

## 2 ALTERNATIVES

### 2.1 INTRODUCTION

This chapter describes the proposed project and a range of reasonable alternatives to the proposed project/action consistent with the requirements of California Code of Regulations (CCR) Section 15126.6 and 40 Code of Federal Regulations (CFR) 1502.14.

The five alternatives evaluated at an equal level of detail in this draft document, known as a draft environmental impact report/draft environmental impact statement (DEIR/DEIS), are as follows:

- ▶ Proposed Project (Applicants' Preferred Alternative)
- ▶ High Density (Increased Densities Consistent with Sacramento Area Council of Governments [SACOG] Blueprint)
- ▶ Impact Minimization
- ▶ No Federal Action Alternative
- ▶ No Project/No Action Alternative

These alternatives were developed by the City of Rancho Cordova (City) and the U.S. Army Corps of Engineers (USACE), Sacramento District, after review of scoping comments received on the notice of preparation (NOP) and notice of intent (NOI) and voiced at scoping meetings. The alternatives are based on the project purpose, alternatives screening criteria (described below), and results of the wetlands permitting alternatives analysis. As requested by USACE, this document also evaluates a No USACE Permit Alternative. These alternatives represent a reasonable range of alternatives to the proposed project, consistent with California Environmental Quality Act (CEQA) and NEPA requirements. The proposed project and alternatives under consideration (with the exception of the No Project/No Action Alternative required by CEQA and NEPA) have each been formulated to feasibly accomplish most of the basic objectives of the project as discussed in Chapter 1, "Introduction and Statement of Purpose and Need," of this DEIR/DEIS, and could avoid or substantially lessen one or more of the significant effects.

A summary comparison of these alternatives, as well as identification of the environmentally superior alternative, is provided in Section 2.12 of this chapter.

### 2.2 CEQA/NEPA REQUIREMENTS FOR EVALUATION OF ALTERNATIVES

#### 2.2.1 CEQA REQUIREMENTS

##### FOCUS OF THE EIR ALTERNATIVES ANALYSIS

The guiding principles for the selection of alternatives for analysis in an EIR are provided by the State CEQA Guidelines (CCR Section 15126.6). Section 15126.6 states that the alternatives analysis must:

- ▶ describe a range of reasonable alternatives to the project that could feasibly attain most of the basic objectives of the project but would substantially lessen or avoid any of the significant effects of the project;

- ▶ focus on alternatives capable of avoiding or substantially lessening any of the significant environmental impacts of the proposed project, even if they may be more costly or could otherwise impede some of the project’s objectives; and
- ▶ evaluate the comparative merits of the alternatives.

The focus and definition of alternatives evaluated in this DEIR/DEIS are governed by the “rule of reason” in accordance with Section 15126.6 of the State CEQA Guidelines. That is, the range of alternatives presented in the DEIR/DEIS is limited to those that would permit a reasoned choice by the City and USACE decision makers.

In addition to the guiding principles for selection of alternatives set forth above, the State CEQA Guidelines require that an EIR evaluate a “No Project Alternative,” identify alternatives that were initially considered for further evaluation but then rejected, and identify the “environmentally superior alternative.” This DEIR/DEIS describes and evaluates a No Project Alternative (Section 2.7) to provide the decision makers and the public with an overview of what could reasonably be expected to occur if the proposed Rio del Oro project were not approved and implemented. This chapter also describes various alternatives that were considered, but eliminated from further consideration (No Federal Action Alternative, Off-site Alternatives, Reduced Preserve Alternative, Increased Preserve/No Regional Town Center Alternative, and Traffic Impact Avoidance Alternative) (see Sections 2.6 and 2.8–2.11 below for further discussion).

## **SCREENING CRITERIA**

Consistent with the requirements of CEQA, the City used the CEQA project objectives identified in Chapter 1, “Introduction and Statement of Purpose and Need,” as criteria to screen the alternatives that should be considered in this DEIR/DEIS and to determine whether the alternatives would avoid or substantially lessen any of the significant environmental impacts of the project.

## **2.2.2 NEPA REQUIREMENTS**

### **FOCUS OF THE EIS ALTERNATIVES ANALYSIS**

- ▶ The NEPA Council on Environmental Quality (CEQ) Regulations (40 CFR 15012.14) require that an EIS include:
  - ▶ an objective evaluation of reasonable alternatives;
  - ▶ identification of the alternatives considered but eliminated from detailed study, along with a brief discussion of the reasons that these alternatives were eliminated;
  - ▶ information that would allow reviewers to evaluate the comparative merits of the proposed action (i.e., proposed project) and alternatives;
  - ▶ consideration of the No Action Alternative;
  - ▶ identification of the agency’s preferred alternative, if any; and
  - ▶ appropriate mitigation measures not already included in the proposed action or alternatives.

Additionally, USACE NEPA regulations require identification and consideration of a No USACE permit alternative, which is referred to in the DEIR/DEIS as the No Federal Action Alternative.

Alternatives to the proposed project that were considered in the evaluation are described below. Consideration of the other NEPA requirements is provided in Chapters 3 and 4 of this DEIR/DEIS.

Unlike CEQA, which permits the evaluation of alternatives to occur in less detail than is provided for the proposed project, NEPA requires the analysis of alternatives to occur at a substantially similar level of detail as that devoted to the proposed action. The NEPA Regulations (40 CFR 1502.14) require agencies to rigorously explore and objectively evaluate all reasonable alternatives and to devote substantial treatment to each alternative considered, including the proposed project.

## **SCREENING CRITERIA**

The following screening criteria are in compliance with the USACE Section 404(b)(1) Guidelines, which are the substantive criteria used by USACE in evaluating discharges of fill material into waters of the United States under Section 404 of the Clean Water Act. The guidelines require that the following four criteria be satisfied for USACE to make a decision that a proposed discharge is in compliance:

- ▶ The discharge must be the least environmentally damaging practicable alternative.
- ▶ The discharge must not violate any water quality standard or toxic effluent standard, or jeopardize the continued existence of a threatened or endangered species.
- ▶ The discharge must not result in a significant degradation of the waters of the United States.
- ▶ Unavoidable impacts on the aquatic ecosystem must be mitigated within the context of NEPA.

Before USACE can issue a permit, it must find that the requirements of the Section 404(b)(1) Guidelines have been satisfied. The key criterion and the focus of the alternatives analysis is the requirement that the discharge be the least environmentally damaging, practicable alternative. USACE considers practicable alternatives to include, but not to be limited to:

- ▶ on-site activities that do not include a discharge into waters of the United States or ocean waters;
- ▶ discharges of dredged or fill material at other locations in waters of the United States or ocean waters;
- ▶ areas that are not presently owned by the applicant that could be reasonably obtained, utilized, expanded, or managed to fulfill the basic purpose of the proposed activity (after considering cost, existing technology, and logistics); and
- ▶ a project location that does not require access or proximity to or siting within the special aquatic site in question to fulfill its basic purpose (i.e., that is not water dependent). Practicable alternatives that do not involve special aquatic sites are presumed to be available unless clearly demonstrated otherwise. Where a discharge is proposed for a special aquatic site, all practicable alternatives to the proposed discharge that do not involve a discharge into a special aquatic site are presumed to have less adverse impacts on the aquatic ecosystem, unless clearly demonstrated.

The key provisions in the language are “practicability” and “overall project purpose.” An alternative is considered to be practicable if it is available to the applicant and capable of being accomplished by the applicant after consideration of costs, existing technology, and logistics, in light of the overall project purpose. USACE has determined that the overall purpose of the project is to provide a large-scale mixed-use community within Sacramento County. If a practicable alternative is identified that would have less adverse impacts on the aquatic ecosystem and would not have other significant adverse environmental consequences, then USACE would be unable to issue a permit for the project.

## **2.3 PROPOSED PROJECT/ACTION**

### **2.3.1 SUMMARY**

This section describes the proposed project. The proposed project has been formulated to achieve the project purpose, objectives, and needs of the project, as discussed in Chapter 1, “Introduction and Statement of Purpose and Need,” of this DEIR/DEIS.

Elliott Homes and GenCorp Realty Investments (GenCorp), the project applicant(s), are seeking adoption by the City of the proposed *Rio del Oro Specific Plan* (specific plan), hereinafter referred to as the “Rio del Oro project” or the “proposed project.” The Rio del Oro project would be a mixed-use development on approximately 3,828 acres in Rancho Cordova. Elliott Homes is seeking specific development entitlements (e.g., tentative subdivision maps) as part of the proposed project. GenCorp is seeking overall development entitlements, but has not proposed specific development entitlements necessary for immediate or short-term development as part of this proposal. A copy of the draft Rio del Oro Specific Plan is available for review at the City of Rancho Cordova offices located at 2729 Prospect Park Drive, Rancho Cordova, CA 95670. Both Elliott Homes and GenCorp are also seeking authorization from USACE to place dredged or fill material into waters of the United States.

### **2.3.2 REGIONAL LOCATION**

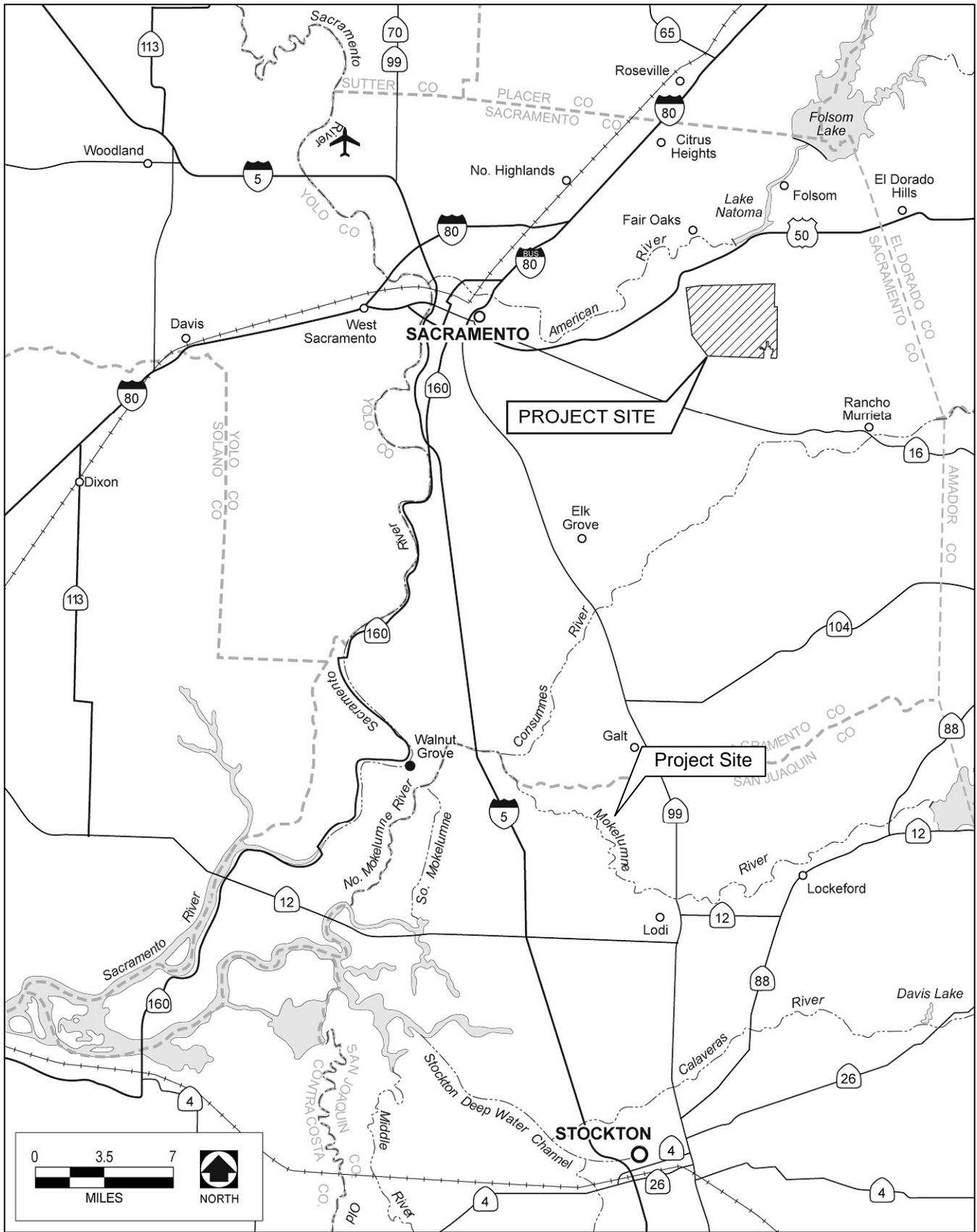
The project site is located in eastern Sacramento County, south of U.S. Highway 50 (U.S. 50), within the city limits of the City of Rancho Cordova (Exhibits 2-1, 2-2, and 2-3). The property is located south of White Rock Road, north of Douglas Road, and east of Sunrise Boulevard.

