into SRCSD service area (the majority of the Planning Area is currently in the SRCSD service area, however portions of the Planning Area are in SRCSD sphere of influence but not within current service boundaries).

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies are contained in the General Plan Infrastructure, Services, and Finance Element and the Land Use Element, to ensure that proposed land uses associated with the General Plan do not adversely affect wastewater related services in the Planning Area:

Policy ISF.2.1 *Ensure the development of public infrastructure that meet the long-term needs of residents and ensure infrastructure is available at the time such facilities are needed.*

Action ISF.2.1.1 *Except when prohibited by state law, require sufficient capacity in all public facilities to maintain desired service levels and avoid capacity shortages, traffic congestion, or other negative effects on safety and quality of life.*

Action ISF.2.1.2 *Adopt a phasing plan for the development of public facilities in a logical manner that encourages the orderly development of roadways, water and sewer, and other public facilities.*

Action ISF.2.1.3 *Withhold public financing or assistance from projects that do not comply with the planned phasing of public facilities, and approve interim facilities only in special circumstances.*

Action ISF.2.1.4 *Work with utility providers to coordinate the installation or upgrading of utilities and eliminate multiple trenching of city streets.*

Policy ISF.2.2 *Coordinate with independent public providers, including schools, parks, and recreation, utility, transit, and other service districts, in developing service and financial planning strategies.*

Action ISF.2.2.1 *Establish a Technical Review Committee for continued coordination with outside service agencies, including water and sewer providers, the Cordova Recreation and Park District, and the school districts, during the review of plans and development projects.*

Policy ISF.2.3 *Ensure that adequate funding is available for all infrastructure and public facilities, and make certain that the cost of improvements is equitably distributed.*

Action ISF.2.3.1 *Require secure financing for all components of the transportation system through the use of special taxes, assessment districts, developer dedications, or other appropriate mechanisms. Financing should be sufficient to complete required major public facilities at their full planned capacities in a single*

phase. Major facilities include roadways of collector size or larger; all wells, water transmission lines, treatment facilities, and storage tanks needed to serve the project; and all sewer trunk and interceptor lines and treatment plants or treatment plant capacity.

Action ISF.2.3.2 *Require new development to fund its fair share portion of its impacts to all public infrastructure and facilities.*

Action ISF.2.3.3 *Include sufficient funding in fee programs and/or other finance mechanisms to cover the costs of each of the following roadway items:*

- *Design, engineering, environmental compliance, and construction of roadway lanes, traffic signals, and bridges.*
- *Right of way acquisition, design, engineering, environmental compliance, and construction costs.*
- *Drainage and other facilities related to new roadway construction.*
- *Installation of landscaped medians, sidewalks, and streetscaping where appropriate.*

Policy ISF.2.6 *Ensure that sewage conveyance and treatment capacity are available in time to meet the demand created by new development, or are guaranteed to be built by bonds or other sureties.*

Action ISF.2.6.1 *Require all subdivision developments to adhere to the following provisions, to the extent permitted by state law:*

- *Sewage/wastewater treatment capacity shall be available at the time of tentative map approval.*
- *The agency providing sewer service to the subdivision shall demonstrate prior to the approval of the Final Map by the City that sufficient capacity shall be available to accommodate the subdivision plus existing development, and other proposed or approved projects which have received sewage treatment capacity commitment.*
- *Onsite and offsite sewage conveyance systems required to serve the subdivision shall be in place prior to the approval of the Final Map, or their financing shall be assured to the satisfaction of the City, consistent with the requirements of the Subdivision Map Act.*
- *Sewage conveyance systems within the subdivision shall be in place and connected to the sewage disposal system prior to the issuance of any building permits. Model homes may be exempted from this policy as determined appropriate by the City, and subject to approval by the City.*

Action ISF.2.6.2 *Generally, the City shall not allow construction of independent community sewer systems to serve new development.*

Action ISF.2.6.3 *Require all commercial or industrial development, as well as all residential development with lots smaller than two acres, to connect to a public sewer system.*

Policy ISF.2.7 *Minimize visual impacts and physical impediments of utility infrastructure and equipment.*

Action ISF.2.7.1 *Coordinate with utility agencies to underground, strategically place, and screen equipment to the maximum extent feasible.*

Policy LU.2.5 *Phase growth based on market forces, infrastructure financing capacity, and the timing of the design, approval, and construction of transportation facilities and other infrastructure.*

Action LU.2.5.1 *Require market studies, financing plans, phasing plans, and other associated studies as needed as part of all new major development applications in order to evaluate the need for these projects, their compliance with established City policy, and the impact of the development on the City and service providers.*

Infrastructure, Services, and Financing Element Policy ISF.2.1 requires the City to ensure sufficient capacity in all wastewater facilities to maintain desired service levels and avoid capacity shortages. Policy ISF.2.2 requires that wastewater facilities are phased in a logical manner that avoids and encourages the orderly development of sewer related facilities. There are several General Plan policies to ensure adequate funding for wastewater facilities to meet the demand anticipated from development proposed in association with the General Plan. Policy ISF.2.3 requires secure financing or other appropriate mechanisms in order to provide for the completion of required major wastewater facilities at their full planned widths or capacities in one phase. Policy ISF.2.6 requires that new development fund its fair share portion of its impacts to all wastewater facilities and infrastructure and treatment capacity shall be available in time to meet the demand associated with the General Plan and assured through the use of bonds or other sureties to the City's satisfaction.

Wastewater service provision for any development proposed under the General Plan is subject to regulatory review and compliance with any applicable wastewater Master Plan. Additionally, the SRCSD and CSD-1 Plans discussed previously, identify phasing and financing mechanisms to implement the recommended improvements. The General Plan and all subsequent development projects are subject to current SRCSD and CSD-1 policies, ordinances, and fees.

Mitigation Measures

Therefore, implementation of the proposed Rancho Cordova General Plan policies and associated action items would ensure that adequate wastewater conveyance and treatment is available and will mitigate service impacts to **less than significant**. However, buildout under the General Plan would contribute to the need for expanded wastewater conveyance and treatment facilities that have been identified to result in **significant and unavoidable** impacts to the environment and could result in impacts as described previously.

4.12.4.4 CUMULATIVE SETTING, IMPACTS AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative setting for wastewater services is Sacramento County and the service boundaries of the SRCSD, which includes the CSD-1 and the SRWTP service areas. Development associated with the Rancho Cordova General Plan would result in substantial population increases and result in an incremental cumulative demand for wastewater collection, conveyance and treatment facilities. The reader is referred to Section 4.0 Assumptions for a list and locations of proposed and approved projects in the vicinity of the Planning Area.

The Average Daily Wet Flow at the SRWTP is expected to be 218 mgd in the year 2020, approximately 32 mgd under capacity with proposed expansion improvements in place. These expansions are projected to accommodate all projected regional growth through the year 2020.

CSD-1 considered diurnal flow variations (changes in flow rates over the course of a day), as well as estimates of extraneous flows that enter the sewer system due to infiltration and inflow (I/I) of groundwater and storm water during wet weather periods to determine peak wastewater flows, which define the sizes of sewers needed. The I/I flows were estimated using flow-monitoring data obtained as part of this project and from other flow monitoring efforts by CSD-1 and SRCSD. Additionally, CSD-1 uses SACOG dwelling unit projections to determine future wastewater flows. In the year 2020, CSD-1 estimates an ESDs of 351,800 units, which calculates to a 134 mgd average wastewater flow for the anticipated future CSD-1 service area (CSD-1).

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Wastewater Impacts

Impact 4.12.4.2 Implementation of the proposed General Plan, in addition to other reasonably foreseeable development in eastern Sacramento County (based on the land use projections established in the Sacramento County General Plan), would substantially increase in wastewater flows and require additional infrastructure and treatment capacity that would result in a physical effect on the environment. This is considered **cumulatively considerable**.

Potential development constructed as a result of implementation of the General Plan land use designations and other development planned in Sacramento County and SRCSD's service area would substantially increase cumulative demands for wastewater services and related facilities. The capacity of the SRWTP and construction of wastewater SRCSD interceptors are determined by regional population estimates performed by Sacramento Area Council of Governments and not dependent on land use designations and residential densities. Individual trunk systems are determined by land uses in a specific geographical area and are dependent on the phasing of development in a particular area. However, the contribution of growth under the proposed General Plan would likely trigger the need for new wastewater conveyance and treatment expansion planning beyond the master plans of CSD-1 and SRCSD. As noted under Impact 4.12.4.1, the environmental effects of currently anticipated wastewater facility improvements have been evaluated in the EIRs for the Sacramento Regional Wastewater Treatment Plant 2020 Master Plan Project and planned expansion of CSD-1 regional wastewater facilities. However, future growth may require modification and expansion of currently planned wastewater facility improvements. The physical effects of constructing new trunk systems and treatment facilities will be analyzed by the SRCSD and CSD-1 under separate environmental documents. All new

development projects are required to pay connection fees and construct necessary wastewater improvements to ensure adequate financing. Potential environmental effects associated with additional wastewater facility expansion include, but are not limited to, air quality, biological resources, cultural resources (depending on location), hazardous materials, land use, noise, traffic, visual resources, waste management, water and soil resources, and health hazards.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies are contained in the General Plan Infrastructure, Services, and Finance Element and the Land Use Element, to ensure that proposed land uses associated with the General Plan do not adversely affect wastewater related services in the Planning Area:

Policy ISF.2.1 Ensure the development of public infrastructure that meet the long-term needs of residents and ensure infrastructure is available at the time such facilities are needed.

Action ISF.2.1.1 Except when prohibited by state law, require sufficient capacity in all public facilities to maintain desired service levels and avoid capacity shortages, traffic congestion, or other negative effects on safety and quality of life.

Action ISF.2.1.2 Adopt a phasing plan for the development of public facilities in a logical manner that encourages the orderly development of roadways, water and sewer, and other public facilities.

Action ISF.2.1.3 Withhold public financing or assistance from projects that do not comply with the planned phasing of public facilities, and approve interim facilities only in special circumstances.

Action ISF.2.1.4 Work with utility providers to coordinate the installation or upgrading of utilities and eliminate multiple trenching of city streets.

Policy ISF.2.2 Coordinate with independent public providers, including schools, parks, and recreation, utility, transit, and other service districts, in developing service and financial planning strategies.

Action ISF.2.2.1 Establish a Technical Review Committee for continued coordination with outside service agencies, including water and sewer providers, the Cordova Recreation and Park District, and the school districts, during the review of plans and development projects.

Policy ISF.2.3 Ensure that adequate funding is available for all infrastructure and public facilities, and make certain that the cost of improvements is equitably distributed.

Action ISF.2.3.1 Require secure financing for all components of the transportation system through the use of special taxes, assessment districts, developer dedications, or other appropriate mechanisms. Financing should be sufficient to complete required major public facilities at their full planned capacities in a single phase. Major facilities include roadways of collector size or larger; all wells, water transmission lines, treatment facilities, and storage tanks needed to

serve the project; and all sewer trunk and interceptor lines and treatment plants or treatment plant capacity.

Action ISF.2.3.2 *Require new development to fund its fair share portion of its impacts to all public infrastructure and facilities.*

Action ISF.2.3.3 *Include sufficient funding in fee programs and/or other finance mechanisms to cover the costs of each of the following roadway items:*

- *Design, engineering, environmental compliance, and construction of roadway lanes, traffic signals, and bridges.*
- *Right of way acquisition, design, engineering, environmental compliance, and construction costs.*
- *Drainage and other facilities related to new roadway construction.*
- *Installation of landscaped medians, sidewalks, and streetscaping where appropriate.*

Policy ISF.2.6 *Ensure that sewage conveyance and treatment capacity are available in time to meet the demand created by new development, or are guaranteed to be built by bonds or other sureties.*

Action ISF.2.6.1 *Require all subdivision developments to adhere to the following provisions, to the extent permitted by state law:*

- *Sewage/wastewater treatment capacity shall be available at the time of tentative map approval.*
- *The agency providing sewer service to the subdivision shall demonstrate prior to the approval of the Final Map by the City that sufficient capacity shall be available to accommodate the subdivision plus existing development, and other proposed or approved projects which have received sewage treatment capacity commitment.*
- *Onsite and offsite sewage conveyance systems required to serve the subdivision shall be in place prior to the approval of the Final Map, or their financing shall be assured to the satisfaction of the City, consistent with the requirements of the Subdivision Map Act.*
- *Sewage conveyance systems within the subdivision shall be in place and connected to the sewage disposal system prior to the issuance of any building permits. Model homes may be exempted from this policy as determined appropriate by the City, and subject to approval by the City.*

Action ISF.2.6.2 *Generally, the City shall not allow construction of independent community sewer systems to serve new development.*

Action ISF.2.6.3 *Require all commercial or industrial development, as well as all residential development with lots smaller than two acres, to connect to a public sewer system.*

Policy ISF.2.7 *Minimize visual impacts and physical impediments of utility infrastructure and equipment.*

Action ISF.2.7.1 *Coordinate with utility agencies to underground, strategically place, and screen equipment to the maximum extent feasible.*

Policy LU.2.5 *Phase growth based on market forces, infrastructure financing capacity, and the timing of the design, approval, and construction of transportation facilities and other infrastructure.*

Action LU.2.5.1 *Require market studies, financing plans, phasing plans, and other associated studies as needed as part of all new major development applications in order to evaluate the need for these projects, their compliance with established City policy, and the impact of the development on the City and service providers.*

Mitigation Measures

Implementation of the above General Plan policies and associated action items would ensure that the General Plan's cumulative wastewater service demands are **less cumulatively considerable**. However, the General Plan's contribution to significant and unavoidable environmental effects identified in the CSD-1 Sewerage Facilities Expansion Master Plan EIR, SRCSD Interceptor Master Plan EIR, SRWTP Master Plan EIR, as well as anticipated environmental effects from additional future wastewater feature expansions are **cumulatively considerable** and is considered a **significant and unavoidable** impact.

4.12.5 SOLID WASTE

EXISTING CONDITIONS

The Sacramento County Department of Waste Management & Recycling (DWMR) is responsible for maintaining a waste management system for residents and businesses in the unincorporated areas of the County. The DWMR also oversees the Sacramento Regional Solid Waste Authority (SWA), which is a joint powers authority including the unincorporated Sacramento County, and the cities of Sacramento and Citrus Heights. The SWA is under the direction of the DWMR and regulates commercial solid waste collection by franchised haulers through SWA ordinances. The SWA oversees the waste management collection and disposal services for approximately 155,500 residences in the unincorporated area of the County. The largest commercial, residential, and industrial haulers in the County are Waste Management and BFI. Both Waste Management and BFI own and operate private transfer and disposal facilities, but also use public facilities for some of the non-recyclable materials collected. The majority of the solid waste, recyclable materials, and greenwaste collected in the County are processed at these facilities; however, some of the remaining un-recyclable waste is disposed of at Kiefer Landfill and other landfills outside the Sacramento area.

Waste Management has contracted with the County to provide commercial solid waste/recyclable/greenwaste collection and disposal in the unincorporated portions of the Planning Area. Waste Management processes the majority of what it collects at its own transfer facilities; however, uses the Keifer Landfill and the regional landfill at Lockwood Nevada for the remaining un-recyclable materials. BFI contracted with the City of Rancho Cordova and the County of Sacramento to provide collection and disposal services for those portions of the Planning Area within the existing city limits but also provide residential and commercial services to the unincorporated portions of the Area. BFI processes all of the residential materials it collects within the city limits and most of the commercial waste it collects at its Elder Creek Recycling and Transfer station. Waste and the remaining un-recyclable materials not processed at this facility are sent to the Forward Landfill in Manteca. BFI also uses the Kiefer Landfill for a limited amount of commercial waste disposal.

Solid Waste Diversion

Unincorporated Sacramento County had a diversion rate of 53 percent in 2002. Diversion rates for 2003 and beyond are only preliminary estimates, for 2004 the preliminary data show a 59 percent diversion rate[4]. In 2000, there were approximately 706,463 tons of waste materials in the unincorporated County's waste stream, which includes the entire Planning Area. Approximately 598,765 tons were buried in a landfill, 107,697 tons were transported out of state for disposal, and one ton was used for cogeneration (CIWMB).

The California Integrated Waste Management Board (CIWMB) provides an average per-capita solid-waste disposal rate for unincorporated Sacramento County of 0.36 ton per resident per year (CIWMB 2006). Business waste-disposal rates calculated by the CIWMB range from 0.3 ton per year for general-merchandise stores to 3.1 tons per year for restaurants (CIWMB).

In order to continue to achieve a 50 percent diversion, the Sacramento County Waste Management and Recycling Division (WMRD) converted its existing recycling collection

[4] Preliminary data is subject to change during the CIWMB review process or when a jurisdiction submits updated information. These diversion rates are not official diversion rates and have not been reviewed by CIWMB.

program to a co-mingled program and has completed the implementation of greenwaste collection for residents within its service area. SWA adopted Ordinance No. 2 and Resolution 96-01, which mandates that refuse haulers, as a condition of their refuse hauling permit, divert 30 percent of the waste they currently collect from commercial and multi-family accounts in the unincorporated areas of the County and the cities of Citrus Heights and Sacramento. The SWA relies on private refuse haulers (commercial permittees) and local solid waste facilities to comply with this ordinance. County staff estimates that compliance with this ordinance, combined with existing diversion by private recycling companies, would increase overall diversion rates in the commercial/multi-family and self-haul sectors (and for the Regional Agency) to 50 percent. (Kobold, April 2005)

Landfill Capacity

Solid waste generated from the Planning Area is ultimately disposed of at three facilities: the Kiefer Road Landfill, the Forward Landfill, and the Lockwood Regional Landfill in Nevada. The Kiefer Road Landfill is located at 12701 Kiefer Boulevard, near the intersection of Kiefer Boulevard and Grant Line Road. The Kiefer Road Landfill boundary coincides with the Planning Area's southeastern boundary and the eastern side of Grant Line Road. The Kiefer Landfill is also bordered by the Grant Line South and East Planning Areas, which are proposed to the north and south of the landfill.

The Kiefer Road Landfill comprises approximately 1,084 acres and is the only landfill within Sacramento County that is permitted to accept non-hazardous solid waste and treated medical waste for disposal. The Kiefer Road Landfill is classified as a major landfill, which is defined as a facility that receives more than 50,000 tons of solid waste per year and is the only facility in Sacramento County that accepts solid waste from the public. The maximum tons per day (tpd) allowed at the Kiefer Road Landfill is 10,815 tpd, with an average intake of 6,362 tpd. The landfill has a total capacity of 117 million cubic yards (58 million tons). Currently, the Kiefer Road landfill is operating below permitted capacity and will have capacity for the next 30 to 40 years based on current disposal rates.

The Forward Landfill is a Class I, II, and III landfill, which accepts hazardous wastes, variance wastes, designated wastes, in addition to non-hazardous solid waste and treated medical waste. The Forward Landfill encompasses 567 acres in San Joaquin County and is located at 9999 S. Austin in City of Manteca, which is approximately 60 miles south of the Planning Area. The maximum permitted capacity of this landfill is 8,668 tons per day, with an average intake of 791 tpd, with an ultimate permitted capacity of 50 million cubic yards. This landfill is permitted through 2020 and has approximately 40 million cubic yards of remaining capacity.

The Lockwood Regional Landfill is a Class I landfill on approximately 1,535 acres, located approximately 10 miles east of Reno-Sparks in Storey County Nevada, and is made up entirely of imported wastes. Lockwood, which is owned and operated by Refuse Inc., provides disposal capacity for much of western Nevada, including Washoe, Storey, Lyon, Douglas and part of Churchill County. In addition, Lockwood receives waste from several areas in California, including the Lake Tahoe Basin, the Sierra foothills and portions of Sacramento County. The landfill receives approximately 4,000 tons per day (TPD) of solid waste with nearly 1,200 TPD (30%) coming from California. This facility has an existing maximum permitted capacity of 200 million tons; however, there are proposals that would triple the existing size of the landfill. This facility has a current permitted capacity for the next 40 years or through 2045 (Washoe County, 2006)

Service Standards

Solid waste is generated at an average per capita rate of six pounds per day. Under AB 939, the County Integrated Waste Management Plan will require recycling programs that are expected to result in a 50 percent diversion away from landfills. As previously indicated, waste in the Planning Area is collected by Waste Management and BFI, which are capable of serving approximately 2,500 to 3,000 households per week.

SOLID WASTE SOURCE REDUCTION PROGRAMS

Sacramento County

The County of Sacramento presently operates a solid waste management system (the "Solid Waste System") that is funded by solid waste revenues deposited in the County Refuse Enterprise Fund. The amount of solid waste disposed at the Solid Waste System has declined by almost 50 percent, due primarily to the delivery of waste generated in the City of Sacramento to transfer or disposal facilities other than the Solid Waste System. This loss of waste (and the corresponding loss of revenues associated with such waste) has placed significant financial stress on the Solid Waste System. The County is currently considering a number of additional ways to stabilize the long-term financial aspects of the Solid Waste System. In addition to the Solid Waste System the Department of Waste Management and Recycling implements various recycling programs including, but not limited to, Christmas Tree recycling, curbside recycling, and computer, television, and electronics recycling to reduce solid waste generation in the unincorporated portions of the County.

City of Rancho Cordova

In 1989, the California Legislature enacted AB 939, which requires every city and county within the State to prepare a Household Hazardous Waste Element (HHWE) and to provide for management of household hazardous waste generated by the residents within its jurisdiction. The City is in the process of preparing its HHWE. Each component of the Element must undergo environmental review before being approved by the City Council.

4.12.5.2 REGULATORY FRAMEWORK FOR SOLID WASTE SERVICES

FEDERAL

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) was enacted in 1976 to address the huge volumes of municipal and industrial solid waste generated nationwide. After several amendments, the Act as it stands today governs the management of solid and hazardous waste and underground storage tanks (USTs). RCRA, enacted in 1976, is an amendment to the Solid Waste Disposal Act of 1965. RCRA has been amended several times, most significantly by the Hazardous and Solid Waste Amendments (HSWA) of 1984.

RCRA is a combination of the first solid waste statutes and all subsequent amendments. RCRA authorizes EPA to regulate waste management activities. RCRA authorizes states to develop and enforce their own waste management programs, in lieu of the federal program, if a state's waste management program is substantially equivalent to, consistent with, and no less stringent than the federal program.

STATE

California Integrated Waste Management Act

The California Integrated Waste Management Act of 1989 (AB 939) requires every city and county in the State to prepare a Source Reduction and Recycling Element to its Solid Waste Management Plan that identifies how each jurisdiction will meet the mandatory State waste diversion goals of 25 percent by 1995 and 50 percent by 2000. The purpose of AB 939 is to "reduce, recycle, and re-use solid waste generated in the State to the maximum extent feasible." The term "integrated waste management" refers to the use of a variety of waste management practices to safely and effectively handle the municipal solid waste stream with the least adverse impact on human health and the environment. The Act has established a waste management hierarchy, as follows: Source Reduction; Recycling; Composting; Transformation; and Disposal. The City provides for the source reduction through the collection of greenwaste and recycling as part of the waste disposal program, which is provided by BFI Waste Disposal of Sacramento.

California Integrated Waste Management Board Model Ordinance

Subsequent to the Integrated Waste Management Act, additional legislation was passed to assist local jurisdictions in accomplishing the goals of AB 939. The California Solid Waste Re-use and Recycling Access Act of 1991 (§42900-42911 of the Public Resources Code) directs the California Integrated Waste Management Board (CIWMB) to draft a "model ordinance" (which Sacramento County has adopted) relating to adequate areas for collecting and loading recyclable materials in development projects.

The model ordinance is used by the County as the basis for imposing recycling conditions on new development projects and on existing projects that add 30 percent or more to their existing floor area. The model ordinance requires that any new development project, for which an application is submitted on or after September 1, 1994, include "adequate, accessible, and convenient areas for collecting and loading recyclable materials." For subdivisions of single-family detached homes, recycling areas are required to serve only the needs of the home within that subdivision.

LOCAL

Sacramento County General Plan

The existing Sacramento County General Plan was adopted in December of 1993, and is currently being updated. The Sacramento County General Plan contains solid waste related policies, which are applicable to the unincorporated portions of the Planning Area. The only policy that may affect land use is PF-21 requiring a landfill buffer area for 2000 feet in every direction. The buffer are must be consist of agricultural, open space or recreational land uses. Policies PF-22 and PF-23 discuss fees and cost to cover solid waste disposal.

Cordova Community Plan

Adopted by the Sacramento County Board of Supervisors on May 21, 2003, this document is an extension of the Sacramento County General Plan, but is much more specific in terms of the objectives and implementation strategies; and is intended to address issues that are most important to this community. It includes several elements (e.g., land use, circulation, and housing), that are similar to those contained in the County's General Plan and provides goals,

objectives and implementation actions for the Plan area. Please note, while the Plan area covers a large portion of the General Plan Planning Area and all areas within the existing City limits, it does not cover the entire Planning Area. The Jackson, Grant Line South, East Planning Areas are not within the Cordova Community Plan. Objective PS-4 requires for the provision and maintenance of solid waste collection and disposal in the community while reducing the amount of solid waste.

4.12.5.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

A solid waste impact is considered significant if implementation of the project would result in any of the following:

1) Result in the need for new systems or supplies, or a substantial expansion or alteration to the solid waste materials recovery or disposal.

2) Substantially affect the ability to comply with solid waste source reduction programs.

METHODOLOGY

Evaluation of potential impacts on solid waste facilities and services was based on consultation with staff from the Sacramento County Environmental Management Department, review of the Sacramento County General Plan, as well as other pertinent literature.

Solid Waste Service

Impact 4.12.5.1 Implementation of the General Plan would increase solid waste generation and the demand for related services. This is considered a **significant** impact.

The land uses associated with the Rancho Cordova General Plan include residential, commercial, and industrial designations, which would substantially increase solid waste generation over existing conditions. Implementation of the General Plan could result in the construction of 53,480 new dwelling units within the existing City limits and an additional 31,012 new dwelling units for the unincorporated portion of the Planning Area, for a total of 84,492 dwelling units when compared to existing conditions. The land uses associated with the General Plan would also result in a Planning Area buildout population of 310,568 people. Assuming that each person generates 0.36 tons of solid waste each year, as established by CIWMB, the Planning Area would create approximately 11,180 tons of solid waste per year or approximately 30.6 tons per day (tpd).

Solid waste generated on a per employee per day basis has been identified by CIWMB for unincorporated Sacramento County as 11.6 lbs per employee per day (2.1 tons/year) (CIWMB). Projected year 2030 employees in the Planning Area are estimated to be 146,459 persons and under buildout conditions to be 195,021 persons. This calculates to 849 tons per day in 2030 and 1,131 tons per day at buildout for employees. In addition, project construction would also generate solid waste that would require service.

The 1993 Sacramento County General Plan identified a total 2010 population of 841,330. This population projection was then used to calculate the total amount of solid waste produced per capita in the unincorporated County area in 2010. A total of 1,725 tpd of solid waste using a 32 percent and 1,261 tpd of solid waste using a 50 percent waste stream reduction scenario by

2010 for all of unincorporated Sacramento County. Individual communities such as Rancho Cordova were not identified as of the waste generation, so a specific population-to-population comparison cannot be made. However one thing to consider, the per capita solid waste generation factor used to calculate the 2010 projects were much larger (1.1 tons per year and 0.75 tons per year as opposed to the current standard of 0.36 tons per year). As a result, less solid waste is generated by a potentially greater population.

The Kiefer Landfill has a permitted capacity of 10,815 tons per day (tpd). Currently, the daily intake at the landfill is 6,362 tpd and is predicted to be 8,404 tpd by 2022, based on current development proposals associated with the current Sacramento County General Plan, which includes the Rancho Cordova Planning Area.

The Kiefer Road Landfill, the Forward Landfill, and the Lockwood Regional Landfill have adequate capacity to accommodate waste generated as a result of implementing the City's General Plan; however, the City may contract with other service providers during the horizon of the General Plan, which in turn could result in the use of other landfill facilities. All solid waste collected by Waste Management and BFI is transported to their privately owned and operated transfer stations where the recyclable materials are separated out for processing (Quinn, 2005). The remaining waste is transported to one of the three landfills discussed above. The physical environmental effects of transporting additional waste generated as a result of the General Plan including additional trucks and trips, increased air emissions, traffic, noise, and biological related impacts etc. are addressed in the appropriate technical sections (i.e., Air Quality, Transportation and Circulation, Biological Resources, etc.) of this EIR.

As discussed previously, growth as a result of implementation of the General Plan would increase the amount of solid waste generated in the Planning Area. Without adequate waste diversion programs, the increase in solid waste has the potential to being about non-compliance with AB 939 and potentially RCRA, that of a reduction of solid waste.

The Kiefer Landfill has a 2,000-foot buffer around the permitted footprint of the landfill, which was established with the recent expansion. In the proposed East Planning Area, there are three parcels (APN 073-0070-011, 073-0070-002, and 073-0040-013) that are adjacent to the buffer boundaries and are wholly or in part within the 2,000-foot buffer. Sacramento County has and easement for the entire parcel 073-0070-011 for landfill operations. In the proposed Grant Line North Planning Area, there are eight parcels that are adjacent to the buffer and are wholly or partially located within the 2,000-foot buffer. Additionally, all parcels in the proposed Grant Line South Planning Area are adjacent to the buffer boundaries, with three of the parcels partially or wholly within the buffer area. Additional General Plan policies that ensure that proposed land uses associated with the General Plan do not adversely affect solid waste services in the Planning Area are set forth below.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan Infrastructure, Services, and Financing and Natural Resource Policies and associated Action Items are included in the Infrastructure, Services, and Finance Element and are applicable to the Planning Area and ensure that proposed land uses associated with the General Plan do not adversely affect solid waste services in the Planning Area.

Policy ISF.2.1 *Ensure the development of public infrastructure that meet the long-term needs of residents and ensure infrastructure is available at the time such facilities are needed.*

Action ISF.2.1.1 *Except when prohibited by state law, require sufficient capacity in all public facilities to maintain desired service levels and avoid capacity shortages, traffic congestion, or other negative effects on safety and quality of life.*

Action ISF.2.1.2 *Adopt a phasing plan for the development of public facilities in a logical manner that encourages the orderly development of roadways, water and sewer, and other public facilities.*

Action ISF.2.1.3 *Withhold public financing or assistance from projects that do not comply with the planned phasing of public facilities, and approve interim facilities only in special circumstances.*

Action ISF.2.1.4 *Work with utility providers to coordinate the installation or upgrading of utilities and eliminate multiple trenching of city streets.*

Policy ISF.2.2 *Coordinate with independent public service providers, including schools, parks and recreation, reclamation, water, transit, electric and other service districts, in developing financial and service planning strategies.*

Policy NR.8.1 *Support recycling efforts by developing a set of programs to educate residents on recycling and provide recycling services.*

Action NR.8.1.1 *Provide curbside recycling and green waste service to all single-family and duplex residences in Rancho Cordova.*

Action NR.8.1.2 *Create and facilitate a series of educational workshops for the public and businesses on composting and recycling. Provide at least one program to increase recycling by occupants of multi-family housing.*

Action NR.8.1.3 *Encourage all office, commercial, and multi-family complexes to provide recycling bins and collection service for paper, plastic, glass, and metal.*

Action NR.8.1.4 *Provide recycling centers at City facilities (e.g., City Hall, libraries) that are available to the public free-of-charge.*

Action NR.8.1.5 *Develop a list of stores that sell recycled products and distribute that list to residents and businesses.*

Action NR.8.1.6 *Provide locations for household hazardous wastes to be recycled.*

Policy NR.8.2 *Encourage all companies that do business in Rancho Cordova to recycle and reuse construction scraps, demolition materials, concrete, industrial waste, and green waste.*

Action NR.8.2.1 *Encourage the Elk Grove Unified School District and the Folsom-Cordova School District to support recycling at school sites by placing easily accessible recycling bins, providing educational programs on recycling, and using recycled products.*

Policy NR.8.3 *Promote the use of rubberized asphalt on all public roadways in an effort to recycle old tires and reduce noise impacts. Implementation of this policy will help to preserve aggregate resources.*

Policy NR.8.4 *Encourage the use of recycled materials and source reduction (also known as waste prevention) by governmental agencies and local businesses.*

Action NR.8.4.1 *Ensure that at least 50 percent of the City's office supply purchases are comprised of recycled or reusable products.*

Policy NR.8.5 *Meet state mandates for solid waste reduction and recycling. Increase recycling efforts beyond those required by state law through supporting businesses that buy and sell re-used materials, such as materials exchange centers.*

Action NR.8.5.1 *Implement the State's source reduction and recycling element (required by the California Integrated Waste Management Act) and the household hazardous waste element (required by PRC 41500-41510).*

Policy NR.8.6 *Encourage the use of recycled-content products and construction materials.*

Policy NR.8.7 *Maintain contact with Sacramento County and BFI regarding the capacity projections of Kiefer Landfill and Lockwood Landfill to ensure an adequate capacity for the long-term disposal needs of Rancho Cordova.*

Mitigation Measures

MM 4.12.5.1 The following shall be added as a new policy under Goal LU.1:

Property buffering for the Kiefer landfill of a 2,000-foot buffer around the permitted footprint of the landfill shall be required. ~~planned with the landfill's operation in mind.~~ Where appropriate, land use density, buffers, or other measures should be used when planning future land uses near the landfill.

Implementation of General Plan Policies ISF 2.1, ISF 2.2, NR 8.1, NR 8.2, NR 8.3, NR 8.4, NR 8.5, NR 8.6, NR 8.7 from the Infrastructure, Services, and Financing and Natural Resource Elements and associated Actions and Mitigation Measure MM 4.12.5.1 would ensure that the General Plan's solid waste service impacts are **less than significant**.

4.12.5.4 CUMULATIVE SETTING, IMPACTS AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative setting for solid waste includes Sacramento County and affected landfills. The development associated with the proposed General Plan would result in substantial dwelling unit, population, and commercial increases, which would contribute to a cumulative demand for solid waste services and facilities. Sacramento County, along with surrounding counties such as San Joaquin, Amador, and El Dorado, are all experiencing growth and contribute to cumulative demand for solid waste services. This cumulative setting accounts for the existing development in the City, proposed development in Planning Area, portions of Sacramento County and the capacity of local and regional solid waste facilities. Reader is referred to Section 4.0 Assumptions for a list and locations of proposed and approved projects in the vicinity of the Planning Area.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Solid Waste Service

Impact 4.12.5.2 The proposed project, in addition to proposed and approved projects in the region area, would generate solid waste that would require expanded collection and disposal services. The project's contribution would be **less than cumulatively considerable.**

Development proposed in association with the General Plan (i.e., all residential, industrial or commercial development) would contribute to cumulative solid waste generation and related impacts and require additional truck trips, personnel and recycling facilities to meet the projected demand. Using the per capita solid waste generation identified and assuming implementation of mandatory reduction and diversion programs, cumulative development associated with the General Plan would generate approximately 111,804 tons of solid waste per year. This figure is based on the approximate population under buildout conditions of persons x 0.36 tons/person/yr = tons/yr and the solid waste generated by the number of projected buildout employees as identified under Impact 4.12.5.1. All development projects are subject to the mandatory City of Rancho Cordova and Sacramento County source reduction and recycling programs. The cumulative air quality, traffic, and noise impacts resulting from increased solid waste services are addressed in the appropriate technical sections of this EIR.

As previously discussed, the Kiefer Landfill, the Forward Landfill in Manteca, and the Lockwood Regional Landfill in Nevada would accommodate the Planning Area solid waste disposal demands and have adequate capacity to accommodate projected population growth and subsequent solid waste generation in the Planning Area at buildout under the General Plan. Implementation of the Rancho Cordova General Plan would not require additional landfill capacity or result in any environmental impacts not evaluated in this section. Implementation of source reduction measures by the City, such as recycling, collection of green waste, the use of recycled/reusable products would assist in the mandated source reduction goal. Additionally, landfills and other solid waste facilities must undergo rigorous environmental review prior to the expansion of existing landfills or the opening of new facilities. Therefore, implementation of the General Plan would have a **less than cumulatively considerable** impacts related to solid waste services.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan Infrastructure, Services, and Financing and Natural Resource Policies and associated Action Items are included in the Infrastructure, Services, and Finance Element and are applicable to the Planning Area and ensure that proposed land uses associated with the General Plan do not adversely affect solid waste services in the Planning Area.

Policy ISF.2.1 *Ensure the development of public infrastructure that meet the long-term needs of residents and ensure infrastructure is available at the time such facilities are needed.*

Action ISF.2.1.1 *Except when prohibited by state law, require sufficient capacity in all public facilities to maintain desired service levels and avoid capacity shortages, traffic congestion, or other negative effects on safety and quality of life.*

Action ISF.2.1.2 *Adopt a phasing plan for the development of public facilities in a logical manner that encourages the orderly development of roadways, water and sewer, and other public facilities.*

Action ISF.2.1.3 *Withhold public financing or assistance from projects that do not comply with the planned phasing of public facilities, and approve interim facilities only in special circumstances.*

Action ISF.2.1.4 *Work with utility providers to coordinate the installation or upgrading of utilities and eliminate multiple trenching of city streets.*

Policy ISF.2.2 *Coordinate with independent public service providers, including schools, parks and recreation, reclamation, water, transit, electric and other service districts, in developing financial and service planning strategies.*

Policy NR.8.1 *Support recycling efforts by developing a set of programs to educate residents on recycling and provide recycling services.*

Action NR.8.1.1 *Provide curbside recycling and green waste service to all single-family and duplex residences in Rancho Cordova.*

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Action NR.8.1.6 *Provide locations for household hazardous wastes to be recycled.*

Policy NR.8.2 *Encourage all companies that do business in Rancho Cordova to recycle and reuse construction scraps, demolition materials, concrete, industrial waste, and green waste.*

Action NR.8.2.1 *Encourage the Elk Grove Unified School District and the Folsom-Cordova School District to support recycling at school sites by placing easily accessible recycling bins, providing educational programs on recycling, and using recycled products.*

Policy NR.8.3 *Promote the use of rubberized asphalt on all public roadways in an effort to recycle old tires and reduce noise impacts. Implementation of this policy will help to preserve aggregate resources.*

Policy NR.8.4 *Encourage the use of recycled materials and source reduction (also known as waste prevention) by governmental agencies and local businesses.*

Action NR.8.4.1 *Ensure that at least 50 percent of the City's office supply purchases are comprised of recycled or reusable products.*

Policy NR.8.5 *Meet state mandates for solid waste reduction and recycling. Increase recycling efforts beyond those required by state law through supporting businesses that buy and sell re-used materials, such as materials exchange centers.*

Action NR.8.5.1 *Implement the State's source reduction and recycling element (required by the California Integrated Waste Management Act) and the household hazardous waste element (required by PRC 41500-41510).*

Policy NR.8.6 *Encourage the use of recycled-content products and construction materials.*

Policy NR.8.7 Maintain contact with Sacramento County and BFI regarding the capacity projections of Kiefer Landfill and Lockwood Landfill to ensure an adequate capacity for the long-term disposal needs of Rancho Cordova.

Implementation of General Plan Policies ISF 2.1, ISF 2.2 and NR 8.1, NR 8.2, NR 8.3, NR 8.4, NR 8.5, NR 8.6, NR 8.7 from the Infrastructure, Services, and Financing and Natural Resource Elements and associated Action Items would ensure that the General Plan's cumulative solid waste service impacts are **less than cumulatively considerable**.

Mitigation Measures

None required.

4.12.6 PUBLIC SCHOOLS

EXISTING SETTING

According to the 2000 Census, there were approximately 1,286 kindergarten students, 5,261 1st to 4th grade students, 4,857 5th to 8th grade students and 5,286 high school (attending either private and public schools) in the General Plan Planning Area in 2000. These students are currently served by four school districts providing public elementary through high school educational facilities: Folsom Cordova Unified School District, Elk Grove Unified School District, Sacramento City Unified School District and San Juan Unified School District. Currently there are 17 elementary schools, three middle schools and two high schools in the Planning Area. Additionally, one elementary, two middle and two high schools serve students in the General Plan Planning Area but are located outside of the Planning Area. The current school district boundaries are displayed in **Figure 4.12.6-1**.

Folsom Cordova Unified School District

The FCUSD boundaries cover the majority of the General Plan Planning Area. FCUSD encompasses Sunrise Boulevard North Planning Area, Sunrise Boulevard South Planning, Westborough Planning Area, Rio Del Oro Planning Area, Aerojet Planning Area, Glenborough Planning Area and portions of Folsom Boulevard Planning Area, Grant Line West Planning Area, Mather Planning Area, Jackson Planning Area, East Planning Area, and Countryside/Lincoln Village Planning Area. Schools within the Planning Area and their 2004/2005 enrollments are identified in **Table 4.12.6-1.**

TABLE 4.12.6-1
FCUSD SCHOOLS AND 2004/05 ENROLLMENT IN THE PLANNING AREA

School Type	Grade Levels	2004/05 Enrollment	Location
Elementary			
Cordova Gardens	k-6	452	City
Cordova Lane	k-5	594	City
Cordova Meadows	k-6	398	City
Cordova Villa	k-5	378	City
Mather Heights	k-6	434	Planning Area
Peter J. Shields	k-6	351	City
Rancho Cordova	k-6	350	City
Riverview	k-6	248	City
White Rock	k-6	552	City
Williamson	k-6	405	City
Subtotal		*4,162*	
Middle Schools			
Mills	6-8	1,065	City
Mitchell	6-8	764	City
Subtotal		*1,829*	
High Schools			
Cordova	9-12	2,062	City

School Type	Grade Levels	2004/05 Enrollment	Location
Subtotal		*2,062*	
Alternative/Continuation			
Kinney	9-12	273	City
Kitty Hawk	9-12	16	Planning Area
Mather Youth	7-12	83	Planning Area
Reymouth TMR	k-12	108	City
Subtotal		*480*	
Total		8,533	

Source: California Department of Education

Folsom Cordova Unified School District (FCUSD) encompasses approximately 98 miles in eastern Sacramento County and includes the portion of the City's of Rancho Cordova and Folsom, and a small parcel (in the American River Canyon) located near the unincorporated community of Orangevale. The district is made up of 30 schools, with 19 elementary schools, four middle schools, two high schools, plus continuation high schools, adult education and other service centers. Based on current facilities, the FCUSD has a capacity of 18,265 students. Most schools in the Planning Area are below capacity allowing for more students. On a district level, FCUSD is operating at or near capacity for elementary and high schools. The school district has experienced considerable growth in the past few years.

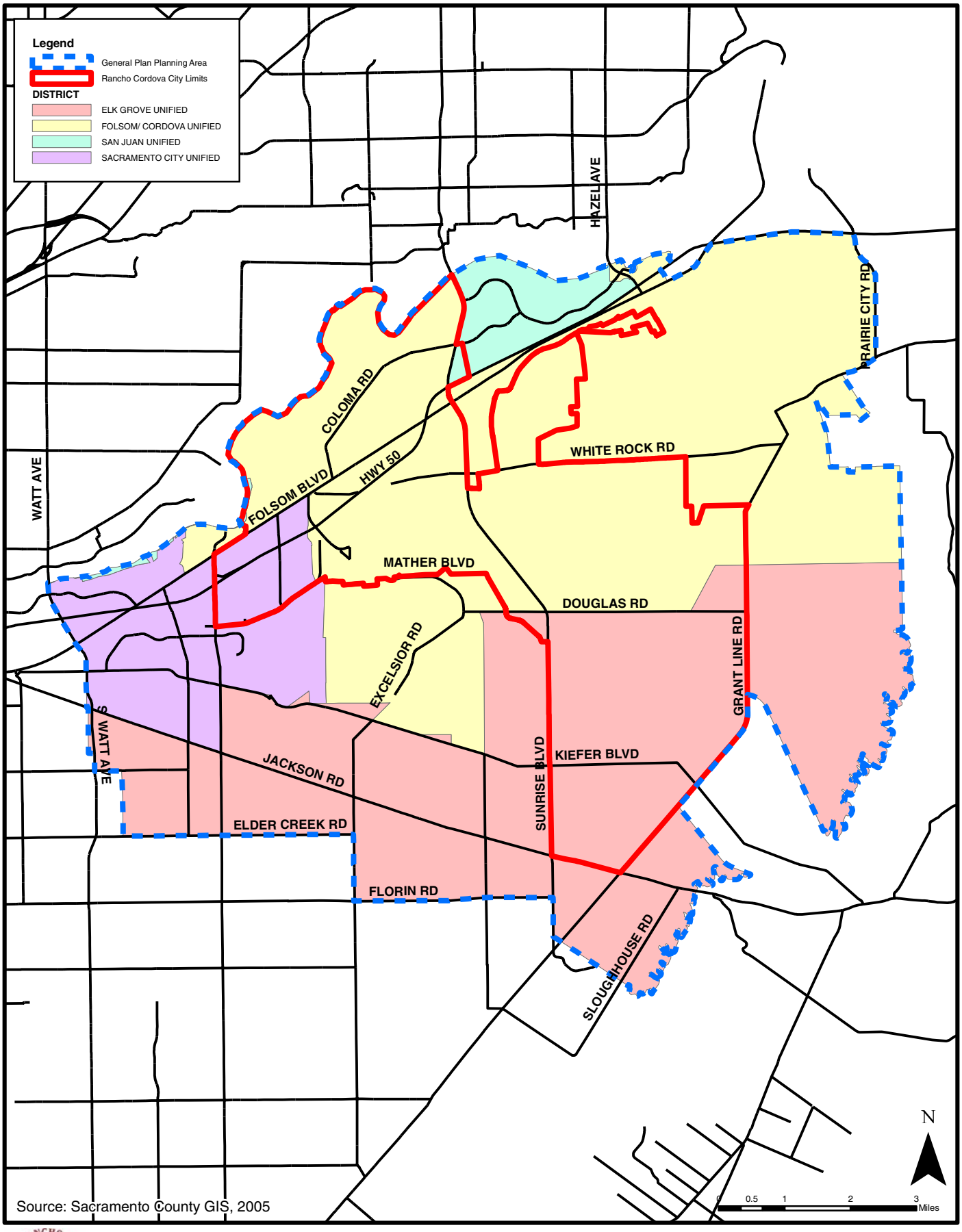
The Elk Grove Unified School District

The Elk Grove Unified School District (EGUSD) boundaries cover portions of the General Plan Planning Area including; Suncreek/Preserve, Grant Line North Planning Area, portions of the Mather Planning Area, Jackson Planning Area, Grant Line South Planning Area, and the East Planning Area. The existing land uses are generally vacant lands in the Sunrise Douglas Community Plan area, grazing land and mining activities west of Sunrise Boulevard. Current enrollment and schools (2004-2005) that serve the Planning area are identified in **Table 4.12.6-2**. Both Albiani Middle School and Pleasant Grove High School are new schools, therefore 2004/05 enrollment statistics are not available.

TABLE 4.12.6-2
EGUSD SCHOOLS AND 2004/05 ENROLLMENT IN THE PLANNING AREA

School Type	Grade Levels	2004/05 Enrollment	Location
Elementary			
Cosumnes River	*k-6*	*471*	*Sacramento County*
Sierra Enterprise	*k-6*	*543*	*Planning Area*
Subtotal		1,014	
Middle Schools			
Katherine Albiani	*7-8*	*New school*	*Elk Grove*
High Schools			
Pleasant Grove	*9-12*	*New school*	*Elk Grove*

Source: California Department of Education



Source: Sacramento County GIS, 2005

T:_GIS\Rancho_Cordova\MXD\General_Plan\EIR\fig4.12.6-1_school_districts.mxd

City of Rancho Cordova
Planning Department

Figure 4.12.6-1
School Districts
Within the General Plan Planning Area

The Elk Grove unified School District (EGUSD) has more than doubled in the past decade and is expected to experience the same level of growth through 2010. The District covers nearly 320 square miles and has been in existence for over 41 years. The EGUSD boundaries encompass the entire City of Elk Grove, portions of the City of Sacramento and the City of Rancho Cordova, and most of southern Sacramento County. The District currently serves more than 52,500 students and expects to reach 80,000 students by 2010. Due to constant increases in population, the Elk Grove Unified School District has made several adjustments to its district boundaries over the past 5 years.

According to EGUSD, enough new families move into the District to fill a classroom every three to five days. To keep up with this growth, the district will need to build approximately four schools every year. These schools are needed to accommodate growth and allow the district to lower the enrollments at its middle and high schools. As the district opens new schools, school boundaries will also change. With more than 320 square miles, the district will continue to grow for the foreseeable future. Elk Grove will need to house a projected enrollment of 80,000 students by 2010, and thousands of homes are scheduled to be built after 2010.

Sacramento City Unified School District

As depicted in **Figure 4.12.6-1**, the northwestern section of the Planning Area falls within the Sacramento Unified School District boundaries. This portion of the Planning Area is completely built out with light industry, mining activities, parks and open space, low-density residential, public/quasi-public, commercial mixed use, medium residential, and high-density residential land uses. As the area is completely built out the demand for new school facilities is limited.

TABLE 4.12.6-3
SCUSD SCHOOLS AND 2004/05 ENROLLMENT IN THE PLANNING AREA

School Type	Grade Levels	2004/05 Enrollment	Location
Elementary			
Abraham Lincoln	k-6	517	City
A. M. Winn	k-6	434	City
Golden Empire	k-6	580	Planning Area
James Marshall	k-6	464	Planning Area
Sequoia	k-6	514	Planning Area
Subtotal		2,509	
Middle Schools			
Albert Einstein	7-8	910	Planning Area
Subtotal		910	
High Schools			
Rosemont	9-12	996	Planning Area
Subtotal		996	
Total		4,415	

Source: California Department of Education

The Sacramento Unified School District is 150 years old. It began in 1854 on the corner of 5th and K Streets and includes Sacramento High School, which is the second oldest high school west of the Mississippi opened in 1856. The district has steadily grown and now is among the 10 largest school districts in California serving about 50,000 K-12 students and 20,000 adult education students. The district employs approximately 3,000 teachers and 3,000 classified non-teaching employees (clerical/technical, maintenance, classroom support, nutrition, and transportation). A district is considered unified when it serves all grades from kindergarten through 12th. In addition to neighborhood schools, the district offers specialized programs such as basic or fundamental, alternative schools, Waldorf methods, and a wide range of vocational subjects.

The San Juan Unified School District

The San Juan Unified School district (SJUSD) currently serves a small portion of the General Plan Planning Area known as Gold River. This area is completely built out with existing uses including: estate residential, low-density residential, medium-density residential, high-density residential, commercial-mixed use, light-industrial, office-mixed use, and public land uses. **Table 4.12.6-4** identifies the schools and enrollment serving this area. Only Gold River Elementary School is located in the Planning Area. Barrett Middle School and Rio Americano High School are located outside of the Planning Area. Both of these schools also serve other areas within the SJUD boundaries. Implementation of the General Plan would not include any development within the boundaries of the SJUSD.

TABLE 4.12.6-4
SJUSD SCHOOLS AND 2004/05 ENROLLMENT IN THE PLANNING AREA

School Type	Grade Levels	2004/05 Enrollment	Location
Elementary			
Gold River	p-6	606	Planning Area
Subtotal		606	
Middle Schools			
John Barrett	6-8	876	Sacramento County
Subtotal		876	
High Schools			
Rio Americano	9-12	1,841	Sacramento County
Subtotal		1,841	
Total		3,323	

Source: California Department of Education

The San Juan Unified School serves more than 40,000 students in 78 schools and special education centers, preschools, and adult education programs serving the northeast area of the County, with schools in Sacramento, Arcade, Arden, Carmichael, Citrus Heights, Fair Oaks, portions of Folsom, Gold River, and Orangevale.

The San Juan Unified School District Board of Education voted unanimously at the February 15, 2005 board meeting to consolidate Creekside and Roberts elementary schools and to operate Starr King Elementary and Middle School as a single K-8 school. The District anticipates consolidating more schools in the next two to three years. Between 2006-2008, they anticipate

closing up to three more elementary schools, one to two middle schools, and one to two high schools. Since 2000, five schools have been closed in the district – Fair Oaks, Kenneth, Littlejohn, Pallisades and Sunrise elementary schools.

Los Rios Community College District

The Los Rio Community College District is a two-year public college district that covers a 2,400 square mile service area, which includes Sacramento and El Dorado counties and parts of Yolo, Placer and Solano counties. The District services approximately 80,000 students. The colleges include American River, Cosumnes River, and Sacramento City Colleges. There are also major centers located in Davis, West Sacramento, downtown Sacramento, Natomas and Rancho Cordova. The Rancho Cordova Center is located on Rockingham Drive.

Funding and Financing Mechanisms

Districts typically funds new schools and facilities through a combination of local bonds, developer fees, and state bonds. State bonds pay for almost half the costs of new schools, with local bonds generated from property taxes providing an important source of additional funding. The passage of state bonds is not linked to any increase in property taxes. The principal and interest on state bonds are paid for by the state's general fund, which is made up of mainly personal and corporate income taxes and sales tax revenues. In addition to local bonds, the Kindergarten-University Public Education Facilities Bond Act of 2002 (Prop 47) was approved by voters in November 2002 and provides for a bond issue of $13.05 billion to fund necessary education facilities to relieve overcrowding and to repair older schools. Funds are determined by the areas of greatest need and must be spent according to strict accountability measures. Under the Leroy F. Greene School Facilities Act (SB 50) and Government Code Section 65995 (refer to section 4.12.6.2 below), school Districts can levy a mandatory per square foot fees on new residential development, with the amount determined by the State Board of Education. The most recent fees were adopted on July 4, 2004 (EGUSD, 2005).

Service Standards

All school districts in California are required to prepare a facilities master plan (FMP), which include service standards based on student generation rates and school capacities to determine a particular District's needs through its current plan period. FMPs typically have a planning horizon of ten years (i.e., 2000 through 2010) and provide a detailed forecast of the District's needs and identify strategic plans and actions to fulfill those needs. The FMP addresses how many classrooms are needed, at which grade levels, and the cost and timing of identified improvements. The identified improvements are balanced against the available District resources, existing and ultimate capacity constraints, current and projected revenue sources, and outside funding options. FMPs are influenced by market pressures such as commercial expansion, the phasing and timing and housing developments, availability of state funds, changes in state laws, and the viability and local bond elections. The District selects school sites in accordance with criteria developed by the California Department of Educated. The Department of Education must review and approve all sites considered for selection and use by the District.

Student generation rates are used to determine the projected number of students that will result from residential development. Site selection criteria and projected student generation are the basis for determining the location, type, and number of schools required to serve a new development. Since the majority of new development is planned to occur within the FCUSD and EGUSD boundaries, the generation rates for those districts were used to develop the number of students anticipated from buildout of the General Plan.

TABLE 4.12.6-5
STUDENT GENERATION RATES FOR THE FCUSD

Grade Level	Single family detached (students per dwelling unit)	Multi-family (students per dwelling unit)
K-5	0.299	0.150
6-8	0.104	0.052
9-12	0.107	0.054
Total	0.510	0.256

Source: Folsom Cordova Unified School District

TABLE 4.12.6-6
STUDENT GENERATION RATES FOR THE EGUSD

School Type	Single Family Residence (K-12 students/residence)	Multi-Family Residence (K-12 students/residence)
Elementary (K-6)	0.4398	0.3057
Middle 7-8)	0.1238	0.0730
High (9-12)	0.2007	0.1587
Total	0.7643	0.5374

Source: EGUCD School Facilities Master Plan, 2002-2010

TABLE 4.12.6-7
STUDENT GENERATION RATES FOR THE SCUSD

School Type	Student Generation Formula
Elementary (K-6)	Number of dwelling units x 0.060 x 7
Middle/High School (7-12)	Number of dwelling units x 0.050 x 6
Totals	Number of dwelling units x .110 x 13

Source: Sacramento City Unified School District

4.12.3.2 REGULATORY FRAMEWORK

STATE

Leroy F. Greene School Facilities Act of 1998 (SB 50)

The "Leroy F. Greene School Facilities Act of 1998," also known as Senate Bill No. 50 or SB 50 (Stats. 1998, Ch.407), governs a school district's authority to levy school impact fees. This comprehensive legislation, together with the $9.2 billion education bond act approved by the voters in November 1998 as "Proposition 1A", reforms methods of school construction financing in California. SB 50 instituted a new school facility program by which school districts can apply for state construction and modernization funds. It imposed limitations on the power of cities and counties to require mitigation of school facilities impacts as a condition of approving new development and provided the authority for school districts to levy fees at three different levels:

- Level I fees are the current statutory fees allowed under Education Code 17620. This code section provides the basic authority for school districts to levy a fee against residential and commercial construction for the purpose of funding school construction or reconstruction of facilities. These fees vary by district for residential construction and commercial construction and are increased biannually.

- Level II developer fees are outlined in Government Code Section 65995.5, allowing school districts to impose a higher fee on residential construction if certain conditions are met. These conditions include having a substantial percentage of students on multi-track year-round scheduling, having an assumed debt equal to 15–30% of the district's bonding capacity (percentage is based on revenue sources for repayment), having at least 20% of the district's teaching stations housed in relocatable classrooms, and having placed a local bond on the ballot in the past four years which received at least 50% plus one of the votes cast. A Facility Needs Assessment must demonstrate the need for new school facilities for unhoused pupils is attributable to projected enrollment growth from the construction of new residential units over the next 5 years.

- Level III developer fees are outlined in Government Code Section 655995.7. If State funding becomes unavailable, this code section authorizes a school district that has been approved to collect Level II fees to collect a higher fee on residential construction. This fee is equal to twice the amount of Level II fees. However, if a district eventually receives State funding, this excess fee may be reimbursed to the developers or subtracted from the amount of state funding.

The Kindergarten-University Public Education Facilities Bond Act of 2002 (Prop 47)

This act was approved by voters in November 2002 and provides for a bond issue of $13.05 billion to fund necessary education facilities to relieve overcrowding and to repair older schools. Funds will be targeted at areas of greatest need and must be spent according to strict accountability measures. Funds will also be used to upgrade and build new classrooms in the California Community Colleges, the California State University, and the University of California in order to provide adequate higher education facilities to accommodate growing student enrollment.

California Department of Education

The California Department of Education (CDE) School Facilities Planning Division (SFPD) has prepared a School Site Selection and Approval Guide that provides criteria for locating appropriate school sites in the State of California. School site and size recommendations were changed by the CDE in 2000 to reflect various changes in educational conditions, such as lowering of class sizes and use of advanced technology. The expanded use of school buildings and grounds for community and agency joint use and concern for the safety of the students and staff members also influenced the modification of the CDE recommendations.

Specific recommendations for school size are provided in the publication School Site Analysis and Development. This document suggests a ratio of 1:2 between buildings and land. CDE is aware that in a number of cases, primarily in urban settings, smaller sites cannot accommodate this ratio. In such cases, the SFPD may approve an amount of acreage less than the recommended gross site size and building-to-ground ratio.

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

- Proximity to airports, high-voltage power transmission lines, railroads, and major roadways;
- Presence of toxic and hazardous substances;
- Hazardous facilities and hazardous air emissions within one-quarter mile;
- Proximity to high-pressure natural gas lines, propane storage facilities, gasoline lines, pressurized sewer lines, or high-pressure water pipelines;
- Noise;
- Results of geological studies or soil analyses;
- Traffic and school bus safety issues.

LOCAL

Sacramento County General Plan

The existing Sacramento County General Plan was adopted in December of 1993. The County's General Plan is undergoing an update. The Sacramento County General Plan contains public school related policies applicable to the unincorporated portions of the Planning Area. These policies concern the siting and construction o school facilities (PF-26 through PF-33, PF-36 through PF-38), a school facilities planning program (PF-34 and PF-35), fees and school funding (PF-40 through PF-43), and the scheduling of school construction (PF4-44 through PF-46).

4.12.6.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The following standards are based on State CEQA Guidelines (2005) Appendix G. A significant impact to public schools would occur if implementation of the proposed project:

1) Would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for public school services.

METHODOLOGY

Evaluation of potential public school impacts associated with the implementation of the Rancho Cordova General Plan is based on review of the Facilities Master Plans for each district serving the area and from consultation with school district planning staff.

IMPACTS AND MITIGATION MEASURES

Public School Facilities

Impact 4.12.6.1 Implementation of the project would increase student enrollment in the Planning Area and require the construction of new schools and related facilities to serve the anticipated demand. This impact is considered **less than significant**.

According to the 2000 Census, there were 41,749 housing units in the General Plan Planning Area in 2000 (26,595 single family, 11,979 multifamily and 2,887 mobile homes). Implementation of the City of Rancho Cordova General Plan would result in the construction of approximately 126,241 new residential dwelling units in the Planning Area or an increase of 84,492 housing units over year 2000 conditions. The majority of growth in the Planning Area would occur within the Folsom Cordova Unified School District and the Elk Grove Unified School District. Areas of the Planning Area within the Sacramento City Unified and San Juan Unified school districts are, for the most part, built out and future residential development would be minimal. For this reason, student generation rates for FCUSD and EGUSD, as identified in **Table 4.12-5** and **Table 4.12-6**, are used to determine potential number of students under buildout conditions for the Planning Area. Based on these student generation rates and the current single family/multifamily ratios, under buildout conditions implementation of the General Plan may result in between 36,891 and 59,038 new students. While these totals are only an estimate based on current conditions, this calculation does indicate the substantial increase in students for the Planning Area.

Typical environmental effects as a result of the construction and operation of new school facilities include, air quality (during construction and operation), noise (during construction and operation), biological and cultural resources (depending on location), public services (electric, water and wastewater), and traffic (during construction and operation). Such school development would occur within the development areas evaluated in the technical analysis of this EIR.

TABLE 4.12.6-8
POTENTIAL NEW STUDENT POPULATION UNDER BUILDOUT CONDITIONS FOR THE PLANNING AREA

Grade Level	Single family detached (students per dwelling unit)	Single Family Students	Multi-family (students per dwelling unit)	Multifamily Students	Total*
FCUSD Student Generation					
K-5	0.299	17,964	0.15	3,662	**21,626**
6-8	0.104	6,248	0.052	1,269	**7,518**
9-12	0.107	6,429	0.054	1,318	**7,747**
Total	0.51	30,641	0.256	6,249	**36,891**
EGUSD Student Generation					
K-6	0.4398	26,424	0.3057	7,462	**33,886**
7-8	0.1238	7,438	0.073	1,782	**9,220**
9-12	0.2007	12,058	0.1587	3,874	**15,932**
Total	0.7643	45,920	0.5374	13,118	**59,038**

*Note: * Total is for the whole General Plan Planning Area and not divided per district boundaries. Calculations are based on single family/multifamily ratios established from the 2000 Census for the General Plan Planning Area. Based on new 56,094 single family and 22,790 multifamily units under buildout conditions.*

General Plan Planning Area – Areas Outside of Existing City Boundaries

Implementation of the General Plan would allow the development of and estimated 50,318 housing units or an increase of 31,012 units at buildout over current conditions. Using the parameters identified in **Table 4.12.6-8**, the increase in housing units for areas outside of the existing City boundaries would calculate into an increase of between 13,540 to 21,670 new students.

General Plan Planning Area – Areas within Existing City Boundaries

Within the exiting City boundaries the number of housing units under buildout conditions is estimated to be 75,923 or an increase of 53,480 over existing conditions. Also using the parameters identified in **Table 4.12.6-8**, the increase in housing units within the existing City boundaries would calculate into an increase of between 23,394 to 37,439 new students.

Proposed General Plan Policies and Action Items That Provide Mitigation

Listed below are proposed General Plan policies concerning the development and siting of new school facilities in the Planning Area. These policies are designed, in part, to reduce impacts to the natural environment because of school development.

Policy ISF.4.1 *Encourage school districts to locate and site facilities in an integrated manner with the rest of the community.*

Action ISF.4.1.1 *Convene a focused design effort with Folsom Cordova and Elk Grove Unified School Districts to establish design guidelines for schools. Key issues include:*

- *Proper sizing of school campuses.*
- *Design solutions that enhance; rather than impact neighborhoods.*
- *Address shared use of school facilities, including park/school combined facilities and community use of school campus libraries.*

Action ISF.4.1.2 *Support the Folsom Cordova and Elk Grove Unified School Districts in siting new school facilities according to the following criteria:*

- *Schools should be within walking distance of most residences, and should connect with trails, bikeways, and pedestrian paths.*
- *Schools should serve as a focal point of neighborhood activity and be interconnected with churches, parks, greenways, and off-street paths whenever possible.*
- *New schools should be placed adjacent to neighborhood and community parks whenever possible and be designed to promote joint use of appropriate facilities.*

Policy ISF.2.1 *Ensure the development of public infrastructure that meet the long-term needs of residents and ensure infrastructure is available at the time such facilities are needed.*

Action ISF.2.1.1 *Except when prohibited by state law, require sufficient capacity in all public facilities to maintain desired service levels and avoid capacity shortages, traffic congestion, or other negative effects on safety and quality of life.*

Policy ISF.2.2 *Coordinate with independent public providers, including schools, parks, and recreation, utility, transit, and other service districts, in developing service and financial planning strategies.*

Action ISF.2.2.1 *Establish a Technical Review Committee for continued coordination with outside service agencies, including water and sewer providers, the Cordova Recreation and Park District, and the school districts, during the review of plans and development projects.*

Policy ISF.2.3 *Ensure that adequate funding is available for all infrastructure and public facilities, and make certain that the cost of improvements is equitably distributed.*

Action ISF.2.3.1 *Require secure financing for all components of the transportation system through the use of special taxes, assessment districts, developer dedications, or other appropriate mechanisms. Financing should be sufficient to complete required major public facilities at their full planned capacities in a single phase. Major facilities include roadways of collector size or larger; all wells, water transmission lines, treatment facilities, and storage tanks needed to serve the project; and all sewer trunk and interceptor lines and treatment plants or treatment plant capacity.*

Action ISF.2.3.2 *Require new development to fund its fair share portion of its impacts to all public infrastructure and facilities.*

Action ISF.2.3.3 *Include sufficient funding in fee programs and/or other finance mechanisms to cover the costs of each of the following roadway items:*

- *Design, engineering, environmental compliance, and construction of roadway lanes, traffic signals, and bridges.*
- *Right of way acquisition, design, engineering, environmental compliance, and construction costs.*
- *Drainage and other facilities related to new roadway construction.*
- *Installation of landscaped medians, sidewalks, and streetscaping where appropriate.*

As indicated previously, Government Code Section 65995 establishes the dollar amount school districts may impose on new development; however, this may not be sufficient fund all required facilities. Funding from state grants is possible but other sources would most likely still be required. Sources include but are not limited to Prop 47 funds, increased developer and local tax fees, and the local general obligation bond funds. Because specific locations for public schools have not been identified, site-specific environmental impacts of constructing the facilities cannot be determined at this time. However, it is reasonable to assume that the construction of schools and related facilities would not result in any environmental impacts not already addressed in the technical sections of this Draft EIR. Additionally, new public school facilities must undergo rigorous site-specific CEQA and California Board of Education evaluation prior to construction to identify and lessen environmental related impacts.

California Government Code Sections 65995 (h) and 65996 (b) provide full and complete school facilities mitigation. Section 65995(h) states that the payment or satisfaction of a fee, charge, or other requirement levied or imposed pursuant to Section 17620 of the Education Code is deemed to be full and complete mitigation of the impacts for the planning, use, development, or the provision of adequate school facilities and Section 65996 (b) states that the provisions of the Government Code provide full and complete school facilities mitigation. Therefore, the General Plan's public school facility impacts are considered **less than significant**.

Mitigation Measures

None required.

4.12.6.4 CUMULATIVE SETTING, IMPACTS AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative setting for public schools includes the service area boundaries of the FCUSD, the EGUSD, the Sacramento Unified School District and the San Juan Unified School Districts.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Public School Impacts

Impact 4.12.6.2 Implementation of the General Plan in combination with other reasonably foreseeable development (based on General Plan land use projections for Sacramento County, Folsom, and Elk Grove) proposed in eastern Sacramento County would result in a cumulative increase in student enrollment and require additional schools and related facilities to accommodate the growth. This is a **less than cumulatively considerable** impact.

Implementation of the General Plan would result in substantial population and residential unit increases. These increases would result in an incremental cumulative demand for schools and require the construction of new schools and related facilities to provide additional capacity and accommodate current and future enrollment. The provision of new school sites and related facilities would result in cumulative environmental impacts on traffic congestion, noise, potential loss of habitat, water, solid waste, etc, which are addressed as part of overall development allowed for in the General Plan in this EIR.

New public school facilities must undergo rigorous site-specific CEQA and California Board of Education evaluation prior to construction to identify and lessen environmental related impacts. Additionally, the environmental evaluation of future school sites includes both immediate and cumulative impacts as required by CEQA. The General Plan policies contained in the Infrastructure, Services, and Financing Element and discussed under **Impact 4.12.3.1** encourage each school district to coordinate with the City and Sacramento County throughout the entire school siting process to ensure safe and compatible land uses.

The adoption of all or some combination of Mello-Roos taxes, and SB 50 funding would partially mitigate cumulative impacts on schools and related facilities and California Government Code Sections 65995 (h) and 65996 (b) provide further school facilities mitigation. The existing funding mechanisms, bond measures within the school district and implementation of the Sacramento County General Plan and proposed Rancho Cordova General Plan policies and associated

action items would reduce the cumulative impacts on public school facilities. Additionally, pursuant to State law, payment of statutory fees represents full and complete school facilities mitigation; therefore, the General Plan's impacts on school facilities is **less than cumulatively considerable.**

Proposed General Plan Policies and Action Items That Provide Mitigation

Listed below are proposed General Plan policies concerning the development and siting of new school facilities in the Planning Area. These policies are designed, in part, to reduce impacts to the natural environment because of school development.

Policy ISF.4.1 *Encourage school districts to locate and site facilities in an integrated manner with the rest of the community.*

Action ISF.4.1.1 *Convene a focused design effort with Folsom Cordova and Elk Grove Unified School Districts to establish design guidelines for schools. Key issues include:*

- *Proper sizing of school campuses.*
- *Design solutions that enhance; rather than impact neighborhoods.*
- *Address shared use of school facilities, including park/school combined facilities and community use of school campus libraries.*

Action ISF.4.1.2 *Support the Folsom Cordova and Elk Grove Unified School Districts in siting new school facilities according to the following criteria:*

- *Schools should be within walking distance of most residences, and should connect with trails, bikeways, and pedestrian paths.*
- *Schools should serve as a focal point of neighborhood activity and be interconnected with churches, parks, greenways, and off-street paths whenever possible.*
- *New schools should be placed adjacent to neighborhood and community parks whenever possible and be designed to promote joint use of appropriate facilities.*

Policy ISF.2.1 *Ensure the development of public infrastructure that meet the long-term needs of residents and ensure infrastructure is available at the time such facilities are needed.*

Action ISF.2.1.1 *Except when prohibited by state law, require sufficient capacity in all public facilities to maintain desired service levels and avoid capacity shortages, traffic congestion, or other negative effects on safety and quality of life.*

Policy ISF.2.2 *Coordinate with independent public providers, including schools, parks, and recreation, utility, transit, and other service districts, in developing service and financial planning strategies.*

Action ISF.2.2.1 *Establish a Technical Review Committee for continued coordination with outside service agencies, including water and sewer providers, the Cordova*

Recreation and Park District, and the school districts, during the review of plans and development projects.

Policy ISF.2.3 *Ensure that adequate funding is available for all infrastructure and public facilities, and make certain that the cost of improvements is equitably distributed.*

Action ISF.2.3.1 *Require secure financing for all components of the transportation system through the use of special taxes, assessment districts, developer dedications, or other appropriate mechanisms. Financing should be sufficient to complete required major public facilities at their full planned capacities in a single phase. Major facilities include roadways of collector size or larger; all wells, water transmission lines, treatment facilities, and storage tanks needed to serve the project; and all sewer trunk and interceptor lines and treatment plants or treatment plant capacity.*

Action ISF.2.3.2 *Require new development to fund its fair share portion of its impacts to all public infrastructure and facilities.*

Action ISF.2.3.3 *Include sufficient funding in fee programs and/or other finance mechanisms to cover the costs of each of the following roadway items:*

- *Design, engineering, environmental compliance, and construction of roadway lanes, traffic signals, and bridges.*
- *Right of way acquisition, design, engineering, environmental compliance, and construction costs.*
- *Drainage and other facilities related to new roadway construction.*
- *Installation of landscaped medians, sidewalks, and streetscaping where appropriate.*

Mitigation Measures

None required.

4.12.7 PARKS AND RECREATION

EXISTING CONDITIONS

Cordova Recreation and Park District

The Cordova Recreation and Park District (CRPD) has the primary responsibility for providing and maintaining recreation facilities and services within the General Plan Planning Area. **Figure 4.12.7-1** indicates the service area for CRPD. CRPD owns and maintains 18 neighborhood parks, 6 community parks, 4 community swimming pools, the Cordova Community Center at Hagan Community Park on Chase Drive, the Cordova Senior Center on Routier Road, Mather Sports Complex, the Cordova Public Shooting Center on Douglas Road, and the Cordova Golf Course on Jackson Road. **Table 4.12.7-1** includes the name, location, and short description of existing CRPD facilities. All of these facilities area within the General Plan Planning Area.

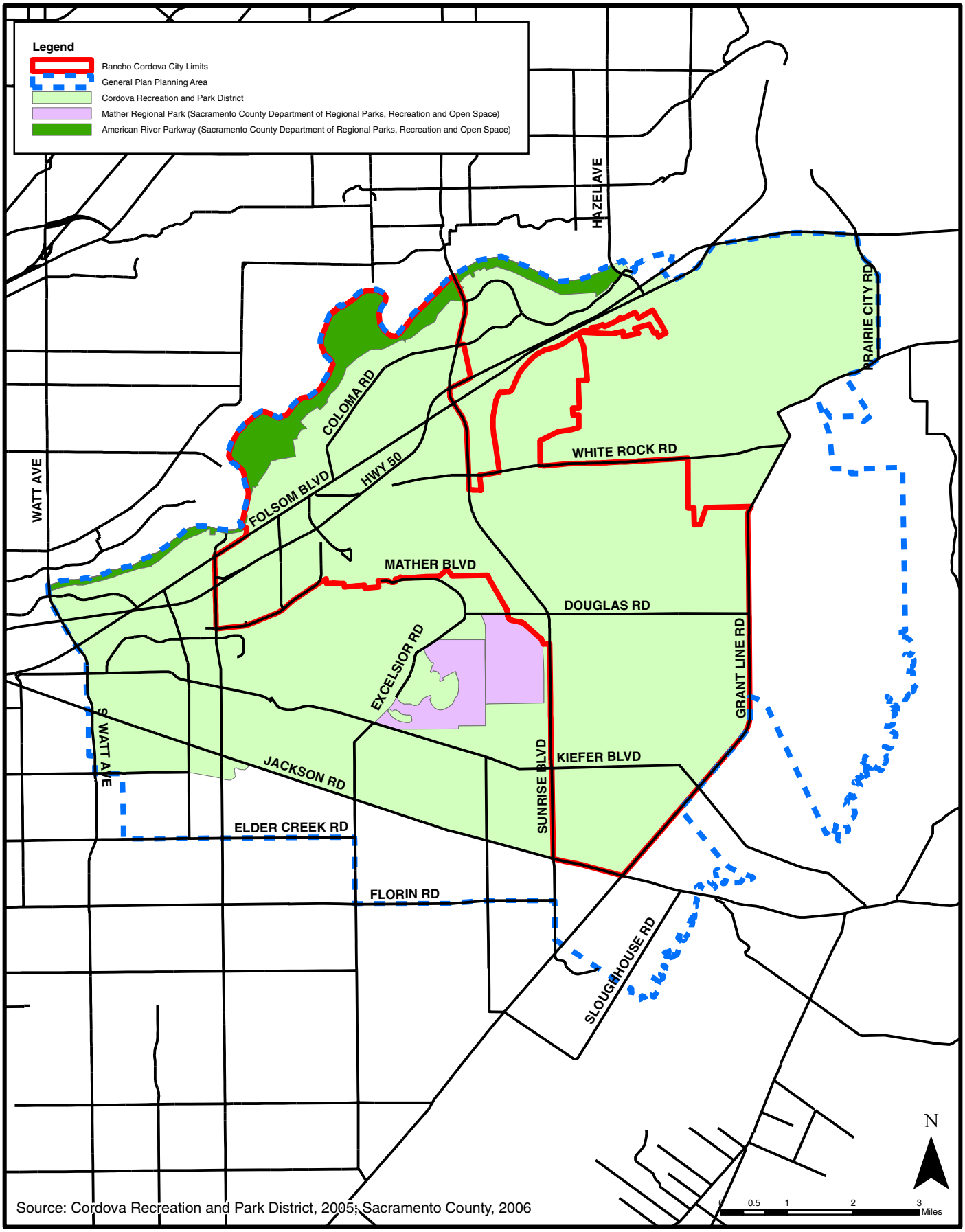
TABLE 4.12.7-1
EXISTING CRPD FACILITIES AND SERVICES

Facility Name	Location	Description of Facilities
Ahlstrom Park	Zinfandel Drive & Cordova Lane, Rancho Cordova	7 acres with a little league ballfield, picnic tables
Dave Roberts Community Park	Benita Drive & Mapola Way, Rancho Cordova	13 acres with a lighted softball field, tennis courts, regulation soccer field, and play ground.
Countryside Park	Glenmoor Drive, Rancho Cordova	2 acres with picnic tables and tot lot.
Federspiel Park	Aramon Drive & Chassella Way, Rancho Cordova	4 acres with swimming pool, bantam soccer field, picnic tables, and play ground.
Gold River Park	Gold Country Boulevard & Poker Flat Drive, Gold River	6 acres with picnic tables, horse shoe pits, tot lot, and play ground, bantam soccer field
Gold Station Park	Gold Station Road, Gold River	2.2 acres with picnic tables, playground, and bantam soccer field
Henley Park	Henley Drive, Rosemont	1/2 acre with picnic tables and tot lot.
Hagan Community Park	2197 Chase Drive, Rancho Cordova	75 acres with the Cordova Community Center, 3 swimming pools, 8 tennis courts, 8 group picnic areas, 3 baseball fields, 3 soccer fields, basketball court, petting zoo, play grounds, tot lots, fitness course, and scale model stream railroad. Also provides access to the American River Bike Trail and foot access to the American River.
Independence Park	Brittan Way & School Street, Mather	11 acres with picnic tables, restrooms, and playground.
Larchmont Community Park	Linda Rio Drive, Sacramento	14 acres with 2 tennis courts, 1 bantam soccer field, 1 regulation soccer field, group picnic area, and play ground.
Larchmont-Rossmoor Park	Ambassador Drive, Sacramento	3 acres with softball field, soccer field, picnic tables and play ground.
Lincoln Village Community Park	3480 Routier Road, Sacramento	17 acres with a lighted softball field, 4 tennis courts, swimming pool, basketball court, group picnic area and the Cordova Senior Center.
Manlove Park	Rose Parade Way & Spellbinder Court, Rosemont	3 acres with picnic tables and tot lot.

Facility Name	Location	Description of Facilities
Primrose Park	Off Hedge Road & Jackson Highway, Rosemont	2.4 acres with picnic tables and tot lot with play structure.
Prospect Hill Park	Gold Flat Drive & Prospect Hill Drive, Rancho Cordova	7 acres with picnic tables, basketball court, bantam soccer field, and tot lot.
Riviera East Park	Mira Del Rio Drive, Sacramento	9 acres with 2 tennis courts, bantam soccer field, basketball court, group picnic area and tot lot.
Rosemont Community Park	Americana Way, Rosemont	17 acres with 4 tennis courts, 2 little league fields, softball field, playground, tot lot, and group picnic areas.
Rosemont North Park	Huntsman Drive & Premier Way, Rosemont	3 acres with picnic tables and play ground.
Rosswood Park	Roseport Way and Rose Brook Way, Rosemont	1 acre with picnic tables and tot lot.
Salmon Falls Park	Salmon Falls Drive, Sacramento	1/4 acre, no permanent facilities.
Sunriver Park	Klamath River Drive, Rancho Cordova	4 1/2 acres with picnic tables, ball field, basketball court, and tot lot.
Taylor Park	West La Loma Drive, Rancho Cordova	3 acres with a tot lot, play ground, and picnic tables.
Veterans Park	Mather Boulevard, Mather	6.4 acres with a play ground, tennis courts, basketball court, and a group picnic area.
White Rock Park	10488 White Rock Road, Rancho Cordova	12 acres with a swimming pool, 2 tennis courts, group picnic areas, play ground, and basketball courts.
Mather Sports Center	3755 Schriever Avenue, Mather	Aerobics, open gym, racquetball, weight rooms, and walking and jogging.
Cordova Senior Activity Center	3480 Routier Road, Sacramento	A full schedule of senior activities (i.e., watercolors, arts and crafts, yoga, and adult exercise.
Cordova Golf Course	9425 Jackson Road (1/2 mile west of Bradshaw Road	Pro shop, lighted driving range, practice putting green, electric carts, hand carts, golf club rentals, restaurant.
Cordova Shooting Center	11551 Douglas Road, near Sunrise Boulevard	Outdoor Shooting Range with covered shooting positions, Rental Firearms, services and classes available include; basic handgun class (Safety and shooting), state approved Hunter Safety Class, private shotgun lessons, and CCW Classes for the three-county area.

Sacramento County Department of Parks, Recreation and Open Space

The Planning Area also contains the American River Parkway and the regional recreational facilities at Mather, including the Mather Golf Course, which are owned and maintained by the Sacramento County Department of Parks, Recreation and Open Space (DPROP). The American River Parkway is a 23-mile open space area that follows the American River. The Parkway includes a number of individual parks, including Goethe Park in the City of Rancho Cordova. The C.M. Goethe Park consists of 444 acres, and has hiking, bicycling, and horseback riding trails as well as picnic areas.



Source: Cordova Recreation and Park District, 2005; Sacramento County, 2006

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City of Rancho Cordova
Planning Department

Figure 4.12.7-1
Park Districts
Within the General Plan Planning Area

PARKLAND STANDARDS

California Government Code Section 66477

California Government Code Section 66477, often referred to as the Quimby Act, permits local jurisdictions to require the dedication of land and/or the payment of in-lieu fees for park and recreation purposes. The required dedication and/or fees are based upon the residential density, parkland cost and other factors. Land dedicated and fees collected pursuant to the Quimby Act may only be used for the purpose of developing new or rehabilitating existing park or recreational facilities. The Quimby Act allows for local recreation and park districts to ask for a dedication of parkland up to 5 acres per 1,000 projected population.

The City has collected Quimby Act fees since its incorporation in July 2003. Before 2003, the County collected Quimby Act fees in the planning area and distributed these funds to CRPD for use in developing and managing parkland. The County still collects Quimby Act fees for areas under CRPD jurisdiction that are not within Rancho Cordova boundaries and distributes these fees to CRPD (Rio del Oro Specific Plan Project DEIR/DEIS). These fees contribute to a fund that is used to acquire properties for future parkland development. CRPD continues to collect fees from the City and County to meet the Draft Master Plan parkland requirement. Fees collected under the Quimby Act are determined by CRPD. **Table 4.12.7-2** lists CRPD standards for the provision of parklands.

TABLE 4.12.7-2
CRPD CLASSIFICATION OF MINI, NEIGHBORHOOD, AND COMMUNITY PARKS AND THEIR STANDARDS

Park Classification	Desirable Size (acreage)	Service Area
Mini	1.5–2 acres	One-eighth to one-quarter mile
Neighborhood	5–15 acres	One-quarter to one-half mile
Community	20–150 acres	1 to 2 miles

Source: CRPD 2005

CRPD calculates its Quimby Act parkland standard based on the most current census information of people per household for Sacramento County. CRPD's Quimby Act standard for dedication of parkland is 5 acres per 1,000 residents. Additional community amenities such as landscaped corridors, parkways, paseos, multiuse trails, and accessible open space are considered critical in defining a community; therefore, CRPD does not include those acreages within its standard of 5 acres per 1,000 residents.

Funding

Cordova Recreation and Park District

New developments are required to provide either parkland dedication or in-lieu fees to the CRPD to construct new parks and related facilities. It is also common practice with new developments to form a special assessment district to fund the maintenance and operation costs of the new parks. The CRPD estimates such costs at approximately $7,500 per acre annually, or about $76 per residential unit. The CRPD also has had a long-established policy of siting parks adjacent to schools, and entering into joint-use agreements with the respective school district. CRPD has just recently formed a Landscaping and Lighting Assessment District for the Independence at Mather subdivision, and a Community Facilities Finance District for the Villages of Zinfandel subdivision to offset maintenance and operation costs for parkland and

open space facilities in these developments. CRPD also intends to form a Community Facilities Finance District for Sunrise Douglas Community Plan area and Rio del Oro. Another recently approved revenue source is the Proposition 12 Park Bond, which will provide slightly over $1 million to upgrade CRPD facilities, and to replace aging equipment to comply with Consumer Products Safety Commission Guidelines and the Americans With Disabilities Act.

Sacramento County Department of Regional Parks, Recreation and Open Space

The Sacramento County Department of Regional Parks, Recreation and Open Space receives its funding from a variety of sources. The General Fund, which is an allocation of County taxes accounts for approximately 34.75 percent of the Department's revenues. Park fees, leases, services and concessions produce 12.97 percent of revenues; whereas, golf facilities and related activities produce 39.09 percent of departmental revenues and are self-supporting, covering all operating and maintenance costs. Other sources of revenue include state and federal revenues of 1.12 percent of total, park maintenance charges equaling 3.75 percent of the total, and donations and contributions contributing 0.73 percent of the Department's total revenue. The County's Transient Occupancy Tax also produces roughly 1.39 percent of revenue totals.

4.12.7.2 REGULATORY FRAMEWORK

STATE

The Quimby Act (California Government Code Section 66477) states that "the legislative body of a city or county may, by ordinance, require the dedication of land or impose a requirement of the payment of fees in lieu thereof, or a combination of both, for park or recreational purposes as a condition to the approval of a tentative or parcel map. It should be noted that the Quimby Act only applies to the acquisition of new parkland and does not apply to the physical development of new park facilities or associated operations and maintenance costs. The Quimby Act effectively preserves open space needed to develop parkland and recreational facilities; however, the actual development of parks and other recreational facilities is subject to discretionary approval and is evaluated on a case-by-case basis with new residential development.

LOCAL

Sacramento County General Plan

The existing Sacramento County General Plan was adopted in December of 1993. The 1993 Sacramento County General Plan contains park and recreation related policies, discussed in the Open Space Element, applicable to the unincorporated portions of the Planning Area. Policy OS-9 states that he County shall seek a standard for regional parks of 20 acres per 1,000 persons. While there are a variety of policies relating to open space (i.e. wetlands, riparian corridors, woodland, and floodlands), other than Policy OS-9, there are no other policies relating to parkland/population ratios in the General Plan.

Cordova Recreation and Park District Facilities Master Plan

The Cordova Recreation and Park District (CRPD) has prepared the Cordova Recreation and Park District Facilities Master Plan (Master Plan), which outlines the District's projected needs for a period of ten years and strategies for fulfilling those needs. The current Master Plan's planning horizon is through 2010. The primary focus of the Master Plan is to develop of increasing

classroom capacity for recreational programs, forecasting modernization needs and identifying various methods of financing and revenue sources.

American River Parkway Master Plan

The American River Parkway Plan (Parkway Plan) addresses the entire length of the parkway, which includes portions of Sacramento County, the City of Sacramento, and a small portion of the Folsom State Recreational Area. The Parkway Plan was adopted and incorporated into the General Plans for Sacramento County and the City of Sacramento. The main purpose of the Parkway Plan is to provide a guide to land use decisions affecting the parkway; specifically addressing its preservation, use, development, and administration. The Parkway Plan is a policy and action document to ensure the preservation of the naturalistic environment while providing limited developments to facilitate human enjoyment of the parkway. The Parkway Plan includes guiding statements and specific tasks formulated to carry out the intent of the various policies identified in the plan.

4.12.7.3 IMPACTS AND GENERAL PLAN POLICIES

STANDARDS OF SIGNIFICANCE

The following standards are based on State CEQA Guidelines (2005) Appendix G. A significant impact to recreational facilities would occur if implementation of the proposed General Plan would result in the following:

1) An increase in the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

2) Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment.

METHODOLOGY

This section was prepared and evaluated based on consultation with Cordova Recreation and Parks District staff and review of the District's Master Plan.

IMPACTS AND MITIGATION MEASURES

Increased Demand for Park and Recreational Facilities

Impact 4.12.7.1 Implementation of the General Plan would increase the demand for existing facilities and require additional parks and recreational facilities to accommodate the anticipated growth associated with the General Plan. This would be a **less than significant** impact.

Potential development proposed in association with the General Plan would require additional parkland, facilities, and personnel to accommodate the demand. The staffing and administrative needs for the CRPD will increase as a result of the population and additional park and recreational facilities associated with implementing the Rancho Cordova General Plan. The estimated population in the Planning Area is anticipated to increase by approximately 207,426 persons under buildout conditions. Based on the current CRPD service standard of 5 acres per 1,000 population, the City would need to add approximately 1,037 acres of parkland

to meet the anticipated demand. New parks and facilities would be developed in response to population growth and as funding allows. Park site and facilities may require land use permits in some case, depending on the anticipated uses and character or adjacent developments.

Typical environmental effects regarding the construction and operation of a parks and recreational facilities may involve issues with noise (during construction and playfields and playgrounds), air quality (during the construction of the facility), biological resources (depending on location), historic/cultural resources (depending on location), public services and utilities (demand for police and fire protection, electric, water and wastewater service) and traffic on a local neighborhood level. The environmental effects of construction of such facilities in the planning area been considered in the technical analyses of this EIR as part of overall development of the planning area.

There are various funding measures currently in place for land dedications and basic park development (turf, landscaping, and walkways) for the majority of mini, neighborhood, and community parks proposed in the Planning Area. In order to meet the projected growth within the service boundaries, both CRPD and Sacramento County will use new sources of revenue including but not limited to development impact fees, Mello-Roos Community Facilities Districts (CFD), General Fund Reserves, grants and/or the expanded use of the District-wide Landscaping and Lighting District to fund capital expansion of parks and other recreational facilities. The parkland provision under the Quimby Act does not however, ensure that funding would be available for the physical development of parks needed to serve the anticipated growth associated with the General Plan.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies are contained in the General Plan Infrastructure, Services, and Finance Element and the Safety Element, to ensure that proposed land uses associated with the General Plan do not adversely affect parks and recreational facilities.

Policy ISF.2.1 *Ensure the development of public infrastructure that meet the long-term needs of residents and ensure infrastructure is available at the time such facilities are needed.*

Action ISF.2.1.1 *Except when prohibited by state law, require sufficient capacity in all public facilities to maintain desired service levels and avoid capacity shortages, traffic congestion, or other negative effects on safety and quality of life.*

Policy ISF.2.2 *Coordinate with independent public providers, including schools, parks, and recreation, utility, transit, and other service districts, in developing service and financial planning strategies.*

Action ISF.2.2.1 *Establish a Technical Review Committee for continued coordination with outside service agencies, including water and sewer providers, the Cordova Recreation and Park District, and the school districts, during the review of plans and development projects.*

Policy ISF.2.3 *Ensure that adequate funding is available for all infrastructure and public facilities, and make certain that the cost of improvements is equitably distributed.*

Action ISF.2.3.1 *Require secure financing for all components of the transportation system through the use of special taxes, assessment districts, developer dedications, or other appropriate mechanisms. Financing should be sufficient to complete required major public facilities at their full planned capacities in a single phase. Major facilities include roadways of collector size or larger; all wells, water transmission lines, treatment facilities, and storage tanks needed to serve the project; and all sewer trunk and interceptor lines and treatment plants or treatment plant capacity.*

Action ISF.2.3.2 *Require new development to fund its fair share portion of its impacts to all public infrastructure and facilities.*

Action ISF.2.3.3 *Include sufficient funding in fee programs and/or other finance mechanisms to cover the costs of each of the following roadway items:*

- *Design, engineering, environmental compliance, and construction of roadway lanes, traffic signals, and bridges.*
- *Right of way acquisition, design, engineering, environmental compliance, and construction costs.*
- *Drainage and other facilities related to new roadway construction.*
- Installation of landscaped medians, sidewalks, and streetscaping where appropriate.

Policy UD.3.3 *Promote the incorporation of public spaces and pedestrian amenities into all commercial and mixed-use projects.*

Action UD.3.3.1 *Prepare and adopt guidelines for the design and integration of meaningful public spaces within commercial and mixed-use projects.*

Action UD.3.3.2 *Require landscaping to be meaningful in nature, relating to the style and scale of the development and contributing to the look and feel of the City and district. Five consideration to how landscaping will mature over time.*

Action UD.3.3.3 *Require site furniture that is uniform across the development and encourage furniture that is consistent across entire districts.*

Action UD.3.3.4 *Prepare and adopt standards for project signage that promote the creation of a unique character for the project while respecting the impact of signage on neighboring properties and uses.*

Policy OSPT.1.1 *Review all proposals for new residential development to ensure each project complies with City's minimum standards for parkland dedication, and is consistent with Cordova Recreation and Park District goals.*

Action OSPT.1.1.1 *Require developers of all new residential development to dedicate parkland at a rate of five acres of land per 1,000 population. When necessary, provide an in-lieu payment option, which allows the developer to fund the acquisition of acceptable land equal to the dedication requirement.*

Calculate required parkland dedication in addition to any required open space.

Action OSPT.1.1.2 Consult with the Cordova Recreation and Park District prior to determining the acceptability of lands proposed for dedication as public parkland.

Action OSPT.1.1.3 Establish a procedure for determining an appropriate in lieu fee amount that ensures CRPD will have adequate funds to purchase required park land for which in lieu fees are paid.

Policy OSPT.1.2 Coordinate with the Cordova Recreation and Park District to ensure that parks are provided, developed, and operated in a way that ensures that the City's parks goals are achieved throughout the community.

Policy OSPT.1.3 Encourage park development adjacent to school sites and promote joint use agreements between school and park districts.

Policy OSPT.1.4 Ensure that adequate and reliable funding sources are established for the long-term maintenance of parks and trails.

Action OSPT.1.4.1 Ensure that sufficient funding for maintenance of parks is assured prior to approval of any Final Subdivision Map that includes public parks and/or related facilities.

Action OSPT.1.4.2Consider creating a fee and assessment program to provide increased funding for existing parks, in collaboration with the Cordova Recreation and Park District. This could include local or regional bond measures or assessment districts, public or private grants or partnerships, homeowners associations, or other methods deemed appropriate by the City.

Policy OSPT.1.5 Support the Cordova Recreation and Park District in their construction and maintenance of recreational facilities.

Action OSPT.1.5.1 Continue to work with the Cordova Recreation and Park District on this issue, and implement funding mechanisms as part of the City's review and approval of new development projects.

Action OSPT.1.5.2 Explore the possibility of the Cordova Recreation and Park District constructing a community pool that is usable year-round.

Action OSPT.1.5.3 Expand the Cordova Senior Center at the Lincoln Village Community Park, and the construction of new senior community facilities as demand for such facilities increases.

Policy OSPT.1.6 Provide sports and recreation facilities sufficient to attract regional sporting events.

Action OSPT.1.6.1 Continue to work with the Cordova Recreation and Park District in the planning and execution of park and recreation facilities to accommodate a variety of regional sports venues.

Action OSPT.1.6.2 Work cooperatively with the Sacramento Sports Commission and Chamber of Commerce Visitor and Tourist Bureau to attract and host regional sporting activities.

Policy OSPT.2.1 Review all proposals for new residential development to ensure compliance with the City's minimum open space standards.

Action OSPT.2.1.1 Adopt City Open Space Standards that clearly define the City's requirements for open space in new development. Such standards shall be defined as Mandatory Open Space and Performance Based Open Space.

Action OSPT.2.1.2 Require developers of all new residential development to dedicate parkland at a rate of 1.75 acres of land per 1,000 population, generally comprised of:

- *Open Turf, Tree Canopy and Dog Parks;*
- *Neighborhood Greens; and*
- *Communitywide Open Space.*

Action OSPT.2.1.3 Consider partial credit for mandatory open space within drainage facilities when certain criteria are met.

Action OSPT.2.1.4 Exempt from the minimum open space requirements residential subdivisions of ten acres or less which are not part of a master-planned development meeting the minimum open space requirement, at the City's discretion.

Action OSPT.2.1.5 Require all new development projects to provide a system of connected open space that includes greenway, trails, nodes, and green infrastructure (see City Open Space Standards), in proximity to all new residents.

Action OSPT.2.1.6 Ensure that funding for maintenance of open space is sufficient prior to approval of any Final Subdivision Map of development that includes open space facilities or amenities.

Action OSPT.2.1.7 Consider including encumbered land (such as a power line easement) that meets all other requirements for open space for inclusion in the open space system on a case-by-case basis.

Policy OSPT.2.2 Create a plan for identifying and maintaining open space.

Action OPST.2.2.1 Adopt a comprehensive Open Space Preservation Action Plan, which clearly defines the City's open space vision and provides clear direction for the inclusion of open space lands within new development.

Policy OSPT.2.3 Maximize the potential benefits of natural resource mitigation lands within urban development.

Action OPST.2.3.1 Maximize the potential benefits of natural resource mitigation lands within urban development.

Action OSPT.2.3.1 Encourage projects to accomplish the following:

- *Align roads and public spaces to take advantage of vistas over mitigation lands;*
- *Site publicly accessible trails adjacent to the boundaries of mitigation lands to take advantage of the open character and uninterrupted edge of the mitigation lands; and*
- *Consider locating public parks adjacent to mitigation lands to create a greater sense of open space and to take advantage of opportunities for vistas and trail connections.*

Action OSPT.2.3.2 *Through the development review process, incorporate design features that increase visual access to natural resource mitigation lands.*

Policy OSPT.2.4 *Ensure that where land designated or proposed to be designated for open space contains Native American historical, cultural and sacred sites, the City consults with the tribe as to the level of confidentiality required to protect the site and as to appropriate dignity to afford the site in any management plan. (Cross Reference: Cultural and Historic Resources Element)*

Goal OSPT.3 *Create a system of pedestrian and bicycle trails that maximize usage while providing places for walking and bicycling without conflicts with motor vehicles.*

Policy OSPT.3.1 *Develop a trails system that provides for maximum connectivity, so that all trails are linked for greater use as recreational and travel routes.*

Action OSPT.3.1.1 *Create and adopt a comprehensive Trails Master Plan that includes information on current resources and plans for future development, including designating locations and types of trails.*

Action OSPT.3.1.2 *Review all new development projects and public works projects and require compliance with the Trails Master Plan prior to approval.*

Action OSPT.3.1.3 *Provide appropriate pedestrian and bicycle linkages to existing facilities, particularly to those facilities within the American River Parkway and the Folsom South Canal.*

Action OSPT.3.1.4 *Develop and implement a capital improvement plan to construct new bridges, grade-separated crossings, and ramps at key intersections of major trails and roadways.*

Policy OSPT.3.2 *Participate with Sacramento County and other organizations to identify funding sources to maintain and enhance the American River Parkway.*

Action OSPT.3.2. *Work cooperatively with Sacramento County to fund enhancements within the American River Parkway, consistent with the American River Parkway Plan.*

Policy OSPT.3.3 *Provide major off-street trails with grade-separated crossings or enhanced at-grade pedestrian crossings, especially across four-lane streets and collector roadways, to provide safe routes free from conflicts with vehicles.*

Action OSPT.3.3.1 *Include funding for grade-separated and enhanced at-grade pedestrian crossings through the development review and entitlement process and pursue grants and other funding for trails.*

Goal OSPT.4 *Encourage public use of all trails and open space and promote public input in creating and maintaining these resources.*

Policy OSPT.4.1 *Support updates to the American River Parkway Plan to encourage and expand recreational opportunities for all segments of the population, especially youth and seniors.*

Action OSPT.4.1.1 *Provide staff support and/or funding to facilitate updates to the American River Parkway Plan.*

Action OSPT.4.1.2 *Identify and support programs which serve the special recreational and open space needs of seniors, youth, and other special needs groups that may be underserved within the community.*

Policy OSPT.4.2 *Support programs which increase the use and safety of off-street trails.*

Action OSPT.4.2.1 *Encourage the use of volunteers and community groups to provide maintenance and safety patrols on trails through the provision of funding and staff assistance to leverage volunteer efforts.*

Action OSPT.4.2.2 *Promote the City's world-class system of parks, trails, and open space to all users through education, marketing, and community activities.*

Action OSPT.4.2.3 *Support trails events and trail use through publicity, proclamations, participation, and funding, community events (e.g., Eppie's Great Race, Fourth of July Celebration, Kid's Day, Nimbus Salmon Festival) that cross community and neighborhood boundaries, and help bring together various segments of the population.*

The potential incompatibilities from parks and recreational facilities on adjacent and nearby development (i.e., noise, lighting, traffic) are addressed further in the appropriate technical sections. Infrastructure, Services, and Finance Element Policy ISF.2.1 requires that sufficient capacity in park and recreation facilities will be available on time to maintain desired service levels and avoid capacity shortages, traffic congestion, or other adverse effects and Policy ISF.2.2 states that the City shall coordinate with a Technical Advisory Committee during the review of plans and development projects. Urban Design Element Policy UD.3.3 would promote the incorporation of public spaces and pedestrian amenities into all commercial and mixed-use projects to ensure consistency with the vision of the General Plan.

There are a number of Open Space, Parks and Trails Element policies and actions that address land dedication, development and funding of park, open space, and recreational facilities to serve Rancho Cordova residents. OSPT.1.1, OSPT.1.2 and associated actions require that new development provide their share of parkland per CRPD and City standards. OSPT.1.4 calls for the pursuit of funding mechanism for parkland maintenance, while OSPT.2.1 and the associated actions require that new residential development be designated as accessible open space proper maintenance funding.

Infrastructure, Services, and Financing Policy ISF.2.3 would provide for provision of service commensurate with new development and require that new development fund a fair share portion to compensate for its impacts to all parks and recreational facilities, as provided for in

state law. Additionally, Policy ISF.2.2 requires the City to coordinate with the CRPD and other public recreational providers in developing financial and service planning strategies. These policies would aid in attaining the necessary funding for the acquisition, development and maintenance of new parkland and existing park and recreational facilities. Implementation of the General Plan policies discussed above and identified below would ensure that there is adequate capacity, a reduction in incompatible land uses, sufficient funding, and consistency with other General Plan design principles.

Therefore, increased demand for parks and recreational facility impacts are considered **less than significant**.

Mitigation Measures

None required.

4.12.7.4 CUMULATIVE SETTING, IMPACTS AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative setting for parks and recreation consists of the CRPD's service area boundaries as well as those facilities in the Planning Area under the jurisdiction of the Sacramento County Department of Regional Parks, Recreation and Open Space. The development proposed in association with the Rancho Cordova General Plan would substantially increase the demand for park and recreation facilities in the area.

Cumulative Park and Recreation Demands

Impact 4.12.7.3 Implementation of the General Plan in combination with other reasonably foreseeable development would require additional park and recreation facilities within the Planning Area boundaries and CRPD's service area boundaries. This would be a **less than cumulatively considerable** impact.

Implementation of proposed and approved projects associated with the General Plan and other reasonably foreseeable development would contribute to the cumulative demand for regional and local recreational facilities and services in the CRPD boundaries and the unincorporated portion of the Planning Area. Individual development projects are subject to parkland standards per City and Quimby Act requirements, which satisfy the provision of physical parkland. The City implements the Quimby Act Land Dedication Ordinance to acquire most of the required parkland for future park locations. Community parks would be acquired through developer dedications of land and District-wide facilities would be acquired through in-lieu fees, developer dedications or a combination of acceptable means. As previously discussed, implementation of General Plan Infrastructure, Services, and Financing Element and Urban Design Element polices and associated action items would provide for adequate capacity, sufficient funding, and consistency with other General Plan design principles and cumulative parks and recreational facility impacts are anticipated to be **less than cumulatively considerable**.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies are contained in the General Plan Infrastructure, Services, and Finance Element and the Safety Element, to ensure that proposed land uses associated with the General Plan do not adversely affect parks and recreational facilities.

Policy ISF.2.1 *Ensure the development of public infrastructure that meet the long-term needs of residents and ensure infrastructure is available at the time such facilities are needed.*

Action ISF.2.1.1 *Except when prohibited by state law, require sufficient capacity in all public facilities to maintain desired service levels and avoid capacity shortages, traffic congestion, or other negative effects on safety and quality of life.*

Policy ISF.2.2 *Coordinate with independent public providers, including schools, parks, and recreation, utility, transit, and other service districts, in developing service and financial planning strategies.*

Action ISF.2.2.1 *Establish a Technical Review Committee for continued coordination with outside service agencies, including water and sewer providers, the Cordova Recreation and Park District, and the school districts, during the review of plans and development projects.*

Policy ISF.2.3 *Ensure that adequate funding is available for all infrastructure and public facilities, and make certain that the cost of improvements is equitably distributed.*

Action ISF.2.3.1 *Require secure financing for all components of the transportation system through the use of special taxes, assessment districts, developer dedications, or other appropriate mechanisms. Financing should be sufficient to complete required major public facilities at their full planned capacities in a single phase. Major facilities include roadways of collector size or larger; all wells, water transmission lines, treatment facilities, and storage tanks needed to serve the project; and all sewer trunk and interceptor lines and treatment plants or treatment plant capacity.*

Action ISF.2.3.2 *Require new development to fund its fair share portion of its impacts to all public infrastructure and facilities.*

Action ISF.2.3.3 *Include sufficient funding in fee programs and/or other finance mechanisms to cover the costs of each of the following roadway items:*

- *Design, engineering, environmental compliance, and construction of roadway lanes, traffic signals, and bridges.*
- *Right of way acquisition, design, engineering, environmental compliance, and construction costs.*
- *Drainage and other facilities related to new roadway construction.*
- Installation of landscaped medians, sidewalks, and streetscaping where appropriate.