Rancho Cordova lies within the Sacramento Valley, a nearly flat alluvial plain that extends almost 180 miles from the Sacramento–San Joaquin Delta on the south to Redding on the north, and approximately 50 miles from the Sierra Nevada foothills on the east to the Coast Range on the west. The Sacramento Valley is an asymmetric structural trough that is filled locally up to 5 miles deep with sediment that has been deposited on a nearly continuous basis since the late Jurassic period (approximately 160 million years ago). Climate in the Sacramento Valley is characterized by warm, dry summers with an almost complete absence of rain, and mild winters with relatively light rains.

### **2.3.3 PROJECT SITE AND VICINITY**

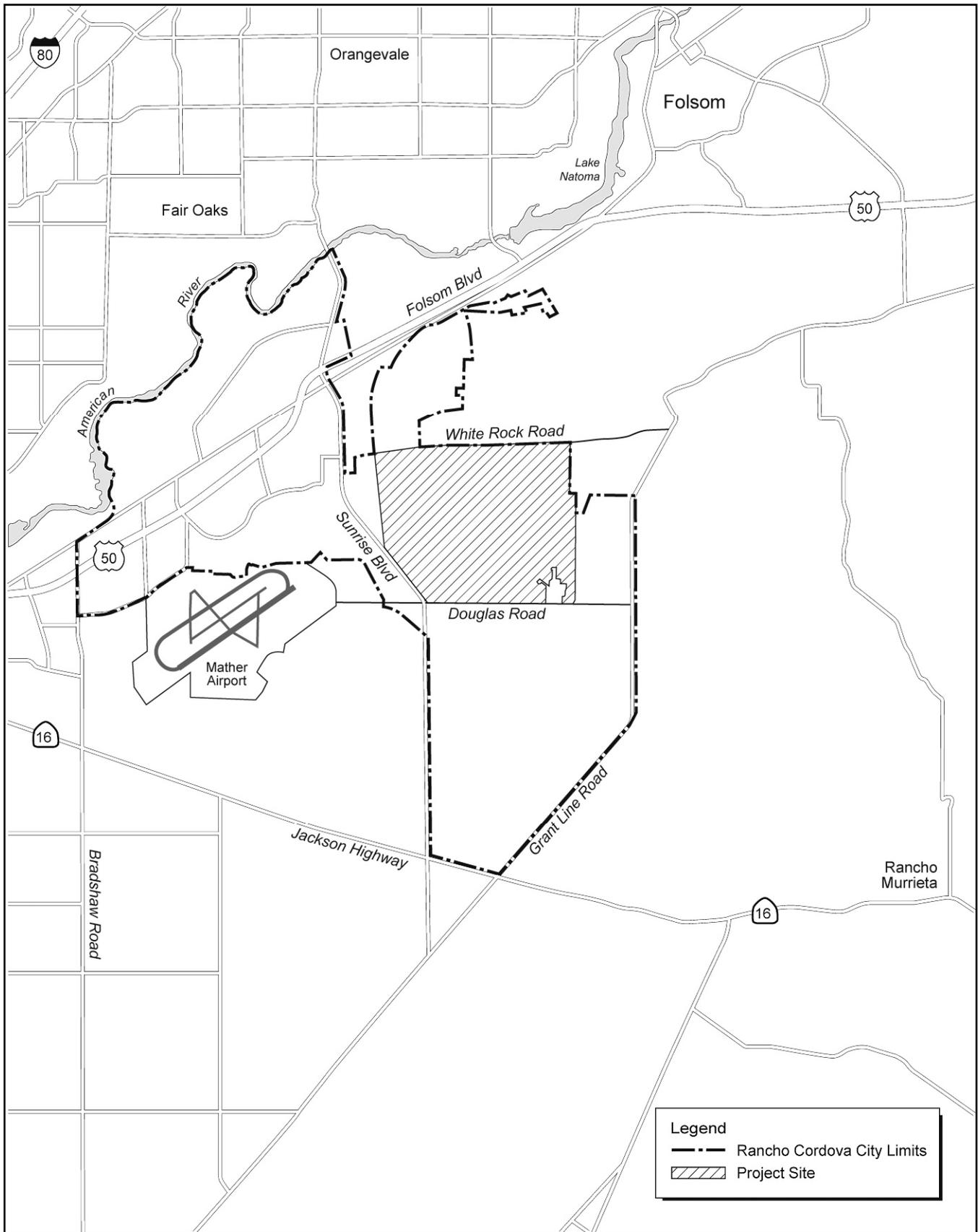
A large portion of the project site is currently being used as pastureland for cattle grazing. Surrounding land uses include facilities owned by Aerojet General Corporation (Aerojet) and associated buffer lands to the north; aggregate mining to the northeast; industrial development (the Security Park) to the southeast; industrial development along the Sunrise Boulevard corridor to the west; Mather Airport farther west; and new residential housing and agricultural land uses to the south. The County of Sacramento (County) Landfill is located southeast, and the Sunrise Douglas Community Plan/SunRidge Specific Plan (a developing mixed-use project) area is located south of the Rio del Oro project site.

Access to the Rio del Oro project site would be provided via the proposed Rio del Oro Parkway, which would be accessible from Sunrise Boulevard, and via Rancho Cordova Parkway and Americanos Boulevard, both of which would be accessible from Douglas and White Rock Roads (Exhibit 2-4).



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

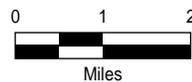
**Regional Location**

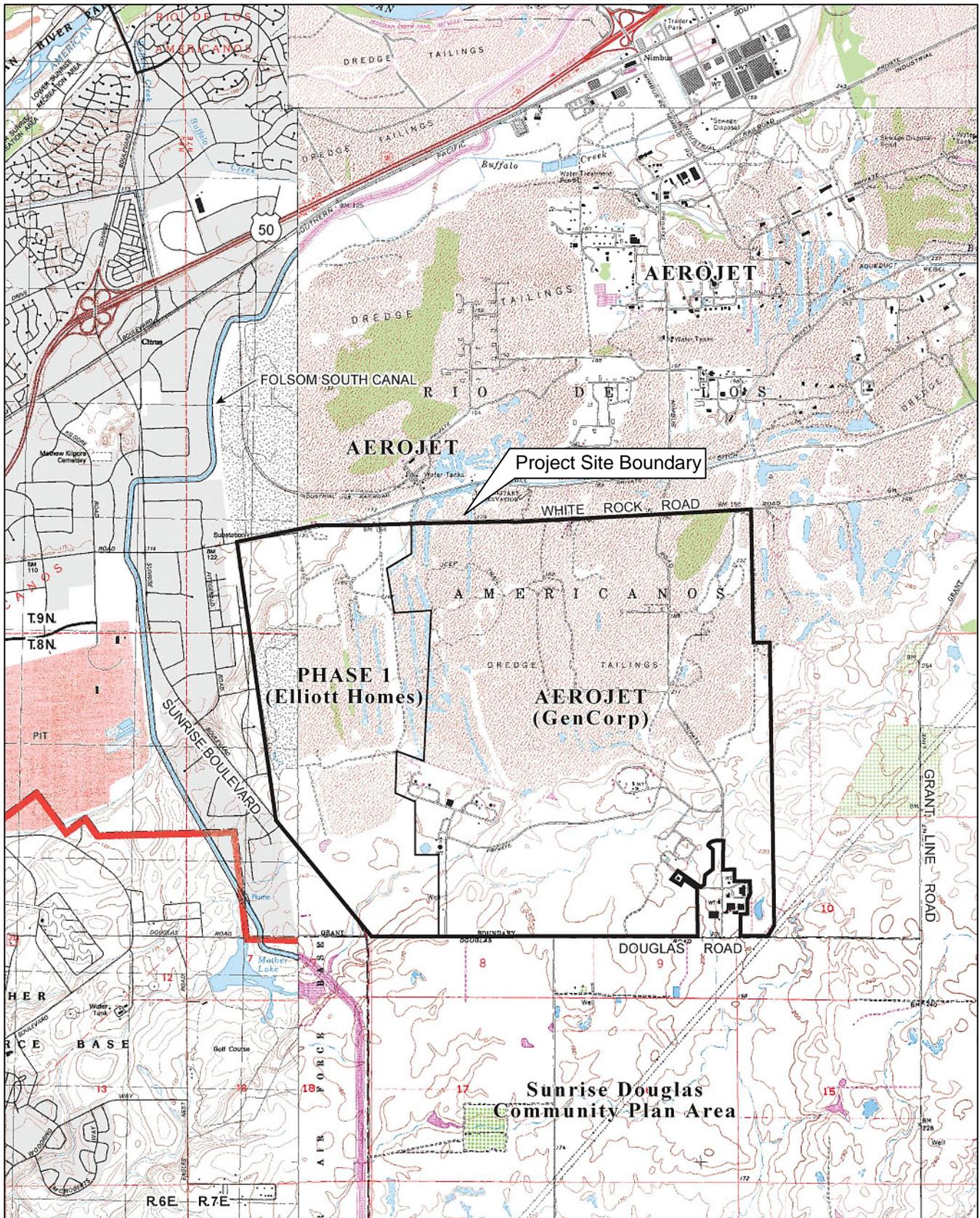


Source: USGS Citrus Heights/Carmichael Quads 1992, USGS Folsom/Buffalo Creek Quads 1980

## Local Project Setting

Rio del Oro Specific Plan Project DEIR/DEIS  
 City of Rancho Cordova and USACE  
 P 3T089.01 08/05



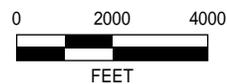


Source: USGS Citrus Heights/Carmichael Quads 1992, USGS Folsom/Bufalo Creek Quads 1980

## Project Vicinity Map

EXHIBIT 2-3

Rio del Oro Specific Plan Project DEIR/DEIS  
 City of Rancho Cordova and USACE  
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## **2.3.4 DESCRIPTION OF THE PROPOSED PROJECT/ACTION (PROPOSED PROJECT ALTERNATIVE)**

### **PROGRAM LEVEL AND PROJECT LEVEL CHARACTERISTICS**

This section describes the requested entitlements, project characteristics, and components associated with a project level analysis of the proposed development Phase 1. The analysis of Phase 1 and of all biological resources is at a project level of detail. This section further provides a “big picture” description of the entire proposed Rio del Oro project area at a program level of analysis. It should be noted that while the proposed development Phase 1 and the development proposed in and adjacent to jurisdictional wetlands are components of the Rio del Oro project, these are the only portions of the plan area that are analyzed at a project level of detail, because the Phase 1 area is proposed for development following project approval.