Policy UD.3.3 *Promote the incorporation of public spaces and pedestrian amenities into all commercial and mixed-use projects.*

Action UD.3.3.1 *Prepare and adopt guidelines for the design and integration of meaningful public spaces within commercial and mixed-use projects.*

Action UD.3.3.2 Require landscaping to be meaningful in nature, relating to the style and scale of the development and contributing to the look and feel of the City and district. Five consideration to how landscaping will mature over time.

Action UD.3.3.3 Require site furniture that is uniform across the development and encourage furniture that is consistent across entire districts.

Action UD.3.3.4 Prepare and adopt standards for project signage that promote the creation of a unique character for the project while respecting the impact of signage on neighboring properties and uses.

Policy OSPT.1.1 Review all proposals for new residential development to ensure each project complies with City's minimum standards for parkland dedication, and is consistent with Cordova Recreation and Park District goals.

Action OSPT.1.1.1 Require developers of all new residential development to dedicate parkland at a rate of five acres of land per 1,000 population. When necessary, provide an in-lieu payment option, which allows the developer to fund the acquisition of acceptable land equal to the dedication requirement. Calculate required parkland dedication in addition to any required open space.

Action OSPT.1.1.2 Consult with the Cordova Recreation and Park District prior to determining the acceptability of lands proposed for dedication as public parkland.

Action OSPT.1.1.3 Establish a procedure for determining an appropriate in lieu fee amount that ensures CRPD will have adequate funds to purchase required park land for which in lieu fees are paid.

Policy OSPT.1.2 Coordinate with the Cordova Recreation and Park District to ensure that parks are provided, developed, and operated in a way that ensures that the City's parks goals are achieved throughout the community.

Policy OSPT.1.3 Encourage park development adjacent to school sites and promote joint use agreements between school and park districts.

Policy OSPT.1.4 Ensure that adequate and reliable funding sources are established for the long-term maintenance of parks and trails.

Action OSPT.1.4.1 Ensure that sufficient funding for maintenance of parks is assured prior to approval of any Final Subdivision Map that includes public parks and/or related facilities.

Action OSPT.1.4.2 Consider creating a fee and assessment program to provide increased funding for existing parks, in collaboration with the Cordova Recreation and Park District. This could include local or regional bond measures or assessment districts, public or private grants or partnerships, homeowners associations, or other methods deemed appropriate by the City.

Policy OSPT.1.5 Support the Cordova Recreation and Park District in their construction and maintenance of recreational facilities.

Action OSPT.1.5.1 Continue to work with the Cordova Recreation and Park District on this issue, and implement funding mechanisms as part of the City's review and approval of new development projects.

Action OSPT.1.5.2 Explore the possibility of the Cordova Recreation and Park District constructing a community pool that is usable year-round.

Action OSPT.1.5.3 Expand the Cordova Senior Center at the Lincoln Village Community Park, and the construction of new senior community facilities as demand for such facilities increases.

Policy OSPT.1.6 Provide sports and recreation facilities sufficient to attract regional sporting events.

Action OSPT.1.6.1 Continue to work with the Cordova Recreation and Park District in the planning and execution of park and recreation facilities to accommodate a variety of regional sports venues.

Action OSPT.1.6.2 Work cooperatively with the Sacramento Sports Commission and Chamber of Commerce Visitor and Tourist Bureau to attract and host regional sporting activities.

Policy OSPT.2.1 Review all proposals for new residential development to ensure compliance with the City's minimum open space standards.

Action OSPT.2.1.1 Adopt City Open Space Standards that clearly define the City's requirements for open space in new development. Such standards shall be defined as Mandatory Open Space and Performance Based Open Space.

Action OSPT.2.1.2 Require developers of all new residential development to dedicate parkland at a rate of 1.75 acres of land per 1,000 population, generally comprised of:

- *Open Turf, Tree Canopy and Dog Parks;*
- *Neighborhood Greens; and*
- *Communitywide Open Space.*

Action OSPT.2.1.3 Consider partial credit for mandatory open space within drainage facilities when certain criteria are met.

Action OSPT.2.1.4 Exempt from the minimum open space requirements residential subdivisions of ten acres or less which are not part of a master-planned development meeting the minimum open space requirement, at the City's discretion.

Action OSPT.2.1.5 Require all new development projects to provide a system of connected open space that includes greenway, trails, nodes, and green infrastructure (see City Open Space Standards), in proximity to all new residents.

Action OSPT.2.1.6 Ensure that funding for maintenance of open space is sufficient prior to approval of any Final Subdivision Map of development that includes open space facilities or amenities.

Action OSPT.2.1.7 Consider including encumbered land (such as a power line easement) that meets all other requirements for open space for inclusion in the open space system on a case-by-case basis.

Policy OSPT.2.2 Create a plan for identifying and maintaining open space.

Action OPST.2.2.1 Adopt a comprehensive Open Space Preservation Action Plan, which clearly defines the City's open space vision and provides clear direction for the inclusion of open space lands within new development.

Policy OSPT.2.3 Maximize the potential benefits of natural resource mitigation lands within urban development.

Action OPST.2.3.1 Maximize the potential benefits of natural resource mitigation lands within urban development.

Action OSPT.2.3.1 Encourage projects to accomplish the following:

- *Align roads and public spaces to take advantage of vistas over mitigation lands;*
- *Site publicly accessible trails adjacent to the boundaries of mitigation lands to take advantage of the open character and uninterrupted edge of the mitigation lands; and*
- *Consider locating public parks adjacent to mitigation lands to create a greater sense of open space and to take advantage of opportunities for vistas and trail connections.*

Action OSPT.2.3.2 Through the development review process, incorporate design features that increase visual access to natural resource mitigation lands.

Policy OSPT.2.4 Ensure that where land designated or proposed to be designated for open space contains Native American historical, cultural and sacred sites, the City consults with the tribe as to the level of confidentiality required to protect the site and as to appropriate dignity to afford the site in any management plan. (Cross Reference: Cultural and Historic Resources Element)

Goal OSPT.3 Create a system of pedestrian and bicycle trails that maximize usage while providing places for walking and bicycling without conflicts with motor vehicles.

Policy OSPT.3.1 Develop a trails system that provides for maximum connectivity, so that all trails are linked for greater use as recreational and travel routes.

Action OSPT.3.1.1 Create and adopt a comprehensive Trails Master Plan that includes information on current resources and plans for future development, including designating locations and types of trails.

Action OSPT.3.1.2 Review all new development projects and public works projects and require compliance with the Trails Master Plan prior to approval.

Action OSPT.3.1.3 Provide appropriate pedestrian and bicycle linkages to existing facilities, particularly to those facilities within the American River Parkway and the Folsom South Canal.

Action OSPT.3.1.4 Develop and implement a capital improvement plan to construct new bridges, grade-separated crossings, and ramps at key intersections of major trails and roadways.

Policy OSPT.3.2 Participate with Sacramento County and other organizations to identify funding sources to maintain and enhance the American River Parkway.

Action OSPT.3.2.1 Work cooperatively with Sacramento County to fund enhancements within the American River Parkway, consistent with the American River Parkway Plan.

Policy OSPT.3.3 Provide major off-street trails with grade-separated crossings or enhanced at-grade pedestrian crossings, especially across four-lane streets and collector roadways, to provide safe routes free from conflicts with vehicles.

Action OSPT.3.3.1 Include funding for grade-separated and enhanced at-grade pedestrian crossings through the development review and entitlement process and pursue grants and other funding for trails.

Goal OSPT.4 Encourage public use of all trails and open space and promote public input in creating and maintaining these resources.

Policy OSPT.4.1 Support updates to the American River Parkway Plan to encourage and expand recreational opportunities for all segments of the population, especially youth and seniors.

Action OSPT.4.1.1 Provide staff support and/or funding to facilitate updates to the American River Parkway Plan.

Action OSPT.4.1.2 Identify and support programs that serve the special recreational and open space needs of seniors, youth, and other special needs groups that may be underserved within the community.

Policy OSPT.4.2 Support programs which increase the use and safety of off-street trails.

Action OSPT.4.2.1 Encourage the use of volunteers and community groups to provide maintenance and safety patrols on trails through the provision of funding and staff assistance to leverage volunteer efforts.

Action OSPT.4.2.2 Promote the City's world-class system of parks, trails, and open space to all users through education, marketing, and community activities.

Action OSPT.4.2.3 Support trails events and trail use through publicity, proclamations, participation, and funding, community events (e.g., Eppie's Great Race, Fourth of July Celebration, Kid's Day, Nimbus Salmon Festival) that cross community and neighborhood boundaries, and help bring together various segments of the population.

Mitigation Measures

None required.

4.12.8 ELECTRICAL, NATURAL GAS, AND TELEPHONE SERVICES

EXISTING CONDITIONS

Electrical Services

All electric service within the City's Planning Area boundaries is provided by the Sacramento Municipal Utilities District (SMUD). SMUD generates approximately 1,196.8 Megawatts (MW) of electricity and delivers it to an approximately 900 square mile area within Sacramento County. Approximately half of the electricity is generated by SMUD is via hydroelectric means and approximately 40 percent of SMUD's electricity is generated through thermal means. The remaining electricity is generated by either wind or solar power. Throughout the year, SMUD buys and sells energy and capacity on a short-term basis to meet load requirements and reduce costs. SMUD also has entered into long-term contracts with other various suppliers to provide an additional 1,186 MW of electricity. SMUD is currently in the process of constructing the Cosumnes Power Plant (CPP), which will provide the utility with 1,000 megawatts (MW) of power to ensure SMUD's long range plans to meet the growing power needs of Sacramento County. Existing SMUD facilities in the Planning Area include 230 kilovolt (Kv) transmission lines that run diagonally through the eastern portion of the Planning Area and various 69 kV and 12 kV lines that distribute the electricity to individual residential development and commercial and industrial customers.

Natural Gas

Pacific Gas and Electric Company (PG&E) provides natural gas to customers within the City limits and to unincorporated portions of the Planning Area. The existing facilities in the Planning Area consist of 4½-inch to 16-inch pipelines delivering service to all residential, commercial, and industrial customers that are not served by private propane tanks. As with telephone and cable service, natural gas lines are typically co-located with other utilities in trenches to reduce construction costs and environmental impacts. All construction and maintenance activities for natural gas facilities are the responsibility of PG&E.

Cable Television Service/Telephone Service

There are several purveyors providing cable television and other cable related services (i.e., internet) to the City's Planning Area. Cable fibers are generally co-located and installed concurrently with other utility infrastructure. This infrastructure is installed underground within new development in order to reduce visual and aesthetic impacts and any potential safety hazards.

There are several purveyors (i.e., SBC, Comcast, etc.) providing telephone service to the City's Planning Area. Telephone facilities in the Planning Area include both aerial and underground fiber and copper transmission lines. Most of the underground and aerial telephone transmission lines are generally co-located with other utilities on poles or underground trenches and are constructed in public and roadway rights of way to reduce visual and aesthetic impacts and potential safety hazards. The environmental review of providing telephone and cable services is typically handled on a case-by-case basis in conjunction with individual development projects.

4.12.8.2 REGULATORY FRAMEWORK

STATE

California Building Energy Efficiency Standards

Title 24, Part 6 of the California Code of Regulations, known as the Building Energy Efficiency Standards, were established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. After adoption of the California Energy Security and Reliability Act of 2000 (AB 970), the California Energy Commission produced changes to the Building Energy Efficiency Standards. In November 2003 the California Energy Commission adopted these updated standards. The California Building Standards Commission adopted the 2005 changes in July 2003 and the updated standards took effect on October 1, 2005. Included in the update were requirements identified under Senate Bill 5X, part of which requires the California Energy Commission to adopt energy efficiency standards for outdoor lighting.

LOCAL

Sacramento County General Plan

The existing Sacramento County General Plan was adopted in December of 1993. Existing policies related to energy facilities include the location of facilities to minimize visual intrusion, biological impacts, and land use incompatibilities for cogeneration and solar facilities as well as conventional electric facilities (PF-71, through PF-74, PF-76, PF-77, and PF-81 though PF-83), the identification of non-potable water availability (PF-79) and the location of transmission infrastructure (PF-85 through PF-100). Policies PF-101 through PF-115 speak to the location of subtransmission lines, while PF-116 discusses the County's electric and magnetic field policy. Policy PF-118 requires the routing of new high-pressure gas mains within railway and electric transmission corridors, if feasible.

4.12.8.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

A public services or utilities impact is considered significant if implementation of the project would result in the need for new systems or supplies or a substantial expansion or alteration to electricity, natural gas, or telephone that results in a physical impact on the environment or would result in inefficient, wasteful and unnecessary consumption of energy (based on State CEQA Guidelines Appendix F).

METHODOLOGY

Evaluation of potential impacts on electrical, natural gas and telephone services resulting from the proposed project is based on consultation with the service providers, review of California Energy Commission policies, State standards, and the Sacramento County General Plan.

IMPACTS AND MITIGATION MEASURES

Electrical, Natural Gas, and Infrastructure

Impact 4.12.8.1 Implementation of the General Plan would substantially increase demand for electrical, natural gas, telephone and related infrastructure. This is considered a **less than significant** impact.

Under buildout conditions as identified in the General Plan, the demand of electricity may reach up 1,200 MW including existing and projected future loads. Of this, approximately 650 MW of electrical power would be needed within the existing city limits and 550 MW for portions of the Planning Area outside the current city boundaries. To serve the anticipated development through 2020, SMUD is constructing a new 230 kV to 69 kV bulk power substation within the SunRidge Specific Plan area, south of Douglas Road and east of Sunrise Boulevard. This substation will be integrated into the existing substation, transmission, and delivery system. To deliver the electricity beyond 2020, SMUD has indicated the need for new substations, and new 69 kV and 12 kV lines. New overhead 69 kV power lines would be installed within the existing transmission line corridors to reduce visual and other potential environmental impacts, where feasible. SMUD annually updates its demand projections and will modify and update its system plans in response to growth. In addition to electric facilities, SMUD requests specific power line easements and right of ways during the planning stages of new development. All electrical distribution lines, substations, transmission, delivery facilities, and easements required to serve the Planning Area are subject to CEQA review. SMUD does not foresee any capacity shortages or problems in meeting the buildout demands associated with the Rancho Cordova General Plan (Angeja, 2006). Potential environmental effects of obtaining more power through the development of power plants include, but are not limited to, air quality, biological resources, cultural resources (depending on location), hazardous materials, land use, noise and vibration, traffic, visual resources, waste management, water and soil resources, and health hazards. Potential environmental effects for the construction of transmission lines include, but are not limited to, air quality (during construction), biological resources (depending on location), cultural resources (depending on location), hazardous materials, land use, noise and vibration (during construction), traffic, visual resources, and health hazards.

As indicated, PG&E provides natural gas service to the Planning Area. The existing facilities in the Planning Area consist of 4 ½-inch to 16-inch pipelines delivering service to all customers that are not served by private propane tanks. Although, buildout of the proposed General Plan would increase demand for natural gas and related facilities, PG&E does not anticipate any availability or other services problems in serving the land uses proposed under the General Plan (Munroe, 2005). Potential environmental effects for the construction of gas lines include, but are not limited to, air quality (during construction), biological resources (depending on location), cultural resources (depending on location), hazardous materials, land use, noise and vibration (during construction), traffic, and health hazards.

Development under the General Plan would be required to comply with recently adopted changes to Title 24 of the California Code of Regulations regarding energy efficiency that will be effective in September 2005. These new energy efficiency standards were developed in response to the state's energy crisis as well as AB 970 and SB 5X in regards to improving residential and nonresidential building energy efficiency, minimizing impacts to peak energy usage periods and to reduce impacts on overall state energy needs.

There are several purveyors (i.e., SBC, Comcast, etc.) providing telephone service as well as cable television and other cable related services to the City's Planning Area. While implementation of the General Plan would result in growth in the Planning Area and require the expansion of these services, Most of the underground and aerial telephone transmission lines are generally co-located with other utilities on poles or underground trenches and are constructed in public and roadway rights of way to reduce visual and aesthetic impacts and potential safety hazards. The environmental review of providing telephone and cable services is typically handled on a case-by-case basis in conjunction with individual development projects.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies are contained in the General Plan Infrastructure, Services, and Finance Element and the Natural Resource Element, to ensure that proposed land uses associated with the General Plan do not result in adverse environmental effects from the provision of electric, natural gas, and cable/television services in the Planning Area.

Policy ISF.2.1 *Ensure the development of public infrastructure that meet the long-term needs of residents and ensure infrastructure is available at the time such facilities are needed.*

Action ISF.2.1.1 *Except when prohibited by state law, require sufficient capacity in all public facilities to maintain desired service levels and avoid capacity shortages, traffic congestion, or other negative effects on safety and quality of life.*

Action ISF.2.1.2 *Adopt a phasing plan for the development of public facilities in a logical manner that encourages the orderly development of roadways, water and sewer, and other public facilities.*

Action ISF.2.1.3 *Withhold public financing or assistance from projects that do not comply with the planned phasing of public facilities, and approve interim facilities only in special circumstances.*

Action ISF.2.1.4 *Work with utility providers to coordinate the installation or upgrading of utilities and eliminate multiple trenching of city streets.*

Policy ISF.2.2 *Coordinate with independent public providers, including schools, parks, and recreation, utility, transit, and other service districts, in developing service and financial planning strategies.*

Action ISF.2.2.1 *Establish a Technical Review Committee for continued coordination with outside service agencies, including water and sewer providers, the Cordova Recreation and Park District, and the school districts, during the review of plans and development projects.*

Policy ISF.2.3 *Ensure that adequate funding is available for all infrastructure and public facilities, and make certain that the cost of improvements is equitably distributed.*

Action ISF.2.3.1 *Require secure financing for all components of the transportation system through the use of special taxes, assessment districts, developer dedications, or other appropriate mechanisms. Financing should be sufficient to complete required major public facilities at their full planned capacities in a single*

phase. Major facilities include roadways of collector size or larger; all wells, water transmission lines, treatment facilities, and storage tanks needed to serve the project; and all sewer trunk and interceptor lines and treatment plants or treatment plant capacity.

Action ISF.2.3.2 *Require new development to fund its fair share portion of its impacts to all public infrastructure and facilities.*

Action ISF.2.3.3 *Include sufficient funding in fee programs and/or other finance mechanisms to cover the costs of each of the following roadway items:*

- *Design, engineering, environmental compliance, and construction of roadway lanes, traffic signals, and bridges.*
- *Right of way acquisition, design, engineering, environmental compliance, and construction costs.*
- *Drainage and other facilities related to new roadway construction.*
- *Installation of landscaped medians, sidewalks, and streetscaping where appropriate.*

Policy ISF.2.7 *Minimize visual impacts and physical impediments of utility infrastructure and equipment.*

Action ISF.2.7.1 *Coordinate with utility agencies to underground, strategically place, and screen equipment to the maximum extent feasible.*

Policy ISF.2.8 *Ensure accessibility to the latest technology for our residents and businesses.*

Action ISF.2.8.1 *Develop an Information Technology Strategic Plan with input from community stakeholders and experts.*

Action ISF.2.8.2 *Explore ways to improve the City's website to provide service in new ways.*

As required by Infrastructure, Services, and Financing Element Policy ISF.2.1, the City shall ensure that there is sufficient capacity in electric, natural gas, and cable/television facilities and that these facilities are available on time to maintain desired service levels and avoid capacity shortages. Policy ISF 2.2 and Policy ISF 2.3 ensures that the City will coordinate with the appropriate providers in the City during the review and planning process to preclude any adverse impacts associated with the provision of these services and that these facilities are provided in a logical manner with other proposed development. The majority of the infrastructure for these services would be co-located and constructed concurrently with other utilities where feasible and be located within roadway and other public right of ways to lessen or eliminate potential environmental impacts. Coordination between the service providers and the developer will preclude any adverse impacts associated with the provision of natural gas, telephone, and cable related services; therefore, this impact is considered **less than significant**.

Mitigation Measures

None required.

4.12.8.4 CUMULATIVE SETTING, IMPACTS AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative setting for electrical, natural gas and cable services encompass the service areas of the each particular service provider (i.e., SMUD, PG & E, SBC, Comcast, etc.). The cumulative setting for electric service and natural gas also includes Northern California, which is currently experiencing a great amount of growth and a subsequent cumulative demand for these services and related infrastructure.

CUMULATIVE IMPACTS

Cumulative Electrical, Telephone, and Cable Services

Impact 4.12.8.2 Implementation of the proposed project as well as potential development in the surrounding areas (based on Sacramento County General Plan land use projections) would result in cumulative utility service impacts. The project's contribution would be **less than cumulatively considerable**.

As previously discussed, all the Planning Area electrical supply demands will be served by SMUD, an independent operator of power. SMUD is not a California investor-owned utility and is therefore not subject to deregulation. SMUD has arrangements with the California Power Exchange, Automated Power exchange, the California Independent System Operator, Western Systems Power Tool and Northern California Power Tool to purchase and sell short-term power based on current market conditions. Additionally, SMUD has constructed the first phase of the Consumnes Power Plant (CPP), which is a 1,000-megawatt natural gas power plant at the decommissioned Rancho Seco site.

To assist in the long-term sustainability and reliability of Northern California's electrical energy grid, SMUD owns and operates the Upper American River Project (UARP), which consists of 11 reservoirs and eight powerhouses, generates enough electricity to meet about 20 percent of SMUD's customer demand. In a normal water year, the UARP provides roughly 1.8 billion kilowatt-hours of electricity – enough energy to power about 180,000 homes and provides operational flexibility, system reliability and economical power generation for SMUD. The value of the UARP also extends beyond the boundaries of SMUD's service territory by assisting in the maintaining of integrity for Northern California's entire electric transmission system (SMUD, 2006). The CPP and UARP would ensure a guaranteed and adequate long-term energy supply to meet buildout conditions in the Planning Area (SMUD, 2006).

Every year, the Business Planning and Budget Group at SMUD publishes its Load Forecast and Economic Outlook, analyzes and evaluates the estimated power usage over the next ten years and plans for electrical generation and purchase to cover this usage. In the latest such report, SMUD has indicated that it would have adequate supply and infrastructure to serve the electricity demands generated from the Rancho Cordova General Plan under buildout conditions and, which is estimated at approximately 1,100 MW, in addition to meeting other demands within its service area (Angeja, January 2006). PG&E has also indicated that it has adequate natural gas supply and would extend infrastructure, as needed, to serve the growth anticipated under cumulative conditions.

The provision of cable and television services would not result in additional cumulative environmental impacts identified for electric or natural gas in Impact 4.12.8.1, as facilities are generally co-located and placed with public rights of way to reduce such impacts. The construction of new utility infrastructure is subject to CEQA review and compliance and the physical effects of extending service and infrastructure will be analyzed on a project-by-project basis as new development proposals are received. Fee-based utilities and services, such as electric, natural gas and cable/telephone provide for additional development through capital improvements based on service fees and connection fees, which would ensure adequate funding mechanisms even for cumulative conditions. Cumulative environmental impacts due to construction of facilities and transmission infrastructure to serve the project have been generally considered in this EIR. Additionally, implementation of the General Plan policies and associated action items identified under Impact 4.12.8.1 would ensure that the General Plan's electric, natural gas, and cable/television are less than significant and less than cumulatively considerable.

Proposed General Plan Policies and Action Items That Provide Mitigation

The following General Plan policies are contained in the General Plan Infrastructure, Services, and Finance Element and the Natural Resource Element, to ensure that proposed land uses associated with the General Plan do not result in adverse environmental effects from the provision of electric, natural gas, and cable/television services in the Planning Area.

Policy ISF.2.1 *Ensure the development of public infrastructure that meet the long-term needs of residents and ensure infrastructure is available at the time such facilities are needed.*

Action ISF.2.1.1 *Except when prohibited by state law, require sufficient capacity in all public facilities to maintain desired service levels and avoid capacity shortages, traffic congestion, or other negative effects on safety and quality of life.*

Action ISF.2.1.2 *Adopt a phasing plan for the development of public facilities in a logical manner that encourages the orderly development of roadways, water and sewer, and other public facilities.*

Action ISF.2.1.3 *Withhold public financing or assistance from projects that do not comply with the planned phasing of public facilities, and approve interim facilities only in special circumstances.*

Action ISF.2.1.4 *Work with utility providers to coordinate the installation or upgrading of utilities and eliminate multiple trenching of city streets.*

Policy ISF.2.2 *Coordinate with independent public providers, including schools, parks, and recreation, utility, transit, and other service districts, in developing service and financial planning strategies.*

Action ISF.2.2.1 *Establish a Technical Review Committee for continued coordination with outside service agencies, including water and sewer providers, the Cordova Recreation and Park District, and the school districts, during the review of plans and development projects.*

Policy ISF.2.3 *Ensure that adequate funding is available for all infrastructure and public facilities, and make certain that the cost of improvements is equitably distributed.*

Action ISF.2.3.1 *Require secure financing for all components of the transportation system through the use of special taxes, assessment districts, developer dedications, or other appropriate mechanisms. Financing should be sufficient to complete required major public facilities at their full planned capacities in a single phase. Major facilities include roadways of collector size or larger; all wells, water transmission lines, treatment facilities, and storage tanks needed to serve the project; and all sewer trunk and interceptor lines and treatment plants or treatment plant capacity.*

Action ISF.2.3.2 *Require new development to fund its fair share portion of its impacts to all public infrastructure and facilities.*

Action ISF.2.3.3 *Include sufficient funding in fee programs and/or other finance mechanisms to cover the costs of each of the following roadway items:*

- *Design, engineering, environmental compliance, and construction of roadway lanes, traffic signals, and bridges.*
- *Right of way acquisition, design, engineering, environmental compliance, and construction costs.*
- *Drainage and other facilities related to new roadway construction.*
- Installation of landscaped medians, sidewalks, and streetscaping where appropriate.

Policy ISF.2.7 *Minimize visual impacts and physical impediments of utility infrastructure and equipment.*

Action ISF.2.7.1 *Coordinate with utility agencies to underground, strategically place, and screen equipment to the maximum extent feasible.*

Policy ISF.2.8 *Ensure accessibility to the latest technology for our residents and businesses.*

Action ISF.2.8.1 *Develop an Information Technology Strategic Plan with input from community stakeholders and experts.*

Action ISF.2.8.2 *Explore ways to improve the City's website to provide service in new ways.*

Mitigation Measures

None required.

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4.13 – Visual Resources/Light and Glare

This section of the EIR describes the existing visual resources of the Rancho Cordova Planning Area (Planning Area), summarizes the landscape characteristics of the surrounding area, and discusses the impacts associated with implementation of the land use plan options in the proposed Rancho Cordova General Plan. This analysis relies on qualitative principles to assess how visual and scenic resources with the Planning Area could be affected by the development patterns associated with the General Plan.

4.13.1 EXISTING SETTING

EXISTING CONDITIONS

In general, the dominant visual characteristics within the Planning Area are the open sections of the valley floor, urbanized land uses, agricultural land uses, rivers and creeks, and various species of trees. Because the entire Planning Area consists of relatively flat terrain, views of these resources are available from roadways throughout the Planning Area.

Oak trees, streams, creeks, and the American and Cosumnes Rivers are among the most significant natural visual features in the Planning Area. Distant views of the Sierra Nevada and Coastal ranges can be visible under clear conditions.

SIGNIFICANT VISUAL FEATURES

Rivers, Creeks, and Waterways

There are several rivers, creeks, and waterways located within or adjacent to the General Plan Planning Area that serve as a visual transition from natural scenic corridors to the City's urbanized development areas. The most prominent waterways in the vicinity of the Planning Area include: the American River, Cosumnes River, Morrison Creek, Laguna Creek, and Elder Creek.

The American River makes up the Planning Area's northern boundary and flows westward from the crest of the Sierra Nevada above Lake Tahoe to its confluence with the Sacramento River near downtown Sacramento. The American River corridor through the planning area is a part of the American River Parkway, which is an open space greenbelt that extends approximately 29 miles from the Folsom Dam to its confluence with the Sacramento River (further described under Parkways). The Cosumnes River is located approximately two miles southeast of the Planning Area's southeastern boundary. The Cosumnes River corridor contains thousands of acres of wetlands and adjacent uplands that provide critical habitat to a diverse group of plants and animal species.

The Morrison Creek drainage basin covers approximately 192 square miles and has nine tributaries. Morrison Creek starts near the intersection of Douglas Road and Mather Boulevard and flows southwest and eventually drains into the Beach Stone Lakes area west of Interstate 5 (I-5) and in turn into the Sacramento River. Laguna Creek starts near the eastern portion of the Sunrise Douglas Community Plan (SDCP) area and drains into Blodgett Reservoir, located near Grant Line Road and State Route 16 (Jackson Highway). Laguna Creek flows into the City of Elk Grove and eventually into Morrison Creek near the Sunridge Community Service District Wastewater Treatment Plant. Both Morrison Creek and Laguna Creek have been substantially altered by various channels, levees, and culverts, constructed primarily to alleviate potential flooding hazards. Elder Creek starts near the southern boundary of the Planning Area and drains into Morrison Creek, west of Highway 99, and ultimately into the Beach Stone Lakes area.

The developed bikeway and pedestrian path along the Folsom South Canal (FSC) starts at the Nimbus dam and extends southward for approximately 27 miles, through the planning area and past the community of Wilton. The path provides views and scenic opportunities overlooking the central and southern portions of the Planning Area.

The riparian areas associated with these rivers and creeks are considered some of the most biologically rich regions in California's Central Valley and greatly enhance the aesthetic and visual character of the Planning Area. Visually based opportunities include bird watching, hiking, scenic tours, guided trips, and various seasonal outings.

Vernal Pools

Vernal pools are seasonally flooded depressions found on soils with an impermeable layer such as a hardpan, claypan, or volcanic basalt. The impermeable layer allows the seasonal pools to retain water much longer then the surrounding uplands, and often fill and empty several times during the rainy season. Various specialized plant and animal species have adapted to the vernal pool cycle of wetting and drying. In spring, the vernal pools produce brightly colored concentric rings of flowers, which provide specialized and unique habitat conditions for various native species and are considered valuable visual and aesthetic resources. Guided vernal pool tours and hikes are available during various times of the rainy season. There are several vernal pool complexes located throughout the General Plan Planning Area. The reader is referred to Section 4.10 (Biological Resources) for a further description of vernal pool resources in the Planning Area.

Parkway

The American River Parkway (Parkway), also referred to as the "Jewel of Sacramento", borders the American River on both the northern and southern sides. More than 5 million visitors enjoy this unique wildlife and recreation area annually. The Parkway is one of the County's most visited and distinct natural visual features and provides several scenic based activities (i.e, picnic sites, guided natural and historic tours, bird watching and hiking). There are several distinct areas of the Parkway, each having unique visual features, which contribute to their separate identities. The Lower American River (from the Folsom Dam to its confluence with the Sacramento River) is classified as a "Recreation" river, as defined by the Federal and State Wild and Scenic Rivers System due to its aesthetic qualities and wealth of recreational opportunities that it provides. There are also several neighborhood and community parks as well as Goethe Park, which is a 444 acre regional park, which provide a wide variety of recreational opportunities, open space, and greatly enhance the aesthetic quality of the City and Planning Area.

Nature Preserves, Landscape Corridors, and Greenbelts

Nature preserves, landscape corridors, and greenbelts keep natural terrain, drainages, and vegetation types intact. Several of the new developments proposed within the City have designated preserve areas to conserve wetlands, vernal pools and other valuable aesthetic resources. However, only the Anatolia developments, which are located southeast of the intersection of Sunrise Boulevard and Douglas Road, have established on-site preservation areas. These developments were required to incorporate nature preserve areas to maintain the integrity of the existing watersheds, establish interconnected conservation areas to preserve vernal pool hydrology, and incorporate natural features in the design of the projects.

Agriculture and Open Space

Many portions of the Planning Area south of US 50 are not urbanized; rather, they are characterized by large areas of grazing and pasture land, which reinforces the existing uniform rural visual character of the area. These areas provide panoramic views of open space and distant views of the Sierra Nevada range and the foothills of El Dorado County.

Tree Resources

The Planning Area contains native and non-native tree species. The majority of the native trees are located along the American River Parkway and consist mostly of valley oak, blue oak, interior live oak, cottonwood, sycamore, and willow. The Planning Area also includes numerous non-native species, which are generally used for ornamental value, shade production, resistance to particular pests, or proven adaptation to the urban environment. The reader is referred to Section 4.10 (Biological Resources) for a further description of tree resources in the Planning Area.

Light and Glare

The southeastern portion of the Planning Area is currently sparsely developed and used for agriculture. These rural land uses typically do not generate substantial amounts of glare, lighting, or illumination, and the ambient nighttime lighting and illumination levels are very low. The remainder of the Planning Area includes existing sources of daytime glare and nighttime lighting and illumination. Sources of daytime glare include direct beam sunlight and reflections from windows, architectural coatings, glass and other shiny reflective surfaces. Nighttime light illumination and associated glare can be divided into stationary and mobile sources. Stationary sources of nighttime light include structure illumination, decorative landscape lighting, lighted signs, sports field lighting and streetlights. The source of mobile nighttime light is primarily headlights of motor vehicles. During winter nighttime hours, the ambient light in the Planning Area can be accentuated during periods of low cloudiness or fog, which reflects light, resulting in intensification of the amount of light.

4.13.2 REGULATORY FRAMEWORK

FEDERAL

Federal Aviation Regulations

The Code of Federal Regulations, Title 14, Volume 2 revised as of January 1, 2004 (14CFR77.1) pertains to aeronautics and space. Chapter 1 specifically includes the Federal Aviation Administration regulations and Part 77 (Federal Aviation Regulation or FAR Part 77) pertains to objects affecting navigable airspace. FAR Part 77 establishes standards for determining obstructions in navigable airspace; sets forth the requirements for notice to the Administrator of certain proposed construction or alteration; provides for aeronautical studies of obstructions to air navigation in order to determine their effect on the safe and efficient use of airspace; provides for public hearings on the hazardous effects of proposed construction or alteration on air navigation; and provides for the establishment of antenna farm areas.

STATE

Caltrans

Caltrans manages more than 45,000 miles of California's highway and freeway lanes, provides inter-city rail services, assists more than 100 public general aviation airports and works with local agencies. Caltrans carries out its mission of improving mobility across California with six primary programs: Aeronautics, Highway Transportation, Mass Transportation, Transportation Planning, Administration and the Equipment Service Center. Caltrans has jurisdiction over U.S. 50, which passes through the entire Plan Area from west to east. To improve and maintain the visual quality of U.S. 50, Caltrans implements the Adopt-a-Highway program, which was established in 1989. Adoptions usually span a two-mile stretch of roadside and permits are issued for five-year periods. Groups may apply for additional, five-year permits. Since 1989 more than 120,000 California residents have 15,000 shoulder miles of state roadways clean. The City of Rancho Cordova can participate in the Adopt-a-High in any of the following activities:

- Litter removal (work frequency varies with location).
- Planting and establishing trees, or wildflowers.
- Graffiti removal.
- Controlling vegetation

LOCAL

Sacramento County General Plan

The Sacramento County General Plan guides future development in unincorporated portions of the County, including sections of the Planning Area that are outside the Rancho Cordova city limits. The Sacramento County visual resource policies applicable to the Planning Area outside the existing city limits of Rancho Cordova include policies that address glare via restricting use of polished surfaces in exterior building materials and requiring exterior lighting to be shaded and directed away from residential areas. The following policies are included in the Sacramento County Plan Land Use Element and are applicable to visual resources: LU 22, LU 23, LU 24, and LU 25.

City of Rancho Cordova Zoning Code

Upon incorporation, the City adopted the Sacramento County Zoning Code to guide development in the City. The purpose of the Zoning Code is to regulate the use of buildings, structures and land between agriculture, industry, business, residential, open space, recreation and other land uses to ensure compatibility and to enhance the enjoyment of scenic beauty and other natural resources. The City of Rancho Cordova Zoning Code includes lighting standards and tree standards. The Zoning Code will be updated for consistency following the adoption of the General Plan.

Tree Ordinance

Title 19 of the Zoning Code is the Tree Preservation Ordinance ("Tree Ordinance" (Ord. 915 § 1, 1966). The Tree Ordinance was established to promote the health, safety and enhance the beauty and general welfare of the County and, by virtue of the City having adopted the Tree Ordinance, the City of Rancho Cordova. The Ordinance requires the City to plant, maintain, protect, preserve, and to regulate the planting, maintaining, protecting and preserving of public trees and landscaping; to eliminate dangerous conditions caused by trees and shrubs that may result in injuries to persons or property; to protect all trees within the City against the spread of

disease or pests, and to provide for the special protection of heritage and landmark trees within the city limits.

Lighting Standards

Title 1 (General Provisions) of the Zoning Code contains standards requiring that illumination of buildings, landscaping, signs, and parking and loading areas be shielded and directed so that no light trespasses onto adjacent properties. Title III (Use Regulations and Development Standards) requires that lighting shall be directed away from residential areas and public streets so that glare is not produced that could impact the general safety of vehicular traffic and the privacy and well-being of residents.

City of Rancho Cordova Design Guidelines

On September 6, 2005, the Rancho Cordova City Council adopted the City's first comprehensive Design Guidelines document. (Resolution 108-2005). The Design Guidelines reflect the City's desire for quality development; they apply to all types of development. The Design Guidelines were created using input and direction from the Urban Design workshops held in the spring/summer of 2004, the visual preference survey and General Plan survey conducted in the summer of 2004, visioning workshops and land use map discussions for the City's General Plan, and the City's the guiding principles of the City's Design Review Ordinance. These provisions provide a framework to evaluate new development projects against the City's adopted vision and are intended to reflect the City's desires relative to land planning, as well as individual site design and architecture. The guidelines and standards set forth in Chapter 2, Community Design, are applicable to all project types and cover a wide range of topics from general circulation and project signage to landscaping and sustainable development. The subsequent chapters provide additional provisions that are applicable to unique project types, including commercial and commercial mixed use, office and office mixed use, residential (all types from single family detached to residential mixed use), community facilities, and industrial. A series of checklists (Appendix B) have been created for the implementation of the design guidelines. Each of the 6 checklists corresponds to one of the design guideline chapters in the document. The checklists are intended for use by applicants/designers, staff, and decision makers in the preparation, review, and action of individual projects. Ultimately, it is up to the designated Approving Authority to determine if a proposed project is consistent with the overall intent of the guidelines.

4.13.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The following significance thresholds are based on Appendix G, from the State CEQA Guidelines. A project is considered to have a significant visual effect on the environment if it will:

1) Substantially damage scenic resources within a state scenic highway, including, but not limited to, trees, rock outcroppings, and historic buildings;

2) Have a substantial adverse affect on a scenic vista;

3) Substantially degrade the existing visual character of quality or the site and its surroundings or introduce a feature that is out of character that dominates the view.

4) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

METHODOLOGY

The visual resource/light and glare analysis is based on field observations and review of the topographic conditions of the Planning Area. The results of the observations and field reviews were then related to the proposed City of Rancho Cordova General Plan to determine potentially significant impacts. The field observations included walking, driving, and establishing key vantage points in the Planning Area to identify sensitive aesthetic areas and valuable visual resources. The policies of the Sacramento County General Plan and City of Rancho Cordova General Plan that pertain to visual quality were used for guidance for this visual analysis. In addition, staff performed a visual field study from several vantage points within the City and public viewpoints within the Planning Area.

PROJECT IMPACTS AND MITIGATION MEASURES

Alteration of Scenic Resources within a Scenic Highway

Impact 4.13.1 Implementation of the proposed General Plan Land Use Map will not result in substantial damage to scenic resources within a state scenic highway. There is **no impact**.

There are no state or locally designated scenic highways within or proximate to the Planning Area. Therefore, implementation of the General Plan Land Use Map would not have the potential to affect scenic resources within a scenic highway and there is **no impact**.

Mitigation Measures

None required.

Degradation of a Scenic Vista

Impact 4.13.2 Implementation of the General Plan will encourage new development and redevelopment activities that could potentially degrade existing scenic vistas. This is considered a **less than significant** impact.

The topography of the Planning Area is characterized as flat to gently rolling hills, with elevations generally ranging from approximately 30 feet near the American River and southeastern portion of the Planning Area (near the Cosumnes River corridor) to nearly 300 feet in the northeastern Planning Areas. The slopes in the Planning Area generally range from 0% to 8%, with the higher slopes being associated with the dredge tailings, in the northeastern portion of the Planning Area. Important scenic vistas include the American River and the Sierra Nevada mountain range.

General Plan Planning Area – Areas within Existing City Boundaries

Numerous scenic vistas of the American River are provided within the City at various public accesses within the American River Parkway and at river crossings at Watt Avenue, Sunrise Boulevard, and Folsom Boulevard. Development within the American River Parkway is regulated via the provisions of the American River Parkway Plan, which includes numerous criteria for evaluating the potential to impact the viewshed. The City of Rancho Cordova is a participant in

the current update of the American River Parkway Plan, the first update in almost twenty years. However, the City's involvement is purely advisory at this point as the American River Parkway is under the jurisdiction of Sacramento County Municipal Services Agency Department of Regional Parks, Recreation, and Open Space, and the current legislation does not identify Rancho Cordova as one of the local agency signatories to the Parkway Plan. To date, the local agency signatories have stated that Rancho Cordova will remain as a non-voting, advisory agency through the planning horizon of the current update.

General Plan Planning Area – Areas outside of Existing City Boundaries

From the northeastern portions of the Planning Area, during clear weather conditions, there are distant scattered and diffused views of the El Dorado County foothills and the Sierra Nevada. Diffused or scattered views are those views that are partially obstructed and limited by distance, trees, existing structures, intervening topography or vegetation, air quality conditions, and weather conditions. Implementation of the General Plan could result in future annexation and development of much of the southern portions of the Planning Area. Although new roadways and public facilities (parks, restaurants) may provide additional access to the area and thus more opportunities for distant views of the Sierra Nevada, that same development and associated landscaping will further obstruct and scatter opportunities for diffused views of the Sierras. Due to the distance from the Sierras and the existing diffused and scattered nature of the available views, opportunities to view this scenic vista are currently limited and the implementation of the General Plan represents a less than significant affect on this scenic vista.

New development and redevelopment activities proposed in association with the General Plan that are adjacent to the Parkway must comply with viewshed protections contained within the American River Parkway Plan that will ensure no significant degradation of the scenic viewshed. Views of the Sierra afforded in the northeastern of the Planning Area are too distant and diffused to be considered an important scenic vista. For these reasons, development of the Planning Area will not substantially adversely affect an important scenic vista and this is a **less than significant impact.**

Mitigation Measures

None Required.

Alteration of Visual Character

Impact 4.13.3 Implementation of the General Plan will encourage new development and redevelopment activities that could degrade the existing visual character or quality of the Planning Area. This is considered a **potentially significant** impact.

Implementation of the General Plan would change the visual character of the Planning Area through intensification of urban uses within the existing city limits and introduction of urban uses within the Planning Area.

General Plan Planning Area – Areas within Existing City Boundaries

Within the existing city limits, the area is presently predominately urban in character and is planned for intensification, particularly in the Downtown Planning Area, which is located north of Mather Airport. Proposed General Plan goals would provide the opportunity for mixed land use categories that combine residential, commercial, and office uses on a single site thus permitting

both horizontal and vertical mixing. The development of any structure within the City boundaries is subject to City Council discretionary Design Review for consistency with General Plan policies. General Plan policies and associated action items from the Land Use Element, LU 1.5 and LU 2.7 and Urban Design Element policies UD 1.1 and UD 4.2, address creation of design guidelines to ensure the compatibility of land uses, protection of residential neighborhoods from incompatible activities, and buffering of incompatible uses to retain the existing community character. These design guidelines were adopted by the City in September 2005 and are currently applicable to development in the City.

The General Plan would establish land use development standards for all land use designations, including standards contained in the Land Use Element that would limit the maximum height allowable within a particular land use zone. The exception would be the Downtown Planning Area for which there would be no height restrictions (included in the General Plan). This area is planned for intensification of uses and, given the lack of height restrictions development in the Downtown Planning Area, could conceivably include high-rise buildings that are out of character with the present low-rise development in the Planning Area. The existing office and commercial buildings along the most intensively developed US 50 corridor within the General Plan Planning Area generally range from one to twelve stories in height. Further, high-rise buildings can result in their own unique set of impacts (shadowing of adjacent properties, a source of glare, visual intrusion, wind tunnel effects from the channeling of wind conditions, need for specialized fire fighting and emergency access equipment including heliport, interruption of electronic microwave transmissions, locally concentrated traffic and parking, noise and vibration from pile driving during construction, and other temporary construction-related impacts) that can cause incompatibilities with existing and planned adjacent uses. Views onto the City and across the City would change as a result of high-rise development in the Downtown Planning Area. The construction of high rises in this area would alter the existing distant views of the Planning Area for travelers using US 50 as the City's skyline characteristics would change from smaller office and commercial complexes to a more dense and vertical appearance. Additionally, ground level views, line of site characteristics and lighting and glare levels would also change for pedestrians, motorists, residents, and workers in the area.

Development in the Downtown Planning Area is subject to compliance with Federal Aviation Administration (FAA) regulations (i.e., Title 14 of the Code of Federal Regulations (14 CFR), part 77, Objects Affecting Navigable Airspace). This regulation establishes "imaginary surfaces" within the vicinity of any public airport. These imaginary surfaces identify heights above the ground at which any building or structure may constitute a hazard to aircraft navigation. Two such surfaces are located above the Downtown Planning Area, the horizontal surface and the conical surface. FAR Part 77 states that the horizontal surface encompasses an area within 10,000 feet of any major runway and starts at 150 feet above the ground. The conical surface extends from that point outward for an additional 4,000 feet and rises from 150 feet upward at a slope of twenty horizontal feet for every vertical foot gained. At this slope the conical surface begins at 150 feet above the ground at 10,000 feet from the runway and rises to 350 feet at the outermost edge, 14,000 feet from the runway. These surfaces and their relation to the Downtown Planning Area are included in **Figure 4.4-2** in Section 4.4 of this EIR. It should be noted that taller buildings or structures are subject to FAA and Caltrans Division of Aeronautics review and approval to ensure that proposed activities do not pose a hazard to aviation.

General Plan Planning Area – Areas outside of Existing City Boundaries

The southern and eastern portions of the Planning Area are comprised predominately of large lots and the land use is rural. Implementation of the General Plan would result in the conversion of many of these rural areas into suburban and urban land uses. Over time, implementation of

the General Plan would change the visual character of the area into an urban landscape from a rural landscape of relatively flat open grasslands interspersed with native trees, creeks and intermittent streams developed intermittently with ranchettes, agricultural and grazing facilities. Policies and associated action items from the General Plan Land Use Element, Natural Resource Element, and Urban Design Element, identified below, would are intended protect the natural features and transition land uses with appropriate density and intensity from rural areas to urbanized areas, thus establishing a sense of entry and arrival to the City.

The Land Use Element Policy LU 2.1, promotes the integration of natural resources with urban land uses as one of the City's nine Smart Growth Principals. Implementation of LU 2.1 would promote integration of natural resources with urban land uses. Natural Resource Element policies NR 2.1, NR 2.2, NR 3.1, and NR 3.5 require the protection of vernal pool and wetland resources such that there is no net loss of functional areas for special status species, encourage environmentally sensitive project siting and design to minimize impacts to wetland resources, encourage the creation of buffer zones adjacent to creeks and wetlands, and encourage development of guidelines for native habitat restoration during bank stabilization efforts along creek corridors and storm water channels. Policies NR 4.1, NR 4.2, and NR 5.4, establish minimum requirements for protecting and preserving native oak trees, non-oak native trees and landmark trees in the City, require development of guidelines that require avoidance of oak habitat, and encourage the planting of native trees in buffer areas of preserve sites, and open space and creek corridors to retain the visual quality of the Planning Area's natural features.

Proposed General Plan Policies and Action Items that Provide Mitigation

The following General Plan policies and action items contained in the Land Use Element, Natural Resource Element, and Urban Design Element address preservation of the visual character of the Planning Area:

Policy LU.1.4 *Promote high quality, efficient, and cohesive land utilization that minimizes negative impacts (e.g., traffic congestion and visual blight) and environmental hazards (e.g. flood, soil instability) on adjacent neighborhoods and infrastructure and preserve existing and future residential neighborhoods from encroachment of incompatible activities and land uses. [Cross-reference Economic Development, ED.2.6]*

Action LU.1.4.1 *Establish performance and development standards in the Zoning Code and guidelines in the Citywide Design Guidelines to address compatibility between existing and proposed development and within proposed mixed-use development (vertical and horizontal).*

Action LU.1.4.2 *Create development standards and design guidelines to specifically address the compatibility of high-rise development in the Downtown Planning Area. Give special consideration to those issues unique to high-rise development, including the following: visual intrusion, distant viewshed, shadowing of adjacent properties, glare, wind tunnel effects, emergency service, interruption of electronic transmissions, traffic and parking, and noise and vibration.*

Action LU.1.4.3 *Require the disclosure of potential land use compatibility issues in all parts of the City, such as noise, dust, odors, etc., in order to provide potential purchasers with the information necessary to make informed decisions about the property and its future land uses.*

Action LU.1.4.4 *Develop guidelines for the buffering of incompatible land uses in ways that retain community character but do not consume large land area, create pedestrian barriers, or result in unsafe conditions.*

Policy NR.3.1 *Coordinate with groups such as the Sacramento Urban Creeks Council to restore, enhance, and preserve creeks in Rancho Cordova.*

Policy NR.3.2 *Create or retain the natural topographic relief and meandering alignment of natural creek corridors in the construction of new channels and the modification of existing channels, and discourage the placement of concrete within creeks and channels.*

Action NR.3.2.1 *Develop guidelines for channel creation or modification that will ensure channel meander, naturalized side slope, and varied channel bottom elevation are considered in design.*

Action NR.3.2.2 *Adopt and implement improvement standards for soft bottom channels.*

Policy NR.3.3 *Encourage the creation of secondary flood control channels where the existing channel supports extensive riparian vegetation.*

Action NR 3.3.1 *Work with the County's drainage and flood control engineers, and federal and state agencies to determine if natural creek corridors can and should accommodate storm flows or if separate storm water conveyance structures are necessary.*

Policy NR.3.4 *Encourage projects that contain wetland preserves or creeks, or are located adjacent to wetland preserves or creeks, to be designed for maximum visibility and, as appropriate, access. (Cross-reference: Open Space, Parks and Trails Element)*

Action NR.3.4.1 *Establish performance standards for natural resource preserves that accomplish the following:*

- *Provide sufficient width for a mowed firebreak (where necessary), adjacent passive recreation uses, and access for channel maintenance and flood control.*
- *Offer sufficient width to allow for existing and created wildlife habitat, species sensitive to human disturbance, vegetative filtration for water quality, corridor for wildlife habitat linkage, protection from runoff, and other impacts of urban uses adjacent to the corridor.*
- *Allow for sufficient width adjacent to natural resource preserves to allow for trails and greenbelts.*
- *Do not place water quality treatment structures designed to meet pollutant discharge requirements within the stream buffer zone.*

Action NR.3.4.2 – Establish standards that allow public access in the floodplain and buffers along creek corridors and preserves. Mitigation measures shall be

incorporated into environmental documents and conditions of approval that require open-view fencing adjacent to preserves.