This section refers to the “project” as the “proposed project” since it encompasses the Proposed Project Alternative. When referring to the other alternatives under consideration, the text refers to the Rio del Oro project as “project.”

### **PROGRAM LEVEL (RIO DEL ORO SPECIFIC PLAN)**

#### **Requested Entitlements**

The following entitlements are requested from USACE and the City for the proposed project. Specific-plan development entitlements for development Phase 1 are listed in the “Project Level (Phase 1)” discussion below. Additional approvals and authorizations are listed in Chapter 1, “Introduction and Statement of Purpose and Need.”

#### ***U.S. Army Corps of Engineers***

The proposed action represents a federal action because it would require federal permits and authorizations for one or more of the following activities: issuance of a Section 404 Clean Water Act permit for discharges into waters of the United States; and issuance of a biological opinion and incidental-take statement pursuant to Section 7 of the ESA for potential take of endangered or threatened species. For purposes of evaluating NEPA project level biological impacts, a figure showing a draft lotting pattern only for areas within 250 feet of wetlands under USACE’s jurisdiction is attached as Exhibit 2-5. However, it should be noted that this lotting pattern is not final and is not being used by the City for any project-related entitlements.

#### ***City of Rancho Cordova***

Adoption of the proposed project, as well as alternatives under consideration, including development Phase 1, requires approval of the following City entitlements:

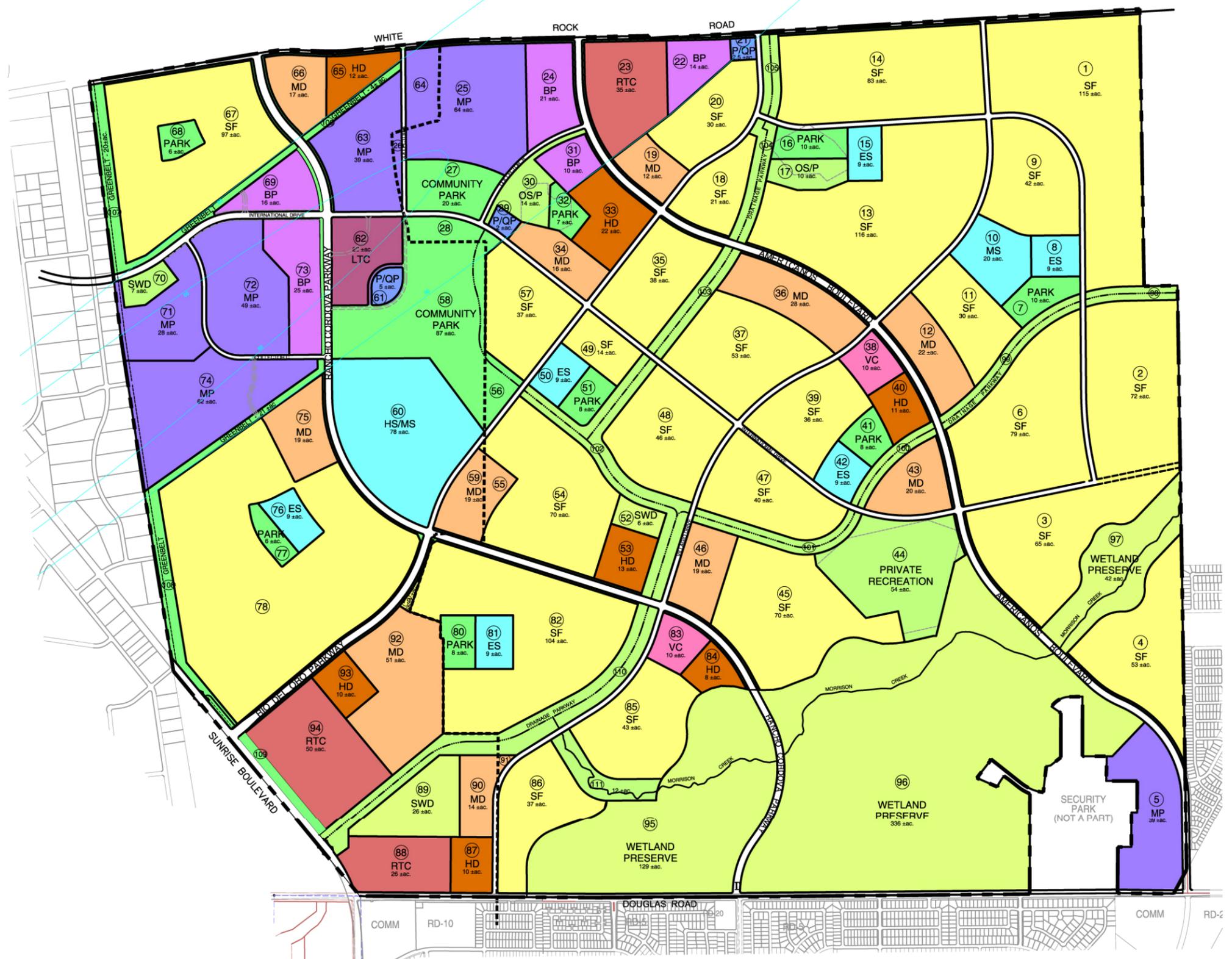
- ▶ Adoption of the Rio del Oro Specific Plan,
- ▶ Adoption of a Public Facilities Financing Plan,
- ▶ Adoption of a Public Facilities Infrastructure/Phasing Plan,
- ▶ Approval of a Tentative subdivision maps (Phase 1 only), and
- ▶ Approval of a Development agreement between the City and project applicant(s).

Future City entitlement approvals for development Phases 2–5 may include, but are not limited to, the following:

- ▶ use permits,
- ▶ tentative subdivision maps,
- ▶ lot line adjustments,

### LAND USE SUMMARY

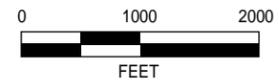
LAND USE	ACRES	DENSITY RANGE	FIXED COUNT	UNITS	UNIT %
SF SINGLE FAMILY RESIDENTIAL	1,597	2.1 TO 6.0	5 DU/AC	7,985	69%
MD MEDIUM DENSITY RESIDENTIAL	237	6.1 TO 18.0	8 DU/AC	1,896	16%
HD HIGH DENSITY RESIDENTIAL	86	18.1 TO 40.0	20 DU/AC	1,720	15%
VC VILLAGE COMMERCIAL	20				
LTC LOCAL TOWN CENTER	22				
RTC REGIONAL TOWN CENTER	111				
BP BUSINESS PARK	86				
MP INDUSTRIAL PARK	282				
P/QP PUBLIC / QUASI PUBLIC	9.5				
MS/HS SCHOOL CAMPUS	78				
MS MIDDLE SCHOOL	20				
ES ELEMENTARY SCHOOL	54				
CP COMMUNITY PARK	107				
P NEIGHBORHOOD PARKS	63				
SWD STORM WATER DETENTION	39				
WETLAND PRESERVE	507				
DRAINAGE PARKWAY	143				
PRIVATE RECREATION	54				
OS OPEN SPACE	12				
OS/P OPEN SPACE/ PRESERVE	24				
LANDSCAPE CORRIDORS	44				
GB GREENBELTS	50				
MAJOR ROADS	183				
<b>TOTALS:</b>	<b>3828.5</b>			<b>11,601</b>	<b>100%</b>

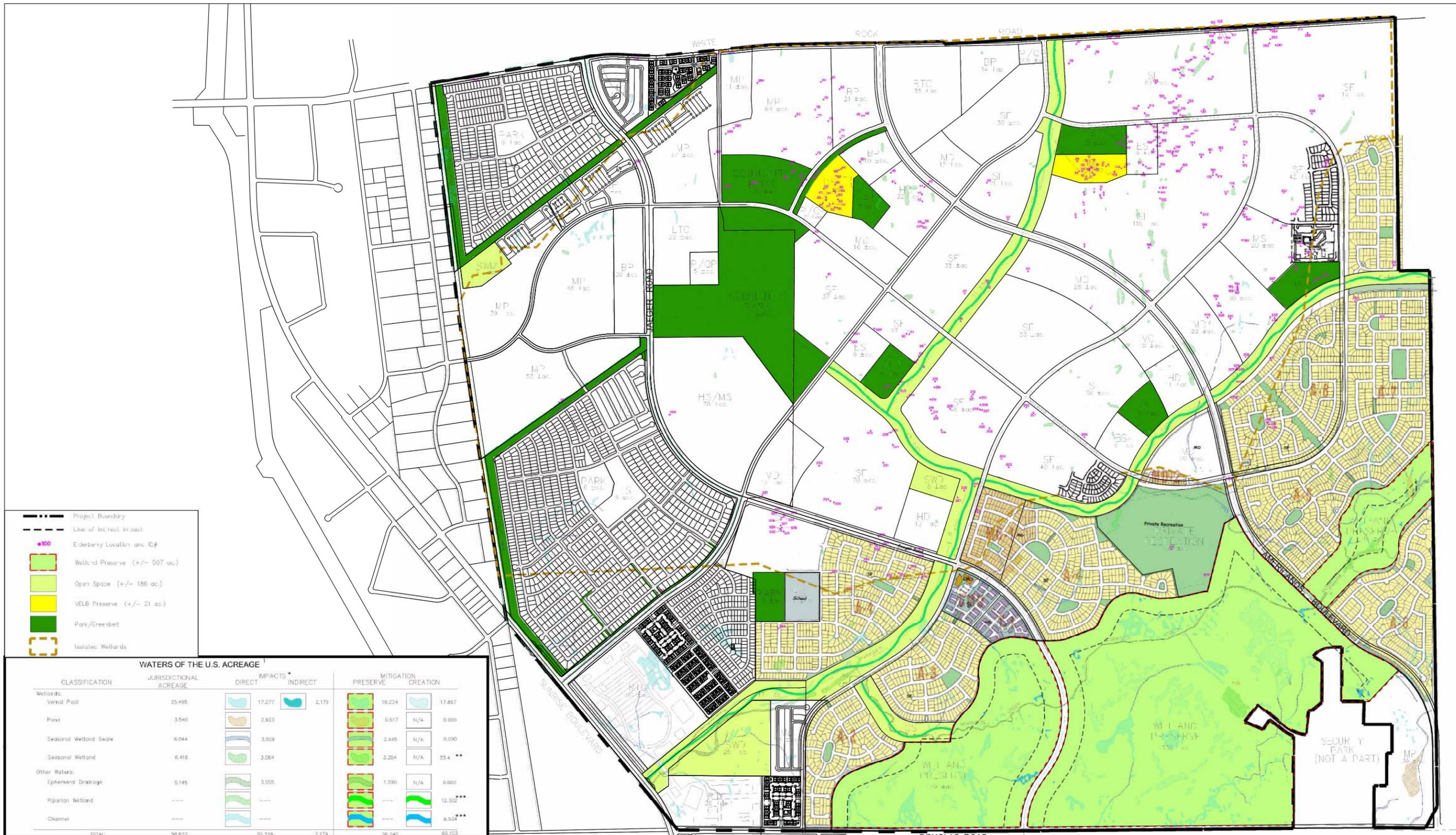


Source: G.C. Wallace 2006

### Proposed Project Alternative Land Use Plan

EXHIBIT 2-4

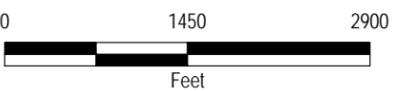




Source: ECORP 2005

Draft Lotting Plan for NEPA Project-Level Review

Rio del Oro Specific Plan Project DEIR/DEIS  
 City of Rancho Cordova and USACE  
 X 3T089.01 05/06



- ▶ Engineering Improvement Plans,
- ▶ infrastructure and roadway improvement projects,
- ▶ design review, and
- ▶ Development Agreement between the City and future project applicant(s).

Each of these required entitlements and approvals is described in turn below.

- ▶ **Rio del Oro Specific Plan Adoption.** The specific plan is intended to provide a comprehensive land use, policy, and regulatory document to govern all future development in the 3,828-acre plan area, which contains the same boundary as the project site and is hereinafter referred to as the “project site.” The goal of the specific plan is to establish a development framework for land use, resource protection, circulation, public utilities and services, design, and implementation. Development of the specific plan (i.e., the proposed project under the CEQA process) and the subsequent entitlement process provides for a sequence of community input and government review to ensure that development occurs in a logical, consistent, and timely manner.

Specific plans are an implementation mechanism for new-growth areas authorized, but not mandated, by California statute (California Government Code Section 65451 et seq.). The content of a specific plan is defined in Government Code Section 64541(a), which specifies the following in detail:

- the distribution, location, and extent of the uses of the land, including open space, within the area covered by the plan;
- the proposed distribution, location, extent, and intensity of major components of public and private transportation, sewage, water drainage, solid-waste disposal, energy, and other essential facilities proposed to be located within the area covered by the plan and needed to support the land uses described in the plan;
- standards and criteria by which development would proceed, and standards for the conservation, development, and utilization of natural resources, where applicable; and
- a program of implementation measures including regulations, programs, public-works projects, and financing measures necessary to carry out the above-listed criteria.

Under state law, the specific plan implements and must be consistent with the goals, policies, and objectives of the approving local agency’s general plan. Here, the project is intended to be consistent with the *Rancho Cordova General Plan* (City General Plan), as adopted on June 26, 2006. All subsequent entitlements and approvals relating to land or infrastructure in the plan area (i.e., project site), including but not limited to subdivisions, public-works projects, rezones, and conditional use permits, are required to be consistent with the specific plan if the specific plan is to be used as the entitling document. Once the specific plan is adopted, the maximum extent of development at the project site will have been determined and cannot be exceeded. However, development intensity and residential density within individual communities in the specific plan area may be transferred from one development to another, with City approval, provided that the maximum limits set forth in the specific plan are not exceeded.

- ▶ **Public Facilities Financing Plan.** A Public Facilities Financing Plan would be prepared and included as part of the Rio del Oro Specific Plan, and would be adopted by the City Council before the approval of any tentative map within the specific plan area, including development Phase 1. The Financing Plan would define the specific mechanisms required to fund capital costs of all infrastructure necessary as a result of specific plan buildout. The Financing Plan would define funding for the maintenance of new infrastructure and public services needed by the future residents and business locating within the Rio del Oro project site.
- ▶ **Public Facilities Infrastructure/Phasing Plan.** A Public Facilities Infrastructure/Phasing Plan would be adopted by the City Council before approval of any tentative map within the specific plan area, including

development Phase 1. The plan would provide specific details regarding the phasing, sizing, alignment and location, cost estimates, and construction timing requirements for each phase of the Rio del Oro project site.

- **Development Agreement.** The project applicant(s) intend to enter into a Development Agreement with the City pursuant to Government Code Section 65864 et seq. at the time of specific plan adoption. The agreement would set forth many, if not all, of the applicants’ obligations to the City and other public agencies with regard to the project, including but not limited to construction, maintenance, and financial responsibilities. The agreement would also set forth the City’s other project obligations, including but not limited to processing of subsequent entitlement applications, formation of financing mechanisms (including Mello-Roos districts), and the vesting of development entitlements. Pursuant to applicable Government Code provisions, public hearings at both the City Planning Commission and City Council would be held on the proposed Development Agreement before the City Council takes any action.

### Proposed Rio del Oro Land Uses

As described above, the proposed project (specific plan) consists of a 1,100-acre parcel (development Phase 1) and a 2,728-acre parcel (development Phases 2–5) in Rancho Cordova. The proposed project would include a range of housing types, employment centers, and recreation opportunities, as well as support services such as roadway improvements, support infrastructure, and utilities. Land uses described below and shown in Table 2-1 and Exhibit 2-4 include those proposed for all five phases of the proposed project.

Land Use	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Total
Single-Family Residential	290	252	324	386	345	1,597
Medium-Density Residential	113	56	26	22	20	237
High-Density Residential	32	22	21	-	11	86
Village Commercial	-	-	10	-	10	20
Shopping Center (LTC RTC)	98	35	-	-	-	133
Business Park	41	45	-	-	-	86
Industrial Park	188	55	-	-	39	282
Public/Quasi Public	5	4.5	-	-	-	9.5
High School/Middle School	78	-	-	-	-	78
Middle School	-	-	-	20	-	20
Elementary Schools	9	9	9	18	9	54
Community Parks	71	36	-	-	-	107
Neighborhood Parks	12	15	8	20	8	63
Stormwater Detention	33	-	6	-	-	39
Wetland Preserve	-	-	129	-	378	507
Drainage Parkway	17	60	41	18	19	155
Private Recreation	-	-	-	-	54	54
Open Space Preserve	-	14	-	10	-	24
Greenbelts	50	-	-	-	-	50
Major Roads with Landscaping	78	36	37	27	49	227
<b>Total</b>	<b>1,115</b>	<b>639.5</b>	<b>611</b>	<b>521</b>	<b>942</b>	<b>3,828.5</b>
Source: G. C. Wallace 2005						

Buildout of the proposed project would be split into five development phases, is anticipated to occur over a 25- to 30-year period, and would include the elements described below.

### ***Residential***

The proposed project provides for the construction of approximately 11,601 dwelling units in three residential land use classifications on 1,920 acres. The proposed densities are as follows:

- ▶ Single-Family Residential, with a permitted density range of 2.1–6.0 dwelling units per acre (du/ac) and a proposed density of 5 du/ac;
- ▶ Medium-Density Residential, with a permitted density range of 6.1–18.0 du/ac and a proposed density of 8 du/ac; and
- ▶ High-Density Residential, with a permitted density range of 18.1–40 du/ac and a proposed density of 20 du/ac. A total of 1,920 acres are proposed for residential development.

### ***Commercial/Industrial***

The proposed project includes the commercial land use classifications of Village Commercial, Local Town Center, and Regional Town Center (shopping centers); Business Park; and Industrial Park (Table 2-1). Two Village Commercial areas are proposed along Rancho Cordova Parkway and Americanos Boulevard for a total of 20 acres. Shopping Centers would occupy 133 acres of the project site. Business Parks totaling 86 acres are proposed along Rancho Cordova Parkway and Americanos Boulevard. In addition, 282 acres of Industrial Park are proposed.

### ***Parks/Recreation/Public***

The proposed project includes development of a 107-acre community park and various neighborhood parks totaling 63 acres. There would also be 54 acres of Private Recreation land uses, 9.5 acres of Public/Quasi Public Use, 44 acres of Landscape Corridor, and 50 acres of Greenbelt land uses. It is possible that, in addition to these recreational facilities, the project may ultimately include an outdoor sports facility/adult sports park. Whether such an outdoor sports facility/adult sports park will actually be built is uncertain, however, as the proposal remained rather amorphous at the time this DEIR/DEIS was released for public review, and had not been integrated into the draft Specific Plan. If constructed, the sports facility would be located on 40 acres currently proposed for Industrial Park land uses adjacent to and south of White Rock Road, north of the proposed Community Park. Uses at this facility could include a water slide park, softball complex, soccer fields, and/or a stadium/amphitheatre with capacity to accommodate approximately 3,000 people. Potential impacts associated with the sports facility are evaluated in this DEIR/DEIS at a programmatic level only. If the City Council chooses to consider the actual approval of the facility, additional, project-level CEQA analysis, building on the programmatic analysis found herein, will be necessary.

### ***Open Space Preserve***

A total of 329 elderberry shrubs, the host plant for the valley elderberry longhorn beetle (federally listed as endangered), were identified on the project site during surveys conducted by Gibson & Skordal (2000). Two elderberry preserve areas have been designated on the project site in areas with the greatest concentration of shrubs. The 10-acre and 14-acre conservation areas would preserve a total of 38 existing elderberry shrubs. Approximately 291 elderberry shrubs outside of these preserve areas would be transplanted before grading. All transplanted shrubs would be placed in the preserve areas. Approximately 2,088 elderberry seedlings and approximately 3,988 associated native plants would be planted within these conservation areas and within the proposed drainage corridors.

## ***Drainages/Wetlands***

The proposed project includes the creation of 155 acres of drainage parkways. A total of 39 acres of stormwater detention basins would be created in three separate locations: one in the southern portion and one in the northern portion of the Phase 1 development area, and a third basin in the central portion of development Phase 3. A 507-acre wetland preserve area is also proposed in the southern portion of the project site.

### **Drainage Conveyance**

Project implementation would allow reclamation and development of nearly 3,300 acres of land that has been previously developed (i.e., mined or otherwise extensively disturbed). The development effort would require that drainage watercourses be provided to effectively drain the site, control flooding, and provide recreation and water quality benefits. Exhibit 2-6a shows the extent to which drainage features such as parkways, detention basins, and water quality treatment facilities would be integrated into the ultimate project buildout. A network of conveyance pipes, inlets, manholes, and regulating structures would deliver runoff to the aforementioned system components (Exhibit 2-6a). Potential off-site drainage improvements are shown in Exhibit 2-6b.