Action NR.3.4.3 *Establish standards and/or guidelines for development adjoining wetland preserves or creeks to maximize visibility by designing the land plan with public streets on at least one side of the corridor or preserve with vertical curbs, gutters, footpath(s), street lighting, and post and cable barriers to prevent unauthorized vehicular entry into creek corridors and preserves.*

Policy NR.4.1 *Conserve native oak and landmark tree resources for their historic, economic, aesthetic, and environmental value.*

Action NR.4.1.1 *Adopt a Tree Preservation Ordinance to establish minimum requirements for preserving native trees and landmark trees in the City, including a definition of the size, species, and age requirements of landmark, oak, and other trees to be protected and/or replaced.*

Action NR.4.1.2 *Where feasible, require underground utility lines that are in close proximity to oaks and other landmark trees to be designed and installed to minimize impacts to trees. Work with the utility provider(s) to coordinate transmission line location and other potential impacts associated with the undergrounding of the utilities.*

Action NR.4.1.3 *Establish development guidelines that require all oak habitat to be avoided to the maximum extent feasible. When avoidance is not possible, require mitigation efforts that result in preservation of in-kind habitat in the Planning Area.*

Policy NR.4.2 *Improve overall landscaping quality and sustainability in all areas visible to the public.*

Action NR.4.2.1 *Create development guidelines to establish minimum planting standards and require appropriate tree species and planting densities within newly landscaped areas that are visible to or shared by the public. An adopted Tree List should be used as a guideline for all tree plantings within the City.*

Action NR.4.2.2 *Create development guidelines that address landscaping standards and that require appropriate tree species and densities in buffer areas. The guidelines should also ensure that medians will include native plantings and trees, and will be wide enough to support the long-term viability of the plantings.*

Action NR.4.2.3 *Provide leaflets and planting guides that promote the use of drought-tolerant native vegetation in home landscaping.*

Policy NR.4.3 *Promote trees as economic and environmental resources for the use, education, and enjoyment of current and future generations.*

Action NR.4.3.1 *Achieve "Tree City USA" status. This will require the City to adopt a tree ordinance, appoint a board, department or commission to advise the city on tree issues, spend two dollars per capita on community forestry activities, and hold an Arbor Day celebration. (Cross-reference: Air Quality Element)*

Action NR.4.3.2 *Designate local funds to educate the public on tree planting and preservation.*

Action NR.4.3.3 *Offer programs or other resources to provide property owners with information on proper tree selection, planting, and maintenance.*

Action NR.4.3.4 *Actively participate in the Sacramento County Greenprint Program.*

Policy UD.1.2 *Promote the design of residential neighborhoods in accordance with the desired character of the village and district in which it is located. [Cross Reference: Land Use, LU.2.2]*

Policy UD.2.3 *Transition the density and intensity of uses from an urban to rural character with a clear City edge and establish a sense of entry and arrival to the City.*

Action UD.2.3.1 *Land uses along the eastern and southern boundaries of the City shall transition down the intensity and density of development from urban to rural at the City edge.*

Policy UD.4.2 *Design new development to be compatible with surrounding development in ways that contribute to the desired character of the City and District.*

Action UD.4.2.1 *Develop standards and guidelines that require and illustrate compatibility between new and existing development.*

Mitigation Measures

The development of any structure within the City boundaries is subject to City Council discretionary Design Review for consistency with General Plan policies. General Plan policies and associated action items address the implementation of additional design guidelines to ensure the retention of the existing community character. These policies do not however specifically address consideration of the unique visual impacts associated with high-rise buildings that can extend well beyond the immediate neighborhood. The following mitigation measure is identified.

MM 4.13.3 The following shall be added as a new policy under Goal LU.1:

Create development standards in the Zoning Code and design guidelines in the Citywide Design Guidelines to specifically address the compatibility of high-rise development in the Downtown Planning Area with consideration of those issues unique to high-rise development (visual intrusion, distant viewshed, shadowing of adjacent properties, glare, wind tunnel effects, emergency service, interruption of electronic transmissions, traffic and parking, noise and vibration).

Even with adoption of this policy, the introduction of high-rise structures will irrevocably alter the skyline and visual character of the City of Rancho Cordova. Outside of the current City boundaries, the General Plan would allow future conversion of the existing rural environment to an urban environment. Although the General Plan contains many policies and actions to ensure that this development is sensitive to the preservation of important natural features of the area and provides a transition in the density and intensity with a clear city boundary, the inevitable result of the decision to urbanize this area is an irreversible change in the character of this

portion of the Planning Area. In the event that high-rise structures are introduced into the Downtown Planning Area and urban development occurs in the Planning Areas outside of the current city limits, implementation of the General Plan will result in a **significant and unavoidable** change in visual character.

Daytime Glare and Nighttime Lighting

Impact 4.13.4 Implementation of the General Plan Land Use Map would create new sources of daytime glare, and substantially change nighttime lighting and illumination levels in the Planning Area, associated with new and redevelopment activities. This is considered a **less than significant** impact.

Implementation of the General Plan Land Use Map would introduce new sources of daytime glare and substantially change nighttime lighting and illumination levels in the Planning Area. Lighting nuisances typically are categorized by the following 1) Glare – Intense light that shines directly, or is reflected from a surface into a person's eyes; and 2) "Skyglow"/Nighttime Illumination – Artificial lighting from urbanized sources that alters the rural landscape in sufficient quantity to cause lighting of the nighttime sky and reduction of visibility of stars and other astronomical features; and 3) "Spillover" Lighting – Artificial lighting that spills over onto adjacent properties, which could interrupt sleeping patterns or cause other nuisances to neighboring residents.

The main sources of daytime glare in the Planning Area are from sunlight reflecting from structures with reflective surfaces such as windows. The proposed General Plan land uses would include various densities of commercial, office, recreation and other public uses containing structures and other potential sources of glare. Building materials (i.e., reflective glass and polished surfaces) are the most substantial sources of glare. The amount of glare depends on the intensity and direction of sunlight, which is more acute at sunrise and sunset because the angle of the sun is lower during these times.

A source of glare during the nighttime hours is artificial light. The sources of new and increased nighttime lighting and illumination include, but are not limited to, new residential developments, lighting from non-residential uses, lights associated with vehicular travel (i.e., car headlights), street lighting, parking lot lights, and security related lighting for non-residential uses. Increased nighttime lighting and illumination could result in adverse effects to adjacent land uses through the "spilling over" of light into these areas and "sky glow" conditions, described above.

General Plan Planning Area – Areas within Existing City Boundaries

Implementation of the proposed General Plan would increase the amount of daytime glare in existing developed areas through intensification of development. Daytime glare impacts, intensification of lighting and increased potential for spill-over lighting to affect adjacent uses could be substantially increased in developed areas, particularly if the intensification of uses increases horizontally. High-rise structures are visible to a wider surrounding area and frequently contain a high ratio of window surface area. Daytime glare can be reduced or eliminated by using appropriate building materials and architectural coatings, roof overhangs, and proper structural design. Urban Design Policy 4.2 and Action 4.2.1 contain the requirement that the City prepare design guidelines that address the compatibility of new development with surrounding development in the community. Further, adopted City of Rancho Cordova Design Guidelines, which implement these policies, already include specific lighting standards (see Design Guidelines, pages 2-69 through 2-70).

General Plan Planning Area – Areas outside of Existing City Boundaries

Implementation of the General Plan could result in the introduction of new sources of daytime glare (new development) into undeveloped areas which currently have few sources of glare due to lack of existing structures and the residential and low-rise nature of the development that is present. Development would also introduce new sources of nighttime lighting and illumination into the undeveloped portions of the Planning Area. Urban Design Policy 4.2 and Action 4.2.1 contain the requirement that the City prepare design guidelines that address the compatibility of new development with surrounding development in the community. Further, adopted City of Rancho Cordova Design Guidelines, which implement these policies, already include specific lighting standards (see Design Guidelines, pages 2-69 through 2-70

Proposed General Plan Policies and Action Items that Provide Mitigation

The following General Plan policies and action items are contained in the Urban Design Element address design compatibility.

Policy UD.4.2 *Design new development to be compatible with surrounding development in ways that contribute to the desired character of the City and District.*

Action UD.4.2.1 *Develop standards and guidelines that require and illustrate compatibility between new and existing development.*

Implementation of the General Plan policies and associated action items and the adopted City of Rancho Cordova Design Guidelines would reduce the daytime glare and nighttime lighting impacts to **less than significant**. The adopted City of Rancho Cordova Design Guidelines, which implement these policies include specific lighting standards. The reader is referred to the Design Guidelines page 2-69, and more specifically, page 2-70 for policies addressing potential lighting and glare impacts.

Mitigation Measures

None required.

4.13.5 CUMULATIVE SETTING, IMPACTS AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative setting for visual resources includes the viewshed of existing, proposed, planned, approved and reasonably foreseeable developments in the region as identified in Section 4.0 of this document and those communities surrounding the Planning Area that have a view of the City.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Visual Resources Impacts

Impact 4.13.5 Implementation of the General Plan will encourage new development and redevelopment activities that would contribute to the cumulative alteration of existing landscape characteristics of the region. This impact is **cumulatively considerable.**

Because of the lack of height limitations and potential for high-rise development in the Downtown Planning Area, the viewshed for evaluating cumulative visual impacts in this EIR extends to all Counties bordering Sacramento County. High-rise buildings located in the City of Sacramento are visible for many miles from the City in direct relation to their height. The introduction of high-rise development in the City of Rancho Cordova would create a new highly visible skyline. High-rise development in the City of Rancho Cordova could result in an extension of the high-rise character of the skyline east of the present concentration within the City of Sacramento, creating two city skylines visible for miles from the boundaries of these cities.

The conversion of the Planning Area from its current rural visual character to an urban character in combination with the increased urbanization of the City of Folsom, City of Sacramento, El Dorado County, City of Elk Grove and potentially the County of Sacramento, depending upon policies adopted in the upcoming update to the County's General Plan, will result in a cumulatively considerable change in the visual character of the area. Even with adoption of proposed Policy UD 2.3 that provides for a transition in the density and intensity of uses from an urban to rural character at the fringes of the Planning Area, with a clear city edge, it is unknown which of the Planning Areas outside of the present City limits will develop first which could provide for disjointed application of this policy and increase pressure to urbanize at the fringes. The conceptual land uses proposed for the sub-planning areas at the south and east boundaries of the overall Planning Area (Grant Line South, East, Aerojet, and Glenborough) do not uniformly depict this transition and do show some intensive urban uses adjacent to rural areas outside of the Planning Area. Even in the event that other surrounding jurisdictions attempt to maintain a rural character, the proposed General Plan will contribute to alteration of the viewshed and the visual character will become increasing urban. The change in the visual character of the southeast portion of the Sacramento region, resulting from changes in the visual character within the Planning Area from implementation of the General Plan, is considered a cumulatively considerable contribution to the overall urbanization of the region.

Proposed General Plan Policies and Action Items that Provide Mitigation

The following General Plan policies and action items contained in the Land Use Element, Natural Resource Element, and Urban Design Element address preservation of the visual character of the Planning Area:

Policy LU.1.4 *Promote high quality, efficient, and cohesive land utilization that minimizes negative impacts (e.g., traffic congestion and visual blight) and environmental hazards (e.g. flood, soil instability) on adjacent neighborhoods and infrastructure and preserve existing and future residential neighborhoods from encroachment of incompatible activities and land uses. [Cross-reference Economic Development, ED.2.6]*

Action LU.1.4.1 *Establish performance and development standards in the Zoning Code and guidelines in the Citywide Design Guidelines to address compatibility between existing and proposed development and within proposed mixed-use development (vertical and horizontal).*

Action LU.1.4.2 *Create development standards and design guidelines to specifically address the compatibility of high-rise development in the Downtown Planning Area. Give special consideration to those issues unique to high-rise development, including the following: visual intrusion, distant viewshed, shadowing of adjacent properties, glare, wind tunnel effects, emergency service,*

interruption of electronic transmissions, traffic and parking, and noise and vibration.

Action LU.1.4.3 *Require the disclosure of potential land use compatibility issues in all parts of the City, such as noise, dust, odors, etc., in order to provide potential purchasers with the information necessary to make informed decisions about the property and its future land uses.*

Action LU.1.4.4 *Develop guidelines for the buffering of incompatible land uses in ways that retain community character but do not consume large land area, create pedestrian barriers, or result in unsafe conditions.*

Policy NR.2.1 *Require mitigation that provides for "no net loss" of wetlands.*

Policy NR.2.2 *Ensure that direct and indirect effects to wetland habitats are minimized by environmentally sensitive project siting and design, to the maximum extent feasible.*

Action NR.2.2.1 *During the environmental review process, evaluate feasible on-site alternatives that will reduce impacts to wetland resources and effectively preserve these resources.*

Policy NR.3.1 *Coordinate with groups such as the Sacramento Urban Creeks Council to restore, enhance, and preserve creeks in Rancho Cordova.*

Policy NR.3.2 *Create or retain the natural topographic relief and meandering alignment of natural creek corridors in the construction of new channels and the modification of existing channels, and discourage the placement of concrete within creeks and channels.*

Action NR.3.2.1 *Develop guidelines for channel creation or modification that will ensure channel meander, naturalized side slope, and varied channel bottom elevation are considered in design.*

Action NR.3.2.2 *Adopt and implement improvement standards for soft bottom channels.*

Policy NR.3.3 *Encourage the creation of secondary flood control channels where the existing channel supports extensive riparian vegetation.*

Action NR 3.3.1 *Work with the County's drainage and flood control engineers, and federal and state agencies to determine if natural creek corridors can and should accommodate storm flows or if separate storm water conveyance structures are necessary.*

Policy NR.3.4 *Encourage projects that contain wetland preserves or creeks, or are located adjacent to wetland preserves or creeks, to be designed for maximum visibility and, as appropriate, access. (Cross-reference: Open Space, Parks and Trails Element)*

Action NR.3.4.1 *Establish performance standards for natural resource preserves that accomplish the following:*

- Provide sufficient width for a mowed firebreak (where necessary), adjacent passive recreation uses, and access for channel maintenance and flood control.

- Offer sufficient width to allow for existing and created wildlife habitat, species sensitive to human disturbance, vegetative filtration for water quality, corridor for wildlife habitat linkage, protection from runoff, and other impacts of urban uses adjacent to the corridor.

- Allow for sufficient width adjacent to natural resource preserves to allow for trails and greenbelts.

- Do not place water quality treatment structures designed to meet pollutant discharge requirements within the stream buffer zone.

Action NR.3.4.2 *Establish standards that allow public access in the floodplain and buffers along creek corridors and preserves. Mitigation measures shall be incorporated into environmental documents and conditions of approval that require open-view fencing adjacent to preserves.*

Action NR.3.4.3 *Establish standards and/or guidelines for development adjoining wetland preserves or creeks to maximize visibility by designing the land plan with public streets on at least one side of the corridor or preserve with vertical curbs, gutters, footpath(s), street lighting, and post and cable barriers to prevent unauthorized vehicular entry into creek corridors and preserves.*

Policy NR.4.1 *Conserve native oak and landmark tree resources for their historic, economic, aesthetic, and environmental value.*

Action NR.4.1.1 *Adopt a Tree Preservation Ordinance to establish minimum requirements for preserving native trees and landmark trees in the City, including a definition of the size, species, and age requirements of landmark, oak, and other trees to be protected and/or replaced.*

Action NR.4.1.2 *Where feasible, require underground utility lines that are in close proximity to oaks and other landmark trees to be designed and installed to minimize impacts to trees. Work with the utility provider(s) to coordinate transmission line location and other potential impacts associated with the undergrounding of the utilities.*

Action NR.4.1.3 *Establish development guidelines that require all oak habitat to be avoided to the maximum extent feasible. When avoidance is not possible, require mitigation efforts that result in preservation of in-kind habitat in the Planning Area.*

Policy NR.4.2 *Improve overall landscaping quality and sustainability in all areas visible to the public.*

Action NR.4.2.1 *Create development guidelines to establish minimum planting standards and require appropriate tree species and planting densities within newly landscaped areas that are visible to or shared by the public. An adopted Tree List should be used as a guideline for all tree plantings within the City.*

Action NR.4.2.2 *Create development guidelines that address landscaping standards and that require appropriate tree species and densities in buffer areas. The guidelines should also ensure that medians will include native plantings and trees, and will be wide enough to support the long-term viability of the plantings.*

Action NR.4.2.3 *Provide leaflets and planting guides that promote the use of drought-tolerant native vegetation in home landscaping.*

Policy NR.4.3 *Promote trees as economic and environmental resources for the use, education, and enjoyment of current and future generations.*

Action NR.4.3.1 *Achieve "Tree City USA" status. This will require the City to adopt a tree ordinance, appoint a board, department or commission to advise the city on tree issues, spend two dollars per capita on community forestry activities, and hold an Arbor Day celebration. (Cross-reference: Air Quality Element)*

Action NR.4.3.2 *Designate local funds to educate the public on tree planting and preservation.*

Action NR.4.3.3 *Offer programs or other resources to provide property owners with information on proper tree selection, planting, and maintenance.*

Action NR.4.3.4 *Actively participate in the Sacramento County Greenprint Program.*

Policy UD.1.2 *Promote the design of residential neighborhoods in accordance with the desired character of the village and district in which it is located. [Cross Reference: Land Use, LU.2.2]*

Policy UD.2.3 *Transition the density and intensity of uses from an urban to rural character with a clear City edge and establish a sense of entry and arrival to the City.*

Action UD.2.3.1 *Land uses along the eastern and southern boundaries of the City shall transition down the intensity and density of development from urban to rural at the City edge.*

Policy UD.4.2 *Design new development to be compatible with surrounding development in ways that contribute to the desired character of the City and District.*

Action UD.4.2.1 *Develop standards and guidelines that require and illustrate compatibility between new and existing development.*

Mitigation Measures

Implementation of the above General Plan policies and action items and Mitigation Measure MM 4.13.3 would partially reduce the alteration of visual character and light/glare impacts within the Planning Area. However, the change in the visual character of the region from implementation of the General Plan and other anticipated development in the region, and the potential change in the skyline from introduction of high-rise development, results in a cumulatively considerable contribution to the overall urbanization of the region and is a **cumulatively considerable** and is considered a **significant and unavoidable** impact of the General Plan.

REFERENCES

County of Sacramento Department of Planning and Community Development. *American River Parkway Plan*. 1985

County of Sacramento Planning Department. *Sacramento County General Plan*. 1993

Federal Aviation Administration (FAA) Title 14 Code of Federal Regulations (14 CFR) part 77, Objects Affecting Navigable Airspace.

Caltrans Division of Aeronautics regs/guidelines/standards?

Current proposed parkway plan?

5.0 – Cumulative Impacts Summary

This section compiles all of the cumulative impacts associated with the proposed project as identified in each of the environmental issue areas contained in Sections 4.1 through 4.13 of this EIR.

5.1 INTRODUCTION

The California Environmental Quality Act (CEQA) requires that an Environmental Impact Report (EIR) contain an assessment of the cumulative impacts that could be associated with the proposed project. According to State CEQA Guidelines Section 15130(a), "an EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable." " 'Cumulatively considerable' means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." CEQA Guidelines Section 15065(a)(3). As defined by the Guidelines, "cumulative impacts" refers to two or more effects that, when combined, are considerable or which compound or increase other environmental impacts. CEQA Guidelines Section 15355. A cumulative impact occurs from:

> *…the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.* CEQA Guidelines Section 15355(b).

In addition, Section 15130(b) identifies that the following four elements are necessary for an adequate cumulative analysis:

1) Either:

(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency; or,

(B) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency.

2) A definition of the geographic scope of the area affected by the cumulative effect and a reasonable explanation for the geographic limitation used;

3) A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available; and

4) A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable, feasible options for mitigating or avoiding the project's contribution to any significant cumulative effects.

Where a lead agency is examining a project with an incremental effect that is not "cumulatively considerable," a lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable. CEQA Guidelines Section 15130(a).

5.2 CUMULATIVE SETTING

The City of Rancho Cordova has used both the list and summary of projections approaches ((1)(A) and (1)(B) above) to consider cumulative impacts in this Draft EIR. The general cumulative setting conditions are based on the existing land use plans in the Sacramento region—specifically, Sacramento County, El Dorado County, Placer County, and the cities of Sacramento, Folsom, Rancho Cordova, Galt, Citrus Heights, Roseville and Rocklin, and on consideration of currently known large-scale proposed or approved development projects in the Planning Area and in the nearby region (see **Table 4.0-1**). A more detailed description of the general cumulative setting is contained in Section 4.0 Introduction to the Environmental Analysis and Assumptions Used.

Each technical section of the Draft EIR (Sections 4.1 through 4.13) identifies its own pertinent cumulative setting (i.e., in cases where the nature of the impact warrants adjustment of the setting, in which case the reason for any deviation in the cumulative setting is discussed), and includes a description of the geographic extent of the cumulative setting based on the characteristics of the environmental issue under consideration, as set forth in Section 15130(b) of the State CEQA Guidelines.

5.3 CUMULATIVE IMPACTS ANALYSIS

Identified below is a list of the cumulative impacts that could result from the implementation of the proposed General Plan and future development within the geographic extent of the cumulative setting for that environmental issue area. As described above, cumulative impacts are two or more affects that, when considered together, are considerable or compound other environmental effects. Each cumulative impact is determined to have one of the following levels of significance: less than significant, significant, or significant and unavoidable. The specific cumulative impacts for each environmental issue area are also identified and analyzed in the corresponding technical sections of the Draft EIR (Sections 4.1 through 4.13).

SECTION 4.1 LAND USE

Cumulative Land Use Effects

Impact 4.1.5 When considered with existing, proposed, planned and approved development in the region, implementation of the Rancho Cordova General Plan has the potential to result to contribute cumulative land use conditions in the region that result in significant impacts to the physical environment. This is considered a **cumulatively considerable** impact.

SECTION 4.2 AGRICULTURE

Cumulative Impacts to Agricultural Resources

Impact 4.2.4 Implementation of the General Plan Land Use Map Book along, with other proposed development in Sacramento County, would contribute to the additional conversion of important farmlands to other uses and may increase agriculture/urban interface conflicts. This is a **cumulatively considerable** impact.

SECTION 4.3 POPULATION/HOUSING/EMPLOYMENT

Cumulative Population and Housing Increases

Impact 4.3.3 Buildout in the planning area, under the proposed General Plan Land Use Map, would include substantial population, housing unit and employment increases. This is considered a **cumulatively considerable** impact.

SECTION 4.4 HAZARDS AND HUMAN HEALTH

Cumulative Hazards and Health Risks

Impact 4.4.5 Persons could be exposed to contaminated soil or groundwater during development of previously contaminated sites or sites undergoing remediation. Implementation of the General Plan policies and action items as well as existing regulatory requirements and standards would reduce impacts so that they are considered **less than cumulatively considerable**.

SECTION 4.5 TRANSPORTATION AND CIRCULATION

Cumulative Traffic Impacts on Local Roadways and State Highways

Impact 4.5.6 When considered with existing, proposed, planned and approved development in the region, implementation of the Rancho Cordova General Plan would contribute to cumulative traffic volumes in the region that result in significant impacts to level of service and operations. This is considered a **cumulatively considerable** impact.

Transit System

Impact 4.5.7 Implementation of the proposed General Plan would contribute to the cumulative demand for public transit service (e.g., bus and light rail service). The General Plan's contribution is considered **less than cumulatively considerable**.

Bicycle and Pedestrian System

Impact 4.5.8 Implementation of the proposed General Plan would contribute to cumulative demands for pedestrian and bicycle infrastructure. The General Plan's contribution is considered **less than cumulatively considerable**.

SECTION 4.6 AIR QUALITY

Regional Air Quality Impacts

Impact 4.6.6 Implementation of the proposed General Plan along with potential development of the Planning Area would exacerbate existing regional problems with ozone and particulate matter. The proposed General Plan's contribution to these conditions is considered **cumulatively considerable**.

SECTION 4.7 NOISE

Cumulative Traffic Noise

Impact 4.7.6 Implementation of the proposed General Plan in combination with regional growth and traffic conditions (pass-through traffic) would increase transportation noise along area roadways. This would be a **cumulatively considerable** impact.

Cumulative Stationary Noise

Impact 4.7.7 Implementation of the proposed General Plan, in combination with regional growth in surrounding communities outside of the Planning Area, would increase stationary noise. This is considered a **cumulatively considerable** impact.

Cumulative Airport Noise

Impact 4.7.8 Implementation of the proposed General Plan in combination with regional growth in the Planning Area and surrounding communities would subject more noise-sensitive land uses to airport noise. This is considered a less than **cumulatively considerable** impact.

SECTION 4.8 GEOLOGY AND SOILS

Cumulative Geologic and Soils Impacts

Impact 4.8.6 Implementation of the proposed General Plan, in combination with existing, planned, proposed and reasonably foreseeable development, would not contribute to cumulative geologic and soil impacts, as the impacts would be site-specific and not additive in character. Thus, the General Plan's contribution would be **less than cumulatively considerable**.

Cumulative Mineral Resources

Impact 4.8.7 Implementation of the proposed General Plan, together with past, present, and probable future projects in the area, would result in a cumulatively significant loss of mineral resources in the region. The General Plan's incremental contribution to the loss of mineral resources is **cumulatively considerable**.

SECTION 4.9 HYDROLOGY AND WATER QUALITY

Cumulative Water Quality Impacts

Impact 4.9.5 Implementation of the proposed General Plan and potential development of the Planning Area would include substantial grading, site preparation, and an increase in urbanized development. Increased development would contribute to cumulative water quality impacts and is considered **cumulatively considerable**.

Cumulative Flood Hazards

Impact 4.9.6 Implementation of the proposed General Plan would increase impervious surfaces and alter drainage conditions and rates in the Planning Area, which could contribute to cumulative flood conditions along the American River, Sacramento River, Cosumnes River, and local waterways. However, the General Plan contains adequate General Plan policies and action items that address drainage and flooding issues. This is considered a **less than cumulatively considerable** impact.

Cumulative Water Supply Impacts

Impact 4.9.7 Implementation of the proposed General Plan would contribute to an increased demand for water supply requiring increased groundwater production and the use of surface water supplies that could result in significant environmental impacts. This is considered a **cumulatively considerable** impact.

SECTION 4.10 BIOLOGICAL RESOURCES

Cumulative Biological Resources

Impact 4.10.8 Implementation of the proposed General Plan, together with past, present, and probable future projects in the Planning Area and larger regional context would result in a cumulatively significant loss of biological resources in the region. The General Plan's incremental contribution to this significant cumulative impact is **cumulatively considerable**.

SECTION 4.11 CULTURAL AND PALEONTOLOGICAL RESOURCES

Prehistoric Resources, Historic Resources, and Human Remains

Impact 4.11.3 Adoption of the Rancho Cordova General Plan along with foreseeable development in the region could result in the disturbance of cultural resources (i.e., prehistoric sites, historic sites, and isolated artifacts and features) and human remains. This contribution is considered **cumulatively considerable**.

Paleontological Resources

Impact 4.11.4 Adoption of the Rancho Cordova General Plan along with any foreseeable development in the region could result in the potential disturbance of paleontological resources (i.e., fossils and fossil formations). This is considered a **less than cumulatively considerable** impact.

SECTION 4.12 PUBLIC SERVICES AND UTILITIES

Cumulative Fire Protection and Emergency Medical Services

Impact 4.12.1.2 Implementation of the General Plan in combination with other reasonably foreseeable development (based on Sacramento County, and the cities of Folsom, Elk Groove, Citrus Heights, Galt, Lodi, and Sacramento General Plans land use projections), would increase the population within the SMFD service area, requiring additional fire and emergency medical services and related facilities. The City's contribution to the need for expanded fire protection services is considered **less than cumulatively considerable**.

Design-Related Safety Concerns

Impact 4.12.2.3 Implementation of the General Plan and other reasonably foreseeable development in southeastern Sacramento County (based on Sacramento County land use projections) would increase the population within the Planning Area and surrounding area and would require additional law enforcement services and related facilities under cumulative conditions. This is a **less than cumulatively considerable** impact.

Cumulative Water Service Impacts

Impact 4.12.3.2 Implementation of the General Plan would contribute to the need for additional treatment capacity, storage capacity, and other conveyance facilities to meet cumulative water demands with SCWA, GSWC and Cal-Am. The General Plan's contribution would be **cumulatively considerable**.

Cumulative Wastewater Impacts

Impact 4.12.4.2 Implementation of the proposed General Plan, in addition to other reasonably foreseeable development in eastern Sacramento County (based on the land use projections established in the Sacramento County General Plan), would substantially increase in wastewater flows and require additional infrastructure and treatment capacity that would result in a physical effect on the environment. This is considered **cumulatively considerable**.

Cumulative Solid Waste Service

Impact 4.12.5.2 The proposed project, in addition to proposed and approved projects in the region area, would generate solid waste that would require expanded collection and disposal services. The project's contribution would be **less than cumulatively considerable**.

Cumulative Public School Impacts

Impact 4.12.6.2 Implementation of the General Plan in combination with other reasonably foreseeable development (based on General Plan land use projections for Sacramento County, Folsom, and Elk Grove) proposed in eastern Sacramento County would result in a cumulative increase in student enrollment and require additional schools and related facilities to accommodate the growth. This is a **less than cumulatively considerable** impact.

Cumulative Park and Recreation Demands

Impact 4.12.7.3 Implementation of the General Plan in combination with other reasonably foreseeable development would require additional park and recreation facilities within the Planning Area boundaries and CRPD's service area boundaries. This would be a **less than cumulatively considerable** impact.

Cumulative Electrical, Telephone, and Cable Services

Impact 4.12.8.2 Implementation of the proposed project as well as potential development in the surrounding areas (based on Sacramento County General Plan land use projections) would result in cumulative utility service impacts. The project's contribution would be **less than cumulatively considerable**.

SECTION 4.13 VISUAL RESOURCES/LIGHT AND GLARE

Cumulative Visual Resources Impacts

Impact 4.13.5 Implementation of the General Plan will encourage new development and redevelopment activities that would contribute to the cumulative alteration of existing landscape characteristics of the region. This impact is **cumulatively considerable.**

6.0 – Alternatives to the Project

6.1 INTRODUCTION

The purpose of this alternatives analysis is to describe a range of reasonable alternatives to the proposed City of Rancho Cordova General Plan. This analysis evaluates alternatives that would obtain most of the basic objectives of the project, and the comparative merits of those alternatives (State CEQA Guidelines, Section 15126.6[a]). In accordance with State CEQA Guidelines, an EIR does not need to consider every conceivable alternative to a project, nor is it required to consider alternatives that are clearly infeasible. State CEQA Guidelines Section 15126.6(b) states that an alternatives analysis shall focus on those alternatives that are capable of avoiding or substantially lessening any significant effects of the project, even if they impede to some degree the attainment of the project objectives or would be more costly.

CEQA requires an EIR to identify project alternatives and to indicate the manner in which a project's significant effects may be mitigated or avoided, but does not mandate that the EIR itself contain an analysis of the feasibility of the various project alternatives or mitigation measures that it identifies. (Pub. Resources Code, Sections 21002.1, subd. (a); 21100, subd. (b)(4); *Sierra Club v. County of Napa* (2004) 121 Cal.App.4th 1490, 1503, citing *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656, 689-690.) As the lead agency, the City of Rancho Cordova bears the responsibility for the decisions that must be made before a project can go forward, including determinations of feasibility and whether the benefits of a project outweigh the significant effects the project will have on the environment. (Pub. Resources Code Sections 21002.1, subds. (b) & (c), 21081.) In addition, CEQA specifically provides that in making these determinations, the City shall base its findings on substantial evidence in the record, a provision reflecting an understanding that the City Council will not limit its review to matters set forth in the EIR, but will base its decision on evidence found anywhere in the record. (*Sierra Club v. County of Napa*, 121 Cal.App.4th at p. 1503; citing Pub. Resources Code, Section 21081.5.)

According to the State CEQA Guidelines, an EIR need only examine in detail those alternatives that could feasibly meet most of the basic objectives of the project. When addressing feasibility, the State CEQA Guidelines Section 15126.6 states that "among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, jurisdictional boundaries, and whether the applicant can reasonably acquire, control or otherwise have access to alternative sites." The State CEQA Guidelines also specify that the alternatives discussion should not be remote or speculative; however, they need not be presented in the same level of detail as the assessment of the proposed project.

State CEQA Guidelines indicate that several factors need to be considered in determining the range of alternatives to be analyzed in an EIR and the level of analytical detail that should be provided for each alternative. These factors include: (1) the nature of the significant impacts of the proposed project; (2) ability of alternatives to avoid or lessen the significant impacts associated with the project; (3) the ability of the alternatives to meet the objectives of the project; and (4) the feasibility of the alternatives. These factors would be unique for each project.

The significant environmental impacts of the project that the alternatives will seek to eliminate or reduce were determined and based upon the findings contained within each technical section evaluated in Sections 4.1 through 4.13 of this DEIR.

LAND USE

- Conflicts with relevant land use plans, policies or regulations under project and cumulative conditions (Impact 4.1.3 and 4.1.5);

AGRICULTURE

- Loss and conversion of agricultural land under project and cumulative conditions (Impact 4.2.1and 4.2.4);
- Agricultural/urban interface and conflicts with Williamson Act contracts (Impact 4.2.2 and 4.2.3);

POPULATION/HOUSING/EMPLOYMENT

- Population, housing and employment increases under project and cumulative conditions (Impact 4.3.1 and 4.3.3);

HAZARDS AND HUMAN HEALTH

- Release of and exposure to hazardous materials (Impact 4.4.2);

TRANSPORTATION AND CIRCULATION

- Impacts to roadway segments (Impact 4.5.1);
- Impacts to freeway segments (Impact 4.5.2);
- Cumulative traffic impacts (Impact 4.5.6);

AIR QUALITY

- Air quality impacts under project and cumulative conditions (Impacts 4.6.1, 4.6.2, 4.6.3 and 4.6.6);
- Air toxic contaminant exposure under project and cumulative conditions (Impact 4.6.4 and 4.6.6);
- Possible exposure of sensitive receptors to odorous emissions (Impact 4.6.5);

NOISE

- Construction noise impacts (Impact 4.7.1);
- Traffic noise impacts under project and cumulative conditions (Impacts 4.7.2 and 4.7.6);
- Stationary noise impacts under project and cumulative conditions (Impact 4.7.3 and 4.7.7)
- Mather Airport noise impacts (Impact 4.7.4)

GEOLOGY AND SOILS

- Soil stability (Impact 4.8.3)
- Mineral resource conflicts under project and cumulative conditions (Impact 4.8.5 and 4.8.7))

HYDROLOGY AND WATER QUALITY

- Surface water quality impacts under project and cumulative conditions (Impacts 4.9.2 and 4.9.5);
- Groundwater quality impacts under project and cumulative conditions (Impact and 4.9.3 and 4.9.5);
- Increased water supply demand impacts under project and cumulative conditions (Impact 4.9.4 and 4.9.7)

BIOLOGICAL RESOURCES

- Impacts to endangered, threatened, and other listed species under project and cumulative conditions (Impact 4.10.1 and 4.10.8);
- Impacts to species of concern and other non-listed special status species under project and cumulative conditions (Impact 4.10.2 and 4.10.8);
- Loss of habitat under project and cumulative conditions (Impact 4.10.3 and 4.10.8);
- Direct and indirect impacts to jurisdictional waters under project and cumulative conditions (Impact 4.10.4 and 4.10.8);
- Effects on wildlife movement corridors under project and cumulative conditions (Impact 4.10.5 and 4.10.8);
- Loss of trees under project and cumulative conditions (Impact 4.10.6 and 4.10.8);

CULTURAL AND PALEONTOLOGICAL RESOURCES

- Impacts to prehistoric resources, historic resources, and human remains under project and cumulative conditions (Impact 4.11.1 and 4.11.3);
- Impacts to paleontological resources under project and cumulative conditions (Impact 4.11.2 and 4.11.4);

PUBLIC SERVICES AND UTILITIES

- Water supply infrastructure under project and cumulative conditions (Impact 4.12.3.1 and 4.12.3.2);
- Wastewater conveyance and treatment under project and cumulative conditions (Impact 4.12.4.1 and 4.12.4.2);

- Potential conflicts with Kiefer Landfill (Impact 4.12.5.1);

VISUAL RESOURCES

- Alteration of visual character under project and cumulative conditions (Impact 4.13.3 and 4.13.5).

ALTERNATIVES CONSIDERED BUT NOT SELECTED FOR ANALYSIS

OFF-SITE ALTERNATIVE

Given the nature of the project (adoption of the General Plan for the City of Rancho Cordova) it would not be pertinent to address another area as the City boundaries have been established through incorporation. Further, this alternative would not meet the basic project objectives, again because consideration of another location would not address issues pertinent to the establishment of land use designations and policies to regulate the orderly development of the City of Rancho Cordova. For these reasons, an off-site alternative is considered infeasible pursuant to State CEQA Guidelines 15126.6(c).

RESTRICTED DEVELOPMENT ALTERNATIVE

This alternative is a variation of the No Project Alternative. This alternative would consist of prohibition of new development occurring in the City except where such development has already received its approvals and development that is allowed by right (no discretionary action). As with the Off-Site Alternative, this alternative would not meet the basic project objectives—in particular, the objectives to: establish the City as a vibrant destination place in the region; proactively seek beneficial changes in land use and the scope of the City's operations; obtain measurable fiscal success for the City from the implementation of its General Plan; plan for a balanced mix and integration of land uses that will make Rancho Cordova a desirable place to live, work and play; implement a land use strategy that intensifies development consistent with the Sacramento Area Council of Government (SACOG)'s Blueprint Plan; and to provide improved transportation and connection through the City by improved roadway facilities, enhanced pedestrian and bicycle facilities and trails and the expansion of various forms of transit throughout the City and Planning Area. Therefore, this is not considered a feasible alternative.

ENHANCED TRANSPORTATION ALTERNATIVE

The Enhanced Transportation Alternative includes the same land uses proposed in the City of Rancho Cordova General Plan. However, under this alternative the proposed General Plan roadway improvements identified in **Figure 3.0-19** would be further expanded to include the following additional improvements:

- Expansion of Sunrise Boulevard to 8 lanes from White Rock Road to U.S. 50, and 10 lanes on Sunrise Boulevard north of White Rock Road.

- New roadway extension and crossing of the American River either at Bradshaw Road, Mather Field Road, and/or future Rancho Cordova Parkway.

- Expansion of Zinfandel Drive to 8 lanes from White Rock Road to Folsom Boulevard.

- Expansion of Folsom Boulevard to 6 lanes from Mather Field Road to Sunrise Boulevard
- Expansion of Mather Field Road to 8 lanes from International Drive to Folsom Boulevard.
- Expansion of Hazel Avenue to 10 lanes north of U.S. 50.
- Expansion of Bradshaw Road to 8 lanes from Kiefer Road to U.S. 50.
- Widening of U.S. 50 to 10 lanes, with auxiliary lanes and high occupancy vehicle lanes.

Implementation of these improvements would improve the roadway and U.S. 50 segment operations. However, there are right-of-way constraints along these roadway segments associated with existing businesses and residential units and these additional roadway improvements would result in potentially significant impacts (e.g., biological resource and recreation impacts to the American River). In addition, during the development of the Roadway System Sizing Map and the General Plan, the City Council identified that no local roadway would be designed larger than a 6-lane facility, given that large roadway facilities (8 lanes and greater) conflicts with pedestrian and bicycle use and results in the "barrier effect" of such roadways dividing portions of the City. In addition, further expansion of Folsom Boulevard and Zinfandel Drive would conflict with the General Plan's vision of the Downtown Planning Area that is intended to be a pedestrian-friendly gathering place for daytime and nighttime activities, as well as the future design of Folsom Boulevard that intended to have a "main street feel". Given these circumstances and the fact that several of these roadway improvements are currently outside of the City's jurisdiction, this alternative was rejected from further consideration.

TRANSFER OF DEVELOPMENT POTENTIAL ALTERNATIVE

The Transfer of Development Potential Alternative would involve transferring development potential to other jurisdictions (e.g., Sacramento County, Elk Grove, Folsom Sphere of Influence). This alternative would not meet the project objectives of the City of Rancho Cordova, particularly the objectives to implement a land use strategy that intensifies development consistent with SACOG's Blueprint Plan and provide for housing opportunities proximate to existing and planned jobs and services.

6.2 PROJECT ALTERNATIVES EVALUATED

Based on the environmental analysis in Sections 4.1 through 4.13 of this DEIR, the project's alternatives were developed to provide decision-makers with a reasonable range of alternatives with which to compare to the proposed project. The following alternative scenarios were selected for evaluation in this analysis. This analysis utilizes the technical analysis provided in Sections 4.1 through 4.13 as well as input from the technical consultants (e.g., Fehr and Peers – traffic consultants) on each alternative's comparison to the proposed General Plan.

- ALTERNATIVE 1 – Sacramento County General Plan Alternative (No Project Alternative)
- ALTERNATIVE 2 – Existing City Boundary General Plan Alternative (No Project Alternative)
- ALTERNATIVE 3 – Natural Resources Conservation Alternative
- ALTERNATIVE 4 – Sacramento Area Council of Governments Preferred Blueprint Scenario Alternative

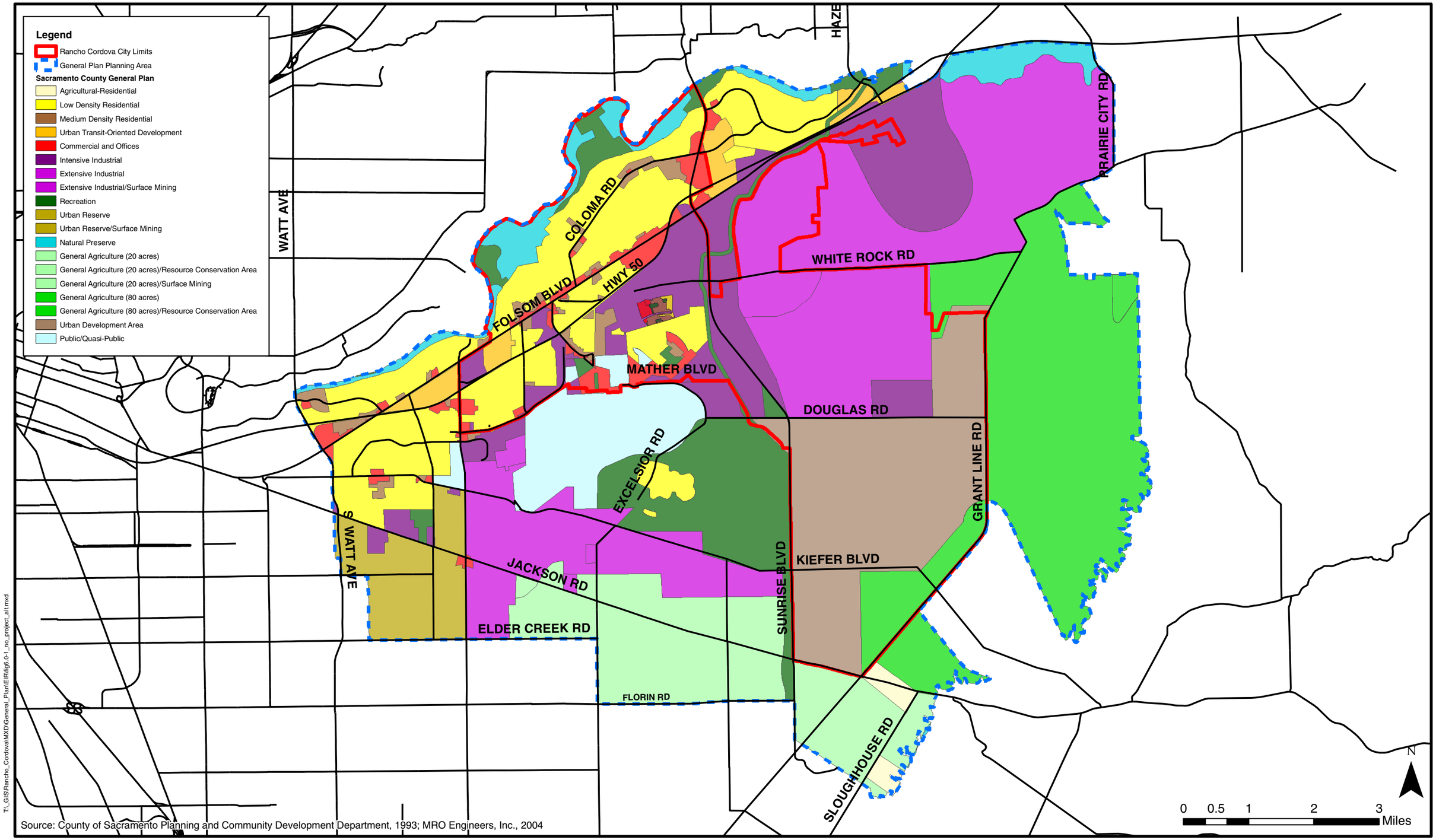
ALTERNATIVE 1 - SACRAMENTO COUNTY GENERAL PLAN ALTERNATIVE

Characteristics

Under this alternative, the proposed Rancho Cordova General Plan and its associated Land Use Policy Map would not be adopted and the City would revert to the Sacramento County General Plan (Land Use Map and policy document) that was initially adopted by the City upon incorporation as modified by recently approved General Plan amendments (Sunrise-Douglas Community Plan, Sunridge Specific Plan, Villages of Zinfandel, and Capital Village) (see **Figure 6.0-1**). This would also include the utilization of the transportation improvements identified in the Sacramento County General Plan Transportation Plan (also as modified by recently adopted General Plan amendments [Sunrise-Douglas Community Plan]), which includes the following major roadway improvements in the Planning Area for pre and post year 2010 conditions.

- SR 16 – 6 lanes
- Sunrise Reliever (now referred to as Rancho Cordova Parkway) – 6 lanes with a transit feeder line network
- Grant Line Road – 6 lanes
- Hazel Connection to Grant Line Road – 6 lanes
- Sunrise Boulevard – 6 lanes with a transit feeder line network
- Folsom Boulevard – 6 lanes with a transit trunk line network
- Douglas Road – 6 lanes
- International – 6 lanes
- White Rock Road – 6 lanes to Grant Line Road, 2 to 4 lanes east of Grant Line Road
- Future Sunrise Reliever (now referred to as Rancho Cordova Parkway) Interchange
- Kiefer Boulevard – 4 lanes
- Old Placerville Road – 4 lanes

Buildout under this Alternative could result in approximately 88,301 residential dwelling units and an associated population of 236,647 as well as 124,123 jobs within the Planning Area. This is identified as a possible "No Project Alternative" and is analyzed consistent with the requirements of State CEQA Guidelines 15126.6(e)(3)(A), which specifically identify that when the project under evaluation is the revision of an existing land use or regulatory plan, that the "no project" alternative will be the continuation of the existing plan.



City of Rancho Cordova
Planning Department

Figure 6.0-1
Alternative 1 - No Project Alternative
Sacramento County General Plan

Comparative Impacts

Land Use

Conflicts with relevant land use plans, policies or regulations under project and cumulative conditions (Impact 4.1.3 and 4.1.5)

As noted in Section 4.1 (Land Use), implementation of the proposed General Plan would result in more intense urban uses (more residential units, commercial, office and industrial uses) than Sacramento County General Plan anticipated in the Planning Area outside of current City limits associated with the Mather, Jackson, Glenborough, Westborough, Grant Line South, Grant Line West and East Planning Areas. The existing Sacramento County General Plan designates these areas as Industrial, Agriculture and Recreation and was not intended to experience urban development until after year 2010 (if at all). Thus, this impact was identified as significant and unavoidable. Conflicts would also occur with the Mather Specific Plan and Mather Airport CLUP.

Implementation of Alternative 1 would retain existing Sacramento County General Plan land use designations and policy provisions for these areas and would avoid this significant impact.

Agriculture

Loss and conversion of agricultural land and project and cumulative conditions (Impact 4.2.1and 4.2.4)

As noted in Section 4.2 (Agriculture), implementation of the proposed General Plan Land Use Map would result in the conversion of approximately 1,392.50 acres of important farmland (225.65-acres of Prime Farmland and 890.9 acres of Farmland of Statewide Importance and 276.56 acres of Unique Farmland). This was identified as a significant and unavoidable impact under project and cumulative conditions.

Alternative 1 would still result in some loss of important farmlands. However, important farmland areas along Grant Line Road in the Grant Line North Planning Area, west of Sunrise Boulevard in the Jackson Planning Area and immediately west of Excelsior Road in the Jackson Planning Area would be preserved under this Alternative (see **Figure 4.2-1**). This alternative would reduce important farmland impacts as compared to the proposed General Plan. However, this impact would still be considered significant and unavoidable (even with application of mitigation measures identified in Section 4.2).

Agricultural/urban interface and Williamson Act contracts conflicts (Impact 4.2.2 and 4.2.3)

Implementation of the proposed City of Rancho Cordova General Plan Land Use Map would place urbanized land uses adjacent to and would replace existing agricultural uses. It is anticipated that as the City builds out, agriculture/urban interface conflicts may occur and result in cancellations of existing Williamson Act contracts. These impacts were identified as significant and unavoidable.

Implementation of Alternative 1 would result in similar, though reduced, land use conflicts between urban/agricultural uses. This impact would still be considered significant and unavoidable (even with application of mitigation measures identified in Section 4.2). However, this Alternative would retain land use designations (General Agriculture) in the areas of existing Williamson Act contracts that would be protective of continued agricultural uses.

Population/Housing/Employment

Population, housing and employment increases under project and cumulative conditions (Impact 4.3.1 and 4.3.3)

At buildout under the proposed General Plan, a population of 310,241 persons, 126,241 housing units and 195,021 jobs are anticipated for the General Plan Planning Area. This represents substantial growth in the area and will have a significant physical effect on the environment. This was identified as a significant and unavoidable impact under project and cumulative conditions.

Alternative 1 could result in approximately 88,301 residential dwelling units and an associated population of 236,647 as well as 124,123 jobs within the Planning Area. While this Alternative would also represent substantial growth in the area, this level of development has been anticipated at this level since adoption of the Sacramento County General Plan in 1993. The significant environmental effects of this growth were addressed in the Sacramento County General Plan Update EIR. Overall, the direct environmental effects of this Alternative would be less than the proposed General Plan.

However, Alternative 1 would not accommodate the growth anticipated in the area identified in SACOG Blueprint, which would result in the displacement of this growth to other areas in the region that would result in other environmental effects (e.g., impacts associated with land conversion [agricultural and biological resource impacts] and increases in regional traffic). This growth displacement effect of Alternative 1 would significant as compared to the proposed General Plan.

Hazards and Human Health

Release and exposure to hazardous materials (Impact 4.4.2)

Implementation of the proposed General Plan with the proposed residential and non-residential uses would involve the storage, use, and transport of hazardous materials (e.g., jet fuel at Mather Airport, gasoline fuels, demolition materials, asphalt, lubricants, toxic solvents, pesticides and herbicides) during construction, demolition, and landscaping activities. In addition, certain commercial uses, including water treatment plants, swimming pool facilities, gas stations, and dry cleaners that store, use, and routinely transport hazardous material to and from their facilities could pose a potential hazard to the environment. Development of the Planning Area could also result in the exposure to existing contamination.

Implementation of Alternative 1 would result in similar potential for exposure to hazardous materials. However, this Alternative 1 would result reduced population that could be exposed to hazardous materials and would have reduced potential for new development to result in an accidental exposure to contamination from previous land uses. This impact would mitigated for Alternative 1 through utilization of policies, action items and mitigation identified for the proposed General Plan in Section 4.4 (Hazards and Human Health).

Transportation and Circulation

Impacts to roadway segments under project and cumulative conditions (Impact 4.5.1 and 4.5.6)

As noted in Section 4.5 (Transportation and Circulation), the proposed General Plan's significant and unavoidable level of service impacts consisted of the following roadway segments under

the three analysis scenarios conducted. This impact was identified as significant and unavoidable under project and cumulative conditions.

- Folsom Boulevard - Mather Field Road to Coloma Road
- Mather Field Road - U.S. 50 Eastbound Ramps to International Drive
- Zinfandel Drive – U.S. 50 Eastbound Ramps to White Rock Road
- Sunrise Boulevard – Gold Country Boulevard to Coloma Road
- Sunrise Boulevard – Coloma Road to U.S. 50 Westbound Ramps
- Sunrise Boulevard – U.S. 50 Eastbound Ramps to Folsom Boulevard
- Sunrise Boulevard – Folsom Boulevard to White Rock Road
- Hazel Avenue – Winding Way to U.S. 50 Westbound Ramps
- Bradshaw Road – U.S. 50 to Old Placerville Road
- Bradshaw Road – Old Placerville Road to Kiefer Boulevard

Based on traffic modeling of Sacramento County General Plan traffic conditions for year 2030 conducted by Fehr and Peers, implementation of Alternative 1 would avoid significant level of service (LOS) traffic impacts to Folsom Boulevard (Mather Field Road to Coloma Road), Mather Field Road (U.S. 50 Eastbound Ramps to International Drive), and Sunrise Boulevard (U.S. 50 Eastbound Ramps to White Rock Road) under the Sacramento County General Plan LOS E standard. However, this Alternative would result in the following additional roadways to fail to meet the Sacramento County General Plan LOS E standards that are not identified as significant level of service impacts to the proposed General Plan and its LOS "D" standard. These failures are as a result of differing General Plan roadway system designs between the proposed General Plan and Alternative 1.

- White Rock Road - Sunrise Boulevard to Grant Line Road
- Sunrise Boulevard – Douglas Road to SR-16
- Grant Line Road – White Rock Road to Douglas Road
- Rancho Cordova Parkway – U.S. 50 to White Rock Road

Impacts to freeway segments under project and cumulative conditions (Impact 4.5.2 and 4.5.6)

The proposed General Plan increases in traffic volumes to the highway would contribute to deficient operation of U.S. 50 (eastbound and westbound) from Folsom Boulevard to Bradshaw Road interchanges during a.m. and p.m. peak periods. This impact was identified as significant and unavoidable under project and cumulative conditions.