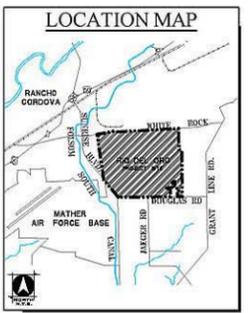
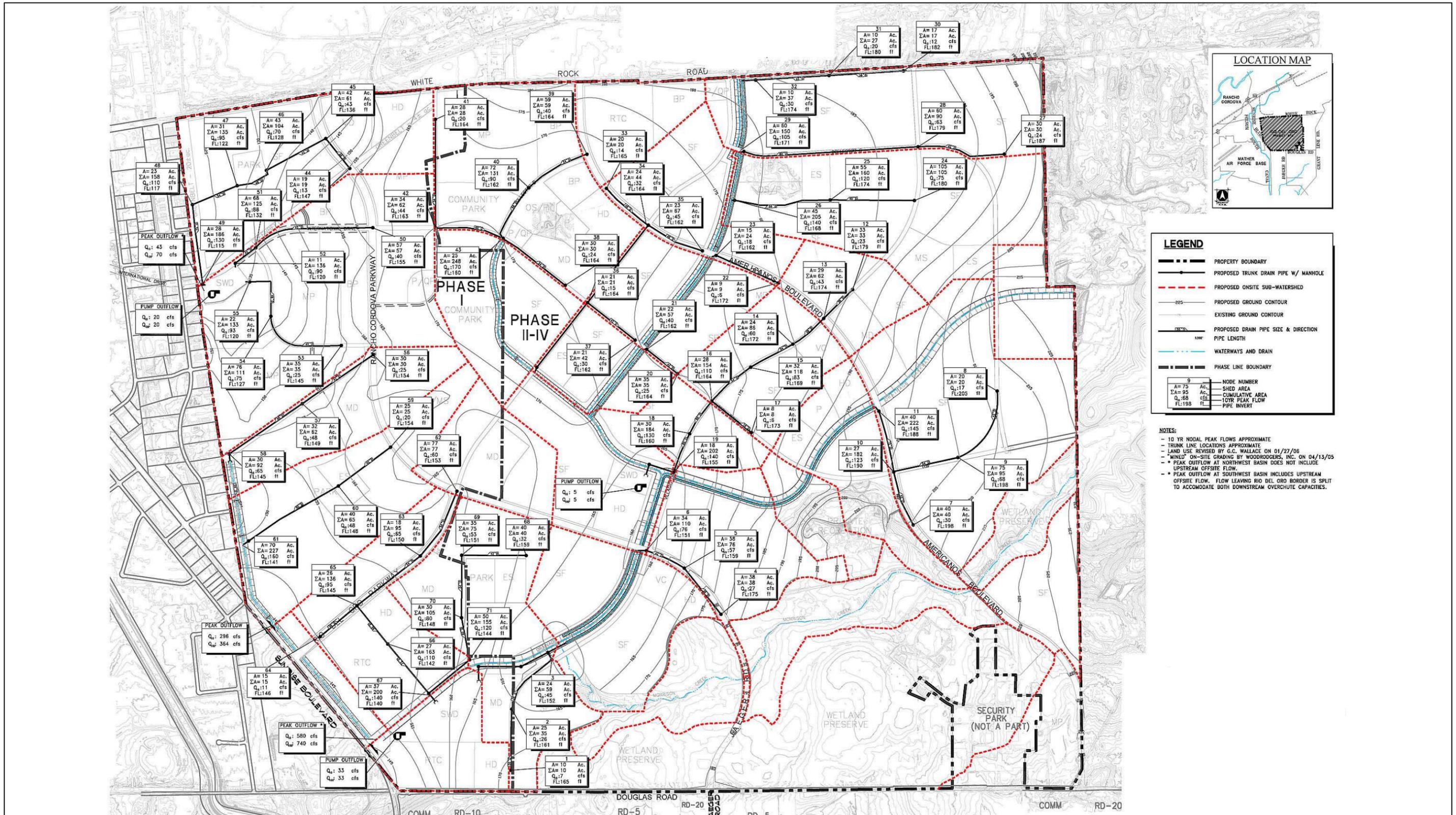
The California Department of Water Resources (DWR) and County Department of Water Resources have indicated that the Folsom South Canal drainage crossings, as well as their upstream drainage conveyance systems (extending east from the canal crossings to the Rio del Oro project site boundary), represent the basis for the total allowed discharge from the project site. The Folsom South Canal is not a drainage system; it is designed to convey American River water east and south for irrigation and domestic uses. There are four locations along the Folsom South Canal where runoff attributable to the project site crosses into downstream conveyances. The majority of runoff leaving the project site is conveyed in culverts, channels, and enclosed storm drain systems. Runoff is conveyed on-site via culverts, overland flow areas, creeks, and streams.

There are four watersheds upstream of the project site that contribute runoff. Three originate outside of the project site: water from the southwest and southeast watersheds is conveyed primarily overland, while water from the northwest watershed is conveyed through pipe culverts that lie beneath White Rock Road. The fourth watershed is the largest; it includes the entire mainstem Morrison Creek drainage extending east beyond Grant Line Road. This watershed originates on-site and flows south from the project area through roadway crossings of Douglas Boulevard. All four watersheds consist of gently rolling terrain that generally drains toward the southwest with slopes ranging from 1% to 7%. Ground elevations range from 130 feet above mean sea level in the northwest to 220 feet in the southeast. All but one of the watersheds contain extensive tailings disposal mounds from historical mining activities, which were formed into tall berms that were used to hold water to float the dredger. These berms continue to impound and trap rainfall, thereby decreasing the runoff yield from the watersheds during all but the most extreme flood conditions.

Downstream of the project site, the two watersheds in the northwest and southwest flow into areas of industrial and business park development where roadways, utilities, and drainage conveyance systems are present. The two watersheds from the northeast and southeast portions of the project site flow into undeveloped grazing lands. Although each of these watersheds crosses the Folsom South Canal at different locations, they all ultimately drain to Morrison Creek southwest of Mather Airport.

There are several intermittent drainage watercourses on-site; however, the majority of overland watercourses that may have been present historically have disappeared as a result of mining activity. In addition, small networks of drainage ditches and small-diameter roadway culverts exist in areas near the industrial and testing facilities constructed by Aerojet.

The project site lies within the greater Morrison Creek watershed. While Morrison Creek has not been previously studied by the Federal Emergency Management Agency (FEMA) for purposes of drafting a Flood Insurance Study, it has been studied by DWR under its Awareness Flood Mapping Program. The area along Morrison Creek



**LEGEND**

- PROPERTY BOUNDARY
- PROPOSED TRUNK DRAIN PIPE W/ MANHOLE
- - - - - PROPOSED ONSITE SUB-WATERSHED
- PROPOSED GROUND CONTOUR
- EXISTING GROUND CONTOUR
- PROPOSED DRAIN PIPE SIZE & DIRECTION
- PIPE LENGTH
- WATERWAYS AND DRAIN
- PHASE LINE BOUNDARY

9	Ac.	— NODE NUMBER
A=75	Ac.	— SHED AREA
ΣA=95	Ac.	— CUMULATIVE AREA
Qp=68	cfs	— 10YR PEAK FLOW
FL=198	ft	— PIPE INVERT

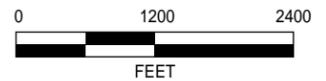
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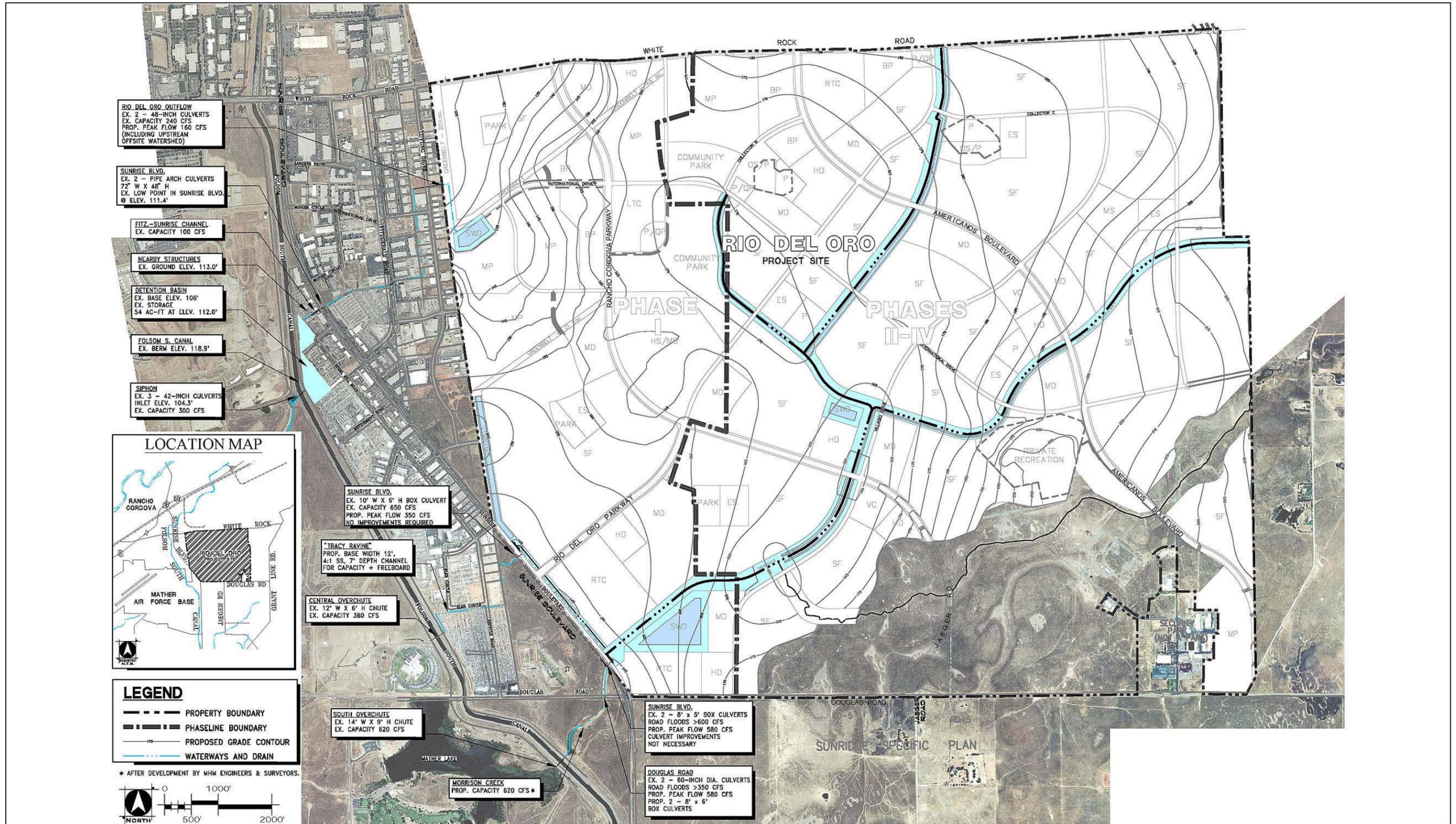
- 10 YR NODAL PEAK FLOWS APPROXIMATE
- TRUNK LINE LOCATIONS APPROXIMATE
- LAND USE REVISED BY G.C. WALLACE ON 01/27/06
- MINED ON-SITE GRADING BY WOODRODGERS, INC. ON 04/13/05
- \* PEAK OUTFLOW AT NORTHWEST BASIN DOES NOT INCLUDE UPSTREAM OFFSITE FLOW.
- \* PEAK OUTFLOW AT SOUTHWEST BASIN INCLUDES UPSTREAM OFFSITE FLOW. FLOW LEAVING RIO DEL ORO BORDER IS SPLIT TO ACCOMMODATE BOTH DOWNSTREAM OVERCHUTE CAPACITIES.

Source: Wood Rodgers 2005

**On-Site Drainage System**

Rio del Oro Specific Plan Project DEIR/DEIS  
 City of Rancho Cordova and USACE  
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Source: Wood Rodgers 2006

### Off-Site Drainage System

Rio del Oro Specific Plan Project DEIR/DEIS  
 City of Rancho Cordova and USACE  
 P-37089.01 03/06

EXHIBIT 2-6b



as it flows through the project site has been designated by the County Department of Water Resources as lying within a 100-year floodplain.

A preliminary grading plan has been developed that accommodates needs for on-site stormwater detention, incorporates preferred vertical alignments for roadways and drainage parkways, and joins with existing conditions at the project boundaries. A conceptual storm-drain trunk system that would include pipes 30 inches in diameter and larger has also been developed. The design would satisfy 10- and 100-year design requirements as prescribed in the County Standards. Site grading would develop the existing watersheds to take better advantage of existing downstream restrictions and the Folsom South Canal crossings. In addition, runoff would be directed more evenly throughout the project site without the need for lengthy trunk systems to deliver stormwater to detention and water-quality treatment facilities. The conceptual grading permits call for efficient and cost-effective selection of pipe culverts at grades generally in excess of 0.5%, and a network of drainage parkways offers a preferred alternative to enclosed pipes where large runoff volumes would be conveyed.

Several drainage canals varying in length from 1,500 to 15,000 feet are proposed for construction within drainage parkways, which would vary between 200 and 375 feet wide depending on the conveyance requirement. Flow depth of the channels would not exceed 8 feet at the channel capacity. The width of the drainage parkways would permit the final construction alignments of the channels to meander through the project site, and would also lend to the construction of wetland buffer areas alongside the proposed streambanks.

The majority of the historical Morrison Creek streambed through the project site would be preserved as part of the site development plan (within the designated wetland preserve). Some grading would be required in the eastern open-space tract to contain seasonal flows to an active channel and more reliably define the extent of the 100-year floodplain in this area. Within the preserve portion of the proposed project, no alterations would be made to Morrison Creek; however, adjacent habitat restoration activities are proposed, including construction of vernal pools, seasonal wetlands, or habitat creation. Construction of a roadway crossing at Rancho Cordova Parkway is also proposed. Where Morrison Creek approaches the western boundary of the project site, the creek would be modified to permit construction of a large overbank flood-detention area. During smaller events, runoff would be conveyed within the creek banks while larger flows would utilize the large overflow area up to the design depth of the basin. The limits of the existing Morrison Creek floodplain would be modified to include the proposed drainage parkways, the detention areas, and the grading modification in the eastern open-space tract.

Three detention and water quality basins are proposed in the northwest, central, and southwest portions of development Phase 1. The 26-acre basin proposed for the southwest corner of the site would act as a large overflow basin for flows exceeding the bank-full capacity of Morrison Creek where it exits the project site. This basin would have a storage capacity of nearly 500 acre-feet. The other two basins would consist of 7 acres and 6 acres each, with storage capacities of 100 acre-feet and 70 acre-feet, respectively. Storm drainage pipes would all be 72 inches in diameter or less, with the majority less than 48 inches in diameter.

### Wetland Preserve

A total of 56.6 acres of waters of the United States are located within the project site. Additionally, 12.9 acres of wetlands were identified on the site that USACE determined to be nonnavigable, isolated, and intrastate waters with no apparent interstate commerce connection. As shown in Table 2-2, a total of 30.3 acres of waters of the United States, including wetlands, would be filled by project development, as follows: 17.3 acres of vernal pools, 2.9 acres of pond, 3.5 acres of seasonal wetland swale, 3.1 acres of seasonal wetland, and 3.5 acres of seasonal drainage.

The proposed project includes a 507-acre wetland preserve that would contain 18.234 acres of vernal pools and 8.006 acres of seasonal wetland habitats. The wetland preserve would be located on the southern portion of the project site in an area that has remained relatively undisturbed in comparison to other portions of the site. As shown in Table 2-2, a total of 26.2 acres of waters of the United States and wetlands would be preserved at the

project site, including the portion of Morrison Creek located within this area. The wetland preserve would likely be established during development Phase 1, although it would be expanded and continue to be improved as later development phases come on line. The exact timing of events within the wetland preserve would be determined by USACE’s Clean Water Act Section 404 permit requirements. The wetland preserve would not function as a mitigation bank.

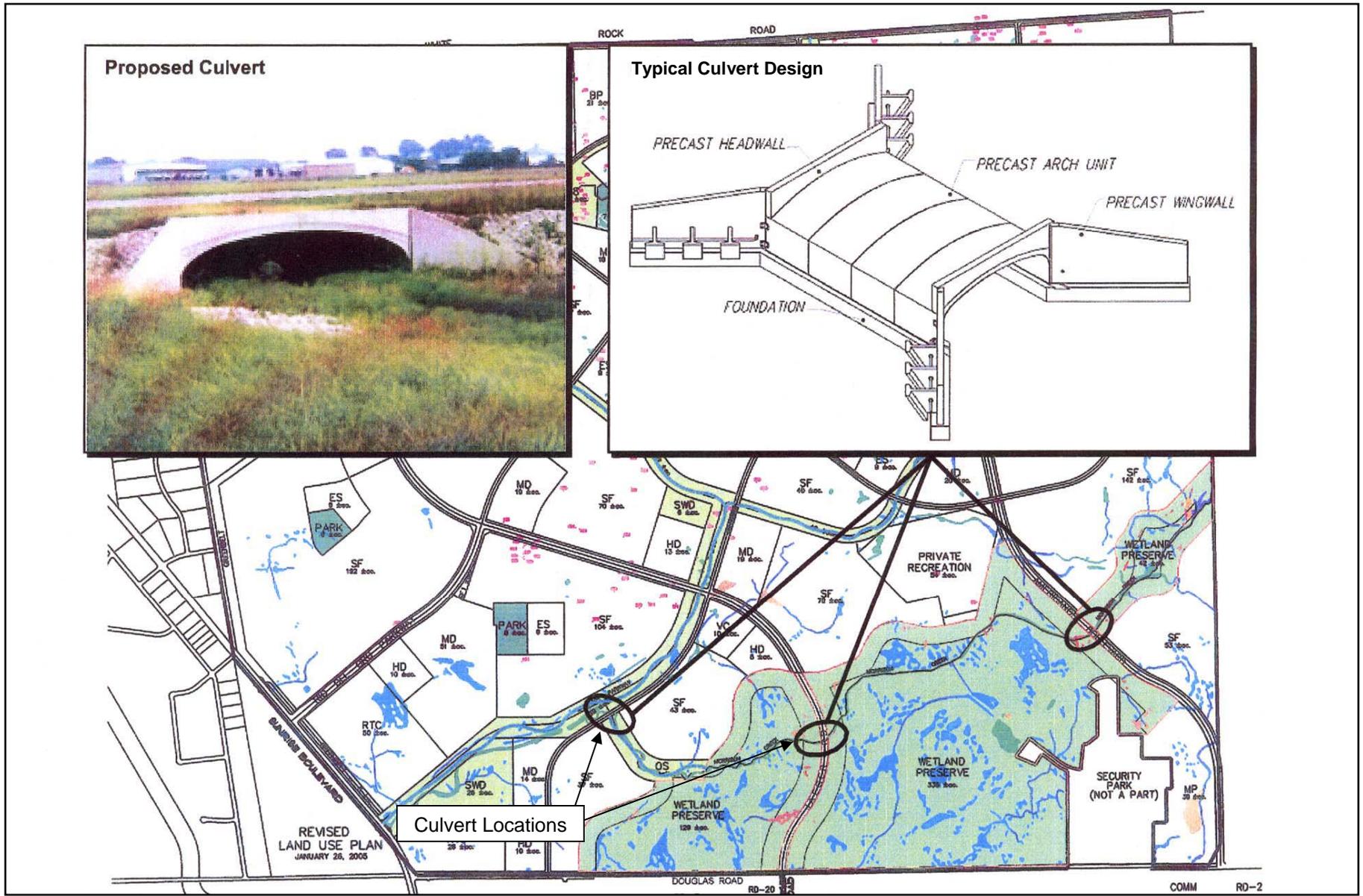
<b>Table 2-2 Waters of the United States and Wetlands at the Project Site</b>				
<b>Wetland Type</b>	<b>Existing Acres</b>	<b>Acres Affected By Project Implementation</b>	<b>On-Site Preservation Acres</b>	<b>On-Site Creation Acres</b>
Vernal pool	35.485	17.277	18.234	17.867
Pond	3.540	2.923	0.617	0.000
Seasonal wetland swale	6.044	3.509	2.445	0.000
Seasonal wetland	6.418	3.064	3.354	19.500 <sup>a</sup>
Seasonal drainage	5.145	3.555	1.590	0.000
Riparian wetland	---	---	---	12.302
Channel	---	---	---	6.534
<b>Total</b>	<b>56.632</b>	<b>30.328</b>	<b>26.240</b>	<b>56.203</b>

<sup>a</sup> Contained within three stormwater detention basins.  
Source: ECORP Consulting 2005

In addition to the 26.2 acres that would be preserved (described above), 17.9 acres of vernal pool would be created within the wetland preserve. The proposed location and sizes of the created vernal pools were designed using historical aerial photos, which show that the wetland preserve area previously supported other additional wetland features. In areas where no vernal pools historically existed, the vernal pools would be designed to include 250-foot buffers from existing vernal pools to avoid any potential indirect impacts. Monitoring of the created vernal pools would be conducted for a 10-year period with field studies occurring in years 1, 3, 5, 7, and 10.

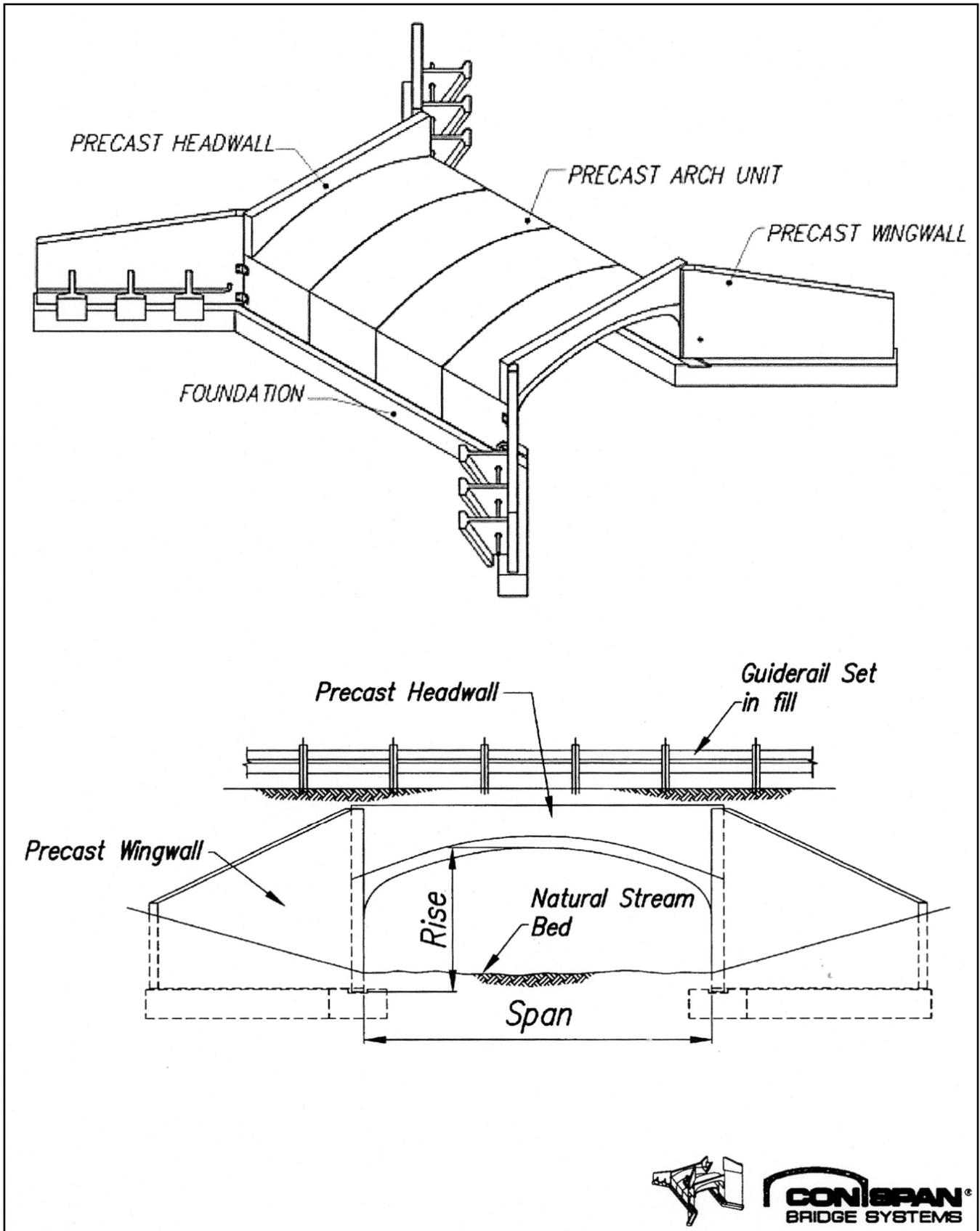
Seasonal wetland habitats would be created in the three detention basins proposed on the site. Approximately 60% (19.5 acres) of the basins would be designed to function as seasonal wetlands. Furthermore, 186 acres of drainage corridors would be established on the project site. Low-flow channels and riparian wetland would be established in the proposed drainage corridors. These corridors would range from 200 feet to 300 feet wide and would consist of a meandering low-flow channel, adjacent wetlands, riparian plantings, and a bike trail. Assuming an average low-flow channel width of 10 feet and 10 feet of associated riparian habitat on either side, project implementation would create an additional 12.3 acres of riparian habitat and 6.53 acres of low-flow channel. These corridors would reestablish defined drainage corridors for the site that have not been present since the dredging operations completely altered the character and topography of the majority of the site.