Alternative 1 would result in similar traffic impacts to U.S. 50 based on traffic modeling of Sacramento County General Plan traffic conditions for year 2030 conducted by Fehr and Peers. While this Alternative would provide improved LOS conditions on eastbound U.S. 50 during the a.m. peak hour (between Zinfandel Drive to Sunrise Boulevard) (LOS D) and westbound U.S. 50 during the a.m. (between Hazel Avenue and Zinfandel Drive) (LOS E), it would result in worse LOS conditions on eastbound U.S. 50 during the p.m. (between Bradshaw Road and Mather Field Road) (LOS F) and eastbound U.S. 50 during the p.m. (between Hazel Avenue and Folsom Boulevard) (LOS D). These impacts would be significant and unavoidable for Alternative 1.

Air Quality

Air quality impacts under project and cumulative conditions (Impacts 4.6.1, 4.6.2, 4.6.3 and 4.6.6)

As identified in Section 4.6 (Air Quality), implementation of the proposed General Plan would result increased air pollutant emissions from construction and operational activities in the

Planning Area. Under buildout conditions, uses in the Planning Area may produce 14,296.66 tons of ROG, 3,168.86 tons of NOx, and 8,420.85 tons of PM_{10} per year. As discussed under Impact 4.6.1, the increase in potential air pollutant emission sources in the Planning Area has the possibility to conflict with the Regional Ozone Attainment Plan, as well as exceed state and federal air quality thresholds. These impacts were identified as significant and unavoidable.

Implementation of Alternative 1 would result in reduced emissions (approximately 9,579 tons of ROG, 2,123 tons of NOx, and 5,642 tons of PM_{10} per year under this alternative – 33 percent reduction in emissions). These emission levels would still be considered significant (even with application of the proposed policies, action items and mitigation identified in Section 4.6 [Air Quality]), but development under this Alternative would be within the projections being utilized by SMAQMD in its process of updating the Attainment Plan (332,000 persons, 112,290 housing units, and 144,406 jobs for the area).

Air toxic contaminant exposure under project and cumulative conditions (Impact 4.6.4 and 4.6.6)

Implementation of the proposed General Plan would include land uses that are potential sources of Toxic Air Contaminants (TACs) as well as exposure of sensitive land uses to mobile sources of TACs. This was identified as a significant and unavoidable impact.

Alternative 1 would have a similar potential to include land uses that are potential sources of TACs as well as expose future sensitive land uses to mobile sources to TACs. Thus, this impact would be considered significant and unavoidable for this Alternative as well (even with the application of proposed policies, action items and mitigation identified in Section 4.6 [Air Quality]). However, Alternative 1 would result in a reduced population that could be exposed to TACs.

Possible exposure of sensitive receptors to odorous emissions (Impact 4.6.5)

Implementation of the proposed General Plan would allow for the development of uses that have the potential to produce odorous emissions either during the construction or operation of the development. Additionally, implementation of the proposed General Plan may allow for the construction of sensitive land uses (i.e. residential development, schools, parks, offices, etc.) near existing or future sources of odorous emissions, as specific land use designations are not yet determined for the Planning Area.

Alternative 1 would have a similar potential to include land uses that have potential to produce odorous emissions or allow for the construction of sensitive land uses (i.e. residential development, schools, parks, offices, etc.) near existing or future sources of odorous emissions. This impact for Alternative 1 could be mitigated similar to the proposed General Plan through the application of proposed policies, action items and mitigation identified in Section 4.6 (Air Quality). However, this Alternative 1 would result in a reduced population that could be exposed to objectionable odors.

Noise

Construction noise impacts (Impact 4.7.1)

Construction activities associated with the buildout of the proposed General Plan would typically generate maximum noise levels ranging from 85 to 95 dB at a distance of 50 feet. Depending on the timing of the buildout of the General Plan planning areas, existing and future

residents may be exposed to these excessive noise levels. This impact was identified as significant and unavoidable.

Alternative 1 would have a similar potential for construction noise impacts and would be significant and unavoidable.

Traffic noise impacts under project and cumulative conditions (Impact 4.7.2 and 4.7.6)

Implementation of the proposed General Plan would result in increased traffic noise levels from additional vehicle traffic on existing and future roadways. Implementation of the proposed General Plan would also result in new noise-sensitive land uses throughout the Planning Area. This impact was identified as significant and unavoidable under project and cumulative conditions.

Implementation of Alternative 1 would result in similar traffic noise impacts as the proposed General Plan. Alternative 1 noise standards (Sacramento County General Plan Noise Element) for traffic noise are similar to the proposed General Plan. However, neither of these provisions would fully mitigate this impact. Thus, this impact would be significant and unavoidable (under project and cumulative conditions) for Alternative 1 as well.

Stationary noise impacts under project and cumulative conditions (Impact 4.7.3 and 4.7.7)

Implementation of the proposed General Plan could result in the future development of land uses that generate noise levels in excess of applicable City of Rancho Cordova noise standards for non-transportation noise sources or expose new noise-sensitive land uses to existing excessive noise levels.

Implementation of Alternative 1 would result in similar stationary noise impacts as the proposed General Plan. Alternative 1 noise standards (Sacramento County General Plan Noise Element) for stationary noise are similar to the proposed General Plan. However, neither of these provisions would fully mitigate this impact given that some noise sources cannot be regulated by the City (park and school sites). Thus, this impact would be significant and unavoidable (under project and cumulative conditions) for Alternative 1 as well.

Mather Airport noise impacts (Impact 4.7.4)

The proposed General Plan has five planning areas affected by the existing Mather Airport CLUP boundaries and 60 to 65 dB CNEL contour ranges, including: Mather Planning Area; Jackson Planning Area; Sunrise Boulevard South Planning Area; Rio del Oro Planning Area; and the Aerojet Planning Area. The Rio del Oro Planning Area is the only planning area that proposes some residential uses within the 65 dB CNEL (where the noise contour curves to the south). Residential uses are not permitted in the 60 or 65 dB CNEL noise contour of the Mather Airport CLUP. However, it should be noted that the project site design for Rio del Oro was based on the proposed noise contours for Mather Airport and not the existing contours. Because the General Plan would locate noise-sensitive land uses (e.g., residential) within the 60 dB CNEL noise contours contained in the Mather Airport CLUP, this would be a significant impact if the current CLUP contours were considered accurate. These noise contours, however, have been proposed for revision as part of the development of the Mather Airport Master Plan, which is currently being prepared by the Sacramento County Airport System. The noise contours are being revised to account for existing and projected changes in aircraft operations that have occurred since development of the Mather Airport CLUP. The future land uses under the proposed General Plan would be exposed to excessive noise from single-event noise levels for aircraft overflights.

Alternative 1 would avoid this impact given that the Rio del Oro Planning Area would be designated as Industrial, which would comply with the existing adopted CLUP and would not be sensitive land use to single-event noise levels for aircraft overflights.

Geology and Soils

Soil stability (Impact 4.8.3)

Areas of the Planning Area could contain layers of highly expansive soils, which could pose development constraints under the proposed General Plan as structures or improvements constructed on expansive soils could suffer severe damage from the expansion.

Implementation of Alternative 1 would result in similar impacts as the proposed General Plan and could be mitigated through application of Mitigation Measure MM 4.8.3 identified for the proposed General Plan.

Mineral resource conflicts under project and cumulative conditions (Impact 4.8.5)

As noted in Section 4.8 (Geology and Soils), implementation of the proposed General Plan would convert areas identified to contain important mineral resources (aggregates) to urban uses and conflict with the Mineral Overlay Designations that are currently designated under the Sacramento County General Plan. This impact was identified as significant and unavoidable even with the application of mitigation measures.

Alternative 1 would retain the land use designations for identified mineral resource areas in the Planning Area and would avoid this impact.

Hydrology and Water Quality

Surface water quality impacts under project and cumulative conditions (Impacts 4.9.2 and 4.9.5)

Implementation of the proposed General Plan would consist of new development that includes construction, residential, commercial, recreation, and landscaping practices that could potentially impact water quality. Approximately 18,142 acres within the City and 47,074 acres of the entire the Planning Area (including the City) are anticipated to be disturbed and altered with urban levels of development at buildout.

Implementation of Alternative 1 would result in a reduced potential for water quality impacts given the extent of urban development would be reduced. Implementation of proposed policies, action items and mitigation identified in Section 4.9 (Hydrology and Water Quality) would mitigate this impact for Alternative 1.

Groundwater quality impacts under project and cumulative conditions (Impact and 4.9.3 and 4.9.5)

Development of the Planning Area under the proposed General Plan could generate runoff containing oils, grease, fuel, antifreeze, byproducts of combustion (such as lead, cadmium, nickel, and other metals), household pollutants, nutrients (i.e., fertilizers), and other chemicals from landscaped areas. These pollutants could potentially contaminate groundwater conditions (if not properly treated with water quality controls).

Implementation of Alternative 1 would result in a reduced potential for water quality impacts given the extent of urban development would be reduced. Implementation of proposed

policies, action items and mitigation identified in Section 4.9 (Hydrology and Water Quality) would mitigate this impact for Alternative 1.

Increased water supply demand impacts under project and cumulative conditions (Impact 4.9.4 and 4.9.7)

As identified under Impact 4.9.4, buildout under the proposed General Plan water supply demands (approximately 128,709 acre-feet annually) would exceed currently available water supply sources as well as contribute to significant and unavoidable environmental effects associated with planned major water supply infrastructure projects.

Water demands associated Alternative 1 would be substantially reduced (approximately 77,200 acre-feet annually). This water demand would be within currently identified available water sources in the Planning Area (approximately 77,620 acre-feet annually), but would contribute to the significant and unavoidable environmental effects associated with planned major water supply infrastructure projects. Thus, this impact would be significant and unavoidable for Alternative 1 under project and cumulative conditions.

Biological Resources

Impacts to endangered, threatened, and other listed species under project and cumulative conditions (Impact 4.10.1 and 4.10.8)

Suitable habitat for plant and animal species listed as endangered, threatened, rare, proposed, candidate, or List 1B (collectively referred to in this EIR as "listed species" is found within the Planning Area. Development under the proposed General Plan would directly and indirectly impact such habitat. Most direct impacts would occur from development of large areas of generally undeveloped land in the southern half of the Planning Area. However, additional impacts would occur from infill development and redevelopment in the City's center and northern portions. This impact was identified as significant and unavoidable under project and cumulative conditions.

Alternative 1 would likely result in reduced impacts by retaining less intensive land uses in the East Planning Area (General Agriculture land use designation over 7,404 acres), Grant Line North Planning Area (approximately half of this area [923 acres] would be designated General Agriculture), Grant Line South Planning Area (General Agriculture and Agricultural-Residential land use designations over 2,549 acres), and Jackson Planning Area (approximately 40 percent of this area [3,400 acres] would be designated General Agriculture). As identified in **Figure 4.10-1**, these areas contain pasture grassland, vernal pool grassland, vernal pool habitats. However, it is acknowledged that agricultural operations could still result in the impacts to these habitats. This impact is considered significant and unavoidable for Alternative 1 (even with implementation of the proposed policies, action items and mitigation identified in Section 4.10 [Biological Resources]).

Impacts to species of concern and other non-listed special status species under project and cumulative conditions (Impact 4.10.2 and 4.10.8)

In addition to the 28,581.0 acres of habitat for listed species that may be directly impacted by development under the proposed General Plan Land Use Map (see Impact 4.10.1), an additional 11,269.6 acres of high density development cover type, 435.7 acres of low density development type and 10,275.0 acres of the mine tailings cover type could be potentially impacted. Non-listed special status species have been found in both of these cover types and

could also be directly and indirectly impacted. This impact was identified as significant and unavoidable under project and cumulative conditions.

Alternative 1 would likely result in reduced impacts by retaining less intensive land uses in the East Planning Area (General Agriculture land use designation over 7,404 acres), Grant Line North Planning Area (approximately half of this area [923 acres] would be designated General Agriculture), Grant Line South Planning Area (General Agriculture and Agricultural-Residential land use designations over 2,549 acres), and Jackson Planning Area (approximately 40 percent of this area [3,400 acres] would be designated General Agriculture). As identified in **Figure 4.10-1**, these areas contain pasture grassland, vernal pool grassland, vernal pool habitats. However, it is acknowledged that agricultural operations could still result in the impacts to these habitats. This impact is considered significant and unavoidable for Alternative 1 (even with implementation of the proposed policies, action items and mitigation identified in Section 4.10 [Biological Resources]).

Loss of habitat under project and cumulative conditions (Impact 4.10.3 and 4.10.8)

Wetlands, riparian corridors, as well as large areas of open grassland and other suitable foraging habitat for special-status bird species found within the Planning Area, also provide important habitat for a non-listed special status species as well common wildlife including variety of shore birds, waterfowl, and migratory passerines. Additionally, some mammal species such as coyote and black-tailed hare utilize these cover types as forage and denning habitat. Implementation of the General Plan, specifically development in line with the proposed General Plan as well as construction and improvement of roadways identified in the proposed Circulation Element could result in the loss of this habitat, causing a significant impact to occur. This impact was identified as significant and unavoidable under project and cumulative conditions.

Alternative 1 would likely result in reduced impacts by retaining less intensive land uses in the East Planning Area (General Agriculture land use designation over 7,404 acres), Grant Line North Planning Area (approximately half of this area [923 acres] would be designated General Agriculture), Grant Line South Planning Area (General Agriculture and Agricultural-Residential land use designations over 2,549 acres), and Jackson Planning Area (approximately 40 percent of this area [3,400 acres] would be designated General Agriculture). As identified in **Figure 4.10-1**, these areas contain pasture grassland, vernal pool grassland, vernal pool habitats. However, it is acknowledged that agricultural operations could still result in the impacts to these habitats. This impact is considered significant and unavoidable for Alternative 1 (even with implementation of the proposed policies, action items and mitigation identified in Section 4.10 [Biological Resources]).

Direct and indirect impacts to jurisdictional waters under project and cumulative conditions (Impact 4.10.4 and 4.10.8)

Implementation of the proposed General Plan, specifically development identified in the General Plan Land Use Map and roadway construction and improvement identified in the Circulation Element could result in direct and indirect impacts to jurisdictional waters within the Planning Area. Improvements identified in proposed General Plan roadway improvements (see **Figure 3.0-19**) could impact as much as 120.5 acres of vernal pools, 27.50 acres of fresh water marsh, 11.4 acres of open water, 478.90 acres of streams, and 60.70 acres of aqueduct. This impact was identified as significant and unavoidable under project and cumulative conditions.

Alternative 1 would likely result in reduced impacts to jurisdictional waters by retaining less intensive land uses in the East Planning Area (General Agriculture land use designation over

7,404 acres), Grant Line North Planning Area (approximately half of this area [923 acres] would be designated General Agriculture), Grant Line South Planning Area (General Agriculture and Agricultural-Residential land use designations over 2,549 acres), and Jackson Planning Area (approximately 40 percent of this area [3,400 acres] would be designated General Agriculture). As identified in **Figure 4.10-1**, these areas contain pasture grassland, vernal pool grassland, vernal pool habitats, which contain various jurisdictional water features. However, it is acknowledged that agricultural operations could still result in the impacts to these habitats. This impact is considered significant and unavoidable for Alternative 1 (even with implementation of the proposed policies, action items and mitigation identified in Section 4.10 [Biological Resources]).

Effects on wildlife movement corridors under project and cumulative conditions (Impact 4.10.5 and 4.10.8)

Large complexes of ephemeral drainage, such as those that feed Morrison Creek and Laguna Creek, exist within the Planning Area. Ephemeral Drainage provides key movement corridors for both migratory and local species of wildlife. Streams themselves also provide major movement corridors for species in the Planning Area. Major streams found in the Planning Area include the Alder, Buffalo, Morrison, Laguna, Frye and Elder Creeks. Corridors provided by these streams and drainages provide important routes for species moving through the area as well as local species that use these corridors to spread to new habitat, to mate, and to disperse genetic material. Large riparian areas such as the American River Parkway and the Consumnes River provide movement corridors as well. In addition to ephemeral drainages, streams, and rivers, large areas of undeveloped land such as those found in the southern half of the Planning Area provide habitat and cover for other species moving through the area and between habitats within the Planning Area. Large-scale development of the Planning Area identified in the proposed General Plan could isolate these areas from one another and adversely impact these areas and movement corridors. Additionally, construction of roadways and improvement of existing roadways as identified in the proposed Circulation Element could sever and/or further sever connections between habitats and cover types in the Planning Area. Roadway improvement and construction also could negatively impact ephemeral drainages and jurisdictional waters of the U.S. Engineered drainages, such as those that would result from proposed roadway improvement and construction, have been shown to reduce opportunities for some species' movement. This impact was identified as significant and unavoidable under project and cumulative conditions.

Alternative 1 would likely result in reduced movement corridor impacts by retaining less intensive land uses in the East Planning Area (General Agriculture land use designation over 7,404 acres), Grant Line North Planning Area (approximately half of this area [923 acres] would be designated General Agriculture), Grant Line South Planning Area (General Agriculture and Agricultural-Residential land use designations over 2,549 acres), and Jackson Planning Area (approximately 40 percent of this area [3,400 acres] would be designated General Agriculture). As identified in **Figure 4.10-1**, these areas contain pasture grassland, vernal pool grassland, vernal pool habitats. However, it is acknowledged that agricultural operations could still result in the impacts to these habitats as well as potentially block wildlife movement. This impact is considered significant and unavoidable for Alternative 1 (even with implementation of the proposed policies, action items and mitigation identified in Section 4.10 [Biological Resources]).

Loss of trees under project and cumulative conditions (Impact 4.10.6 and 4.10.8)

While large portions of the Planning Area, including those undeveloped areas in the southern half of the City, do not contain large numbers of trees, many other areas of the Planning Area

do include many trees that are not special-status species but still provide many benefits to species in the area. Urban trees are a major source of nesting habitat for local bird species. In addition to providing forage, shelter, cover, and other habitat for many bird and mammal species, trees have other benefits for the City including aesthetic impacts due to the removal of large stands of trees. Trees also provide shade and stabilize the soil. Additionally, many native trees such as blue oak and California sycamore are found in stands of and would be adversely impacted by the removal of surrounding trees. There is currently an estimated 246 acres of blue oak woodland, 76 acres of blue oak savannah, 132 acres of cottonwood woodland, and 50 acres of valley oak riparian woodland in the Planning Area. This impact was identified as significant and unavoidable under project and cumulative conditions.

Alternative 1 would have reduced potential for tree removal by retaining less intensive land uses in the East Planning Area (General Agriculture land use designation over 7,404 acres), Grant Line North Planning Area (approximately half of this area [923 acres] would be designated General Agriculture), Grant Line South Planning Area (General Agriculture and Agricultural-Residential land use designations over 2,549 acres), and Jackson Planning Area (approximately 40 percent of this area [3,400 acres] would be designated General Agriculture). However, it is acknowledged that agricultural operations could still result in tree removal similar to urban development. This impact is considered significant and unavoidable for Alternative 1 (even with implementation of the proposed policies, action items and mitigation identified in Section 4.10 [Biological Resources]).

Cultural and Paleontological Resources

Impacts to prehistoric resources, historic resources, and human remains under project and cumulative conditions (Impact 4.11.1 and 4.11.3)

Implementation of the proposed General Plan roadway improvements is expected to result in significant impacts to at least one known historic resource site considered as potentially eligible under the National Register of Historic Places in the Rio del Oro Planning Area. Development under the City of Rancho Cordova General Plan would cause a substantial adverse impact on the significance of known cultural resources, and could also adversely impact undiscovered cultural resources and/or human remains. This impact was identified as significant and unavoidable under project and cumulative conditions.

Alternative 1 would have reduced potential for impacts to undiscovered cultural resources by retaining less intensive land uses in the East Planning Area (General Agriculture land use designation over 7,404 acres), Grant Line North Planning Area (approximately half of this area [923 acres] would be designated General Agriculture), Grant Line South Planning Area (General Agriculture and Agricultural-Residential land use designations over 2,549 acres), and Jackson Planning Area (approximately 40 percent of this area [3,400 acres] would be designated General Agriculture). However, it is acknowledged that agricultural operations could still result in impacts to undiscovered cultural resources and industrial development of the Rio del Oro Planning Area could also impact the historic site potentially eligible under the National Register of Historic Places. This impact is considered significant and unavoidable for Alternative 1 (even with implementation of the proposed policies, action items identified in Section 4.11 [Cultural and Paleontological Resources]).

Impacts to paleontological resources under project and cumulative conditions (Impact 4.11.2 and 4.11.4)

A search of the University of California, Berkeley Museum of Paleontology collections database did not identify any evidence of the existence of paleontological resources or potential in the Planning Area. Development under the proposed General Plan could impact undiscovered paleontological resources, though the likelihood of such paleontological resources existing in the Planning Area is considered low. This impact was identified significant and mitigatable.

Alternative 1 would have reduced potential for impacts to undiscovered paleontological resources by retaining less intensive land uses in the East Planning Area (General Agriculture land use designation over 7,404 acres), Grant Line North Planning Area (approximately half of this area [923 acres] would be designated General Agriculture), Grant Line South Planning Area (General Agriculture and Agricultural-Residential land use designations over 2,549 acres), and Jackson Planning Area (approximately 40 percent of this area [3,400 acres] would be designated General Agriculture). However, it is acknowledged that agricultural operations could still result in impacts to undiscovered paleontological resources. This impact would be mitigated through the implementation of the proposed policies, action items and mitigation identified in Section 4.11 (Cultural and Paleontological Resources).

Public Services and Utilities

Water supply infrastructure under project and cumulative conditions (Impact 4.12.3.1 and 4.12.3.2)

Buildout of the proposed General Plan would require timely expansion of these facilities in order to maintain adequate service and meet projected water supply demands (approximately 128,709 acre-feet annually). These water supply distribution improvements would result in environmental effects to support General Plan and other regional growth. The environmental effects of water supply expansion and improvements have been considered in SCWA Zone 40 Water Supply Master Plan EIR, Water Forum Agreement EIR, and Sunrise Douglas Community Plan and the Sun Ridge Specific Plan EIR, which have identified significant and unavoidable effects of developing water supplies.

Water demands associated Alternative 1 would be substantially reduced (approximately 77,200 acre-feet annually). This water demand would be within currently identified available water sources in the Planning Area (approximately 77,620 acre-feet annually), but would contribute to the significant and unavoidable environmental effects associated with planned major water supply infrastructure projects. Thus, this impact would be significant and unavoidable for Alternative 1 under project and cumulative conditions.

Wastewater conveyance and treatment under project and cumulative conditions (Impact 4.12.4.1 and 4.12.4.2)

Implementation of the proposed General Plan would allow for increased development which would require improvements and modifications to existing SRCSD and CSD-1 facilities and require new wastewater conveyance infrastructure including collectors, trunks and interceptor sewer lines and appurtenances. Wastewater flow estimates and ultimate buildout wastewater demands are calculated using equivalent single family dwelling units (ESDs) per acre, with one ESD representing the effluent generated by one single family residence. The ESD projections are used to determine the location and capacity of future wastewater conveyance facilities and trunk sheds. Projected wastewater generation rates by year 2030 are estimated to be 36.5 million gallons per day (mgd) and under buildout conditions 42.2 mgd. This service demand

would result significant environmental impacts that are anticipated as part of planned wastewater infrastructure expansion (Sacramento Regional Wastewater Treatment Plant 2020 Master Plan Final EIR, CSD-1 Sewerage Facilities Expansion Master Plan Final EIR and Sacramento Regional County Sanitation District Interceptor Master Plan 2000, Final Program EIR) as well as additional infrastructure expansion required to serve proposed General Plan development wastewater demands not currently planned for by SRCSD and CSD-1. These environmental effects of wastewater service expansion are identified as significant and unavoidable under project and cumulative conditions.

Wastewater service demands associated with Alternative 1 would be substantially reduced (approximately 30.3 mgd of wastewater generation). This service demand would also result significant environmental impacts that are anticipated as part of planned wastewater infrastructure expansion. The environmental effects of planned wastewater service expansion are identified as significant and unavoidable under project and cumulative conditions for Alternative 1.

Potential conflicts with Kiefer Landfill (Impact 4.12.5.1)

The Kiefer Landfill has a 2,000-foot buffer around the permitted footprint of the landfill, which was established with the recent expansion. Development under the proposed General Plan could be placed within this buffer and result in conflicts with landfill operations.

Alternative 1 would retain Sacramento County General Plan Policy PF-21 that establishes the 2,000-foot buffer around the landfill and would avoid this impact.

Visual Resources/Light and Glare

Alteration of visual character under project and cumulative conditions (Impact 4.13.3 and 4.13.5)

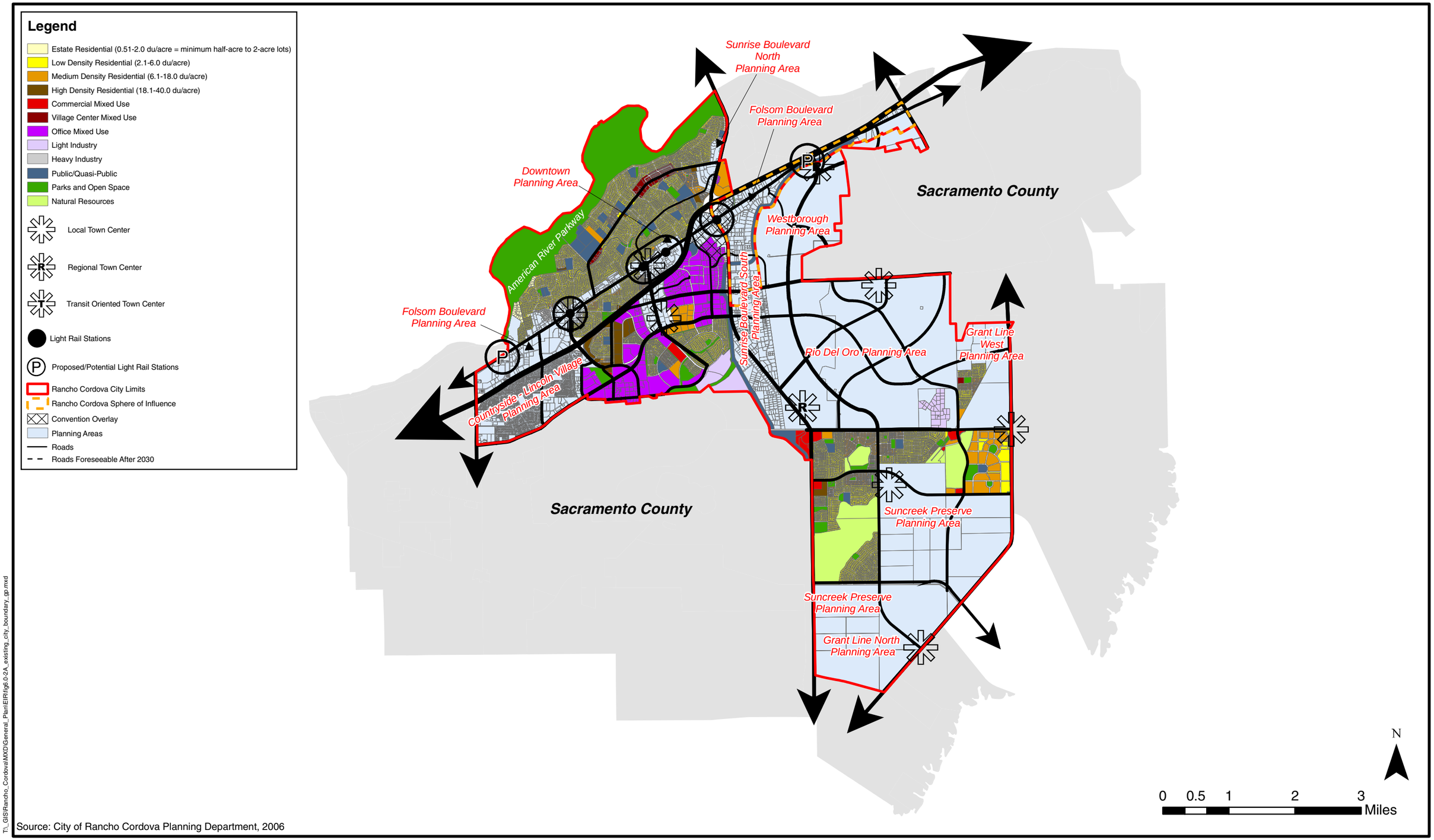
Implementation of the proposed General Plan would change the visual character of the Planning Area through intensification of urban uses within the existing city limits and introduction of urban uses within the Planning Area. This impact was identified as a significant and unavoidable impact under project and cumulative conditions.

Alternative 1 would have reduced visual impacts by retaining less intensive land uses that are consistent with the existing rural/agricultural/open space landscape characteristics of the southern portion of the Planning Area as well as avoidance of high-rise development potential along U.S. 50 (as compared to the proposed General Plan). However, urban development allowed under this Alternative would still result in significant alteration of existing rural/agricultural/open space landscape characteristics along Sunrise Boulevard south of Douglas Road. This impact would be significant and unavoidable for Alternative 1.

ALTERNATIVE 2 – EXISTING CITY BOUNDARY GENERAL PLAN ALTERNATIVE

Characteristics

Under this alternative, the proposed City of Rancho Cordova General Plan (Land Use Map and policy document) would only be implemented within the existing City boundaries and existing sphere of influence. The Sacramento County General Plan would guide development in regions of the Planning Area outside of the City (see **Figures 6.0-2a** and **6.0-2b**). The Grant Line West and Westborough Planning Area conceptual land use plans would modified (see **Figures 6.0-2c** and **6.0-2d**).

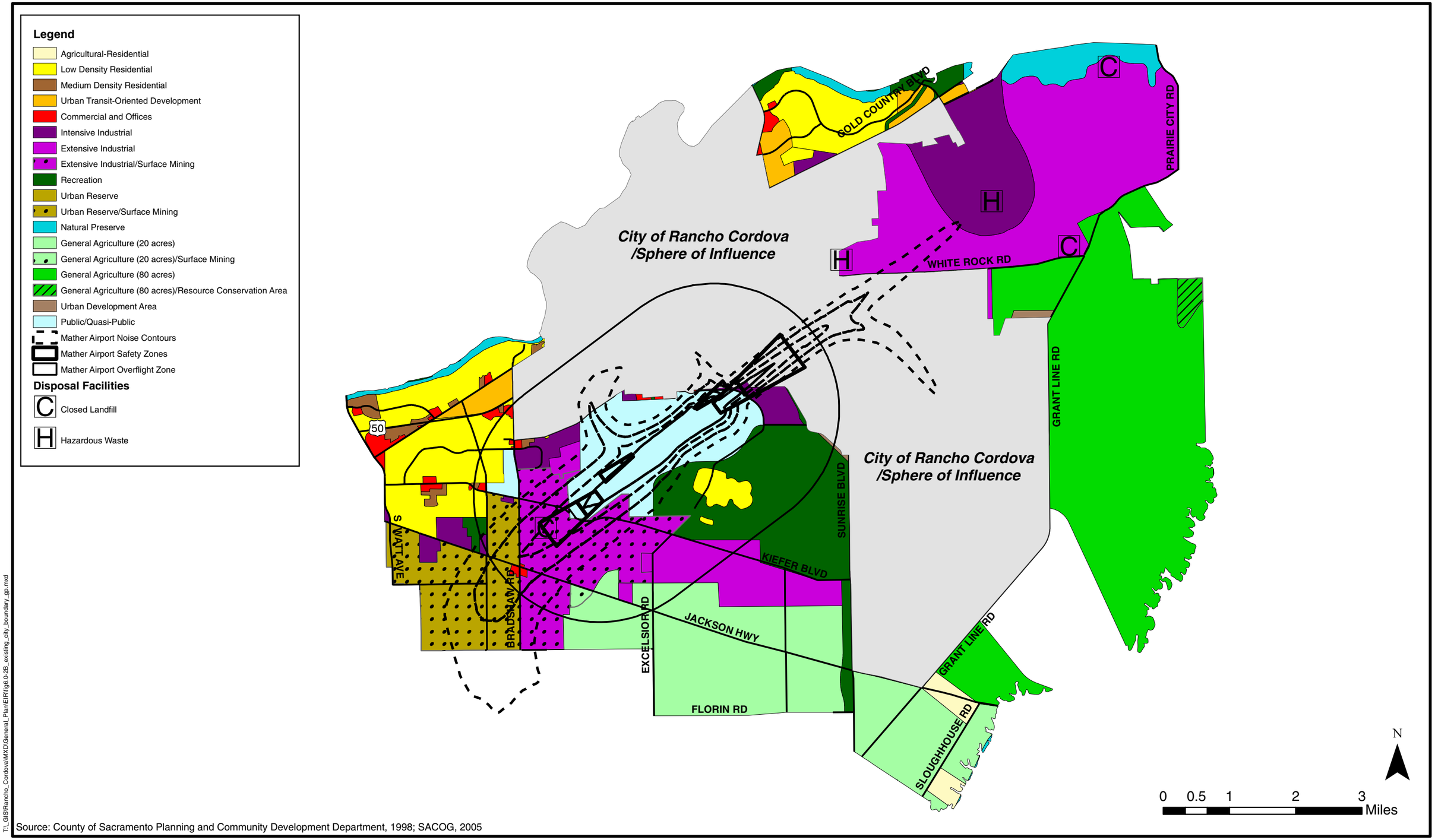


Source: City of Rancho Cordova Planning Department, 2006

T:_GIS\Rancho_Cordova\MXD\General_Plan\EIR\fig6.0-2A_existing_city_boundary_gp.mxd

City of Rancho Cordova
Planning Department

Figure 6.0-2a
Alternative 2 - Existing City Boundary General Plan Alternative
Proposed City of Rancho Cordova Land Use Designations

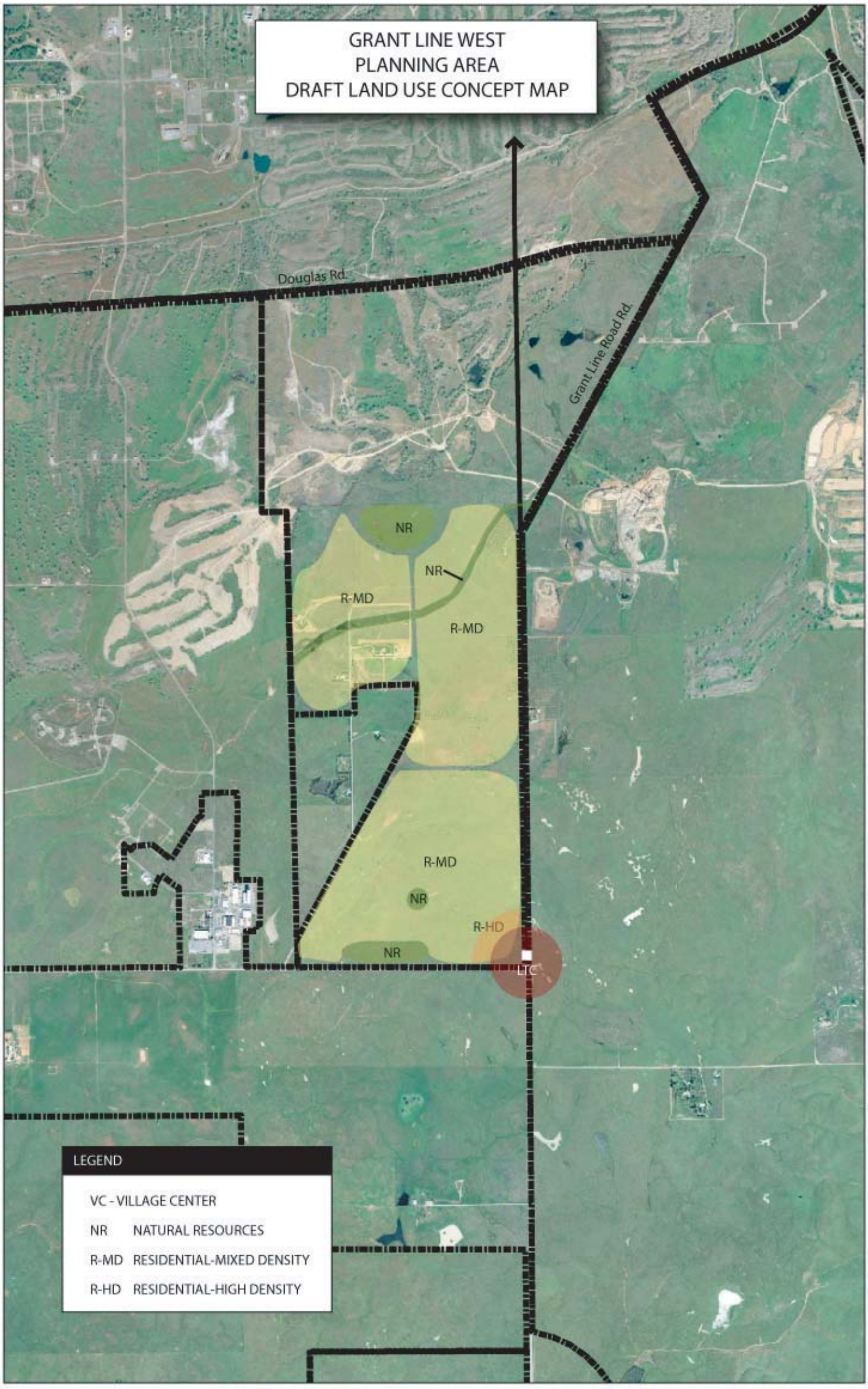


Source: County of Sacramento Planning and Community Development Department, 1998; SACOG, 2005

T:_GIS\Rancho_Cordova\MXD\General_Plan\EIR\fig6.0-2B_existing_city_boundary_gp.mxd

City of Rancho Cordova
Planning Department

Figure 6.0-2b
Alternative 2 - Existing City Boundary General Plan Alternative
Sacramento County Land Use Designations

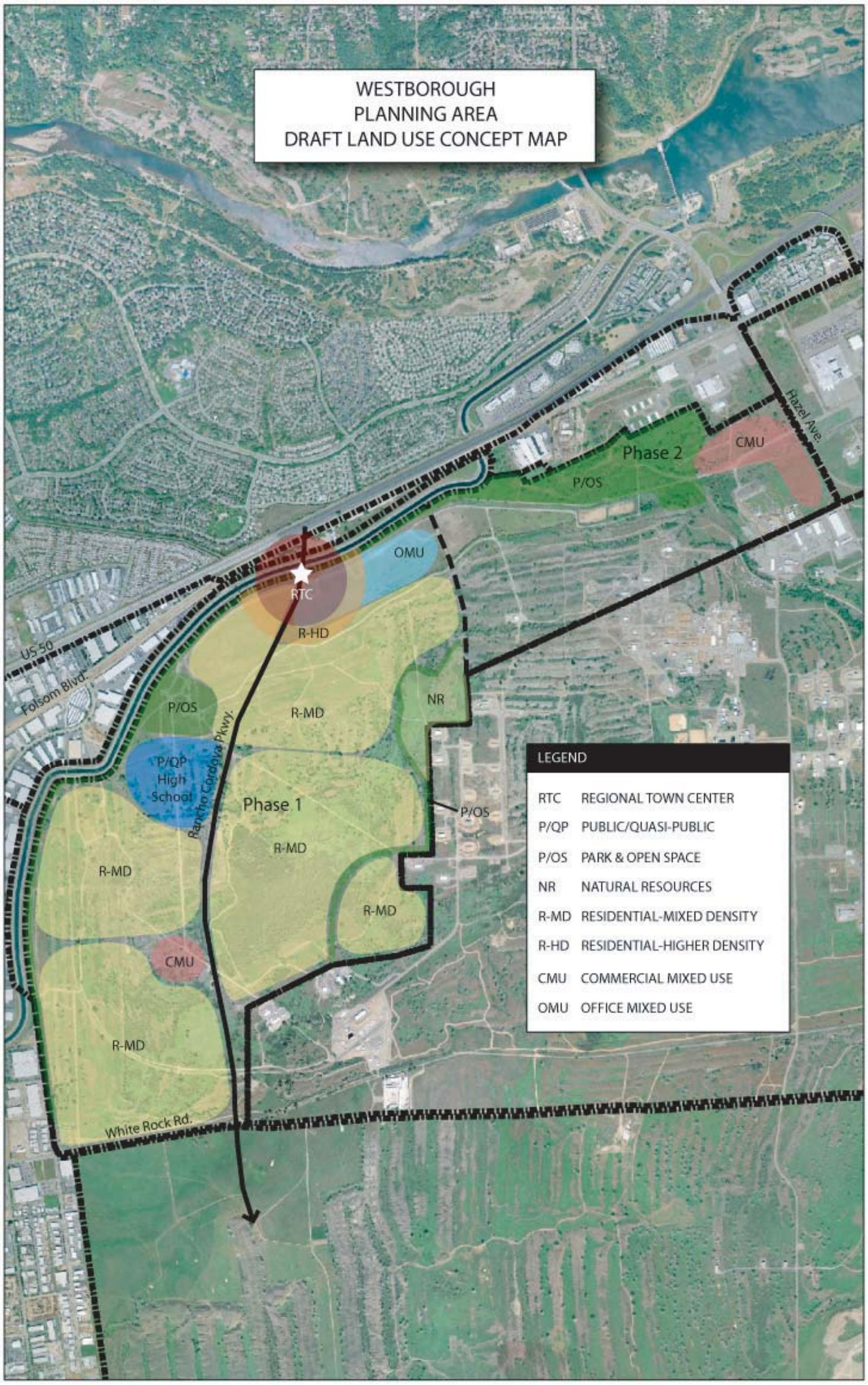


Source: AirPhoto USA, 2004

T:\Rancho Cordova\General Plan EIR\AI Files\Figure 6.0-2c.ai, March 2006

City of Rancho Cordova
Planning Department

Figure 6.0-2c
Alternative 2 - Existing City Boundary General Plan Alternative
Grant Line West Planning Area



Source: AirPhoto USA, 2004

T:\Rancho Cordova\General Plan EIR\AI Files\Figure 6.0-2d.ai, March 2006

City of Rancho Cordova
Planning Department

Figure 6.0-2d
Alternative 2 - Existing City Boundary General Plan Alternative
Westborough Planning Area

The City's Circulation Plan would only be implemented within the existing city limits and sphere of influence. Buildout under this Alternative would result in approximately 78,777 residential dwelling units and an associated population of 190,798 as well as 118,193 jobs. This Alternative is a variation of the "No Project Alternative" given that the City has been utilizing the earlier drafts of the proposed General Plan for land use and circulation policy direction since May 16, 2005 when the City Council adopted Resolution No. 57-2005 (as provided for under California Government Code Section 65360(b)(1).

Comparative Impacts

Land Use

Conflicts with relevant land use plans, policies or regulations under project and cumulative conditions (Impact 4.1.3 and 4.1.5)

As noted in Section 4.1 (Land Use), implementation of the proposed General Plan would result in more intense urban uses (more residential units, commercial, office and industrial uses) than Sacramento County General Plan anticipated in the Planning Area outside of current City limits associated with the Mather, Jackson, Glenborough, Westborough, Grant Line South, Grant Line West and East Planning Areas. The existing Sacramento County General Plan designates these areas as Industrial, Agriculture and Recreation and was not intended to experience urban development until after year 2010 (if at all). Thus, this impact was identified as significant and unavoidable. Conflicts would also occur with the Mather Specific Plan and Mather Airport CLUP.

Implementation of Alternative 2 would retain existing Sacramento County General Plan land use designations and policy provisions for these areas and would avoid this significant impact with the exception of the conflict with the CLUP and the Rio del Oro Planning Area.

Agriculture

Loss and conversion of agricultural land and project and cumulative conditions (Impact 4.2.1and 4.2.4)

As noted in Section 4.2 (Agriculture), implementation of the proposed General Plan Land Use Map would result in the conversion of approximately 1,392.50 acres of important farmland (225.65-acres of Prime Farmland and 890.9 acres of Farmland of Statewide Importance and 276.56 acres of Unique Farmland). This was identified as a significant and unavoidable impact under project and cumulative conditions.

Alternative 2 would still result in some loss of important farmlands. However, important farmland areas west of Sunrise Boulevard in the Jackson Planning Area and immediately west of Excelsior Road in the Jackson Planning Area would be preserved under this Alternative (see **Figure 4.2-1**). This alternative would reduce important farmland impacts as compared to the proposed General Plan. However, this impact would still be considered significant and unavoidable (even with application of mitigation measures identified in Section 4.2).

Agricultural/urban interface and Williamson Act contracts conflicts (Impact 4.2.2 and 4.2.3)

Implementation of the proposed City of Rancho Cordova General Plan Land Use Map would place urbanized land uses adjacent to and would replace existing agricultural uses. It is anticipated that as the City builds out, agriculture/urban interface conflicts may occur and

result in cancellations of existing Williamson Act contracts. These impacts were identified as significant and unavoidable.

Implementation of Alternative 2 would result in similar, though reduced, land use conflicts between urban/agricultural uses. This impact would still be considered significant and unavoidable (even with application of mitigation measures identified in Section 4.2). However, this Alternative would retain land use designations (General Agriculture) in the areas of most (though not all) existing Williamson Act contracts that would be protective of continued agricultural uses.

Population/Housing/Employment

Population, housing and employment increases under project and cumulative conditions (Impact 4.3.1 and 4.3.3)

At buildout under the proposed General Plan, a population of 310,241 persons, 126,241 housing units and 195,021 jobs are anticipated for the General Plan Planning Area. This represents substantial growth in the area and will have a significant physical effect on the environment. This was identified as a significant and unavoidable impact under project and cumulative conditions.

Alternative 2 could result in approximately 78,777 residential dwelling units and an associated population of 190,798 as well as 118,193 jobs in the City. While this Alternative would also represent substantial growth in the area, this level of development is less than the proposed General Plan. The direct environmental effects of this Alternative would be less than the proposed General Plan.

However, Alternative 2 would not fully accommodate the growth anticipated in the area identified in SACOG Blueprint, which would result in the displacement of this growth to other areas in the region that would result in other environmental effects (e.g., impacts associated with land conversion [agricultural and biological resource impacts] and increases in regional traffic). This growth displacement effect of Alternative 2 would significant as compared to the proposed General Plan.

Hazards and Human Health

Release and exposure to hazardous materials (Impact 4.4.2)

Implementation of the proposed General Plan with the proposed residential and non-residential uses would involve the storage, use, and transport of hazardous materials (e.g., jet fuel at Mather Airport, gasoline fuels, demolition materials, asphalt, lubricants, toxic solvents, pesticides and herbicides) during construction, demolition, and landscaping activities. In addition, certain commercial uses, including water treatment plants, swimming pool facilities, gas stations, and dry cleaners that store, use, and routinely transport hazardous material to and from their facilities could pose a potential hazard to the environment. Development of the Planning Area could also result in the exposure to existing contamination.

Implementation of Alternative 2 would result in similar potential for exposure to hazardous materials. However, this Alternative 2 would result reduced population that could be exposed to hazardous materials and would have reduced potential for new development to result in an accidental exposure to contamination from previous land uses. This impact would mitigated for

Alternative 2 through utilization of policies, action items and mitigation identified for the proposed General Plan in Section 4.4 (Hazards and Human Health).

Transportation and Circulation

Impacts to roadway segments under project and cumulative conditions (Impact 4.5.1 and 4.5.6)

As noted in Section 4.5 (Transportation and Circulation), the proposed General Plan's significant and unavoidable level of service impacts consisted of the following roadway segments under the three analysis scenarios conducted. This impact was identified as significant and unavoidable under project and cumulative conditions.

- Folsom Boulevard - Mather Field Road to Coloma Road
- Mather Field Road - U.S. 50 Eastbound Ramps to International Drive
- Zinfandel Drive – U.S. 50 Eastbound Ramps to White Rock Road
- Sunrise Boulevard – Gold Country Boulevard to Coloma Road
- Sunrise Boulevard – Coloma Road to U.S. 50 Westbound Ramps
- Sunrise Boulevard – U.S. 50 Eastbound Ramps to Folsom Boulevard
- Sunrise Boulevard – Folsom Boulevard to White Rock Road
- Hazel Avenue – Winding Way to U.S. 50 Westbound Ramps
- Bradshaw Road – U.S. 50 to Old Placerville Road
- Bradshaw Road – Old Placerville Road to Kiefer Boulevard

Alternative 2 traffic impacts would generally be similar to the proposed General Plan Year 2030 Conditions with Year 2030 Roadway Network. However, under this Alternative City roadway improvements would be limited to the City limits and sphere of influence, while roadway improvements outside of the City would be consistent with Tier 1 improvements under the Metropolitan Transportation Plan (2025) as well as funded roadway improvements identified in the Sacramento County General Plan. As a result of this roadway modification, the extent of north-south and east-west connections in the Mather Planning Area and in the Aerojet Planning Area would be lessened. This reduction in north-south and east-west connections would likely result in worse congestion and operating conditions for S.R. 16, Sunrise Boulevard, White Rock Road and Grant Line Road, Kiefer Boulevard (generally similar to impacts identified for Alternative 1). Thus, this Alternative would also result in significant and unavoidable impacts under project and cumulative conditions.

Impacts to freeway segments under project and cumulative conditions (Impact 4.5.2 and 4.5.6)

The proposed General Plan increases in traffic volumes to the highway would contribute to deficient operation of U.S. 50 (eastbound and westbound) from Folsom Boulevard to Bradshaw Road interchanges during a.m. and p.m. peak periods. This impact was identified as significant and unavoidable under project and cumulative conditions.

Alternative 2 traffic impacts would generally be similar to the proposed General Plan Year 2030 Conditions with Year 2030 Roadway Network. However, under this Alternative City roadway improvements would be limited to the City limits and sphere of influence, while roadway improvements outside of the City would be consistent with Tier 1 improvements under the Metropolitan Transportation Plan (2025) as well as funded roadway improvements identified in the Sacramento County General Plan. As a result of this roadway modification, the extent of north-south and west connections in the Mather Planning Area and in the Aerojet Planning Area would be lessened. This reduction in north-south and east-west connections would likely result in

worse congestion and operating conditions for U.S. 50. This Alternative would also result in significant and unavoidable impacts under project and cumulative conditions.

Air Quality

Air quality impacts under project and cumulative conditions (Impacts 4.6.1, 4.6.2, 4.6.3 and 4.6.6)

As identified in Section 4.6 (Air Quality), implementation of the proposed General Plan would result increased air pollutant emissions from construction and operational activities in the Planning Area. Under buildout conditions, uses in the Planning Area may produce 14,296.66 tons of ROG, 3,168.86 tons of NOx, and 8,420.85 tons of PM_{10} per year. As discussed under Impact 4.6.1, the increase in potential air pollutant emission sources in the Planning Area has the possibility to conflict with the Regional Ozone Attainment Plan, as well as exceed state and federal air quality thresholds. These impacts were identified as significant and unavoidable.

Implementation of Alternative 2 would result in reduced emissions (approximately 8,864 tons of ROG, 1,965 tons of NOx, and 5,221 tons of PM_{10} per year under this alternative – 38 percent reduction in emissions). These emission levels would still be considered significant (even with application of the proposed policies, action items and mitigation identified in Section 4.6 [Air Quality]), but development under this Alternative would be within the projections being utilized by SMAQMD in its process of updating the Attainment Plan (332,000 persons, 112,290 housing units, and 144,406 jobs for the area).

Air toxic contaminant exposure under project and cumulative conditions (Impact 4.6.4 and 4.6.6)

Implementation of the proposed General Plan would include land uses that are potential sources of Toxic Air Contaminants (TACs) as well as exposure of sensitive land uses to mobile sources of TACs. This was identified as a significant and unavoidable impact.

Alternative 2 would have a similar potential to include land uses that are potential sources of TACs as well as expose future sensitive land uses to mobile sources to TACs. Thus, this impact would be considered significant and unavoidable for this Alternative as well (even with the application of proposed policies, action items and mitigation identified in Section 4.6 [Air Quality]). However, Alternative 2 would result in a reduced population that could be exposed to TACs.

Possible exposure of sensitive receptors to odorous emissions (Impact 4.6.5)

Implementation of the proposed General Plan would allow for the development of uses that have the potential to produce odorous emissions either during the construction or operation of the development. Additionally, implementation of the proposed General Plan may allow for the construction of sensitive land uses (i.e. residential development, schools, parks, offices, etc.) near existing or future sources of odorous emissions, as specific land use designations are not yet determined for the Planning Area.