In addition to preserving a portion of the on-site wetland resources, the wetland preserve would serve as an entrance to the Rio del Oro project site, and the open nature of the preserve would allow high visibility from the proposed Rancho Cordova Parkway and Douglas Road. To facilitate wildlife movement, the Rio del Oro project would include a special culvert design (“con-span”) where the southern portion of Rancho Cordova Parkway crosses the wetland preserve and where the southern portion of Villagio Drive crosses Morrison Creek (development Phase 3), as shown in Exhibits 2-7 and 2-8.



Source: ECORP 2005

## Rio del Oro Culvert Crossing Design



Source: ECORP 2005

Typical Con-Span Design Detail

EXHIBIT 2-8

Temporary fencing would be erected between construction areas and the wetland preserve during the construction phase, and the preserve would be permanently fenced at the completion of construction to prevent unauthorized traffic. Interpretive signage would be placed along the preserve boundary to provide educational opportunities. Deed restrictions and conservation easements would be recorded that would require the wetland and open-space areas constructed on-site to be maintained as wetland and wildlife habitat in perpetuity. Copies of proposed language would be submitted to USACE for approval before recordation, and copies of the recorded documents would be provided to USACE no later than 30 days subsequent to recordation. Recordation would occur before the start of project construction.

### **Wetland Preserve Mitigation and Monitoring Plan**

A draft mitigation and monitoring plan (MMP) for the wetland preserve and additional mitigation areas has been developed by ECORP Consulting, Inc. (ECORP) on behalf of the project applicant(s) and is attached as Appendix C. An operations and management plan (O&M plan) is also being prepared for the project by ECORP on behalf of the project applicant(s). Both the MMP and the O&M plan would need to be reviewed and approved by USACE before implementation or work in waters of the United States. The MMP outlines the monitoring methods and success criteria of compensatory wetland and riparian habitat while the O&M plan lists the responsibilities of the Preserve Steward, as well as the tasks required to ensure the long-term viability of the functions and values of the preserve.

### **Schools**

Approximately 152 acres are designated as part of the proposed project for school uses, including a combined high school/middle school (78 acres), a separate middle school (20 acres), and six elementary schools (54 acres). All would be part of the Folsom-Cordova Unified School District (FCUSD). Most of the schools, along with an 87-acre community park adjacent to the high school/middle school complex in the western portion of the project site, would be jointly used by FCUSD and the Cordova Recreation & Park District. Funding would be provided through state bonds and local bonds and developer fees.

Buildout of the Rio del Oro development would generate approximately 5,479 pupils in grades K–12. Of this total, 3,213 pupils would be in grades K–5; 1,116 would be in grades 6–8; and 1,150 would be in grades 9–12 and continuation high school. FCUSD based these projections on the current land use designations and yield rates generated from similar types of development.

FCUSD is currently planning the first elementary school and the combined middle school/high school located within the Rio del Oro development (described in the section below on development Phase 1). The first middle school and high school would be combined on one large 78-acre site. The middle school would have a capacity of approximately 800 pupils and the high school would have a capacity of approximately 2,000 pupils.

The timeline for construction of the remaining schools would coincide with the project applicant(s)' buildout schedule, which is dependent upon market trends for new homes.

### **Public Utilities and Services**

Public services, utilities, and other infrastructure improvements would be needed to support the proposed Rio del Oro project as outlined in the specific plan. The project applicant(s) have initiated coordination with the various service providers regarding provision of these services on an as-needed basis. Table 2-3 provides details on the necessary off-site improvements.

### **Fire and Police Protection**

Fire protection services would be provided by the Sacramento Metropolitan Fire District. Police protection would be handled by the County Sheriff's Department under contract with the City until the City establishes an

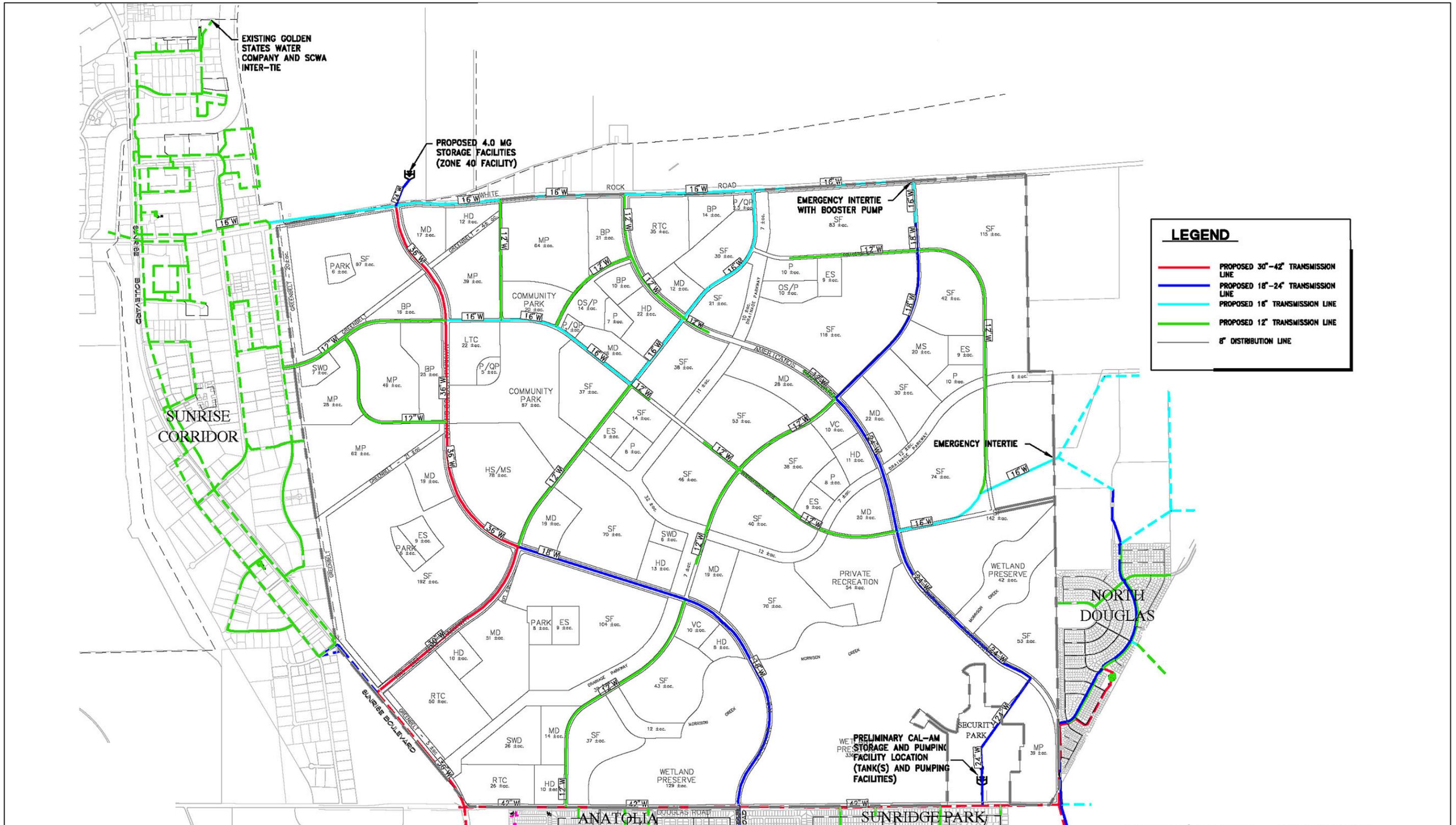
independent police department. The facility’s needs for law enforcement and protection would be determined by that department. Public facilities would be permitted uses in any commercial, industrial, or office zone, thereby providing numerous opportunities within the project site and vicinity for fire or police stations as determined necessary.

<b>Table 2-3 Rio del Oro Off-Site Infrastructure Improvements</b>		
Improvement	Phase	Approved/Existing CEQA Coverage?
Interim water transmission lines (see Exhibit 2-9c)	Phase 1	No
1.5-million-gallon water tank north of White Rock Road at the intersection with the extension of Rancho Cordova Parkway	Phase 1 or Phase 2; Zone 40 would identify as development occurred	Yes
Force main to Bradshaw Interceptor Section 7 (potential interim connection) from Sunrise Boulevard/Douglas Road intersection, west along Douglas Road to future extension of Zinfandel Drive, then north along Zinfandel Drive to Bradshaw Interceptor Section 7 at Zinfandel Drive or west along White Rock Road to Kilgore Road	Phase 1	Yes
Aerojet Sewer Interceptor Section 1 south along Sunrise Boulevard to Laguna Interceptor	NA Ultimate—when SRCSD constructs	Yes
Laguna Sewer Interceptor	NA Ultimate—when SRCSD constructs	Yes
Zone 40 Master Plan	NA Zone 40 would develop water supply as Phases 1–8 were built out	Yes
Notes: NA = not applicable; SRCSD = Sacramento Regional County Sanitation District Sources: Wood Rodgers 2005a, 2005b; data compiled by EDAW in 2005		

## Water

The project site lies outside the Sacramento County Water Agency’s (SCWA’s) existing water service areas. SCWA (Zone 40) would serve as the water wholesaler and California American Water Company (Cal-Am) and Zone 41 would operate and maintain the distribution system in the plan area. Funds to construct water supply, treatment, and transmission facilities are collected through Zone 40 development fees. For purposes of sizing transmission/distribution facilities, the total average daily demand for the Rio del Oro project is estimated to be 5,451 gallons per minute (gpm) and total maximum daily demand is estimated to be 10,902 gpm. The water supply and distribution facilities would provide adequate flow deliveries to maintain acceptable service pressures to all customers within the project site. Facilities would also meet SCWA’s operating criteria for transmission mains, as well as the fire flow requirements of the Sacramento Metropolitan Fire District.

A preliminary on-site water system has been designed as a looping system following the major street alignments (Exhibit 2-9a). The transmission system would incorporate mainline pipe sizes from 16 inches to 24 inches in diameter. The on-site distribution system would consist of 8- to 12-inch diameter pipes, with the 12-inch lines looping near sites that require higher fire flow requirements, such as commercial, industrial, and school sites. Potential off-site water supply improvements are shown in Exhibit 2-9b. Water supply facilities specific to development Phase 1 are shown in Exhibit 2-9c.