Alternative 2 would have a similar potential to include land uses that have potential to produce odorous emissions or allow for the construction of sensitive land uses (i.e. residential development, schools, parks, offices, etc.) near existing or future sources of odorous emissions. This impact for Alternative 2 could be mitigated similar to the proposed General Plan through the application of proposed policies, action items and mitigation identified in Section 4.6 (Air Quality). However, this Alternative 2 would result in a reduced population that could be exposed to objectionable odors.

Noise

Construction noise impacts (Impact 4.7.1)

Construction activities associated with the buildout of the proposed General Plan would typically generate maximum noise levels ranging from 85 to 95 dB at a distance of 50 feet. Depending on the timing of the buildout of the General Plan planning areas, existing and future residents may be exposed to these excessive noise levels. This impact was identified as significant and unavoidable.

Alternative 2 would have a similar potential for construction noise impacts and would be significant and unavoidable.

Traffic noise impacts under project and cumulative conditions (Impact 4.7.2 and 4.7.6)

Implementation of the proposed General Plan would result in increased traffic noise levels from additional vehicle traffic on existing and future roadways. Implementation of the proposed General Plan would also result in new noise-sensitive land uses throughout the Planning Area. This impact was identified as significant and unavoidable under project and cumulative conditions.

Implementation of Alternative 2 would result in similar traffic noise impacts as the proposed General Plan. Thus, this impact would be significant and unavoidable (under project and cumulative conditions) for Alternative 2 as well.

Stationary noise impacts under project and cumulative conditions (Impact 4.7.3 and 4.7.7)

Implementation of the proposed General Plan could result in the future development of land uses that generate noise levels in excess of applicable City of Rancho Cordova noise standards for non-transportation noise sources or expose new noise-sensitive land uses to existing excessive noise levels.

Implementation of Alternative 2 would result in similar stationary noise impacts as the proposed General Plan. Thus, this impact would be significant and unavoidable (under project and cumulative conditions) for Alternative 2 as well.

Mather Airport noise impacts (Impact 4.7.4)

The proposed General Plan has five planning areas affected by the existing Mather Airport CLUP boundaries and 60 to 65 dB CNEL contour ranges, including: Mather Planning Area; Jackson Planning Area; Sunrise Boulevard South Planning Area; Rio del Oro Planning Area; and the Aerojet Planning Area. The Rio del Oro Planning Area is the only planning area that proposes some residential uses within the 65 dB CNEL (where the noise contour curves to the south). Residential uses are not permitted in the 60 or 65 dB CNEL noise contour of the Mather Airport CLUP. However, it should be noted that the project site design for Rio del Oro was based on the proposed noise contours for Mather Airport and not the existing contours. Because the General Plan would locate noise-sensitive land uses (e.g., residential) within the 60 dB CNEL noise contours contained in the Mather Airport CLUP, this would be a significant impact if the current CLUP contours were considered accurate. These noise contours, however, have been proposed for revision as part of the development of the Mather Airport Master Plan, which is currently being prepared by the Sacramento County Airport System. The noise contours are being revised to account for existing and projected changes in aircraft operations that have occurred since

development of the Mather Airport CLUP. The future land uses under the proposed General Plan would be exposed to excessive noise from single-event noise levels for aircraft overflights.

Alternative 2 would result in the same impact, given the proposed land uses for the Rio del Oro Planning Area would be the same as the proposed General Plan.

Geology and Soils

Soil stability (Impact 4.8.3)

Areas of the Planning Area could contain layers of highly expansive soils, which could pose development constraints under the proposed General Plan as structures or improvements constructed on expansive soils could suffer severe damage from the expansion.

Implementation of Alternative 2 would result in similar impacts as the proposed General Plan and could be mitigated through application of Mitigation Measure MM 4.8.3 identified for the proposed General Plan.

Mineral resource conflicts under project and cumulative conditions (Impact 4.8.5)

As noted in Section 4.8 (Geology and Soils), implementation of the proposed General Plan would convert areas identified to contain important mineral resources (aggregates) to urban uses and conflict with the Mineral Overlay Designations that are currently designated under the Sacramento County General Plan. This impact was identified as significant and unavoidable even with the application of mitigation measures.

Alternative 2 would retain the land use designations for identified mineral resource areas under the Sacramento County General Plan in the Planning Area and would avoid this impact.

Hydrology and Water Quality

Surface water quality impacts under project and cumulative conditions (Impacts 4.9.2 and 4.9.5)

Implementation of the proposed General Plan would consist of new development that includes construction, residential, commercial, recreation, and landscaping practices that could potentially impact water quality. Approximately 18,142 acres within the City and 47,074 acres of the entire the Planning Area (including the City) are anticipated to be disturbed and altered with urban levels of development at buildout.

Implementation of Alternative 2 would result in a reduced potential for water quality impacts given the extent of urban development would be reduced. Implementation of proposed policies, action items and mitigation identified in Section 4.9 (Hydrology and Water Quality) would mitigate this impact for Alternative 2.

Groundwater quality impacts under project and cumulative conditions (Impact and 4.9.3 and 4.9.5)

Development of the Planning Area under the proposed General Plan could generate runoff containing oils, grease, fuel, antifreeze, byproducts of combustion (such as lead, cadmium, nickel, and other metals), household pollutants, nutrients (i.e., fertilizers), and other chemicals from landscaped areas. These pollutants could potentially contaminate groundwater conditions (if not properly treated with water quality controls).

Implementation of Alternative 2 would result in a reduced potential for water quality impacts given the extent of urban development would be reduced. Implementation of proposed policies, action items and mitigation identified in Section 4.9 (Hydrology and Water Quality) would mitigate this impact for Alternative 2.

Increased water supply demand impacts under project and cumulative conditions (Impact 4.9.4 and 4.9.7)

As identified under Impact 4.9.4, buildout under the proposed General Plan water supply demands (approximately 128,709 acre-feet annually) would exceed currently available water supply sources as well as contribute to significant and unavoidable environmental effects associated with planned major water supply infrastructure projects.

Water demands associated with Alternative 2 would be substantially reduced (approximately 63,030 acre-feet annually). This water demand would be within currently identified available water sources in the Planning Area (approximately 77,620 acre-feet annually), but would also contribute to the significant and unavoidable environmental effects associated with planned major water supply infrastructure projects. Thus, this impact would be significant and unavoidable for Alternative 2 under project and cumulative conditions.

Biological Resources

Impacts to endangered, threatened, and other listed species under project and cumulative conditions (Impact 4.10.1 and 4.10.8)

Suitable habitat for plant and animal species listed as endangered, threatened, rare, proposed, candidate, or List 1B (collectively referred to in this EIR as "listed species" is found within the Planning Area. Development under the proposed General Plan would directly and indirectly impact such habitat. Most direct impacts would occur from development of large areas of generally undeveloped land in the southern half of the Planning Area. However, additional impacts would occur from infill development and redevelopment in the City's center and northern portions. This impact was identified as significant and unavoidable under project and cumulative conditions.

Alternative 2 would likely result in reduced impacts by retaining less intensive land uses in the East Planning Area (General Agriculture land use designation over 7,404 acres), Grant Line South Planning Area (General Agriculture and Agricultural-Residential land use designations over 2,549 acres), and Jackson Planning Area (approximately 40 percent of this area [3,400 acres] would be designated General Agriculture). As identified in **Figure 4.10-1**, these areas contain pasture grassland, vernal pool grassland, vernal pool habitats. However, it is acknowledged that agricultural operations could still result in the impacts to these habitats. This impact is considered significant and unavoidable for Alternative 2 (even with implementation of the proposed policies, action items and mitigation identified in Section 4.10 [Biological Resources]).

Impacts to species of concern and other non-listed special status species under project and cumulative conditions (Impact 4.10.2 and 4.10.8)

In addition to the 28,581.0 acres of habitat for listed species that may be directly impacted by development under the proposed General Plan Land Use Map (see Impact 4.10.1), an additional 11,269.6 acres of high density development cover type, 435.7 acres of low density development type and 10,275.0 acres of the mine tailings cover type could be potentially impacted. Non-listed special status species have been found in both of these cover types and

could also be directly and indirectly impacted. This impact was identified as significant and unavoidable under project and cumulative conditions.

Alternative 2 would likely result in reduced impacts by retaining less intensive land uses in the East Planning Area (General Agriculture land use designation over 7,404 acres), Grant Line South Planning Area (General Agriculture and Agricultural-Residential land use designations over 2,549 acres), and Jackson Planning Area (approximately 40 percent of this area [3,400 acres] would be designated General Agriculture). As identified in **Figure 4.10-1**, these areas contain pasture grassland, vernal pool grassland, vernal pool habitats. However, it is acknowledged that agricultural operations could still result in the impacts to these habitats. This impact is considered significant and unavoidable for Alternative 2 (even with implementation of the proposed policies, action items and mitigation identified in Section 4.10 [Biological Resources]).

Loss of habitat under project and cumulative conditions (Impact 4.10.3 and 4.10.8)

Wetlands, riparian corridors, as well as large areas of open grassland and other suitable foraging habitat for special-status bird species found within the Planning Area, also provide important habitat for a non-listed special status species as well common wildlife including variety of shore birds, waterfowl, and migratory passerines. Additionally, some mammal species such as coyote and black-tailed hare utilize these cover types as forage and denning habitat. Implementation of the General Plan, specifically development in line with the proposed General Plan as well as construction and improvement of roadways identified in the proposed Circulation Element could result in the loss of this habitat, causing a significant impact to occur. This impact was identified as significant and unavoidable under project and cumulative conditions.

Alternative 2 would likely result in reduced impacts by retaining less intensive land uses in the East Planning Area (General Agriculture land use designation over 7,404 acres), Grant Line South Planning Area (General Agriculture and Agricultural-Residential land use designations over 2,549 acres), and Jackson Planning Area (approximately 40 percent of this area [3,400 acres] would be designated General Agriculture). As identified in **Figure 4.10-1**, these areas contain pasture grassland, vernal pool grassland, vernal pool habitats. However, it is acknowledged that agricultural operations could still result in the impacts to these habitats. This impact is considered significant and unavoidable for Alternative 2 (even with implementation of the proposed policies, action items and mitigation identified in Section 4.10 [Biological Resources]).

Direct and indirect impacts to jurisdictional waters under project and cumulative conditions (Impact 4.10.4 and 4.10.8)

Implementation of the proposed General Plan, specifically development identified in the General Plan Land Use Map and roadway construction and improvement identified in the Circulation Element could result in direct and indirect impacts to jurisdictional waters within the Planning Area. Improvements identified in proposed General Plan roadway improvements (see **Figure 3.0-19**) could impact as much as 120.5 acres of vernal pools, 27.50 acres of fresh water marsh, 11.4 acres of open water, 478.90 acres of streams, and 60.70 acres of aqueduct. This impact was identified as significant and unavoidable under project and cumulative conditions.

Alternative 2 would likely result in reduced impacts to jurisdictional waters by retaining less intensive land uses in the East Planning Area (General Agriculture land use designation over 7,404 acres), Grant Line South Planning Area (General Agriculture and Agricultural-Residential land use designations over 2,549 acres), and Jackson Planning Area (approximately 40 percent of this area [3,400 acres] would be designated General Agriculture). As identified in **Figure 4.10-1**, these areas contain pasture grassland, vernal pool grassland, vernal pool habitats, which

contain various jurisdictional water features. However, it is acknowledged that agricultural operations could still result in the impacts to these habitats. This impact is considered significant and unavoidable for Alternative 2 (even with implementation of the proposed policies, action items and mitigation identified in Section 4.10 [Biological Resources]).

Effects on wildlife movement corridors under project and cumulative conditions (Impact 4.10.5 and 4.10.8)

Large complexes of ephemeral drainage, such as those that feed Morrison Creek and Laguna Creek, exist within the Planning Area. Ephemeral Drainage provides key movement corridors for both migratory and local species of wildlife. Streams themselves also provide major movement corridors for species in the Planning Area. Major streams found in the Planning Area include the Alder, Buffalo, Morrison, Laguna, Frye and Elder Creeks. Corridors provided by these streams and drainages provide important routes for species moving through the area as well as local species that use these corridors to spread to new habitat, to mate, and to disperse genetic material. Large riparian areas such as the American River Parkway and the Consumnes River provide movement corridors as well. In addition to ephemeral drainages, streams, and rivers, large areas of undeveloped land such as those found in the southern half of the Planning Area provide habitat and cover for other species moving through the area and between habitats within the Planning Area. Large-scale development of the Planning Area identified in the proposed General Plan could isolate these areas from one another and adversely impact these areas and movement corridors. Additionally, construction of roadways and improvement of existing roadways as identified in the proposed Circulation Element could sever and/or further sever connections between habitats and cover types in the Planning Area. Roadway improvement and construction also could negatively impact ephemeral drainages and jurisdictional waters of the U.S. Engineered drainages, such as those that would result from proposed roadway improvement and construction, have been shown to reduce opportunities for some species' movement. This impact was identified as significant and unavoidable under project and cumulative conditions.

Alternative 2 would likely result in reduced movement corridor impacts by retaining less intensive land uses in the East Planning Area (General Agriculture land use designation over 7,404 acres), Grant Line South Planning Area (General Agriculture and Agricultural-Residential land use designations over 2,549 acres), and Jackson Planning Area (approximately 40 percent of this area [3,400 acres] would be designated General Agriculture). As identified in **Figure 4.10-1**, these areas contain pasture grassland, vernal pool grassland, vernal pool habitats. However, it is acknowledged that agricultural operations could still result in impacts to these habitats as well as potentially block wildlife movement. This impact is considered significant and unavoidable for Alternative 2 (even with implementation of the proposed policies, action items and mitigation identified in Section 4.10 [Biological Resources]).

Loss of trees under project and cumulative conditions (Impact 4.10.6 and 4.10.8)

While large portions of the Planning Area, including those undeveloped areas in the southern half of the City, do not contain large numbers of trees, many other areas of the Planning Area do include many trees that are not special-status species but still provide many benefits to species in the area. Urban trees are a major source of nesting habitat for local bird species. In addition to providing forage, shelter, cover, and other habitat for many bird and mammal species, trees have other benefits for the City including aesthetic impacts due to the removal of large stands of trees. Trees also provide shade and stabilize the soil. Additionally, many native trees such as blue oak and California sycamore are found in stands of and would be adversely impacted by the removal of surrounding trees. There is currently an estimated 246 acres of blue

oak woodland, 76 acres of blue oak savannah, 132 acres of cottonwood woodland, and 50 acres of valley oak riparian woodland in the Planning Area. This impact was identified as significant and unavoidable under project and cumulative conditions.

Alternative 2 would have reduced potential for tree removal by retaining less intensive land uses in the East Planning Area (General Agriculture land use designation over 7,404 acres), Grant Line South Planning Area (General Agriculture and Agricultural-Residential land use designations over 2,549 acres), and Jackson Planning Area (approximately 40 percent of this area [3,400 acres] would be designated General Agriculture). However, it is acknowledged that agricultural operations could still result in tree removal similar to urban development. This impact is considered significant and unavoidable for Alternative 2 (even with implementation of the proposed policies, action items and mitigation identified in Section 4.10 [Biological Resources]).

Cultural and Paleontological Resources

Impacts to prehistoric resources, historic resources, and human remains under project and cumulative conditions (Impact 4.11.1 and 4.11.3)

Implementation of the proposed General Plan roadway improvements is expected to result in significant impacts to at least one known historic resource site considered as potentially eligible under the National Register of Historic Places in the Rio del Oro Planning Area. Development under the City of Rancho Cordova General Plan would cause a substantial adverse impact on the significance of known cultural resources, and could also adversely impact undiscovered cultural resources and/or human remains. This impact was identified as significant and unavoidable under project and cumulative conditions.

Alternative 2 would have reduced potential for impacts to undiscovered cultural resources by retaining less intensive land uses in the East Planning Area (General Agriculture land use designation over 7,404 acres), Grant Line South Planning Area (General Agriculture and Agricultural-Residential land use designations over 2,549 acres), and Jackson Planning Area (approximately 40 percent of this area [3,400 acres] would be designated General Agriculture). However, it is acknowledged that agricultural operations could still result in impacts to undiscovered cultural resources. This impact is considered significant and unavoidable for Alternative 2 (even with implementation of the proposed policies, action items identified in Section 4.11 [Cultural and Paleontological Resources]).

Impacts to paleontological resources under project and cumulative conditions (Impact 4.11.2 and 4.11.4)

A search of the University of California, Berkeley Museum of Paleontology collections database did not identify any evidence of the existence of paleontological resources or potential in the Planning Area. Development under the proposed General Plan could impact undiscovered paleontological resources, though the likelihood of such paleontological resources existing in the Planning Area is considered low. This impact was identified significant and mitigatable.

Alternative 2 would have reduced potential for impacts to undiscovered paleontological resources by retaining less intensive land uses in the East Planning Area (General Agriculture land use designation over 7,404 acres), Grant Line South Planning Area (General Agriculture and Agricultural-Residential land use designations over 2,549 acres), and Jackson Planning Area (approximately 40 percent of this area [3,400 acres] would be designated General Agriculture). However, it is acknowledged that agricultural operations could still result in impacts to undiscovered paleontological resources. This impact would be mitigated through the

implementation of the proposed policies, action items and mitigation identified in Section 4.11 (Cultural and Paleontological Resources) for Alternative 2.

Public Services and Utilities

Water supply infrastructure under project and cumulative conditions (Impact 4.12.3.1 and 4.12.3.2)

Buildout of the proposed General Plan would require timely expansion of these facilities in order to maintain adequate service and meet projected water supply demands (approximately 128,709 acre-feet annually of water supply demand). These water supply distribution improvements would result in environmental effects to support General Plan and other regional growth. The environmental effects of water supply expansion and improvements have been considered in SCWA Zone 40 Water Supply Master Plan EIR, Water Forum Agreement EIR, and Sunrise Douglas Community Plan and the Sun Ridge Specific Plan EIR, which have identified significant and unavoidable effects of developing water supplies.

Water demands associated with Alternative 2 would be substantially reduced (approximately 63,030 acre-feet annually). This water demand would be within currently identified available water sources in the Planning Area (approximately 77,620 acre-feet annually), but would also contribute to the significant and unavoidable environmental effects associated with planned major water supply infrastructure projects. Thus, this impact would be significant and unavoidable for Alternative 2 under project and cumulative conditions.

Wastewater conveyance and treatment under project and cumulative conditions (Impact 4.12.4.1 and 4.12.4.2)

Implementation of the proposed General Plan would allow for increased development which would require improvements and modifications to existing SRCSD and CSD-1 facilities and require new wastewater conveyance infrastructure including collectors, trunks and interceptor sewer lines and appurtenances. Wastewater flow estimates and ultimate buildout wastewater demands are calculated using equivalent single family dwelling units (ESDs) per acre, with one ESD representing the effluent generated by one single family residence. The ESD projections are used to determine the located and capacity of future wastewater conveyance facilities and trunk sheds. Projected wastewater generation rates by year 2030 are estimated to be 36.5 mgd and under buildout conditions 42.2 mgd. This service demand would result significant environmental impacts that are anticipated as part of planned wastewater infrastructure expansion (Sacramento Regional Wastewater Treatment Plant 2020 Master Plan Final EIR, CSD-1 Sewerage Facilities Expansion Master Plan Final EIR and Sacramento Regional County Sanitation District Interceptor Master Plan 2000, Final Program EIR) as well as additional infrastructure expansion required to serve proposed General Plan development wastewater demands not currently planned for by SRCSD and CSD-1. These environmental effects of wastewater service expansion are identified as significant and unavoidable under project and cumulative conditions.

Wastewater service demands associated with Alternative 2 would be substantially reduced (approximately 28.1 mgd of wastewater generation). This service demand would also result in significant environmental impacts that are anticipated as part of planned wastewater infrastructure expansion. The environmental effects of planned wastewater service expansion are identified as significant and unavoidable under project and cumulative conditions for Alternative 2.

Potential conflicts with Kiefer Landfill (Impact 4.12.5.1)

The Kiefer Landfill has a 2,000-foot buffer around the permitted footprint of the landfill, which was established with the recent expansion. Development under the proposed General Plan could be placed within this buffer and result in conflicts with landfill operations.

Alternative 2 could result in a similar impact that would be mitigated through proposed General Plan policies, action items and mitigation identified in Section 4.12 (Public Services and Utilities).

Visual Resources/Light and Glare

Alteration of visual character under project and cumulative conditions (Impact 4.13.3 and 4.13.5)

Implementation of the proposed General Plan would change the visual character of the Planning Area through intensification of urban uses within the existing city limits and introduction of urban uses within the Planning Area. This impact was identified as a significant and unavoidable impact under project and cumulative conditions.

Alternative 2 would have reduced visual impacts by retaining less intensive land uses that are consistent with the existing rural/agricultural/open space landscape characteristics of the southern portion of the Planning Area (outside of current City limits). However, urban development allowed under this Alternative would still result in significant alteration of existing rural/agricultural/open space landscape characteristics along Sunrise Boulevard south of Douglas Road. This impact would be significant and unavoidable for Alternative 2.

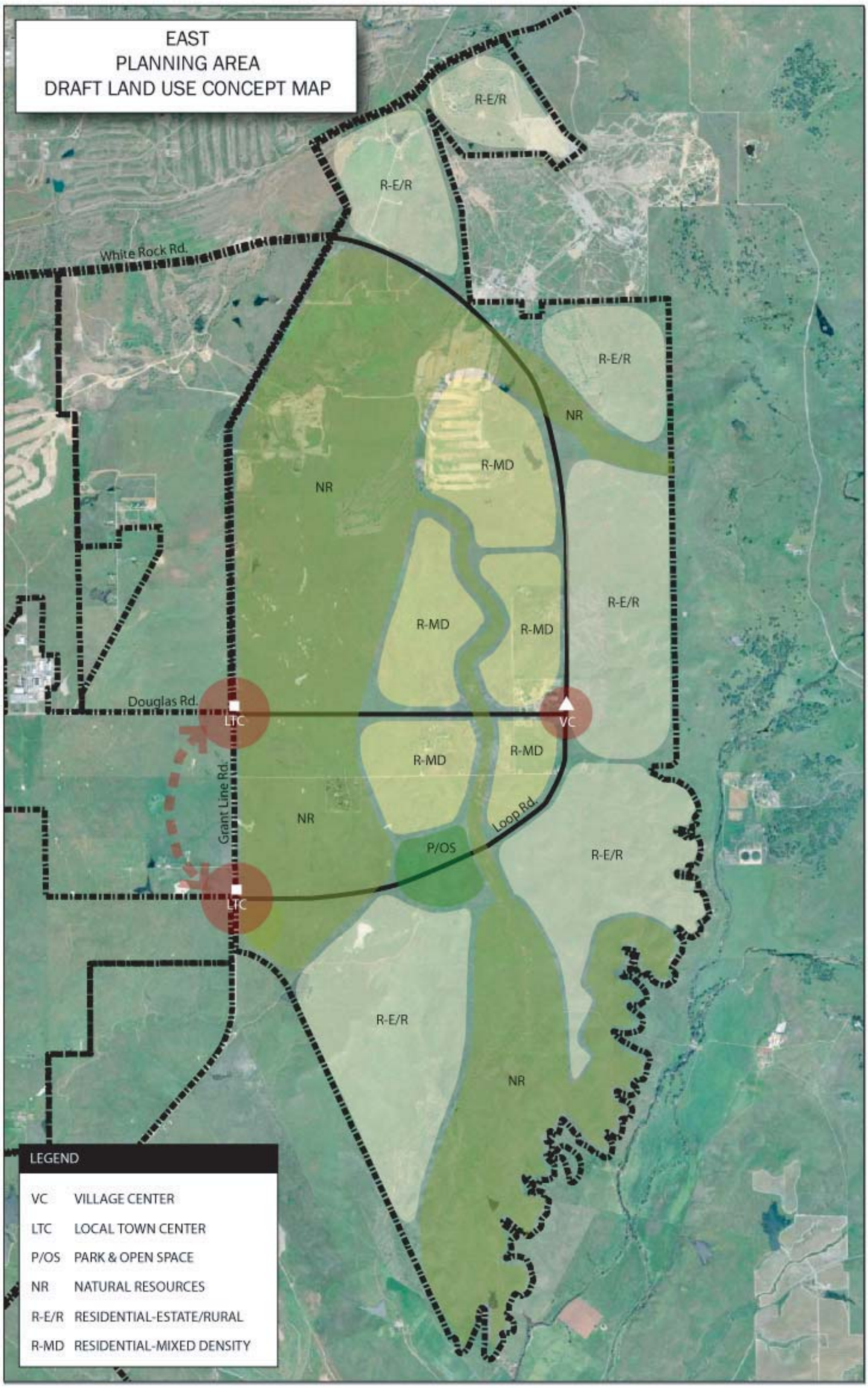
ALTERNATIVE 3 – NATURAL RESOURCES CONSERVATION ALTERNATIVE

Characteristics

This alternative would generally consist of the same land use concept associated with the proposed General Plan. However, this Alternative modifies the conceptual land plans for the following Planning Areas in order to provide further protection of wetland resources and associated habitats.

- East Planning Area (see **Figure 6.0-3a**)
- Grant Line North Planning Area (see **Figure 6.0-3b**)
- Grant Line South Planning Area (see **Figure 6.0-3c**)
- Grant Line West Planning Area (see **Figure 6.0-3d**)
- Jackson Planning Area (see **Figure 6.0-3e**)
- Mather Planning Area (see **Figure 6.0-3f**)
- Rio del Oro Planning Area (see **Figure 6.0-3g**)
- Suncreek/Preserve Planning Area (see **Figure 6.0-3h**)

These modifications are based on consultations with Sacramento County staff currently preparing the South Sacramento Habitat Conservation Plan (SSHCP) and utilization of a conceptual-level strategy for the Sunrise-Douglas Community Plan Area developed by the U.S. Fish and Wildlife Service, the U.S. Environmental Protection Agency and the U.S. Army Corps of Engineers. The intent of this strategy is to formulate an avoidance, minimization, and preservation strategy for the aquatic resources within the Sunrise-Douglas Community Plan Area.

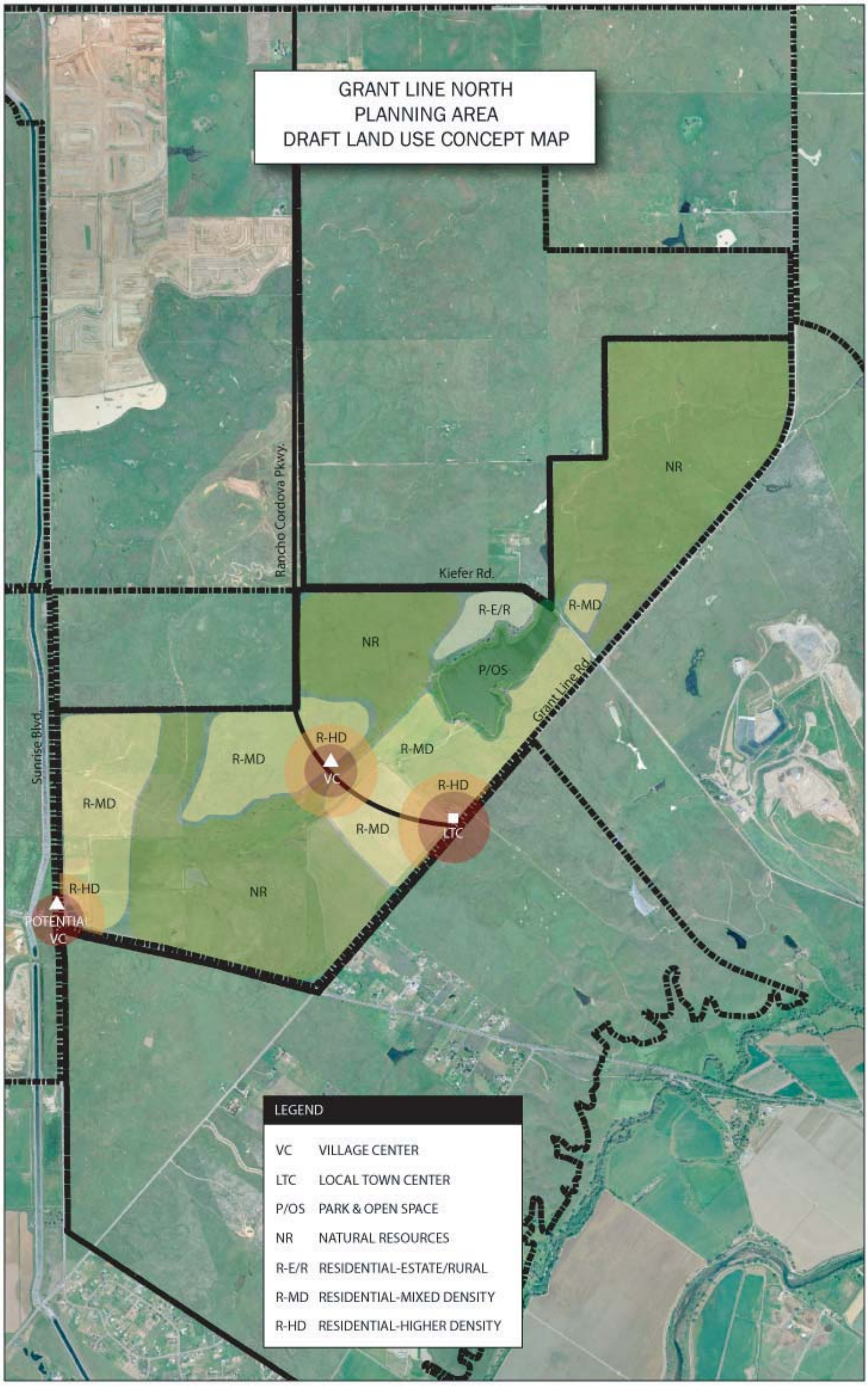


Source: AirPhoto USA, 2004

T:\Rancho Cordova\General Plan EIR\AI Files\Figure 6.0-3a.ai, March 2006

City of Rancho Cordova
Planning Department

Figure 6.0-3a
Alternative 3 - Natural Resources Conservation Alternative
East Planning Area



Source: AirPhoto USA, 2004

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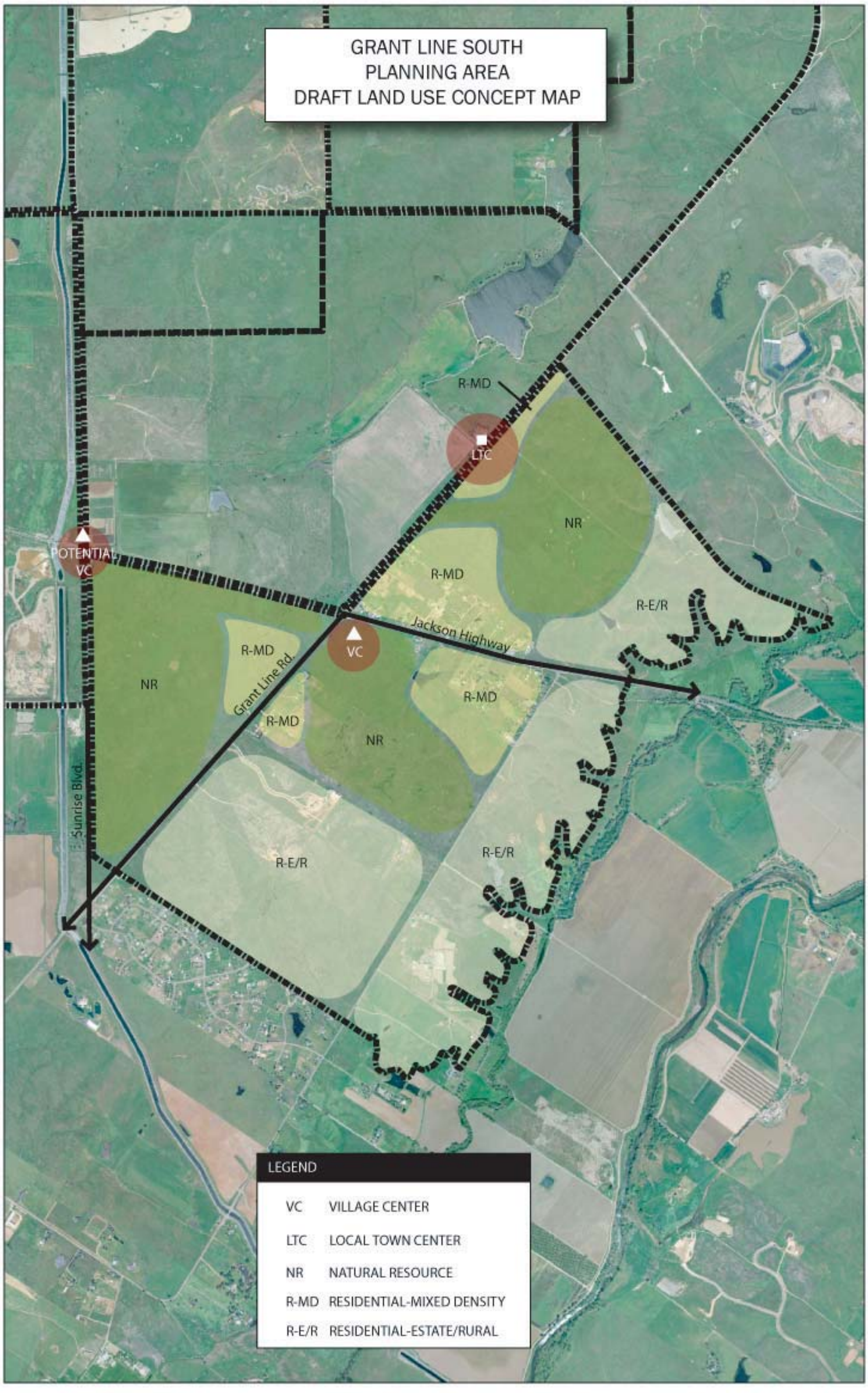
City of Rancho Cordova
Planning Department

Figure 6.0-3b
Alternative 3 - Natural Resources Conservation Alternative
Grant Line North Planning Area



Source: AirPhoto USA, 2004

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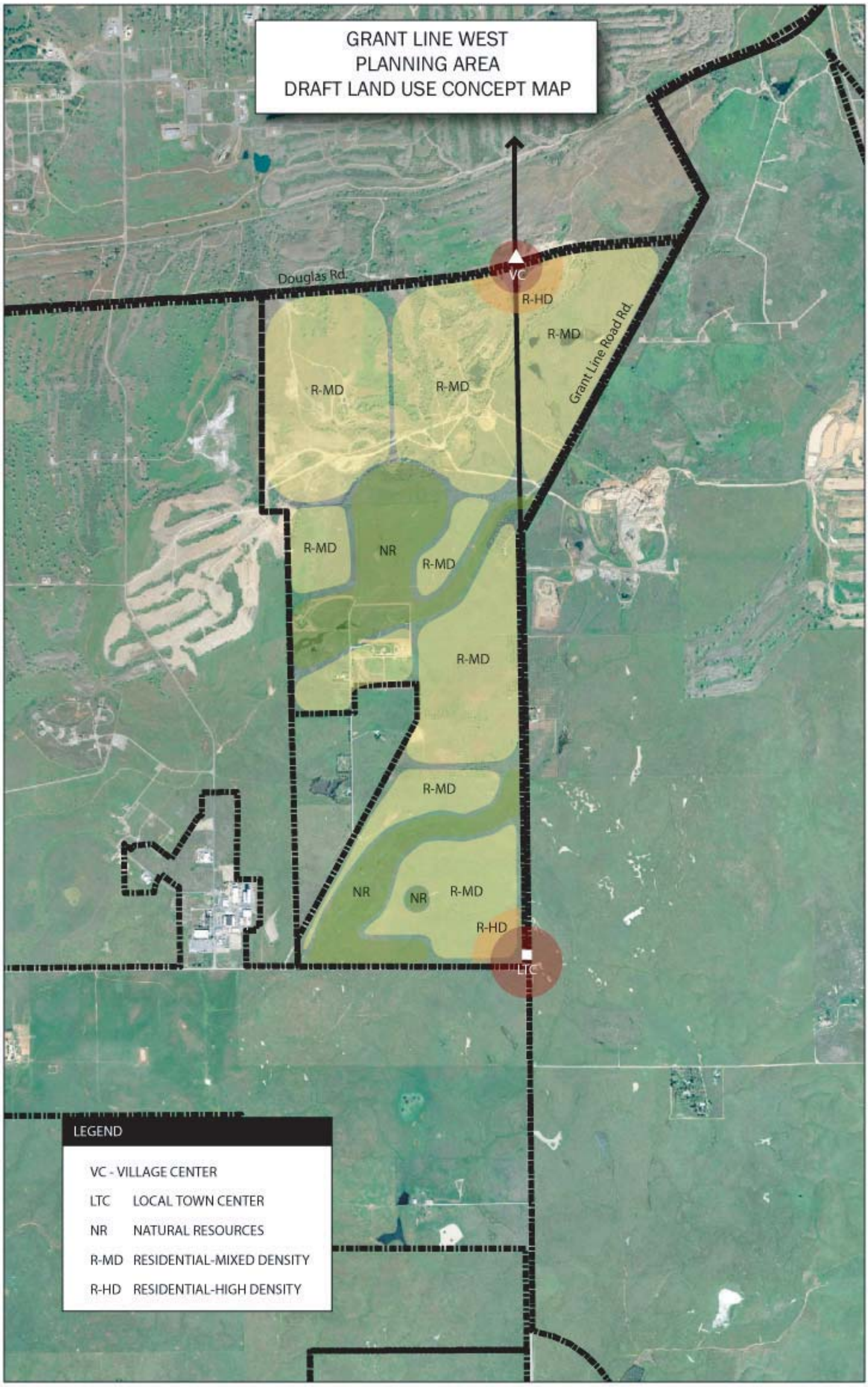
City of Rancho Cordova
Planning Department

Figure 6.0-3c
Alternative 3 - Natural Resources Conservation Alternative
Grant Line South Planning Area



Source: AirPhoto USA, 2004

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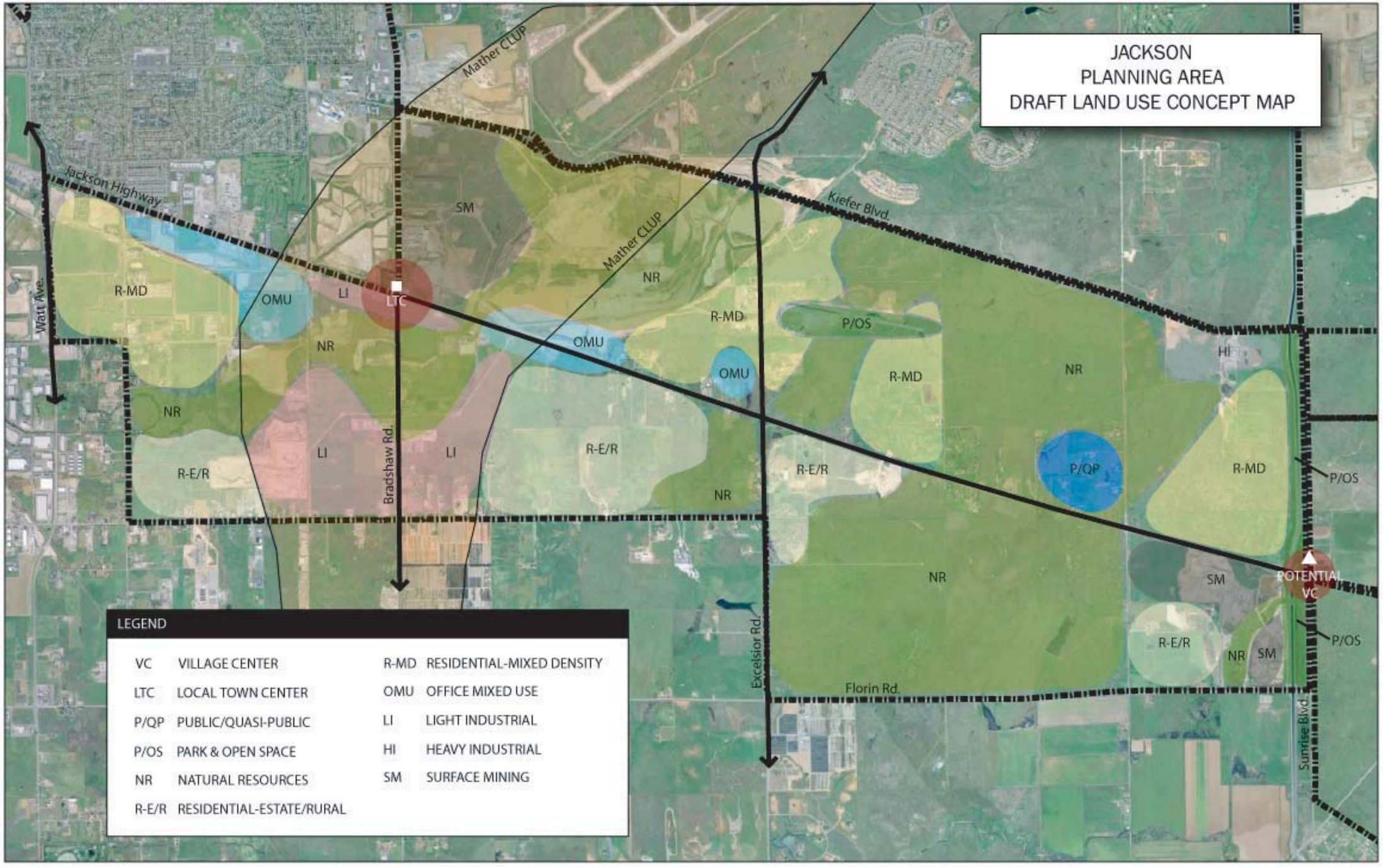
City of Rancho Cordova
Planning Department

Figure 6.0-3d
Alternative 3 - Natural Resources Conservation Alternative
Grant Line West Planning Area



Source: AirPhoto USA, 2004

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City of Rancho Cordova
Planning Department

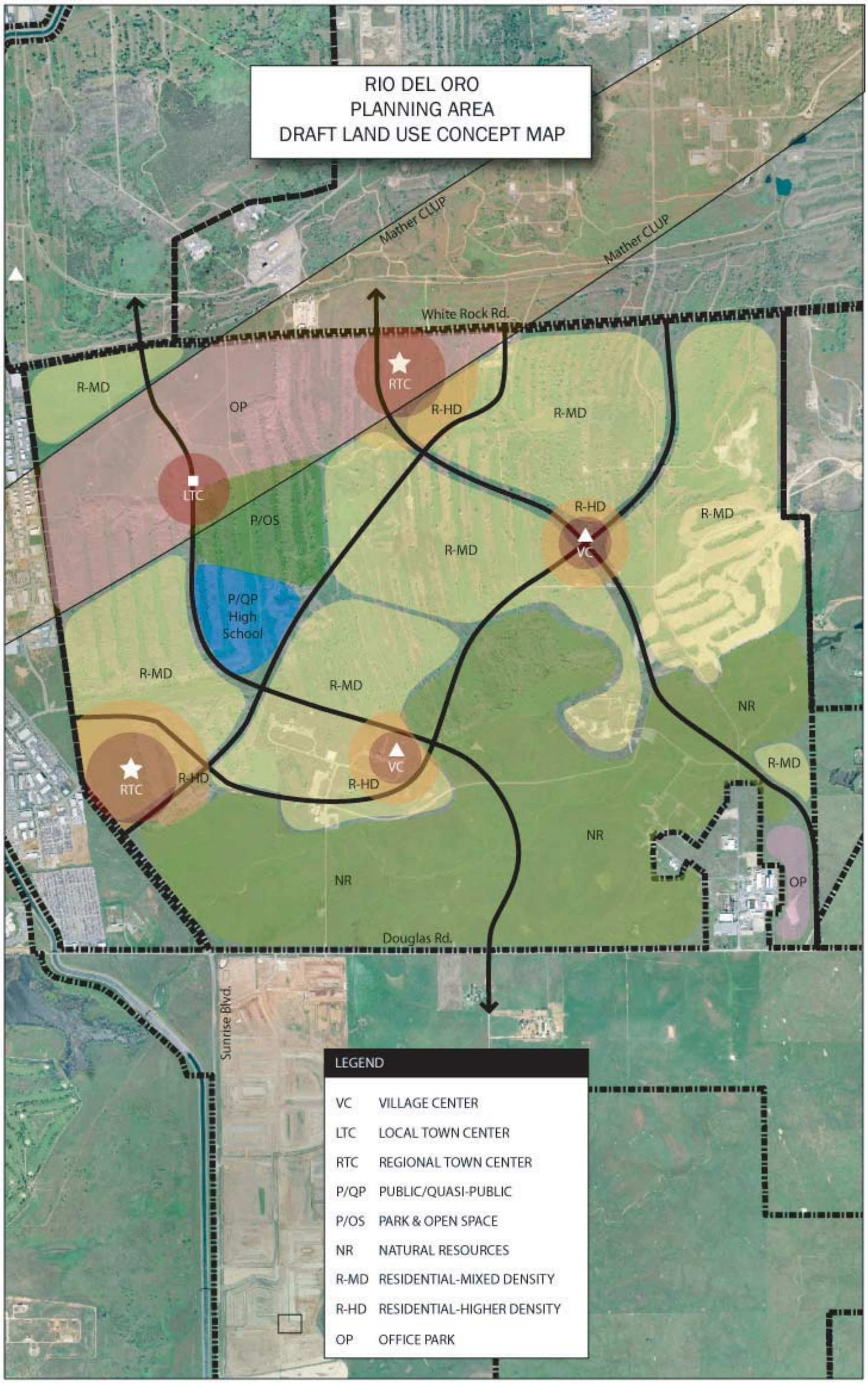
Figure 6.0-3e
Alternative 3 - Natural Resources Conservation Alternative
Jackson Planning Area

Source: AirPhoto USA, 2004

T:\Rancho Cordova\General Plan EIR\AI Files\Figure 6.0-3f.ai, March 2006

City of Rancho Cordova
Planning Department

Figure 6.0-3f
Alternative 3 - Natural Resources Conservation Alternative
Mather Planning Area



Source: AirPhoto USA, 2004

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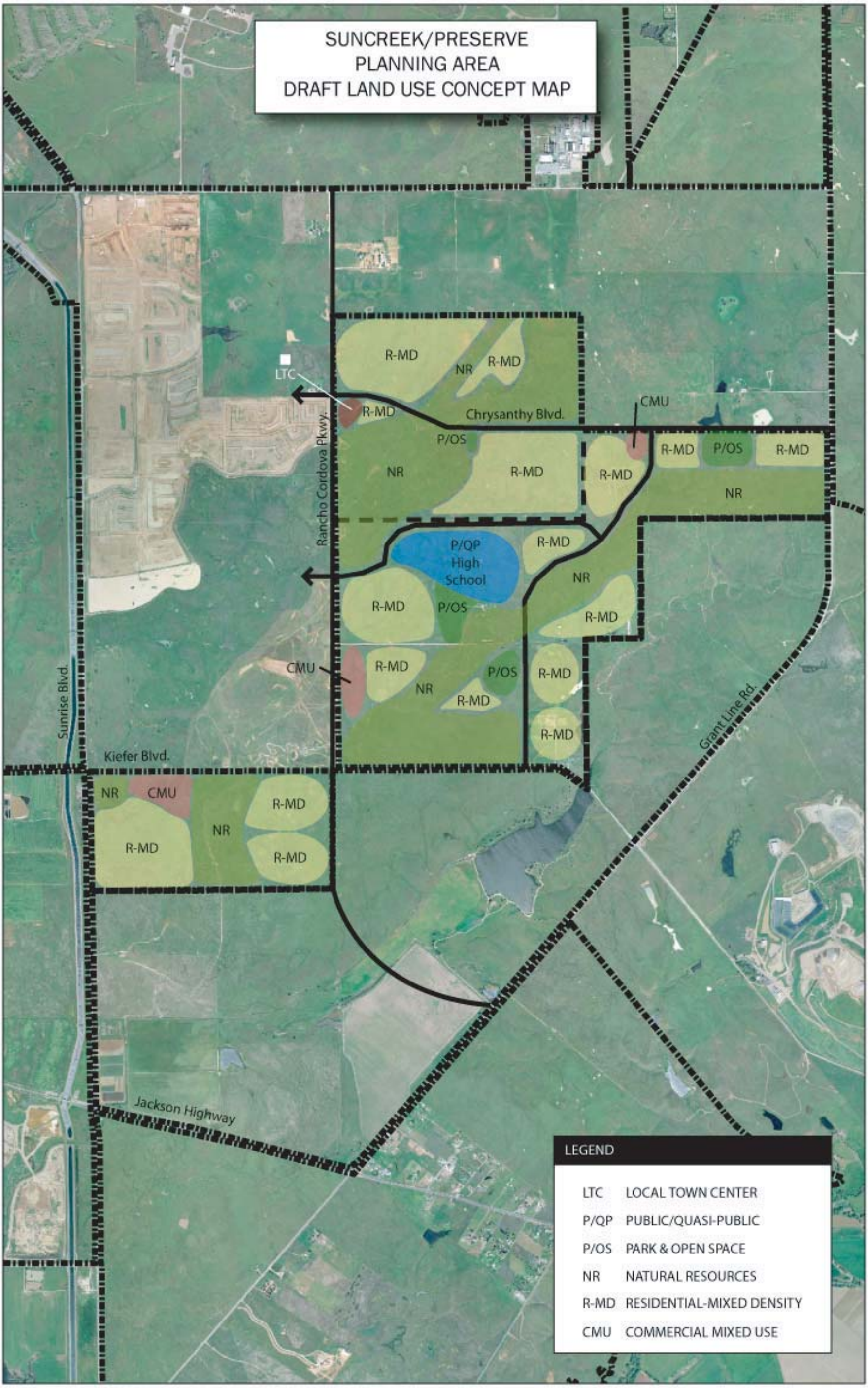
City of Rancho Cordova
Planning Department

Figure 6.0-3g
Alternative 3 - Natural Resources Conservation Alternative
Rio del Oro Planning Area



Source: AirPhoto USA, 2004

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City of Rancho Cordova
Planning Department

Figure 6.0-3h
Alternative 3 - Natural Resources Conservation Alternative
Suncreek/Preserve Planning Area

Development potential lost from these modifications were re-allocated where it was consistent with the land use concepts of the proposed General Plan (see Section 3.0 [Project Description]). All other aspects of the proposed General Plan would remain under this alternative (proposed General Plan land use mapping for other portions of the proposed General Plan Planning Area, policy document and the proposed Roadway System Map). Buildout under this Alternative would result in approximately 120,663 residential dwelling units and an associated population of 293,596 as well as 189,847 jobs.

Comparative Impacts

Land Use

Conflicts with relevant land use plans, policies or regulations under project and cumulative conditions (Impact 4.1.3 and 4.1.5)

As noted in Section 4.1 (Land Use), implementation of the proposed General Plan would result in more intense urban uses (more residential units, commercial, office and industrial uses) than Sacramento County General Plan anticipated in the Planning Area outside of current City limits associated with the Mather, Jackson, Glenborough, Westborough, Grant Line South, Grant Line West and East Planning Areas. The existing Sacramento County General Plan designates these areas as Industrial, Agriculture and Recreation and was not intended to experience urban development until after year 2010 (if at all). Thus, this impact was identified as significant and unavoidable. Conflicts would also occur with the Mather Specific Plan and Mather Airport CLUP.

Given that the land use pattern under Alternative 3 is similar to the proposed General Plan, its impact would be the same.

Agriculture

Loss and conversion of agricultural land and project and cumulative conditions (Impact 4.2.1and 4.2.4)

As noted in Section 4.2 (Agriculture), implementation of the proposed General Plan Land Use Map would result in the conversion of approximately 1,392.50 acres of important farmland (225.65-acres of Prime Farmland and 890.9 acres of Farmland of Statewide Importance and 276.56 acres of Unique Farmland). This was identified as a significant and unavoidable impact under project and cumulative conditions.

Alternative 3 would result in similar conversion of important farmlands. However, modification of the Jackson Planning Area and Grant Line North Planning Area land uses would preserve a portions of important farmland areas located south of S.R. 16 and north of Grant Line Road. However, this impact would still be considered significant and unavoidable (even with application of mitigation measures identified in Section 4.2).

Agricultural/urban interface and Williamson Act contracts conflicts (Impact 4.2.2 and 4.2.3)

Implementation of the proposed City of Rancho Cordova General Plan Land Use Map would place urbanized land uses adjacent to and would replace existing agricultural uses. It is anticipated that as the City builds out, agriculture/urban interface conflicts may occur and result in cancellations of existing Williamson Act contracts. These impacts were identified as significant and unavoidable.

Implementation of Alternative 3 would result in similar, land use conflicts between urban/agricultural uses and Williamson Act contract lands. This impact would still be considered significant and unavoidable (even with application of mitigation measures identified in Section 4.2).

Population/Housing/Employment

Population, housing and employment increases under project and cumulative conditions (Impact 4.3.1 and 4.3.3)

At buildout under the proposed General Plan, a population of 310,241 persons, 126,241 housing units and 195,021 jobs are anticipated for the General Plan Planning Area. This represents substantial growth in the area and will have a significant physical effect on the environment. This was identified as a significant and unavoidable impact under project and cumulative conditions.

Alternative 3 could result in approximately 120,663 residential dwelling units and an associated population of 293,596 as well as 189,847 jobs in the Planning Area, which is similar in intensity as the proposed General Plan. Thus, this Alternative would result in similar impacts that are significant and unavoidable.

Hazards and Human Health

Release and exposure to hazardous materials (Impact 4.4.2)

Implementation of the proposed General Plan with the proposed residential and non-residential uses would involve the storage, use, and transport of hazardous materials (e.g., jet fuel at Mather Airport, gasoline fuels, demolition materials, asphalt, lubricants, toxic solvents, pesticides and herbicides) during construction, demolition, and landscaping activities. In addition, certain commercial uses, including water treatment plants, swimming pool facilities, gas stations, and dry cleaners that store, use, and routinely transport hazardous material to and from their facilities could pose a potential hazard to the environment. Development of the Planning Area could also result in the exposure to existing contamination.

Implementation of Alternative 3 would result in similar potential for exposure to hazardous materials. This impact would mitigated for Alternative 3 through utilization of policies, action items and mitigation identified for the proposed General Plan in Section 4.4 (Hazards and Human Health).

Transportation and Circulation

Impacts to roadway segments under project and cumulative conditions (Impact 4.5.1 and 4.5.6)

As noted in Section 4.5 (Transportation and Circulation), the proposed General Plan's significant and unavoidable level of service impacts consisted of the following roadway segments under the three analysis scenarios conducted. This impact was identified as significant and unavoidable under project and cumulative conditions.

- Folsom Boulevard - Mather Field Road to Coloma Road
- Mather Field Road - U.S. 50 Eastbound Ramps to International Drive
- Zinfandel Drive – U.S. 50 Eastbound Ramps to White Rock Road
- Sunrise Boulevard – Gold Country Boulevard to Coloma Road

- Sunrise Boulevard – Coloma Road to U.S. 50 Westbound Ramps
- Sunrise Boulevard – U.S. 50 Eastbound Ramps to Folsom Boulevard
- Sunrise Boulevard – Folsom Boulevard to White Rock Road
- Hazel Avenue – Winding Way to U.S. 50 Westbound Ramps
- Bradshaw Road – U.S. 50 to Old Placerville Road
- Bradshaw Road – Old Placerville Road to Kiefer Boulevard

Alternative 3 traffic impacts and general trip generation/distribution would generally be similar to the proposed General Plan. Thus, this Alternative would also result in significant and unavoidable impacts under project and cumulative conditions.

Impacts to freeway segments under project and cumulative conditions (Impact 4.5.2 and 4.5.6)

The proposed General Plan increases in traffic volumes to the highway would contribute to deficient operation of U.S. 50 (eastbound and westbound) from Folsom Boulevard to Bradshaw Road interchanges during a.m. and p.m. peak periods. This impact was identified as significant and unavoidable under project and cumulative conditions.

Alternative 3 traffic impacts and general trip generation/distribution would generally be similar to the proposed General Plan. Thus, this Alternative would also result in significant and unavoidable impacts under project and cumulative conditions.

Air Quality

Air quality impacts under project and cumulative conditions (Impacts 4.6.1, 4.6.2, 4.6.3 and 4.6.6)

As identified in Section 4.6 (Air Quality), implementation of the proposed General Plan would result increased air pollutant emissions from construction and operational activities in the Planning Area. Under buildout conditions, uses in the Planning Area may produce 14,296.66 tons of ROG, 3,168.86 tons of NOx, and 8,420.85 tons of PM_{10} per year. As discussed under Impact 4.6.1, the increase in potential air pollutant emission sources in the Planning Area has the possibility to conflict with the Regional Ozone Attainment Plan, as well as exceed state and federal air quality thresholds. These impacts were identified as significant and unavoidable.

Implementation of Alternative 3 would result in reduced emissions (approximately 13,868 tons of ROG, 3,074 tons of NOx, and 8,168 tons of PM_{10} per year under this alternative – 3 percent reduction in emissions). These emission levels would still be considered significant (even with application of the proposed policies, action items and mitigation identified in Section 4.6 [Air Quality]).

Air toxic contaminant exposure under project and cumulative conditions (Impact 4.6.4 and 4.6.6)

Implementation of the proposed General Plan would include land uses that are potential sources of Toxic Air Contaminants (TACs) as well as exposure of sensitive land uses to mobile sources of TACs. This was identified as a significant and unavoidable impact.

Alternative 3 would have the same potential to include land uses that are potential sources of TACs as well as expose future sensitive land uses to mobile sources to TACs. Thus, this impact would be considered significant and unavoidable for this Alternative as well (even with the application of proposed policies, action items and mitigation identified in Section 4.6 [Air Quality]). However, Alternative 3 would result in a reduced population that could be exposed to TACs.

Possible exposure of sensitive receptors to odorous emissions (Impact 4.6.5)

Implementation of the proposed General Plan would allow for the development of uses that have the potential to produce odorous emissions either during the construction or operation of the development. Additionally, implementation of the proposed General Plan may allow for the construction of sensitive land uses (i.e. residential development, schools, parks, offices, etc.) near existing or future sources of odorous emissions, as specific land use designations are not yet determined for the Planning Area.

Alternative 3 would have the same potential to include land uses that have potential to produce odorous emissions or allow for the construction of sensitive land uses (i.e. residential development, schools, parks, offices, etc.) near existing or future sources of odorous emissions. This impact for Alternative 3 could be mitigated similar to the proposed General Plan through the application of proposed policies, action items and mitigation identified in Section 4.6 (Air Quality). However, this Alternative 3 would result in reduced population that could be exposed to objectionable odors.

Noise

Construction noise impacts (Impact 4.7.1)

Construction activities associated with the buildout of the proposed General Plan would typically generate maximum noise levels ranging from 85 to 95 dB at a distance of 50 feet. Depending on the timing of the buildout of the General Plan planning areas, existing and future residents may be exposed to these excessive noise levels. This impact was identified as significant and unavoidable.

Alternative 3 would have the same potential for construction noise impacts and would be significant and unavoidable.

Traffic noise impacts under project and cumulative conditions (Impact 4.7.2 and 4.7.6)

Implementation of the proposed General Plan would result in increased traffic noise levels from additional vehicle traffic on existing and future roadways. Implementation of the proposed General Plan would also result in new noise-sensitive land uses throughout the Planning Area. This impact was identified as significant and unavoidable under project and cumulative conditions.

Implementation of Alternative 3 would result in similar traffic noise impacts as the proposed General Plan. Thus, this impact would be significant and unavoidable (under project and cumulative conditions) for Alternative 3 as well.

Stationary noise impacts under project and cumulative conditions (Impact 4.7.3 and 4.7.7)

Implementation of the proposed General Plan could result in the future development of land uses that generate noise levels in excess of applicable City of Rancho Cordova noise standards for non-transportation noise sources or expose new noise-sensitive land uses to existing excessive noise levels.

Implementation of Alternative 3 would result in similar stationary noise impacts as the proposed General Plan. Thus, this impact would be significant and unavoidable (under project and cumulative conditions) for Alternative 3 as well.

Mather Airport noise impacts (Impact 4.7.4)

The proposed General Plan has five planning areas affected by the existing Mather Airport CLUP boundaries and 60 to 65 dB CNEL contour ranges, including: Mather Planning Area; Jackson Planning Area; Sunrise Boulevard South Planning Area; Rio del Oro Planning Area; and the Aerojet Planning Area. The Rio del Oro Planning Area is the only planning area that proposes some residential uses within the 65 dB CNEL (where the noise contour curves to the south). Residential uses are not permitted in the 60 or 65 dB CNEL noise contour of the Mather Airport CLUP. However, it should be noted that the project site design for Rio del Oro was based on the proposed noise contours for Mather Airport and not the existing contours. Because the General Plan would locate noise-sensitive land uses (e.g., residential) within the 60 dB CNEL noise contours contained in the Mather Airport CLUP, this would be a significant impact if the current CLUP contours were considered accurate. These noise contours, however, have been proposed for revision as part of the development of the Mather Airport Master Plan, which is currently being prepared by the Sacramento County Airport System. The noise contours are being revised to account for existing and projected changes in aircraft operations that have occurred since development of the Mather Airport CLUP. The future land uses under the proposed General Plan would be exposed to excessive noise from single-event noise levels for aircraft overflights.

Alternative 3 would result in the same impact, given the proposed land uses for the Rio del Oro Planning Area would be the same as the proposed General Plan.

Geology and Soils

Soil stability (Impact 4.8.3)

Areas of the Planning Area could contain layers of highly expansive soils, which could pose development constraints under the proposed General Plan as structures or improvements constructed on expansive soils could suffer severe damage from the expansion.

Implementation of Alternative 3 would result in similar impacts as the proposed General Plan and could be mitigated through application of Mitigation Measure MM 4.8.3 identified for the proposed General Plan.

Mineral resource conflicts under project and cumulative conditions (Impact 4.8.5)

As noted in Section 4.8 (Geology and Soils), implementation of the proposed General Plan would convert areas identified to contain important mineral resources (aggregates) to urban uses and conflict with the Mineral Overlay Designations that are currently designated under the Sacramento County General Plan. This impact was identified as significant and unavoidable even with the application of mitigation measures.

Alternative 3 would have similar land uses as the proposed General Plan in these areas and would result in similar impact. This impact would also be significant and unavoidable for this Alternative.

Hydrology and Water Quality

Surface water quality impacts under project and cumulative conditions (Impacts 4.9.2 and 4.9.5)

Implementation of the proposed General Plan would consist of new development that includes construction, residential, commercial, recreation, and landscaping practices that could

potentially impact water quality. Approximately 18,142 acres within the City and 47,074 acres of the entire the Planning Area (including the City) are anticipated to be disturbed and altered with urban levels of development at buildout.

Implementation of Alternative 3 would result in similar water quality impacts given the extent of urban development would be the same. Implementation of proposed policies, action items and mitigation identified in Section 4.9 (Hydrology and Water Quality) would mitigate this impact for Alternative 3.

Groundwater quality impacts under project and cumulative conditions (Impact and 4.9.3 and 4.9.5)

Development of the Planning Area under the proposed General Plan could generate runoff containing oils, grease, fuel, antifreeze, byproducts of combustion (such as lead, cadmium, nickel, and other metals), household pollutants, nutrients (i.e., fertilizers), and other chemicals from landscaped areas. These pollutants could potentially contaminate groundwater conditions (if not properly treated with water quality controls).

Implementation of Alternative 3 would result in a similar potential for water quality impacts given the extent of urban development would be the same. Implementation of proposed policies, action items and mitigation identified in Section 4.9 (Hydrology and Water Quality) would mitigate this impact for Alternative 3.

Increased water supply demand impacts under project and cumulative conditions (Impact 4.9.4 and 4.9.7)

As identified under Impact 4.9.4, buildout under the proposed General Plan water supply demands (approximately 128,709 acre-feet annually of water supply demand) would exceed currently available water supply sources as well as contribute to significant and unavoidable environmental effects associated with planned major water supply infrastructure projects.

Water demands associated with Alternative 3 would be reduced (approximately 124,850 acre-feet annually). This water demand would be outside of currently identified available water sources in the Planning Area (approximately 77,620 acre-feet annually), and would also contribute to the significant and unavoidable environmental effects associated with planned major water supply infrastructure projects. Thus, this impact would be significant and unavoidable for Alternative 3 under project and cumulative conditions.

Biological Resources

Impacts to endangered, threatened, and other listed species under project and cumulative conditions (Impact 4.10.1 and 4.10.8)

Suitable habitat for plant and animal species listed as endangered, threatened, rare, proposed, candidate, or List 1B (collectively referred to in this EIR as "listed species" is found within the Planning Area. Development under the proposed General Plan would directly and indirectly impact such habitat. Most direct impacts would occur from development of large areas of generally undeveloped land in the southern half of the Planning Area. However, additional impacts would occur from infill development and redevelopment in the City's center and northern portions. This impact was identified as significant and unavoidable under project and cumulative conditions.

Alternative 3 would likely result in reduced impacts as a result of modification of the conceptual land use maps for the Planning Areas as shown in **Figures 6.0-3a** through **6.0-3h**). This impact is considered significant and unavoidable for Alternative 3 (even with implementation of the proposed policies, action items and mitigation identified in Section 4.10 [Biological Resources]).

Impacts to species of concern and other non-listed special status species under project and cumulative conditions (Impact 4.10.2 and 4.10.8)

In addition to the 28,581.0 acres of habitat for listed species that may be directly impacted by development under the proposed General Plan Land Use Map (see Impact 4.10.1), an additional 11,269.6 acres of high density development cover type, 435.7 acres of low density development type and 10,275.0 acres of the mine tailings cover type could be potentially impacted. Non-listed special status species have been found in both of these cover types and could also be directly and indirectly impacted. This impact was identified as significant and unavoidable under project and cumulative conditions.

Alternative 3 would likely result in reduced impacts to pasture grassland, vernal pool grassland and vernal pool habitats as a result of modification of the conceptual land use maps for the Planning Areas as shown in **Figures 6.0-3a** through **6.0-3h**). This impact is considered significant and unavoidable for Alternative 3 (even with implementation of the proposed policies, action items and mitigation identified in Section 4.10 [Biological Resources]).

Loss of habitat under project and cumulative conditions (Impact 4.10.3 and 4.10.8)

Wetlands, riparian corridors, as well as large areas of open grassland and other suitable foraging habitat for special-status bird species found within the Planning Area, also provide important habitat for a non-listed special status species as well common wildlife including variety of shore birds, waterfowl, and migratory passerines. Additionally, some mammal species such as coyote and black-tailed hare utilize these cover types as forage and denning habitat. Implementation of the General Plan, specifically development in line with the proposed General Plan as well as construction and improvement of roadways identified in the proposed Circulation Element could result in the loss of this habitat, causing a significant impact to occur. This impact was identified as significant and unavoidable under project and cumulative conditions.

Alternative 3 would likely result in reduced impacts to pasture grassland, vernal pool grassland, vernal pool habitats as a result of modification of the conceptual land use maps for the Planning Areas as shown in **Figures 6.0-3a** through **6.0-3h**). This impact is considered significant and unavoidable for Alternative 3 (even with implementation of the proposed policies, action items and mitigation identified in Section 4.10 [Biological Resources]).

Direct and indirect impacts to jurisdictional waters under project and cumulative conditions (Impact 4.10.4 and 4.10.8)

Implementation of the proposed General Plan, specifically development identified in the General Plan Land Use Map and roadway construction and improvement identified in the Circulation Element could result in direct and indirect impacts to jurisdictional waters within the Planning Area. Improvements identified in proposed General Plan roadway improvements (see **Figure 3.0-19**) could impact as much as 120.5 acres of vernal pools, 27.50 acres of fresh water marsh, 11.4 acres of open water, 478.90 acres of streams, and 60.70 acres of aqueduct. This impact was identified as significant and unavoidable under project and cumulative conditions.

Alternative 3 would likely result in reduced impacts to pasture grassland, vernal pool grassland and vernal pool habitats (which contain various jurisdictional water features) as a result of modification of the conceptual land use maps for the Planning Areas as shown in **Figures 6.0-3a** through **6.0-3h**). This impact is considered significant and unavoidable for Alternative 3 (even with implementation of the proposed policies, action items and mitigation identified in Section 4.10 [Biological Resources]).

Effects on wildlife movement corridors under project and cumulative conditions (Impact 4.10.5 and 4.10.8)

Large complexes of ephemeral drainage, such as those that feed Morrison Creek and Laguna Creek, exist within the Planning Area. Ephemeral Drainage provides key movement corridors for both migratory and local species of wildlife. Streams themselves also provide major movement corridors for species in the Planning Area. Major streams found in the Planning Area include the Alder, Buffalo, Morrison, Laguna, Frye and Elder Creeks. Corridors provided by these streams and drainages provide important routes for species moving through the area as well as local species that use these corridors to spread to new habitat, to mate, and to disperse genetic material. Large riparian areas such as the American River Parkway and the Consumnes River provide movement corridors as well. In addition to ephemeral drainages, streams, and rivers, large areas of undeveloped land such as those found in the southern half of the Planning Area provide habitat and cover for other species moving through the area and between habitats within the Planning Area. Large-scale development of the Planning Area identified in the proposed General Plan could isolate these areas from one another and adversely impact these areas and movement corridors. Additionally, construction of roadways and improvement of existing roadways as identified in the proposed Circulation Element could sever and/or further sever connections between habitats and cover types in the Planning Area. Roadway improvement and construction also could negatively impact ephemeral drainages and jurisdictional waters of the U.S. Engineered drainages, such as those that would result from proposed roadway improvement and construction, have been shown to reduce opportunities for some species' movement. This impact was identified as significant and unavoidable under project and cumulative conditions.

Alternative 3 would likely result in reduced impacts to pasture grassland, vernal pool grassland and vernal pool habitats (which provide for wildlife movement) as a result of modification of the conceptual land use maps for the Planning Areas as shown in **Figures 6.0-3a** through **6.0-3h**). This impact is considered significant and unavoidable for Alternative 3 (even with implementation of the proposed policies, action items and mitigation identified in Section 4.10 [Biological Resources]).

Loss of trees under project and cumulative conditions (Impact 4.10.6 and 4.10.8)

While large portions of the Planning Area, including those undeveloped areas in the southern half of the City, do not contain large numbers of trees, many other areas of the Planning Area do include many trees that are not special-status species but still provide many benefits to species in the area. Urban trees are a major source of nesting habitat for local bird species. In addition to providing forage, shelter, cover, and other habitat for many bird and mammal species, trees have other benefits for the City including aesthetic impacts due to the removal of large stands of trees. Trees also provide shade and stabilize the soil. Additionally, many native trees such as blue oak and California sycamore are found in stands of and would be adversely impacted by the removal of surrounding trees. There is currently an estimated 246 acres of blue oak woodland, 76 acres of blue oak savannah, 132 acres of cottonwood woodland, and 50

acres of valley oak riparian woodland in the Planning Area. This impact was identified as significant and unavoidable under project and cumulative conditions.

Alternative 3 would likely result in reduced impacts to pasture grassland, vernal pool grassland and vernal pool habitats as a result of modification of the conceptual land use maps for the Planning Areas as shown in **Figures 6.0-3a** through **6.0-3h**). This impact is considered significant and unavoidable for Alternative 3 (even with implementation of the proposed policies, action items and mitigation identified in Section 4.10 [Biological Resources]).

Cultural and Paleontological Resources

Impacts to prehistoric resources, historic resources, and human remains under project and cumulative conditions (Impact 4.11.1 and 4.11.3)

Implementation of the proposed General Plan roadway improvements is expected to result in significant impacts to at least one known historic resource site considered as potentially eligible under the National Register of Historic Places in the Rio del Oro Planning Area. Development under the City of Rancho Cordova General Plan would cause a substantial adverse impact on the significance of known cultural resources, and could also adversely impact undiscovered cultural resources and/or human remains. This impact was identified as significant and unavoidable under project and cumulative conditions.

Implementation of Alternative 3 would result in a similar potential for similar impacts given the intensity of urban development would be similar, though slightly reduced from modifications in the conceptual land use maps (see **Figures 6.0-3a** through **6.0-3h**). This impact is considered significant and unavoidable for Alternative 3 (even with implementation of the proposed policies, action items identified in Section 4.11 [Cultural and Paleontological Resources]).

Impacts to paleontological resources under project and cumulative conditions (Impact 4.11.2 and 4.11.4)

A search of the University of California, Berkeley Museum of Paleontology collections database did not identify any evidence of the existence of paleontological resources or potential in the Planning Area. Development under the proposed General Plan could impact undiscovered paleontological resources, though the likelihood of such paleontological resources existing in the Planning Area is considered low. This impact was identified significant and mitigatable.

Implementation of Alternative 3 would result in a similar potential for impacts given the intensity of urban development would be similar, though slightly reduced from modifications in the conceptual land use maps (see **Figures 6.0-3a** through **6.0-3h**). This impact would be mitigated through the implementation of the proposed policies, action items and mitigation identified in Section 4.11 (Cultural and Paleontological Resources) for Alternative 3.

Public Services and Utilities

Water supply infrastructure under project and cumulative conditions (Impact 4.12.3.1 and 4.12.3.2)

Buildout of the proposed General Plan would require timely expansion of these facilities in order to maintain adequate service and meet projected water supply demands (approximately 128,709 acre-feet annually). These water supply distribution improvements would result in environmental effects to support General Plan and other regional growth. The environmental effects of water supply expansion and improvements have been considered in SCWA Zone 40

Water Supply Master Plan EIR, Water Forum Agreement EIR, and Sunrise Douglas Community Plan and the Sun Ridge Specific Plan EIR, which have identified significant and unavoidable effects of developing water supplies.

Water demands associated with Alternative 3 would be reduced (approximately 124,850 acre-feet annually). This water demand would not be within currently identified available water sources in the Planning Area (approximately 77,620 acre-feet annually), and would contribute to the significant and unavoidable environmental effects associated with planned major water supply infrastructure projects. Thus, this impact would be significant and unavoidable for Alternative 3 under project and cumulative conditions.

Wastewater conveyance and treatment under project and cumulative conditions (Impact 4.12.4.1 and 4.12.4.2)

Implementation of the proposed General Plan would allow for increased development which would require improvements and modifications to existing SRCSD and CSD-1 facilities and require new wastewater conveyance infrastructure including collectors, trunks and interceptor sewer lines and appurtenances. Wastewater flow estimates and ultimate buildout wastewater demands are calculated using equivalent single family dwelling units (ESDs) per acre, with one ESD representing the effluent generated by one single family residence. The ESD projections are used to determine the located and capacity of future wastewater conveyance facilities and trunk sheds. Projected wastewater generation rates by year 2030 are estimated to be 36.5 mgd and under buildout conditions 42.2 mgd. This service demand would result significant environmental impacts that are anticipated as part of planned wastewater infrastructure expansion (Sacramento Regional Wastewater Treatment Plant 2020 Master Plan Final EIR, CSD-1 Sewerage Facilities Expansion Master Plan Final EIR and Sacramento Regional County Sanitation District Interceptor Master Plan 2000, Final Program EIR) as well as additional infrastructure expansion required to serve proposed General Plan development wastewater demands not currently planned for by SRCSD and CSD-1. These environmental effects of wastewater service expansion are identified as significant and unavoidable under project and cumulative conditions.

Wastewater service demands associated with Alternative 3 would be reduced (approximately 40.9 mgd of wastewater generation). This service demand would also result significant environmental impacts that are anticipated as part of planned wastewater infrastructure expansion as well as further wastewater infrastructure expansion not currently planned that would be required to meet demands. The environmental effects of planned wastewater service expansion are identified as significant and unavoidable under project and cumulative conditions for Alternative 3.

Potential conflicts with Kiefer Landfill (Impact 4.12.5.1)

The Kiefer Landfill has a 2,000-foot buffer around the permitted footprint of the landfill, which was established with the recent expansion. Development under the proposed General Plan could be placed within this buffer and result in conflicts with landfill operations.

Alternative 3 would result in the same impact as the proposed General Plan that would be mitigated through proposed General Plan policies, action items and mitigation identified in Section 4.12 (Public Services and Utilities).

Visual Resources/Light and Glare

Alteration of visual character under project and cumulative conditions (Impact 4.13.3 and 4.13.5)

Implementation of the proposed General Plan would change the visual character of the Planning Area through intensification of urban uses within the existing city limits and introduction of urban uses within the Planning Area. This impact was identified as a significant and unavoidable impact under project and cumulative conditions.

Alternative 3 would result in a similar potential for visual impacts given the extent of urban development would be the same. This impact would be significant and unavoidable for Alternative 3.

ALTERNATIVE 4 – SACRAMENTO AREA COUNCIL OF GOVERNMENTS PREFERRED BLUEPRINT SCENARIO ALTERNATIVE

Characteristics

The Sacramento Area Council of Governments (SACOG) adopted its Preferred Blueprint Scenario ("Scenario C" or "Blueprint Plan") in December 2004. The Blueprint process is a regional vision to accommodate the projected growth and long-term needs of the region over the next 50 years. The Blueprint Plan is intended to guide land use and transportation choices through the year 2050, during which time the region's population is projected to grow from its current population of 2 million to over 3.8 million, and the number of jobs is projected to double, to nearly 1.9 million. The Blueprint Plan proposes a concentrated, compact development pattern in the region with a balance of employment, residential, shopping, and recreational uses linked to transportation system improvements. Based on the growth projections, SACOG has concluded that unless higher density developments are implemented, the region will consume an additional 400,000 acres under current development patterns.

This Alternative would be based on land uses designated by SACOG Preferred Blueprint Scenario for the Planning Area (see **Figure 6.0-4**). All other aspects of the proposed General Plan would remain under this Alternative (policy document and the proposed Roadway System Map). Buildout under this Alternative would result in approximately 143,091 residential dwelling units and an associated population of 329,110 as well as 235,913 jobs.

Comparative Impacts

Land Use

Conflicts with relevant land use plans, policies or regulations under project and cumulative conditions (Impact 4.1.3 and 4.1.5)

As noted in Section 4.1 (Land Use), implementation of the proposed General Plan would result in more intense urban uses (more residential units, commercial, office and industrial uses) than Sacramento County General Plan anticipated in the Planning Area outside of current City limits associated with the Mather, Jackson, Glenborough, Westborough, Grant Line South, Grant Line West and East Planning Areas. The existing Sacramento County General Plan designates these areas as Industrial, Agriculture and Recreation and was not intended to experience urban development until after year 2010 (if at all). Thus, this impact was identified as significant and unavoidable. Conflicts would also occur with the Mather Specific Plan and Mather Airport CLUP.

Given that the land use pattern under Alternative 4 is similar to the proposed General Plan, its impact would be the same.

Agriculture

Loss and conversion of agricultural land and project and cumulative conditions (Impact 4.2.1and 4.2.4)

As noted in Section 4.2 (Agriculture), implementation of the proposed General Plan Land Use Map would result in the conversion of approximately 1,392.50 acres of important farmland (225.65-acres of Prime Farmland and 890.9 acres of Farmland of Statewide Importance and 276.56 acres of Unique Farmland). This was identified as a significant and unavoidable impact under project and cumulative conditions.

Alternative 4 would result in similar impacts to important farmlands. However, this Alternative would preserve a portion of important farmland west of Sunrise Boulevard and south of S.R. 16. However, this impact would still be considered significant and unavoidable (even with application of mitigation measures identified in Section 4.2) for Alternative 4.

Agricultural/urban interface and Williamson Act contracts conflicts (Impact 4.2.2 and 4.2.3)

Implementation of the proposed City of Rancho Cordova General Plan Land Use Map would place urbanized land uses adjacent to and would replace existing agricultural uses. It is anticipated that as the City builds out, agriculture/urban interface conflicts may occur and result in cancellations of existing Williamson Act contracts. These impacts were identified as significant and unavoidable.

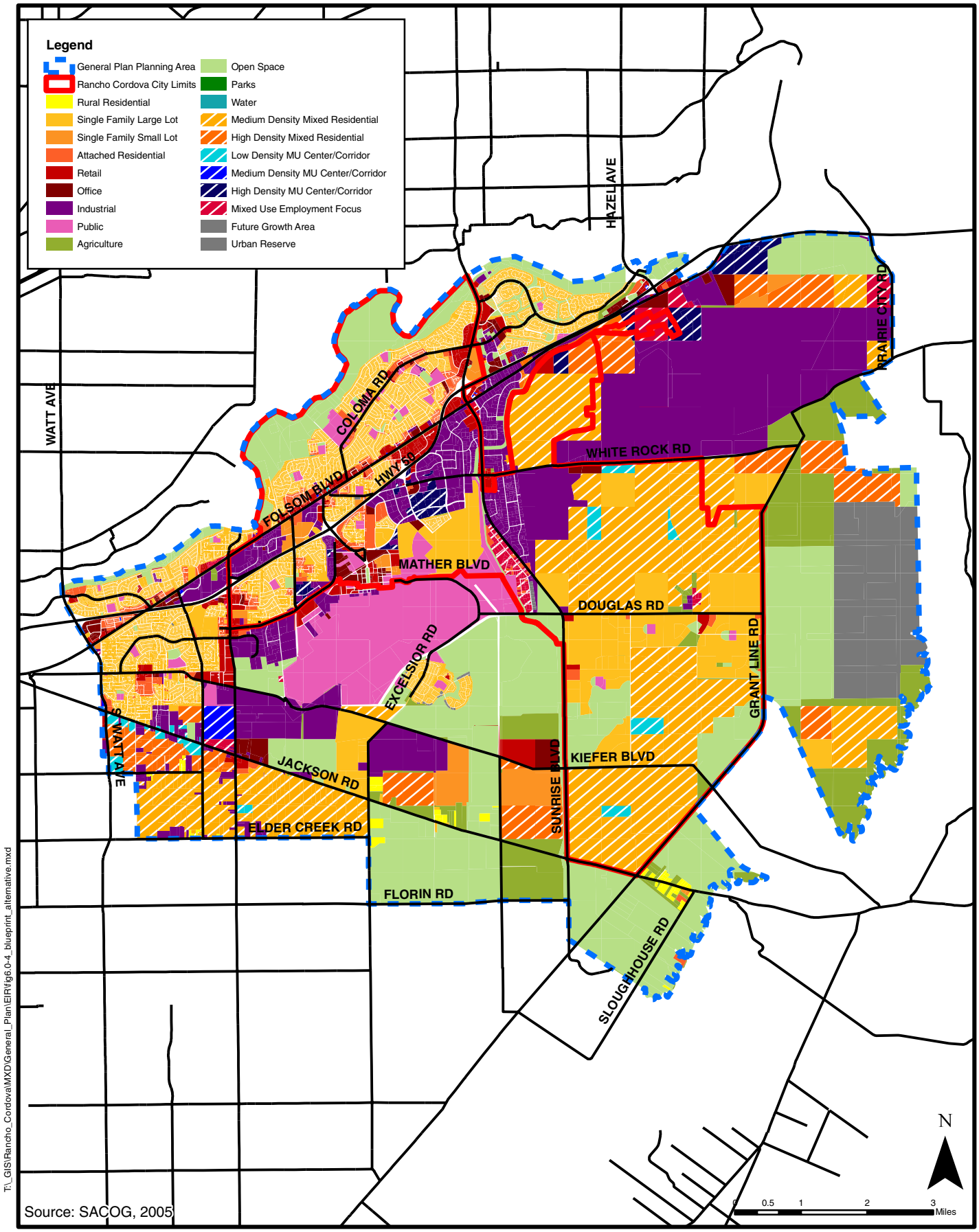
Implementation of Alternative 4 would result in similar, land use conflicts between urban/agricultural uses. However, this Alternative would retain Open Space and Agriculture land use designations in areas that would retain some Williamson Act contract lands east of Grant Line Road and south of S.R. 16. This impact would still be considered significant and unavoidable (even with application of mitigation measures identified in Section 4.2) for Alternative 4.

Population/Housing/Employment

Population, housing and employment increases under project and cumulative conditions (Impact 4.3.1 and 4.3.3)

At buildout under the proposed General Plan, a population of 310,241 persons, 126,241 housing units and 195,021 jobs are anticipated for the General Plan Planning Area. This represents substantial growth in the area and will have a significant physical effect on the environment. This was identified as a significant and unavoidable impact under project and cumulative conditions.

Alternative 4 could result in approximately 143,097 residential dwelling units and an associated population of 329,110 and 235,913 jobs in the Planning Area, which is similar in intensity as the proposed General Plan. Thus, this Alternative would result in similar impacts that are significant and unavoidable.



City of Rancho Cordova
Planning Department

Figure 6.0-4
Alternative 4 - Blueprint Scenario

Hazards and Human Health

Release and exposure to hazardous materials (Impact 4.4.2)

Implementation of the proposed General Plan with the proposed residential and non-residential uses would involve the storage, use, and transport of hazardous materials (e.g., jet fuel at Mather Airport, gasoline fuels, demolition materials, asphalt, lubricants, toxic solvents, pesticides and herbicides) during construction, demolition, and landscaping activities. In addition, certain commercial uses, including water treatment plants, swimming pool facilities, gas stations, and dry cleaners that store, use, and routinely transport hazardous material to and from their facilities could pose a potential hazard to the environment. Development of the Planning Area could also result in the exposure to existing contamination.

Implementation of Alternative 4 would result in similar potential for exposure to hazardous materials. This impact would be mitigated for Alternative 4 through utilization of policies, action items and mitigation identified for the proposed General Plan in Section 4.4 (Hazards and Human Health).

Transportation and Circulation

Impacts to roadway segments under project and cumulative conditions (Impact 4.5.1 and 4.5.6)

As noted in Section 4.5 (Transportation and Circulation), the proposed General Plan's significant and unavoidable level of service impacts consisted of the following roadway segments under the three analysis scenarios conducted. This impact was identified as significant and unavoidable under project and cumulative conditions.

- Folsom Boulevard - Mather Field Road to Coloma Road
- Mather Field Road - U.S. 50 Eastbound Ramps to International Drive
- Zinfandel Drive – U.S. 50 Eastbound Ramps to White Rock Road
- Sunrise Boulevard – Gold Country Boulevard to Coloma Road
- Sunrise Boulevard – Coloma Road to U.S. 50 Westbound Ramps
- Sunrise Boulevard – U.S. 50 Eastbound Ramps to Folsom Boulevard
- Sunrise Boulevard – Folsom Boulevard to White Rock Road
- Hazel Avenue – Winding Way to U.S. 50 Westbound Ramps
- Bradshaw Road – U.S. 50 to Old Placerville Road
- Bradshaw Road – Old Placerville Road to Kiefer Boulevard

Alternative 4 traffic impacts and general trip generation/distribution would generally be similar to the proposed General Plan (see **Table 4.5-7** and **4.5-8**) given the similar intensity and distribution of urban land uses and future roadway network. Thus, this Alternative would also result in significant and unavoidable impacts under project and cumulative conditions.

Impacts to freeway segments under project and cumulative conditions (Impact 4.5.2 and 4.5.6)

The proposed General Plan increases in traffic volumes to the highway would contribute to deficient operation of U.S. 50 (eastbound and westbound) from Folsom Boulevard to Bradshaw Road interchanges during a.m. and p.m. peak periods. This impact was identified as significant and unavoidable under project and cumulative conditions.

Alternative 4 traffic impacts and general trip generation/distribution would generally be similar to the proposed General Plan (see **Table 4.5-7** and **4.5-8**) given the similar intensity and

distribution of urban land uses and future roadway network. Thus, this Alternative would also result in significant and unavoidable impacts under project and cumulative conditions.

Air Quality

Air quality impacts under project and cumulative conditions (Impacts 4.6.1, 4.6.2, 4.6.3 and 4.6.6)

As identified in Section 4.6 (Air Quality), implementation of the proposed General Plan would result increased air pollutant emissions from construction and operational activities in the Planning Area. Under buildout conditions, uses in the Planning Area may produce 14,296.66 tons of ROG, 3,168.86 tons of NOx, and 8,420.85 tons of PM_{10} per year. As discussed under Impact 4.6.1, the increase in potential air pollutant emission sources in the Planning Area has the possibility to conflict with the Regional Ozone Attainment Plan, as well as exceed state and federal air quality thresholds. These impacts were identified as significant and unavoidable.

Implementation of Alternative 4 would result in increased emissions (approximately 16,298 tons of ROG, 3,613 tons of NOx, and 9,600 tons of PM_{10} per year under this Alternative). These emission levels would be considered significant (even with application of the proposed policies, action items and mitigation identified in Section 4.6 [Air Quality]).

Air toxic contaminant exposure under project and cumulative conditions (Impact 4.6.4 and 4.6.6)

Implementation of the proposed General Plan would include land uses that are potential sources of Toxic Air Contaminants (TACs) as well as exposure of sensitive land uses to mobile sources of TACs. This was identified as a significant and unavoidable impact.

Alternative 4 would have the same potential to include land uses that are potential sources of TACs as well as expose future sensitive land uses to mobile sources of TACs. Thus, this impact would be considered significant and unavoidable for this Alternative as well (even with the application of proposed policies, action items and mitigation identified in Section 4.6 [Air Quality]).

Possible exposure of sensitive receptors to odorous emissions (Impact 4.6.5)

Implementation of the proposed General Plan would allow for the development of uses that have the potential to produce odorous emissions either during the construction or operation of the development. Additionally, implementation of the proposed General Plan may allow for the construction of sensitive land uses (i.e. residential development, schools, parks, offices, etc.) near existing or future sources of odorous emissions, as specific land use designations are not yet determined for the Planning Area.

Alternative 4 would have the same potential to include land uses that have potential to produce odorous emissions or allow for the construction of sensitive land uses (i.e. residential development, schools, parks, offices, etc.) near existing or future sources of odorous emissions. This impact for Alternative 4 could be mitigated similar to the proposed General Plan through the application of proposed policies, action items and mitigation identified in Section 4.6 (Air Quality).

Noise

Construction noise impacts (Impact 4.7.1)

Construction activities associated with the buildout of the proposed General Plan would typically generate maximum noise levels ranging from 85 to 95 dB at a distance of 50 feet. Depending on the timing of the buildout of the General Plan planning areas, existing and future residents may be exposed to these excessive noise levels. This impact was identified as significant and unavoidable.

Alternative 4 would have the same potential for construction noise impacts and would be significant and unavoidable.

Traffic noise impacts under project and cumulative conditions (Impact 4.7.2 and 4.7.6)

Implementation of the proposed General Plan would result in increased traffic noise levels from additional vehicle traffic on existing and future roadways. Implementation of the proposed General Plan would also result in new noise-sensitive land uses throughout the Planning Area. This impact was identified as significant and unavoidable under project and cumulative conditions.

Implementation of Alternative 4 would result in similar traffic noise impacts as the proposed General Plan. Thus, this impact would be significant and unavoidable (under project and cumulative conditions) for Alternative 4 as well.

Stationary noise impacts under project and cumulative conditions (Impact 4.7.3 and 4.7.7)

Implementation of the proposed General Plan could result in the future development of land uses that generate noise levels in excess of applicable City of Rancho Cordova noise standards for non-transportation noise sources or expose new noise-sensitive land uses to existing excessive noise levels.

Implementation of Alternative 4 would result in similar stationary noise impacts as the proposed General Plan. Thus, this impact would be significant and unavoidable (under project and cumulative conditions) for Alternative 4 as well.

Mather Airport noise impacts (Impact 4.7.4)

The proposed General Plan has five planning areas affected by the existing Mather Airport CLUP boundaries and 60 to 65 dB CNEL contour ranges, including: Mather Planning Area; Jackson Planning Area; Sunrise Boulevard South Planning Area; Rio del Oro Planning Area; and the Aerojet Planning Area. The Rio del Oro Planning Area is the only planning area that proposes some residential uses within the 65 dB CNEL (where the noise contour curves to the south). Residential uses are not permitted in the 60 or 65 dB CNEL noise contour of the Mather Airport CLUP. However, it should be noted that the project site design for Rio del Oro was based on the proposed noise contours for Mather Airport and not the existing contours. Because the General Plan would locate noise-sensitive land uses (e.g., residential) within the 60 dB CNEL noise contours contained in the Mather Airport CLUP, this would be a significant impact if the current CLUP contours were considered accurate. These noise contours, however, have been proposed for revision as part of the development of the Mather Airport Master Plan, which is currently being prepared by the Sacramento County Airport System. The noise contours are being revised to account for existing and projected changes in aircraft operations that have occurred since development of the Mather Airport CLUP. The future land uses under the proposed General Plan would be exposed to excessive noise from single-event noise levels for aircraft overflights.

Alternative 4 would result in the same impact, given the proposed land uses for the Rio del Oro Planning Area would be similar to the proposed General Plan.

Geology and Soils

Soil stability (Impact 4.8.3)

Areas of the Planning Area could contain layers of highly expansive soils, which could pose development constraints under the proposed General Plan as structures or improvements constructed on expansive soils could suffer severe damage from the expansion.

Implementation of Alternative 4 would result in similar impacts as the proposed General Plan and could be mitigated through application of Mitigation Measure MM 4.8.3 identified for the proposed General Plan.

Mineral resource conflicts under project and cumulative conditions (Impact 4.8.5)

As noted in Section 4.8 (Geology and Soils), implementation of the proposed General Plan would convert areas identified to contain important mineral resources (aggregates) to urban uses and conflict with the Mineral Overlay Designations that are currently designated under the Sacramento County General Plan. This impact was identified as significant and unavoidable even with the application of mitigation measures.

Alternative 4 would have similar land uses as the proposed General Plan in these areas and would result in similar impact. However, Alternative 4 would retain the southwest corner of Sunrise Boulevard and S.R. 16 in an Agriculture land use designation that would protect this identified important mineral resource area from conversion. This impact would still be significant and unavoidable for this Alternative.

Hydrology and Water Quality

Surface water quality impacts under project and cumulative conditions (Impacts 4.9.2 and 4.9.5)

Implementation of the proposed General Plan would consist of new development that includes construction, residential, commercial, recreation, and landscaping practices that could potentially impact water quality. Approximately 18,142 acres within the City and 47,074 acres of the entire the Planning Area (including the City) are anticipated to be disturbed and altered with urban levels of development at buildout.

Implementation of Alternative 4 would result in similar water quality impacts given the extent of urban development would be same. Implementation of proposed policies, action items and mitigation identified in Section 4.9 (Hydrology and Water Quality) would mitigate this impact for Alternative 4.

Groundwater quality impacts under project and cumulative conditions (Impact and 4.9.3 and 4.9.5)

Development of the Planning Area under the proposed General Plan could generate runoff containing oils, grease, fuel, antifreeze, byproducts of combustion (such as lead, cadmium, nickel, and other metals), household pollutants, nutrients (i.e., fertilizers), and other chemicals from landscaped areas. These pollutants could potentially contaminate groundwater conditions (if not properly treated with water quality controls).

Implementation of Alternative 4 would result in a similar potential for water quality impacts given the extent of urban development would be same. Implementation of proposed policies, action items and mitigation identified in Section 4.9 (Hydrology and Water Quality) would mitigate this impact for Alternative 4.

Increased water supply demand impacts under project and cumulative conditions (Impact 4.9.4 and 4.9.7)

As identified under Impact 4.9.4, buildout under the proposed General Plan water supply demands (approximately 128,709 acre-feet annually) would exceed currently available water supply sources as well as contribute to significant and unavoidable environmental effects associated with planned major water supply infrastructure projects.

Water demands associated with Alternative 4 would be increased (up to approximately 146,728 acre-feet annually). This water demand would be outside of currently identified available water sources in the Planning Area (approximately 77,620 acre-feet annually), and would also contribute to the significant and unavoidable environmental effects associated with planned major water supply infrastructure projects. Thus, this impact would be significant and unavoidable for Alternative 4 under project and cumulative conditions.

Biological Resources

Impacts to endangered, threatened, and other listed species under project and cumulative conditions (Impact 4.10.1 and 4.10.8)

Suitable habitat for plant and animal species listed as endangered, threatened, rare, proposed, candidate, or List 1B (collectively referred to in this EIR as "listed species" is found within the Planning Area. Development under the proposed General Plan would directly and indirectly impact such habitat. Most direct impacts would occur from development of large areas of generally undeveloped land in the southern half of the Planning Area. However, additional impacts would occur from infill development and redevelopment in the City's center and northern portions. This impact was identified as significant and unavoidable under project and cumulative conditions.

Alternative 4 would result in similar impacts as the proposed General Plan given the extent of urban development and habitat area impacted would be similar. This impact is considered significant and unavoidable for Alternative 4 (even with implementation of the proposed policies, action items and mitigation identified in Section 4.10 [Biological Resources]).

Impacts to species of concern and other non-listed special status species under project and cumulative conditions (Impact 4.10.2 and 4.10.8)

In addition to the 28,581.0 acres of habitat for listed species that may be directly impacted by development under the proposed General Plan Land Use Map (see Impact 4.10.1), an additional 11,269.6 acres of high density development cover type, 435.7 acres of low density development type and 10,275.0 acres of the mine tailings cover type could be potentially impacted. Non-listed special status species have been found in both of these cover types and could also be directly and indirectly impacted. This impact was identified as significant and unavoidable under project and cumulative conditions.

Alternative 4 would result in similar impacts as the proposed General Plan given the extent of urban development and habitat area impacted would be similar. This impact is considered

significant and unavoidable for Alternative 4 (even with implementation of the proposed policies, action items and mitigation identified in Section 4.10 [Biological Resources]).

Loss of habitat under project and cumulative conditions (Impact 4.10.3 and 4.10.8)

Wetlands, riparian corridors, as well as large areas of open grassland and other suitable foraging habitat for special-status bird species found within the Planning Area, also provide important habitat for a non-listed special status species as well common wildlife including variety of shore birds, waterfowl, and migratory passerines. Additionally, some mammal species such as coyote and black-tailed hare utilize these cover types as forage and denning habitat. Implementation of the General Plan, specifically development in line with the proposed General Plan as well as construction and improvement of roadways identified in the proposed Circulation Element could result in the loss of this habitat, causing a significant impact to occur. This impact was identified as significant and unavoidable under project and cumulative conditions.

Alternative 4 would result in similar impacts as the proposed General Plan given the extent of urban development and habitat area impacted would be similar. This impact is considered significant and unavoidable for Alternative 4 (even with implementation of the proposed policies, action items and mitigation identified in Section 4.10 [Biological Resources]).

Direct and indirect impacts to jurisdictional waters under project and cumulative conditions (Impact 4.10.4 and 4.10.8)

Implementation of the proposed General Plan, specifically development identified in the General Plan Land Use Map and roadway construction and improvement identified in the Circulation Element could result in direct and indirect impacts to jurisdictional waters within the Planning Area. Improvements identified in proposed General Plan roadway improvements (see **Figure 3.0-19**) could impact as much as 120.5 acres of vernal pools, 27.50 acres of fresh water marsh, 11.4 acres of open water, 478.90 acres of streams, and 60.70 acres of aqueduct. This impact was identified as significant and unavoidable under project and cumulative conditions.

Alternative 4 would result in similar impacts as the proposed General Plan given the extent of urban development and habitat area impacted (including areas containing jurisdictional waters) would be similar. This impact is considered significant and unavoidable for Alternative 4 (even with implementation of the proposed policies, action items and mitigation identified in Section 4.10 [Biological Resources]).

Effects on wildlife movement corridors under project and cumulative conditions (Impact 4.10.5 and 4.10.8)

Large complexes of ephemeral drainage, such as those that feed Morrison Creek and Laguna Creek, exist within the Planning Area. Ephemeral Drainage provides key movement corridors for both migratory and local species of wildlife. Streams themselves also provide major movement corridors for species in the Planning Area. Major streams found in the Planning Area include the Alder, Buffalo, Morrison, Laguna, Frye and Elder Creeks. Corridors provided by these streams and drainages provide important routes for species moving through the area as well as local species that use these corridors to spread to new habitat, to mate, and to disperse genetic material. Large riparian areas such as the American River Parkway and the Consumnes River provide movement corridors as well. In addition to ephemeral drainages, streams, and rivers, large areas of undeveloped land such as those found in the southern half of the Planning Area provide habitat and cover for other species moving through the area and between habitats within the Planning Area. Large-scale development of the Planning Area identified in the proposed General Plan could isolate these areas from one another and adversely impact these areas and movement corridors. Additionally, construction of roadways and improvement of existing roadways as identified in the proposed Circulation Element could sever and/or further sever connections between habitats and cover types in the Planning Area. Roadway improvement and construction also could negatively impact ephemeral drainages and jurisdictional waters of the U.S. Engineered drainages, such as those that would result from proposed roadway improvement and construction, have been shown to reduce opportunities for some species' movement. This impact was identified as significant and unavoidable under project and cumulative conditions.

Alternative 4 would result in similar impacts as the proposed General Plan given the extent of urban development and habitat area impacted would be similar. This impact is considered significant and unavoidable for Alternative 4 (even with implementation of the proposed policies, action items and mitigation identified in Section 4.10 [Biological Resources]).

Loss of trees under project and cumulative conditions (Impact 4.10.6 and 4.10.8)

While large portions of the Planning Area, including those undeveloped areas in the southern half of the City, do not contain large numbers of trees, many other areas of the Planning Area do include many trees that are not special-status species but still provide many benefits to species in the area. Urban trees are a major source of nesting habitat for local bird species. In addition to providing forage, shelter, cover, and other habitat for many bird and mammal species, trees have other benefits for the City including aesthetic impacts due to the removal of large stands of trees. Trees also provide shade and stabilize the soil. Additionally, many native trees such as blue oak and California sycamore are found in stands of and would be adversely impacted by the removal of surrounding trees. There is currently an estimated 246 acres of blue oak woodland, 76 acres of blue oak savannah, 132 acres of cottonwood woodland, and 50 acres of valley oak riparian woodland in the Planning Area. This impact was identified as significant and unavoidable under project and cumulative conditions.

Alternative 4 would result in similar impacts as the proposed General Plan given the extent of urban development and habitat area impacted would be similar. This impact is considered significant and unavoidable for Alternative 4 (even with implementation of the proposed policies, action items and mitigation identified in Section 4.10 [Biological Resources]).

Cultural and Paleontological Resources

Impacts to prehistoric resources, historic resources, and human remains under project and cumulative conditions (Impact 4.11.1 and 4.11.3)

Implementation of the proposed General Plan roadway improvements is expected to result in significant impacts to at least one known historic resource site considered as potentially eligible under the National Register of Historic Places in the Rio del Oro Planning Area. Development under the City of Rancho Cordova General Plan would cause a substantial adverse impact on the significance of known cultural resources, and could also adversely impact undiscovered cultural resources and/or human remains. This impact was identified as significant and unavoidable under project and cumulative conditions.

Implementation of Alternative 4 would result in a similar potential for similar impacts given the extent of urban development would be same. This impact is considered significant and unavoidable for Alternative 4 (even with implementation of the proposed policies, action items identified in Section 4.11 [Cultural and Paleontological Resources]).

Impacts to paleontological resources under project and cumulative conditions (Impact 4.11.2 and 4.11.4)

A search of the University of California, Berkeley Museum of Paleontology collections database did not identify any evidence of the existence of paleontological resources or potential in the Planning Area. Development under the proposed General Plan could impact undiscovered paleontological resources, though the likelihood of such paleontological resources existing in the Planning Area is considered low. This impact was identified significant and mitigatable.

Implementation of Alternative 4 would result in a similar potential for impacts given the extent of urban development would be the same. This impact would be mitigated through the implementation of the proposed policies, action items and mitigation identified in Section 4.11 (Cultural and Paleontological Resources) for Alternative 4.

Public Services and Utilities

Water supply infrastructure under project and cumulative conditions (Impact 4.12.3.1 and 4.12.3.2)

Buildout of the proposed General Plan would require timely expansion of these facilities in order to maintain adequate service and meet projected water supply demands (approximately 128,709 acre-feet annually). These water supply distribution improvements would result in environmental effects to support General Plan and other regional growth. The environmental effects of water supply expansion and improvements have been considered in SCWA Zone 40 Water Supply Master Plan EIR, Water Forum Agreement EIR, and Sunrise Douglas Community Plan and the Sun Ridge Specific Plan EIR, which have identified significant and unavoidable effects of developing water supplies.

Water demands associated with Alternative 4 would be increased (up to approximately 146,728 acre-feet annually). This water demand would not be within currently identified available water sources in the Planning Area (approximately 77,620 acre-feet annually), and would contribute to the significant and unavoidable environmental effects associated with planned major water supply infrastructure projects. Thus, this impact would be significant and unavoidable for Alternative 4 under project and cumulative conditions.

Wastewater conveyance and treatment under project and cumulative conditions (Impact 4.12.4.1 and 4.12.4.2)

Implementation of the proposed General Plan would allow for increased development which would require improvements and modifications to existing SRCSD and CSD-1 facilities and require new wastewater conveyance infrastructure including collectors, trunks and interceptor sewer lines and appurtenances. Wastewater flow estimates and ultimate buildout wastewater demands are calculated using equivalent single family dwelling units (ESDs) per acre, with one ESD representing the effluent generated by one single family residence. The ESD projections are used to determine the located and capacity of future wastewater conveyance facilities and trunk sheds. Projected wastewater generation rates by year 2030 are estimated to be 36.5 mgd and under buildout conditions 42.2 mgd. This service demand would result significant environmental impacts that are anticipated as part of planned wastewater infrastructure expansion (Sacramento Regional Wastewater Treatment Plant 2020 Master Plan Final EIR, CSD-1 Sewerage Facilities Expansion Master Plan Final EIR and Sacramento Regional County Sanitation District Interceptor Master Plan 2000, Final Program EIR) as well as additional infrastructure expansion required to serve proposed General Plan development wastewater demands not currently planned for by SRCSD and CSD-1. These environmental effects of wastewater service expansion are identified as significant and unavoidable under project and cumulative conditions.

Wastewater service demands associated with Alternative 4 would be increased (approximately 48.1 mgd of wastewater generation). This service demand would also result in significant environmental impacts that are anticipated as part of planned wastewater infrastructure expansion as well as further wastewater infrastructure expansion not currently planned that would be required to meet demands. The environmental effects of planned wastewater service expansion are identified as significant and unavoidable under project and cumulative conditions for Alternative 4.

Potential conflicts with Kiefer Landfill (Impact 4.12.5.1)

The Kiefer Landfill has a 2,000-foot buffer around the permitted footprint of the landfill, which was established with the recent expansion. Development under the proposed General Plan could be placed within this buffer and result in conflicts with landfill operations.

Alternative 4 could result in the similar impact as the proposed General Plan that would be mitigated through proposed General Plan policies, action items and mitigation identified in Section 4.12 (Public Services and Utilities). However, this Alternative would include an additional open space buffer north and southwest of the landfill site.

Visual Resources/Light and Glare

Alteration of visual character under project and cumulative conditions (Impact 4.13.3 and 4.13.5)

Implementation of the proposed General Plan would change the visual character of the Planning Area through intensification of urban uses within the existing city limits and introduction of urban uses within the Planning Area. This impact was identified as a significant and unavoidable impact under project and cumulative conditions.

Alternative 4 would result in a similar potential for visual impacts given the extent of urban development would be the same. This impact would be significant and unavoidable for Alternative 4.

6.3 CONSISTENCY WITH PROJECT OBJECTIVES

The following are the overall objectives of the General Plan based on the City of Rancho Cordova Vision Book, Revised Draft Land Use Map Book and the proposed General Plan:

- Establish the City of Rancho Cordova as a vibrant destination place in the region.
- Proactively seek beneficial changes in land use and the scope of the City's operations.
- Obtain measurable fiscal success for the City from the implementation of its General Plan.
- Plan for a balanced mix and integration of land uses that will make Rancho Cordova a desirable place to live, work and play.
- Implement a land use strategy for the Planning Area that generally reflects the types of intensity of Sacramento Council of Government's Blueprint Scenario C. Blueprint Scenario C, through a land use plan that intensifies development within Sacramento County's Urban Service Boundary, uses Smart Growth Principles that make efficient use of land use to accommodate anticipated growth, encourages use of non-automobile transportation opportunities (walking, bicycling and transit use), provides residential uses in close proximity to jobs and services and balances land uses. Preserve and minimize impacts to the Planning Area's natural resources in balance with the implementation of Smart Growth Principles.
- Provide improved transportation and connection through the City by improved roadway facilities, enhanced pedestrian and bicycle facilities and trails and the expansion of various forms of transit throughout the City and Planning Area.

ALTERNATIVE 1 - SACRAMENTO COUNTY GENERAL PLAN ALTERNATIVE

Alternative 1 would not be consistent with the several of the project objectives because it would not result in the provision of land uses that provide for "destinations" that are currently identified in the proposed General Plan (e.g., Downtown Planning Area, Convention Overlay, and provision of districts and centers [local town, transit-oriented and regional] – see Section 3.0 [Project Description]). This Alternative would also not be consistent with the SACOG's Blueprint Scenario C to accommodate projected growth in the area (thus resulting in growth displacement) or provide for improved transportation connection through the City and Planning Area (roadway, transit, pedestrian and bicycle enhancements).

ALTERNATIVE 2 – EXISTING CITY BOUNDARY GENERAL PLAN ALTERNATIVE

Alternative 2 would be consistent with project objectives associated with the provision of "destinations" within the City (e.g., Downtown Planning Area, Convention Overlay, and provision of districts and town centers – see Section 3.0 [Project Description]). This Alternative would also be partially consistent with the SACOG's Blueprint Scenario C and would provide for improved connection through the City (roadway, transit, pedestrian and bicycle enhancements). However, Alternative 2 would not implement a complete land use strategy consistent with SACOG's Blueprint Scenario C because the Planning Area outside of the City would remain under Sacramento County General Plan land use designations that are not consistent with Scenario C (thus resulting in growth displacement). In addition, this Alternative would limit transportation connection through the City and Planning Area (roadway, transit, pedestrian and

bicycle enhancements) in the areas of the Mather Planning Area and Aerojet Planning Area as compared to the proposed General Plan.

ALTERNATIVE 3 – NATURAL RESOURCES CONSERVATION ALTERNATIVE

Alternative 3 would generally meet most of the project objectives as well as provide for additional conservation of natural resources in the Planning Area. However, this Alternative would reallocate and relocate proposed General Plan development intensities throughout the City and Planning Area that would significantly impact the viability of designated "center" (local town, transit-oriented and regional) locations, especially in the East, Grant Line South and Jackson Planning Areas (see **Figures 6.0-3a** through **6.0-3h**). As noted in Section 3.0 (Project Description), one of the key visions of the proposed General Plan is the City "Building Blocks" – a system of neighborhoods, villages, and districts served by a range of "centers" that establish a more walkable, sustainable community. Each building block type is characterized by different levels and intensities of development that contribute to a greater City. These Building Blocks serve as the foundation for all new development/redevelopment and contribute to the overall function and character of the City.

ALTERNATIVE 4 – SACRAMENTO AREA COUNCIL OF GOVERNMENTS PREFERRED BLUEPRINT SCENARIO ALTERNATIVE

Alternative 4 would meet project objectives associated with implementing a complete land use strategy consistent with SACOG's Blueprint Scenario C as well as providing for improved connection through the City and Planning Area (roadway, transit, pedestrian and bicycle enhancements). However, this Alternative would not provide for "destinations" that are currently identified in the proposed General Plan (e.g., Downtown Planning Area, Convention Overlay, and provision of districts and centers [local town, transit-oriented and regional] – see Section 3.0 [Project Description]).

6.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Section 15326(d)(2) of the State CEQA Guidelines indicates that, if the No Project Alternative is the "environmentally superior" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. **Table 6.0-1** provides a comparison of each of the project alternatives on an environmental topic-by-topic basis. Based on the foregoing analysis, Alternative 1 (Sacramento County General Plan Alternative) is considered the environmentally superior alternative. However, Alternative 1 is not consistent with the several of the project objectives. As indicated in **Table 6.0-1**, the Existing City Boundary General Plan Alternative (Alternative 2) and the Natural Resources Conservation Alternative are also considered environmentally superior to the proposed General Plan, but it also pose potential conflicts with the project objectives.

TABLE 6.0-1
COMPARISON OF PROJECT ALTERNATIVES TO THE PROPOSED GENERAL PLAN

Environmental Categories	Proposed General Plan (Impact Significance)	Sacramento County General Plan – Alternative Alternative 1 (Impact Significance)	Existing City Boundary General Plan Alternative - Alternative 2 (Impact Significance)	Natural Resources Conservation Alternative - Alternative 3 (Impact Significance)	SACOG Preferred Blueprint Scenario Alternative - Alternative 4 (Impact Significance)
Land Use	**Project Impacts**	**B**	**B**	**S**	**S**
Conflicts with relevant land use plans, policies or regulations under project and cumulative conditions (Impact 4.1.3 and 4.1.5)	Conflicts with relevant land use plans, policies or regulations under project and cumulative conditions. (S)	Alternative 1 would retain existing Sacramento County General Plan land use designations and policy provisions for these areas and would avoid this significant impact. (LTS)	Alternative 2 would retain existing Sacramento County General Plan land use designations in the Mather Planning Area. (S)	Conflicts with relevant land use plans, policies or regulations under project and cumulative conditions (S)	Conflicts with relevant land use plans, policies or regulations under project and cumulative conditions (S)
Level of Significance After Mitigation	SUI	LTS	SUI	SUI	SUI
Agriculture	**Project Impacts**	**B**	**B**	**B**	**B**
Loss and conversion of agricultural land and project and cumulative conditions (Impact 4.2.1and 4.2.4)	Loss and conversion of agricultural land and project and cumulative conditions (S)	Loss and conversion of agricultural land and project and cumulative conditions (S)	Loss and conversion of agricultural land and project and cumulative conditions (S)	Loss and conversion of agricultural land and project and cumulative conditions (S)	Loss and conversion of agricultural land and project and cumulative conditions (S)
Level of Significance After Mitigation	SUI	SUI	SUI	SUI	SUI
Agricultural/urban interface and Williamson Act contracts conflicts (Impact 4.2.2 and 4.2.3)	Agricultural/urban interface and Williamson Act contracts conflicts (S)	Agricultural/urban interface and Williamson Act contracts conflicts (S)	Agricultural/urban interface and Williamson Act contracts conflicts (S)	Agricultural/urban interface and Williamson Act contracts conflicts (S)	Agricultural/urban interface and Williamson Act contracts conflicts (S)
Level of Significance After Mitigation	SUI	SUI	SUI	SUI	SUI

Environmental Categories	Proposed General Plan (Impact Significance)	Sacramento County General Plan – Alternative Alternative 1 (Impact Significance)	Existing City Boundary General Plan Alternative - Alternative 2 (Impact Significance)	Natural Resources Conservation Alternative - Alternative 3 (Impact Significance)	SACOG Preferred Blueprint Scenario Alternative - Alternative 4 (Impact Significance)
Pop/Housing	**Project Impacts**	**B/W**	**B/W**	**S**	**W**
Population, housing and employment increases under project and cumulative conditions (Impact 4.3.1 and 4.3.3)	Population, housing and employment increases under project and cumulative conditions (S)	Population, housing and employment increases under project and cumulative conditions. 37,940 fewer dwelling units and 70,898 fewer jobs than Proposed General Plan Would not fully accommodate the growth anticipated in the area identified in SACOG Blueprint, which would result in the displacement of this growth to other areas in the region (S)	Population, housing and employment increases under project and cumulative conditions. 47,464 fewer dwelling units and 8,084 fewer jobs than Proposed General Plan Would not fully accommodate the growth anticipated in the area identified in SACOG Blueprint, which would result in the displacement of this growth to other areas in the region. (S)	Population, housing and employment increases under project and cumulative conditions. 5,578 fewer dwelling units and 5,174 fewer jobs than Proposed General Plan (S)	Population, housing and employment increases under project and cumulative conditions. 16,856 more dwelling units and 40,892 more jobs than Proposed General Plan (S)
Level of Significance After Mitigation	SUI	SUI	SUI	SUI	SUI
Hazards	**Project Impacts**	**B**	**B**	**S**	**S**
Release and exposure to hazardous materials (Impact 4.4.2)	Release and exposure to hazardous materials (S)	Release and exposure to hazardous materials (S)	Release and exposure to hazardous materials (S)	Release and exposure to hazardous materials (S)	Release and exposure to hazardous materials (S)
Level of Significance After Mitigation	LTS	LTS	LTS	LTS	LTS

Environmental Categories	Proposed General Plan (Impact Significance)	Sacramento County General Plan – Alternative Alternative 1 (Impact Significance)	Existing City Boundary General Plan Alternative - Alternative 2 (Impact Significance)	Natural Resources Conservation Alternative - Alternative 3 (Impact Significance)	SACOG Preferred Blueprint Scenario Alternative - Alternative 4 (Impact Significance)
Traffic	Project Impacts	S	W	S	S
Impacts to roadway segments under project and cumulative conditions (Impact 4.5.1 and 4.5.6)	Impacts to roadway segments under project and cumulative conditions (S)	Impacts to roadway segments under project and cumulative conditions (S)	Impacts to roadway segments under project and cumulative conditions (S)	Impacts to roadway segments under project and cumulative conditions (S)	Impacts to roadway segments under project and cumulative conditions (S)
Level of Significance After Mitigation	SUI	SUI	SUI	SUI	SUI
Impacts to freeway segments under project and cumulative conditions (Impact 4.5.2 and 4.5.6)	Impacts to freeway segments under project and cumulative conditions (S)	Impacts to freeway segments under project and cumulative conditions (S)	Impacts to freeway segments under project and cumulative conditions (S)	Impacts to freeway segments under project and cumulative conditions (S)	Impacts to freeway segments under project and cumulative conditions (S)
Level of Significance After Mitigation	SUI	SUI	SUI	SUI	SUI
Air Quality	Project Impacts	B	B	B	W
Air quality impacts under project and cumulative conditions (Impacts 4.6.1, 4.6.2, 4.6.3 and 4.6.6)	Air quality impacts under project and cumulative conditions (S)	Air quality impacts under project and cumulative conditions. 33 percent reduction in air pollutant emissions as compared to the proposed General Plan (S)	Air quality impacts under project and cumulative conditions. 38 percent reduction in air pollutant emissions as compared to the proposed General Plan (S)	Air quality impacts under project and cumulative conditions. 3 percent reduction in air pollutant emissions as compared to the proposed General Plan (S)	Air quality impacts under project and cumulative conditions. Increased air pollutant emissions as compared to the proposed General Plan (S)
Level of Significance After Mitigation	SUI	SUI	SUI	SUI	SUI

Environmental Categories	Proposed General Plan (Impact Significance)	Sacramento County General Plan – Alternative Alternative 1 (Impact Significance)	Existing City Boundary General Plan Alternative - Alternative 2 (Impact Significance)	Natural Resources Conservation Alternative - Alternative 3 (Impact Significance)	SACOG Preferred Blueprint Scenario Alternative - Alternative 4 (Impact Significance)
Air toxic contaminant exposure under project and cumulative conditions (Impact 4.6.4 and 4.6.6)	Air toxic contaminant exposure under project and cumulative conditions (S)	Air toxic contaminant exposure under project and cumulative conditions (S)	Air toxic contaminant exposure under project and cumulative conditions (S)	Air toxic contaminant exposure under project and cumulative conditions (S)	Air toxic contaminant exposure under project and cumulative conditions (S)
Level of Significance After Mitigation	SUI	SUI	SUI	SUI	SUI
Possible exposure of sensitive receptors to odorous emissions (Impact 4.6.5)	Possible exposure of sensitive receptors to odorous emissions (S)	Possible exposure of sensitive receptors to odorous emissions (S)	Possible exposure of sensitive receptors to odorous emissions (S)	Possible exposure of sensitive receptors to odorous emissions (S)	Possible exposure of sensitive receptors to odorous emissions (S)
Level of Significance After Mitigation	LTS	LTS	LTS	LTS	LTS
Noise	**Project Impacts**	**B**	**B**	**S**	**S**
Construction noise impacts (Impact 4.7.1)	Construction noise impacts (S)	Construction noise impacts Plan (S)	Construction noise impacts (S)	Construction noise impacts (S)	Construction noise impacts (S)
Level of Significance After Mitigation	SUI	SUI	SUI	SUI	SUI
Traffic noise impacts under project and cumulative conditions (Impact 4.7.2 and 4.7.6)	Traffic noise impacts under project and cumulative conditions (S)	Traffic noise impacts under project and cumulative conditions (S)	Traffic noise impacts under project and cumulative conditions (S)	Traffic noise impacts under project and cumulative conditions (S)	Traffic noise impacts under project and cumulative conditions (S)
Level of Significance After Mitigation	SUI	SUI	SUI	SUI	SUI

Environmental Categories	Proposed General Plan (Impact Significance)	Sacramento County General Plan – Alternative Alternative 1 (Impact Significance)	Existing City Boundary General Plan Alternative - Alternative 2 (Impact Significance)	Natural Resources Conservation Alternative - Alternative 3 (Impact Significance)	SACOG Preferred Blueprint Scenario Alternative - Alternative 4 (Impact Significance)
Stationary noise impacts under project and cumulative conditions (Impact 4.7.3 and 4.7.7)	Stationary noise impacts under project and cumulative conditions (S)	Stationary noise impacts under project and cumulative conditions (S)	Stationary noise impacts under project and cumulative conditions (S)	Stationary noise impacts under project and cumulative conditions (S)	Stationary noise impacts under project and cumulative conditions (S)
Level of Significance After Mitigation	SUI	SUI	SUI	SUI	SUI
Mather Airport noise impacts (Impact 4.7.4)	Mather Airport noise impacts (S)	Mather Airport noise impacts are avoided (LTS)	Mather Airport noise impacts (S)	Mather Airport noise impacts (S)	Mather Airport noise impacts (S)
Level of Significance After Mitigation	SUI	LTS	LTS	SUI	SUI
Geology and Soils	**Project Impacts**	**B**	**B**	**S**	**B**
Soil stability (Impact 4.8.3)	Soil stability (S)	Soil stability (S)	Soil stability (S)	Soil stability (S)	Soil stability (S)
Level of Significance After Mitigation	LTS	LTS	LTS	LTS	LTS
Mineral resource conflicts under project and cumulative conditions (Impact 4.8.5)	Mineral resource conflicts under project and cumulative conditions (S)	Mineral resource conflicts under project and cumulative conditions avoided (LTS)	Mineral resource conflicts under project and cumulative conditions avoided (LTS)	Mineral resource conflicts under project and cumulative conditions (S)	Mineral resource conflicts under project and cumulative conditions (S)
Level of Significance After Mitigation	SUI	LTS	LTS	SUI	SUI

Environmental Categories	Proposed General Plan (Impact Significance)	Sacramento County General Plan – Alternative Alternative 1 (Impact Significance)	Existing City Boundary General Plan Alternative - Alternative 2 (Impact Significance)	Natural Resources Conservation Alternative - Alternative 3 (Impact Significance)	SACOG Preferred Blueprint Scenario Alternative - Alternative 4 (Impact Significance)
Hydrology and Water Quality	**Project Impacts**	**B**	**B**	**B**	**W**
Surface water quality impacts under project and cumulative conditions (Impacts 4.9.2 and 4.9.5)	Surface water quality impacts under project and cumulative conditions (S)	Surface water quality impacts under project and cumulative conditions (S)	Surface water quality impacts under project and cumulative conditions (S)	Surface water quality impacts under project and cumulative conditions (S)	Surface water quality impacts under project and cumulative conditions (S)
Level of Significance After Mitigation	LTS	LTS	LTS	LTS	LTS
Groundwater quality impacts under project and cumulative conditions (Impact and 4.9.3 and 4.9.5)	Groundwater quality impacts under project and cumulative conditions (S)	Groundwater quality impacts under project and cumulative conditions (S)	Groundwater quality impacts under project and cumulative conditions (S)	Groundwater quality impacts under project and cumulative conditions (S)	Groundwater quality impacts under project and cumulative conditions (S)
Level of Significance After Mitigation	LTS	LTS	LTS	LTS	LTS
Increased water supply demand impacts under project and cumulative conditions (Impact 4.9.4 and 4.9.7)	Increased water supply demand impacts under project and cumulative conditions. 128,709 acre-feet annually of water demand (S)	Increased water supply demand impacts under project and cumulative conditions. 77,200 acre-feet annually of water demand (S)	Increased water supply demand impacts under project and cumulative conditions. 63,030 acre-feet annually of water demand (S)	Increased water supply demand impacts under project and cumulative conditions. 124,850 acre-feet annually of water demand (S)	Increased water supply demand impacts under project and cumulative conditions. 146,728 acre-feet annually of water demand (S)
Level of Significance After Mitigation	SUI	SUI	SUI	SUI	SUI

Environmental Categories	Proposed General Plan (Impact Significance)	Sacramento County General Plan – Alternative Alternative 1 (Impact Significance)	Existing City Boundary General Plan Alternative - Alternative 2 (Impact Significance)	Natural Resources Conservation Alternative - Alternative 3 (Impact Significance)	SACOG Preferred Blueprint Scenario Alternative - Alternative 4 (Impact Significance)
Biological Resources	**Project Impacts**	**B**	**B**	**B**	**S**
Impacts to endangered, threatened, and other listed species under project and cumulative conditions (Impact 4.10.1 and 4.10.8)	Impacts to endangered, threatened, and other listed species under project and cumulative conditions (S)	Impacts to endangered, threatened, and other listed species under project and cumulative conditions. Reduced land use intensity in land areas outside of current City boundaries reduces habitat impact as compared to the proposed General Plan (S)	Impacts to endangered, threatened, and other listed species under project and cumulative conditions. Reduced land use intensity in land areas outside of current City boundaries reduces habitat impact as compared to the proposed General Plan (S)	Impacts to endangered, threatened, and other listed species under project and cumulative conditions. Modified land use plans for land areas outside of current City boundaries avoids more habitat as compared to the proposed General Plan (S)	Impacts to endangered, threatened, and other listed species under project and cumulative conditions (S)
Level of Significance After Mitigation	SUI	SUI	SUI	SUI	SUI
Impacts to species of concern and other non-listed special status species under project and cumulative conditions (Impact 4.10.2 and 4.10.8)	Impacts to species of concern and other non-listed special status species under project and cumulative conditions (S)	Impacts to species of concern and other non-listed special status species under project and cumulative conditions. Reduced land use intensity in land areas outside of current City boundaries reduces habitat impact as compared to the proposed General Plan (S)	Impacts to species of concern and other non-listed special status species under project and cumulative conditions. Reduced land use intensity in land areas outside of current City boundaries reduces habitat impact as compared to the proposed General Plan (S)	Impacts to species of concern and other non-listed special status species under project and cumulative conditions. Modified land use plans for land areas outside of current City boundaries avoids more habitat as compared to the proposed General Plan (S)	Impacts to species of concern and other non-listed special status species under project and cumulative conditions (S)

Environmental Categories	Proposed General Plan (Impact Significance)	Sacramento County General Plan – Alternative Alternative 1 (Impact Significance)	Existing City Boundary General Plan Alternative - Alternative 2 (Impact Significance)	Natural Resources Conservation Alternative - Alternative 3 (Impact Significance)	SACOG Preferred Blueprint Scenario Alternative - Alternative 4 (Impact Significance)
Level of Significance After Mitigation	SUI	SUI	SUI	SUI	SUI
Loss of habitat under project and cumulative conditions (Impact 4.10.3 and 4.10.8)	Loss of habitat under project and cumulative conditions (S)	Loss of habitat under project and cumulative conditions. Reduced land use intensity in land areas outside of current City boundaries reduces habitat impact as compared to the proposed General Plan (S)	Loss of habitat under project and cumulative conditions. Reduced land use intensity in land areas outside of current City boundaries reduces habitat impact as compared to the proposed General Plan (S)	Loss of habitat under project and cumulative conditions. Modified land use plans for land areas outside of current City boundaries avoids more habitat as compared to the proposed General Plan (S)	Loss of habitat under project and cumulative conditions (S)
Level of Significance After Mitigation	SUI	SUI	SUI	SUI	SUI
Direct and indirect impacts to jurisdictional waters under project and cumulative conditions (Impact 4.10.4 and 4.10.8)	Direct and indirect impacts to jurisdictional waters under project and cumulative conditions (S)	Direct and indirect impacts to jurisdictional waters under project and cumulative conditions. Reduced land use intensity in land areas outside of current City boundaries reduces jurisdictional waters impact as compared to the proposed General Plan (S)	Direct and indirect impacts to jurisdictional waters under project and cumulative conditions. Reduced land use intensity in land areas outside of current City boundaries reduces jurisdictional waters impact as compared to the proposed General Plan (S)	Direct and indirect impacts to jurisdictional waters under project and cumulative conditions. Modified land use plans for land areas outside of current City boundaries avoids more jurisdictional waters as compared to the proposed General Plan (S)	Direct and indirect impacts to jurisdictional waters under project and cumulative conditions (S)
Level of Significance After Mitigation	SUI	SUI	SUI	SUI	SUI

Environmental Categories	Proposed General Plan (Impact Significance)	Sacramento County General Plan – Alternative Alternative 1 (Impact Significance)	Existing City Boundary General Plan Alternative - Alternative 2 (Impact Significance)	Natural Resources Conservation Alternative - Alternative 3 (Impact Significance)	SACOG Preferred Blueprint Scenario Alternative - Alternative 4 (Impact Significance)
Effects on wildlife movement corridors under project and cumulative conditions (Impact 4.10.5 and 4.10.8)	Effects on wildlife movement corridors under project and cumulative conditions (S)	Effects on wildlife movement corridors under project and cumulative conditions. Reduced land use intensity in land areas outside of current City boundaries reduces habitat impact as compared to the proposed General Plan (S)	Effects on wildlife movement corridors under project and cumulative conditions. Reduced land use intensity in land areas outside of current City boundaries reduces habitat impact as compared to the proposed General Plan (S)	Effects on wildlife movement corridors under project and cumulative conditions. Modified land use plans for land areas outside of current City boundaries avoids more habitat as compared to the proposed General Plan (S)	Effects on wildlife movement corridors under project and cumulative conditions (S)
Level of Significance After Mitigation	SUI	SUI	SUI	SUI	SUI
Loss of trees under project and cumulative conditions (Impact 4.10.6 and 4.10.8)	Loss of trees under project and cumulative conditions. (S)	Loss of trees under project and cumulative conditions. Reduced land use intensity in land areas outside of current City boundaries reduces tree loss as compared to the proposed General Plan (S)	Loss of trees under project and cumulative conditions. Reduced land use intensity in land areas outside of current City boundaries reduces tree loss as compared to the proposed General Plan (S)	Loss of trees under project and cumulative conditions. Modified land use plans for land areas outside of current City boundaries avoids more habitat as compared to the proposed General Plan (S)	Loss of trees under project and cumulative conditions. (S)
Level of Significance After Mitigation	SUI	SUI	SUI	SUI	SUI

Environmental Categories	Proposed General Plan (Impact Significance)	Sacramento County General Plan – Alternative Alternative 1 (Impact Significance)	Existing City Boundary General Plan Alternative - Alternative 2 (Impact Significance)	Natural Resources Conservation Alternative - Alternative 3 (Impact Significance)	SACOG Preferred Blueprint Scenario Alternative - Alternative 4 (Impact Significance)
Cultural and Paleontological Resources	**Project Impacts**	**B**	**B**	**B**	**S**
Impacts to prehistoric resources, historic resources, and human remains under project and cumulative conditions (Impact 4.11.1 and 4.11.3)	Impacts to prehistoric resources, historic resources, and human remains under project and cumulative conditions (S)	Impacts to prehistoric resources, historic resources, and human remains under project and cumulative conditions. Reduced land use intensity in land areas outside of current City boundaries reduces cultural resource impacts as compared to the proposed General Plan (S)	Impacts to prehistoric resources, historic resources, and human remains under project and cumulative conditions. Reduced land use intensity in land areas outside of current City boundaries reduces cultural resource impacts as compared to the proposed General Plan (S)	Impacts to prehistoric resources, historic resources, and human remains under project and cumulative conditions. Modified land use plans for land areas outside of current City boundaries avoids more land area as compared to the proposed General Plan. (S)	Impacts to prehistoric resources, historic resources, and human remains under project and cumulative conditions (S)
Level of Significance After Mitigation	SUI	SUI	SUI	SUI	SUI
Impacts to paleontological resources under project and cumulative conditions (Impact 4.11.2 and 4.11.4)	Impacts to paleontological resources under project and cumulative conditions (S)	Impacts to paleontological resources under project and cumulative conditions. Reduced land use intensity in land areas outside of current City boundaries reduces paleontological resource impacts as compared to the proposed General Plan (S)	Impacts to paleontological resources under project and cumulative conditions. Reduced land use intensity in land areas outside of current City boundaries reduces paleontological resource impacts as compared to the proposed General Plan (S)	Impacts to paleontological resources under project and cumulative conditions. Modified land use plans for land areas outside of current City boundaries avoids more land area as compared to the proposed General Plan. (S)	Impacts to paleontological resources under project and cumulative conditions (S)
Level of Significance After Mitigation	LTS	LTS	LTS	LTS	LTS

Environmental Categories	Proposed General Plan (Impact Significance)	Sacramento County General Plan – Alternative Alternative 1 (Impact Significance)	Existing City Boundary General Plan Alternative - Alternative 2 (Impact Significance)	Natural Resources Conservation Alternative - Alternative 3 (Impact Significance)	SACOG Preferred Blueprint Scenario Alternative - Alternative 4 (Impact Significance)
Public Services and Utilities	**Project Impacts**	**B**	**B**	**B**	**W**
Water supply infrastructure under project and cumulative conditions (Impact 4.12.3.1 and 4.12.3.2)	Water supply infrastructure under project and cumulative conditions. 128,709 acre-feet annually of water demand (S)	Water supply infrastructure under project and cumulative conditions. 77,200 acre-feet annually of water demand (S)	Water supply infrastructure under project and cumulative conditions. 63,030 acre-feet annually of water demand (S)	Water supply infrastructure under project and cumulative conditions. 124,850 acre-feet annually of water demand (S)	Water supply infrastructure under project and cumulative conditions. 146,728 acre-feet annually of water demand (S)
Level of Significance After Mitigation	SUI	SUI	SUI	SUI	SUI
Wastewater conveyance and treatment under project and cumulative conditions (Impact 4.12.4.1 and 4.12.4.2)	Wastewater conveyance and treatment under project and cumulative conditions. 42.2 mgd of wastewater generation. (S)	Wastewater conveyance and treatment under project and cumulative conditions. 30.3 mgd of wastewater generation. (S)	Wastewater conveyance and treatment under project and cumulative conditions. 28.1 mgd of wastewater generation. (S)	Wastewater conveyance and treatment under project and cumulative conditions. 40.9 mgd of wastewater generation. (S)	Wastewater conveyance and treatment under project and cumulative conditions. 48.1 mgd of wastewater generation. (S)
Level of Significance After Mitigation	SUI	SUI	SUI	SUI	SUI
Potential conflicts with Kiefer Landfill (Impact 4.12.5.1)	Potential conflicts with Kiefer Landfill (S)	Potential conflicts with Kiefer Landfill is avoided (LTS)	Potential conflicts with Kiefer Landfill (S)	Potential conflicts with Kiefer Landfill (S)	Potential conflicts with Kiefer Landfill (S)
Level of Significance After Mitigation	LTS	LTS	LTS	LTS	LTS

Environmental Categories	Proposed General Plan (Impact Significance)	Sacramento County General Plan – Alternative Alternative 1 (Impact Significance)	Existing City Boundary General Plan Alternative - Alternative 2 (Impact Significance)	Natural Resources Conservation Alternative - Alternative 3 (Impact Significance)	SACOG Preferred Blueprint Scenario Alternative - Alternative 4 (Impact Significance)
Visual Resources	**Project Impacts**	**B**	**B**	**s**	**s**
Alteration of visual character under project and cumulative conditions (Impact 4.13.3 and 4.13.5)	Alteration of visual character under project and cumulative conditions (S)	Alteration of visual character under project and cumulative conditions (S)	Alteration of visual character under project and cumulative conditions (S)	Alteration of visual character under project and cumulative conditions (S)	Alteration of visual character under project and cumulative conditions (S)
Level of Significance After Mitigation	SUI	SUI	SUI	SUI	SUI

Notes: *B = Better, S = Same, W = Worse*
(LTS = Less than Significant) (S = Significant) (SUI = Significant and Unavoidable Impact)
A quantitative comparison is provided, where available, for impacts that were analyzed in Sections 4.1 through 4.13of the Draft EIR. No quantitative data was available for Human Health/Risk of Upset, Hydrology and Water Quality, Geology and Soils, and Cultural, Paleontological Resource, or Visual Resources. The classifications of B, S and W were based on available quantitative and qualitative information for the proposed General Plan and the four alternatives.

7.0 – Long Term Implications of the Project

This section discusses additional topics statutorily required by CEQA, specifically: growth-inducing impacts, significant irreversible environmental changes/irretrievable commitment of resources, and significant and unavoidable environmental impacts.

7.1 GROWTH-INDUCING IMPACTS

INTRODUCTION

The California Environmental Quality Act (CEQA) Guidelines Section 15126.2(d) requires that an Environmental Impact Report (EIR) evaluate the growth-inducing impacts of a proposed action. A growth-inducing impact is defined in the CEQA Guidelines as

> "*the way[] in which [a] proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth*… Section 15126.2(d).

Section 15126.2 cautions that "it must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment."

A project can have direct and/or indirect growth inducement potential. Direct growth inducement would result if a project, for example, involved construction of new housing. A project would have indirect growth inducement potential if it established substantial new permanent employment opportunities (e.g., through commercial, industrial or governmental enterprises) or if it would involve a construction effort with substantial short-term employment opportunities that would indirectly stimulate the need for additional housing and services to support the new employment demand. Similarly, a project would indirectly induce growth if it would remove an obstacle to additional growth and development, such as removing a constraint on a required public service. A project providing an increased water supply in an area where water service historically limited growth could be considered growth inducing.

The State CEQA Guidelines further explain that the environmental effects of induced growth are considered indirect impacts of the proposed action. These indirect impacts or secondary effects of growth may result in significant, adverse environmental impacts. Potential secondary effects of growth include increased demand on other community and public services and infrastructure, increased traffic and noise, and adverse environmental impacts such as degradation of air and water quality, degradation or loss of plant and animal habitat, and conversion of agricultural and open space land to developed uses.

Growth inducement may constitute an adverse impact if the growth is not consistent with or accommodated by the land use plans and growth management plans and policies for the area affected. Local land use plans provide for land use development patterns and growth policies that allow for the orderly expansion of urban development supported by adequate urban public services, such as water supply, roadway infrastructure, sewer service, and solid waste service.

COMPONENTS OF GROWTH

The timing, magnitude, and location of land development and population growth in a community or region are based on various interrelated land use and economic variables. Key variables include regional economic trends, market demand for residential and non-residential uses, land availability and cost, the availability and quality of transportation facilities and public

services, proximity to employment centers, the supply and cost of housing, and regulatory policies or conditions. Since the general plan of a community defines the location, type and intensity of growth, it is the primary means of regulating development and growth in California.

GROWTH EFFECTS OF THE PROJECT

Based on Government Code Section 65300, the proposed General Plan is intended to serve as the overall plan for the physical development of the City of Rancho Cordova. While the General Plan does not specifically propose any development projects, it does regulate future population and economic growth of the City, which would result in indirect growth-inducing effects.

Implementation of the proposed General Plan would redefine the existing land use designations in the incorporated City and would conceptually redefine land use designations for the areas outside of the City but within the Planning Area. At such time that these areas are annexed into the City, the land use designations would apply to future development. The General Plan would establish new policies, actions and design guidelines to guide and manage future development and land uses in the City. This would also include policy direction on roadway facility improvements, public service improvements, and the extension and expansion of utilities. The specific environmental effects resulting from the proposed land use patterns and associated extension of public services are discussed in the environmental issue areas in Sections 4.1 through 4.13. The proposed General Plan would result in a residential buildout (assumed to occur by the year 2050) of approximately 126,241 residential units and a population of 310,568 persons.

Population Growth

As described in Section 4.3 (Population/Housing/Employment), the Sacramento Area Council of Governments (SACOG), in its *Sacramento Region Blueprint: Transportation/Land Use Study*, projected 112,290 housing units in 2050 in the approximate area of the proposed General Plan "Planning Area" (boundaries are slightly different in the two plans. By comparison, current projections in the proposed General Plan anticipate that the City's Planning Area will have 126,241 housing units at buildout. The proposed General Plan projects slightly less population under buildout conditions in the City's Planning Area, 310,568 people, as compared to the Blueprint's projection of 332,000 people. . Employment, however, is much greater under the General Plan Planning Area buildout projections--195,021 jobs, compared to 144,406 jobs under SACOG's projections. In addition, SACOG projects the City's job/housing ratio in year 2025 to be 1.29, while implementation of the proposed General Plan is expected to result in a job/housing ratio of 1.54. Thus, the implementation of the proposed General Plan would not accommodate population growth to the degree and density projected by SACOG. However, implementation of the proposed General Plan would have capacity for more housing units and potential places of employment beyond what the Blueprint projected, thereby reducing the potential number of commuters out of the City.

Buildout of the proposed Planning Area, if it occurred under the current Sacramento County General Plan Land Use Map, would have accommodated 88,301 residential dwelling units and a population of approximately 236,647. The proposed General Plan allows for more housing units and higher population growth than the Sacramento County General Plan.

Thus, the proposed General Plan would accommodate more growth than originally anticipated for the Planning Area and in a more compact/urban form, reducing vehicle miles traveled (see Section 4.5, Transportation and Circulation). However, this intensification of urban land uses is in

conflict with current Sacramento County General Plan land use intensities (see Section 4.1, Land Use) and could induce property owners adjacent to the Planning Area to request general plan amendments for urban uses rather than current agricultural designations. The environmental effect of potential development of the Planning Area is addressed in this Draft EIR.

Growth Effects Associated with Infrastructure Improvements

The proposed General Plan could potentially indirectly induce growth if it would remove an obstacle to additional growth and development, such as removing a constraint on a required public service. The City's infrastructure and public services are largely provided by other public and private service providers (e.g., Sacramento County Water Agency for water supply, Sacramento Regional County Sanitation District and County Sanitation District 1 for wastewater service, Sacramento Municipal Utility District for electrical service, Pacific Gas & Electric for gas service), which utilize master plans for guiding planned facility and service expansions that are subject to environmental review under CEQA.

The proposed General Plan includes proposed roadway improvements that have been designed to support the General Plan Land Use Policy Map and maintain the City's proposed level of service (LOS) standard of LOS "D" where feasible and appropriate. The proposed General Plan does not include any provisions requiring the oversizing of infrastructure facilities to serve growth not anticipated in the General Plan Land Use Policy Map. The physical environmental effects of the proposed roadway improvements within the Planning Area and any off-site impacts that could result from the proposed roadway improvements, where the roads continue into other jurisdictions, have been disclosed in this Draft EIR.

ENVIRONMENTAL EFFECTS OF GROWTH

As described above, the proposed General Plan would induce further population and job growth in the City, and within the Planning Area to the extent that these areas are annexed into the City, as well as potentially induce growth outside of the City and Planning Area (at the interface with other jurisdictions). Growth inducement in areas outside of the City would be limited by the adopted land uses of those jurisdictions, but, as described above, development pressure could result in requests for amendment of the General Plans of other jurisdictions. The following proposed General Plan policies, i.e., to create a buffer of lower intensity development at the edges of the City and to create a defined City edge, would serve to reduce development pressure to intensify development at the boundaries of the City:

Policy UD.2.3 *Transition the density and intensity of uses from an urban to rural character with a clear City edge and establish a sense of entry and arrival to the City.*

NR.9.1 *Encourage small-scale agricultural practices along the edges of the Planning Area to facilitate the transition of density.*

Proposed roadway improvements support growth within the City, but would also facilitate further growth. As a result, the proposed General Plan is considered to be growth inducing. The environmental effects of growth within the City and Planning Area, addressed in Sections 4.1 through 4.13 of this Draft EIR, and the project's cumulative impacts (Section 5.0) and would be in addition to the following additional environmental effects of growth in the region:

- Aesthetics – Further conversion of rural, agricultural and natural open space landscape characteristics to urban conditions.

- Agricultural Resources – Continued loss of farmland to urban uses as well as increased conflicts with agricultural operations and urban uses.

- Air Quality – Increases in air pollutant emissions potentially conflicting with air quality attainment efforts under state and federal Clean Air Acts, and increased potential for the exposure to toxic air contaminants.

- Biological Resources – Loss of special-status plant and animal species habitats, degradation of habitats, and loss of special-status species.

- Cultural Resources – Impacts to known and unknown archaeological and historic resources in the region.

- Geology and Soils – Loss of access to known valuable mineral resources.

- Hydrology and Water Quality – Additional sources of point and non-point sources of surface water quality pollutants to region waterways. Further demand on groundwater resources and potential overdraft issues.

- Noise – Increased transportation noise levels from increased traffic volumes.

- Public Services and Utilities – Increased demand for the development and expansion of public services and facilities and associated environmental issues.

- Traffic – Increased traffic volumes on the region's highways and regional roadways resulting in deficient levels of service of operation.

7.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL EFFECTS

Public Resources Code Sections 21100(b)(2) and 21100.1(a) require that EIRs prepared for the adoption of plan, policy, or ordinance of a public agency must include a discussion of significant irreversible environmental changes of project implementation. The CEQA Guidelines Section 15126.2(c) describes irreversible environmental changes as:

> *Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.*

Implementation of the proposed City of Rancho Cordova General Plan would result in the conversion of undeveloped open space and agricultural land areas to residential, commercial, industrial, office, public and recreational uses. Development of the City, and the Planning Area to the extent that the area is annexed into the City, would constitute a long-term commitment to residential land uses and loss of productive agricultural soils and natural resources (e.g., wetland resources). It is unlikely that circumstances would arise that would justify the return of the land to its original (pre-proposed General Plan) condition.

Development under the proposed General Plan would irretrievably commit building materials and energy to the construction and maintenance of buildings and infrastructure proposed.

Renewable, nonrenewable, and limited resources that would likely be consumed as part of the development of the proposed project would include, but are not limited to: oil, gasoline, lumber, sand and gravel, asphalt, water, steel, and similar materials. In addition, development of the project would result in increased demand on public services and utilities (see Sections 4.9 Hydrology and Water Quality and 4.12 Public Services and Utilities).

7.3 SIGNIFICANT AND UNAVOIDABLE ENVIRONMENTAL EFFECTS

State CEQA Guidelines Section 15126.2(b) requires an EIR to discuss unavoidable significant environmental effects, including those that can be mitigated, but not to a level of insignificance. Section 15093(a) of the CEQA Guidelines allows the decision-making agency, in approving a project, to determine that the benefits of a proposed project outweigh the unavoidable adverse environmental impacts of implementing the project. However, the City can approve a project with unavoidable significant adverse impacts if it prepares a "Statement of Overriding Considerations" setting forth the specific reasons for making such a judgment, and makes other findings required by CEQA Guidelines Section 15091.

The following significant and unavoidable impacts of the proposed General Plan are specifically identified in Sections 4.1 through 4.13, and Section 5.0 of this EIR. The reader is referred to the various environmental issue areas of these sections for further details and analysis of the significant and unavoidable impacts identified below.

SECTION 4.1 LAND USE

Conflicts with Relevant Land Use Plans, Policies or Regulations

Impact 4.1.3 Implementation of the proposed General Plan has the potential to conflict with applicable land use plans, policies or regulations of agencies with jurisdiction over parts of the Planning Area that provide for environmental protection. This is considered a **significant** impact.

Cumulative Land Use Effects

Impact 4.1.5 When considered with existing, proposed, planned and approved development in the region, implementation of the Rancho Cordova General Plan has the potential to result to contribute cumulative land use conditions in the region that result in significant impacts to the physical environment. This is considered a **cumulatively considerable** impact.

SECTION 4.2 AGRICULTURE

Loss and Conversion of Agricultural Land

Impact 4.2.1 Implementation of the proposed General Plan would result in the loss of important farmlands (Prime Farmland, Unique Farmland, and Farmland of Statewide Importance, etc) as designated by the Farmland Mapping and Monitoring Program. This is considered a **significant** impact.

Agricultural/Urban Interface Conflicts

Impact 4.2.2 Implementation of the proposed General Plan could result in the placement of urban uses adjacent to agricultural uses within and adjacent to the City. This is considered a **significant** impact.

Williamson Act Contracts

Impact 4.2.3 Implementation of the proposed General Plan could result in a conflict with existing Williamson Act contracts. This is considered a **significant** impact.

Cumulative Impacts to Agricultural Resources

Impact 4.2.4 Implementation of the General Plan Land Use Map Book along, with other proposed development in Sacramento County, would contribute to the additional conversion of important farmlands to other uses and may increase agriculture/urban interface conflicts. This is a **cumulatively considerable** impact.

SECTION 4.3 POPULATION/HOUSING/EMPLOYMENT

Population, Housing and Employment Increases

Impact 4.3.1 Implementation of the proposed General Plan Land Use Map would include land uses that promote the increase in population, housing, and employment to the area, and thus induce substantial growth. This is a **significant** impact.

Cumulative Population and Housing Increases

Impact 4.3.3 Buildout in the planning area, under the proposed General Plan Land Use Map, would include substantial population, housing unit and employment increases. This is considered a **cumulatively considerable** impact.

SECTION 4.5 TRAFFIC AND CIRCULATION

Study Roadway Segments

Impact 4.5.1 Implementation of the proposed General Plan would result in an increase in traffic volumes that would result in deficient level of service conditions in year 2030. This would be a **significant** impact.

Study Freeway Segments

Impact 4.5.2 Implementation of the proposed General Plan would exacerbate unacceptable operations on eastbound and westbound U.S. 50 during the a.m. and p.m. peak hours. This is considered a **significant** impact.

Cumulative Traffic Impacts on Local Roadways and State Highways

Impact 4.5.6 When considered with existing, proposed, planned and approved development in the region, implementation of the Rancho Cordova General

Plan would contribute to cumulative traffic volumes in the region that result in significant impacts to level of service and operations. This is considered a **cumulatively considerable** impact.

SECTION 4.6 AIR QUALITY

Conflict with the SMAQMD Regional Ozone Attainment Plan

Impact 4.6.1 The implementation of the proposed City of Rancho Cordova General Plan land uses would conflict with the land use assumptions used 1994 SMAQMD Regional Ozone Attainment Plan. This is considered a **potentially significant** impact to air quality.

Construction Air Pollutants

Impact 4.6.2 Implementation of the proposed General Plan would result in short-term emissions generated by construction and demolition activities that would affect local air quality and could result in health and nuisance-type impacts in the immediate vicinity of individual construction sites as well as contribute to particulate matter and regional ozone impacts. This is considered a **significant** impact to air quality.

Operational Air Pollutants

Impact 4.6.3 Implementation of the proposed General Plan would increase air pollutant emissions from operational activities of land uses within the Planning Area will exceed thresholds for ROG and NOx, and other federal or state emissions standards. This is considered a **significant impact**.

Sources of Toxic Air Contaminants

Impact 4.6.4 Implementation of the proposed General Plan would include sources of toxic air contaminants that may affect surrounding land uses. Sensitive land uses may also be located near existing sources toxic air contaminants. This impact is considered **potentially significant** impact.

Regional Air Quality Impacts

Impact 4.6.6 Implementation of the proposed General Plan along with potential development of the Planning Area would exacerbate existing regional problems with ozone and particulate matter. The proposed General Plan's contribution to these conditions is considered **cumulatively considerable**.

SECTION 4.7 NOISE

Construction Noise Impacts

Impact 4.7.1 Implementation of the proposed General Plan would result in subsequent development projects and cause an increase in construction noise levels that would exceed City of Rancho Cordova noise standards. This is considered a **potentially significant** impact.

Traffic Noise Impacts

Impact 4.7.2 Implementation of the proposed General Plan would result in increases in traffic noise levels that would be in excess of City of Rancho Cordova noise standards. This is considered a **significant** impact.

Stationary Noise Impacts

Impact 4.7.3 Implementation of the proposed General Plan could result in future stationary noise sources that generate noise levels in excess of applicable noise standards for non-transportation noise sources. This is considered a **potentially significant** impact.

Airport Noise Impacts

Impact 4.7.4 Implementation of the proposed General Plan would result in the creation of new noise-sensitive land uses within the 65 dB CNEL noise contours contained within the Mather Airport CLUP. Additionally, the implementation of the General Plan would result in the creation of new noise-sensitive land uses within over-flight areas of Mather Airport, thereby presenting the potential for annoyance from single event noise. This is considered a **significant** impact.

Cumulative Traffic Noise

Impact 4.7.6 Implementation of the proposed General Plan in combination with regional growth and traffic conditions (pass-through traffic) would increase transportation noise along area roadways. This would be a **cumulatively considerable** impact.

Cumulative Stationary Noise

Impact 4.7.7 Implementation of the proposed General Plan, in combination with regional growth in surrounding communities outside of the Planning Area, would increase stationary noise. This is considered a **cumulatively considerable** impact.

SECTION 4.8 GEOLOGY AND SOIL

Mineral Resources

Impact 4.8.5 Implementation of the proposed General Plan would result in the loss of availability of aggregate resources, which are locally important due to their use by the construction community in development of the area. This is considered to be a **significant** impact.

Cumulative Mineral Resources

Impact 4.8.7 Implementation of the proposed General Plan, together with past, present, and probable future projects in the area, would result in a cumulatively significant loss of mineral resources in the region. The General Plan's incremental contribution to the loss of mineral resources is **cumulatively considerable**.

SECTION 4.9 HYDROLOGY AND WATER QUALITY

Increased Water Supply Demand Impacts

Impact 4.9.4 Implementation of the proposed General Plan would increase demand for water supply and require increased groundwater production and the use of surface water supplies. This additional water supply demand would result in significant effects on the physical environment. This is considered a **significant** impact.

Cumulative Water Supply Impacts

Impact 4.9.7 Implementation of the proposed General Plan would contribute to an increased demand for water supply requiring increased groundwater production and the use of surface water supplies that could result in significant environmental impacts. This is considered a **cumulatively considerable** impact.

SECTION 4.10 BIOLOGICAL RESOURCES

Impacts to Endangered, Threatened, and Other Listed Species

Impact 4.10.1 Implementation of the proposed General Plan would result in direct and indirect loss of habitat and individuals of endangered, threatened, rare, proposed, and candidate status as well as plant species identified by the California Native Plant Society with a rating of List 1B (i.e. rare, threatened or endangered plants). This would be a **significant** impact.

Impacts to Species of Concern and Other Non-Listed Special Status Species

Impact 4.10.2 Implementation of the proposed General Plan would result in direct and indirect loss of habitat and individuals of animal and plant species of concern and other non-listed special status species. This would be a **significant** impact.

Loss of Habitat

Impact 4.10.3 Implementation of the proposed General Plan would result in the loss of foraging habitat for raptors, migratory birds, and other wildlife. This would be a **significant** impact.

Direct and Indirect Impacts to Jurisdictional Waters

Impact 4.10.4 Implementation of the proposed General Plan would result in substantial adverse impacts to and the potential loss of jurisdictional waters of the U.S. This would be a **significant** impact.

Effects on Wildlife Movement Corridors

Impact 4.10.5 Implementation of the proposed General Plan would interfere substantially with the movement of several special status and common wildlife species. This would be a **significant** impact.

Loss of Trees

Impact 4.10.6 Implementation of the proposed General Plan would result in the loss of native and landmark trees. This would be a **significant** impact.

Cumulative Biological Resources

Impact 4.10.8 Implementation of the proposed General Plan, together with past, present, and probable future projects in the Planning Area and larger regional context would result in a cumulatively significant loss of biological resources in the region. The General Plan's incremental contribution to this significant cumulative impact is **cumulatively considerable**.

4.11 CULTURAL AND PALEONTOLOGICAL RESOURCES

Prehistoric Resources, Historic Resources, and Human Remains

Impact 4.11.1 Adoption of the City of Rancho Cordova General Plan could result in the potential disturbance of cultural resources (i.e., prehistoric sites, historic sites, and isolated prehistoric/historic artifacts and features) and human remains. This is considered a **potentially significant** impact.

Prehistoric Resources, Historic Resources, and Human Remains

Impact 4.11.3 Adoption of the Rancho Cordova General Plan along with foreseeable development in the region could result in the disturbance of cultural resources (i.e., prehistoric sites, historic sites, and isolated artifacts and features) and human remains. This contribution is considered **cumulatively considerable**.

SECTION 4.12 PUBLIC SERVICES AND UTILITIES

Water Supply Infrastructure

Impact 4.12.3.1 Implementation the General Plan would require additional treatment capacity, storage capacity, and other conveyance facilities to meet the projected water demands. This is considered a **significant** impact.

Cumulative Water Service Impacts

Impact 4.12.3.2 Implementation of the General Plan would contribute to the need for additional treatment capacity, storage capacity, and other conveyance facilities to meet cumulative water demands with SCWA, GSWC and Cal-Am. The General Plan's contribution would be **cumulatively considerable**.

Wastewater Conveyance and Treatment

Impact 4.12.4.1 Implementation of the Rancho Cordova General Plan would substantially increase wastewater flows and require additional infrastructure and may require additional treatment capacity to accommodate anticipated demands that would result in a physical effect on the environment. This impact is considered **significant**.

Cumulative Wastewater Impacts

Impact 4.12.4.2 Implementation of the proposed General Plan, in addition to other reasonably foreseeable development in eastern Sacramento County (based on the land use projections established in the Sacramento County General Plan), would substantially increase in wastewater flows and require additional infrastructure and treatment capacity that would result in a physical effect on the environment. This is considered **cumulatively considerable**.

SECTION 4.13 VISUAL RESOURCES/LIGHT AND GLARE

Alteration of Visual Character

Impact 4.13.3 Implementation of the General Plan will encourage new development and redevelopment activities that could degrade the existing visual character or quality of the Planning Area. This is considered a **potentially significant** impact.

Cumulative Visual Resources Impacts

Impact 4.13.5 Implementation of the General Plan will encourage new development and redevelopment activities that would contribute to the cumulative alteration of existing landscape characteristics of the region. This impact is **cumulatively considerable.**

8.0 – Report Preparers

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