Source: Wood Rodgers 2006

**On-Site Water Supply Facilities**

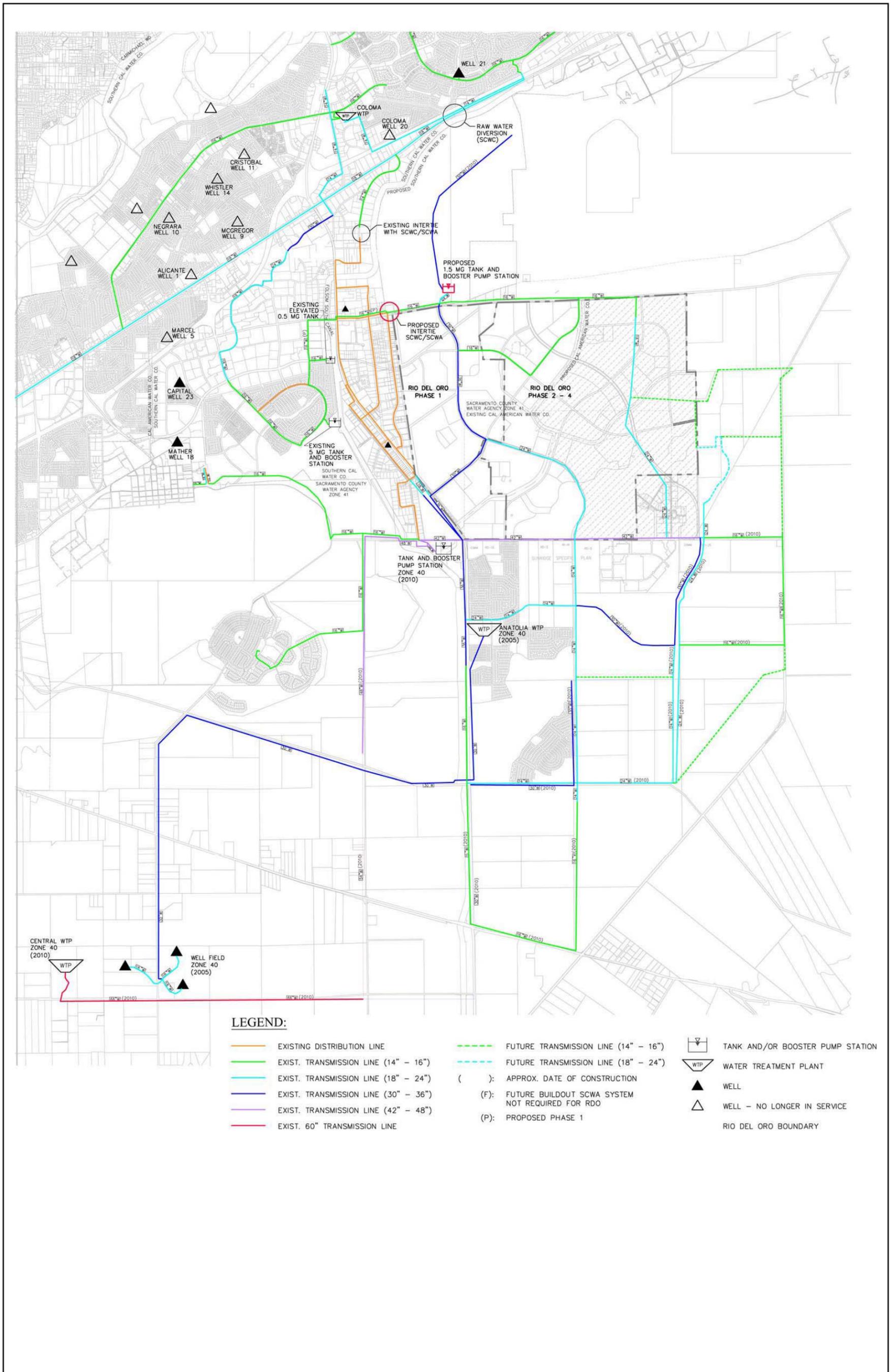
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EXHIBIT 2-9a

0 750 1600  
 FEET

NORTH

**EDAW**



**LEGEND:**

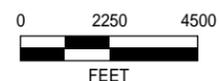
- |  |                                      |      |  |  |                                  |
|--|--------------------------------------|------|--|--|----------------------------------|
|  | EXISTING DISTRIBUTION LINE           |      | FUTURE TRANSMISSION LINE (14" - 16")             |  | TANK AND/OR BOOSTER PUMP STATION |
|  | EXIST. TRANSMISSION LINE (14" - 16") |      | FUTURE TRANSMISSION LINE (18" - 24")             |  | WATER TREATMENT PLANT            |
|  | EXIST. TRANSMISSION LINE (18" - 24") | ( ): | APPROX. DATE OF CONSTRUCTION                     |  | WELL                             |
|  | EXIST. TRANSMISSION LINE (30" - 36") | (F): | FUTURE BUILDOUT SCWA SYSTEM NOT REQUIRED FOR RDO |  | WELL - NO LONGER IN SERVICE      |
|  | EXIST. TRANSMISSION LINE (42" - 48") | (P): | PROPOSED PHASE 1                                 |  | RIO DEL ORO BOUNDARY             |
|  | EXIST. 60" TRANSMISSION LINE         |      |  |  |                                  |

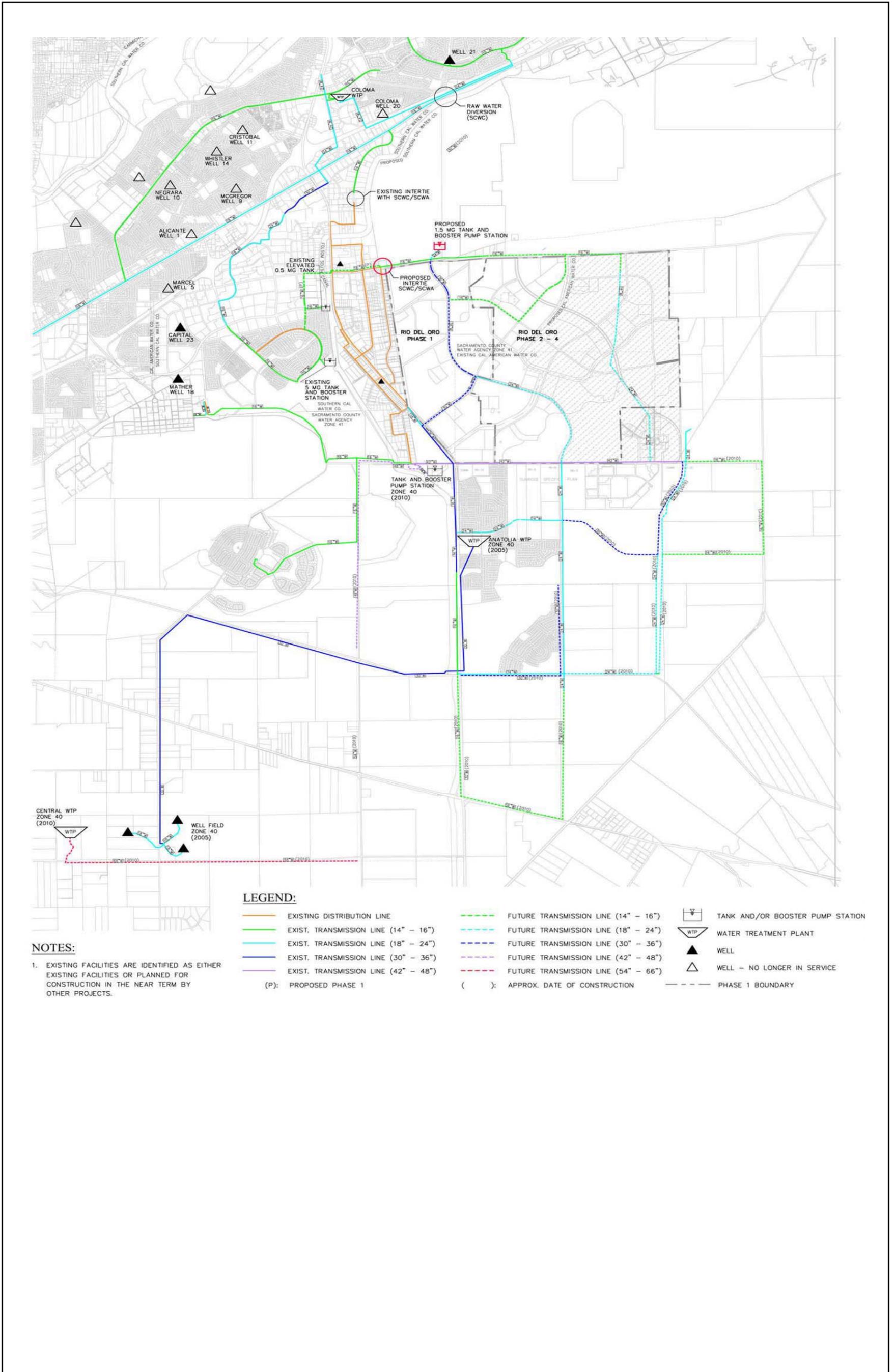
Source: Wood Rodgers 2006

**Off-Site Water Supply Facilities, Full Project Build-out**

EXHIBIT 2-9b

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Source: Wood Rodgers 2006

Off-Site Water Supply Facilities, Phase 1

EXHIBIT 2-9c

A significant elevation difference exists across the project site and across the Cal-Am service area. A preliminary pressure-zone boundary would be established to separate the project site into two pressure/service areas. This boundary would minimize the amount of parallel piping needed between the service districts and minimize the amount of parallel piping needed to serve neighboring customers, being served by different agencies.

Potable water would be provided from Zone 40's Vineyard Water Treatment Plant. The water supply source would be remediated groundwater discharged by Aerojet and McDonnell Douglas Corporation into the American River. Priority use of the remediated groundwater would be the water purveyors in the immediate area that have lost groundwater supply because of contamination. A portion of Zone 40's water entitlement is expected to be available to service the Sunrise Corridor/Mather/Sunrise Douglas Service Areas, including the project site. Construction and permitting of the SCWA facilities necessary to deliver the water supply to the project site is estimated to be complete by 2011.

Golden State Water Company (GSWC) has identified potential water supply options for providing gap water to the project. These gap supplies could support a portion of the initial phases of development of the project (estimated in fall/winter 2007) until SCWA has constructed the facilities necessary to deliver permanent water supplies to the project site. Additional details are contained in the *Rio del Oro Specific Plan Project Amended Water Supply Assessment* (see Appendix D), and in Section 3.5, "Utilities and Service Systems," of this DEIR/DEIS.

The City of Rancho Cordova places an emphasis on the use of recycled water for nonpotable uses, such as landscape irrigation, wherever feasible. The Sacramento Regional County Sanitation District (SRCSD) is currently in the process of developing a Water Recycling Master Plan (WRMP). The WRMP will examine opportunities countywide for the use of recycled water. Presentations by SRCSD staff have encouraged communities and water purveyors within the County to consider the use of recycled water to meet future water supply needs.

The City recently passed a resolution stating that new development should install a "purple pipe" recycled-water distribution system. Because of the City's commitment to the use of recycled water, SCWA and SRCSD are in the process of investigating the feasibility of providing recycled-water service.

Initial analysis for the WRMP indicates that there would not be sufficient wastewater flow in the Bradshaw Interceptor to meet the needs of a recycled-water project that would serve Rancho Cordova, the City of Folsom, Mather, and the Glenborough development in the near term unless the recycled-water treatment plant was located south of Jackson Highway, which is several miles from the nearest place of use. Therefore, SRCSD will need to work with the cities and the appropriate water purveyors to develop and serve interim water supplies to identified projects and/or investigate the need to phase these projects to match recycled-water system expansions with available recycled-water supplies.

It is possible that in the future, a water reclamation facility could be located in close enough proximity to the project site make this use feasible. Therefore, while it may not occur for many years, it is proposed that the project implement a recycled-water-use program that would require all major irrigated landscaping and open space areas within the project site to install a purple-pipe irrigation system that could be easily converted from potable to reclaimed water supply at some future date. The recycled/purple-pipe system would be connected to the potable-water system or nonpotable remediated groundwater in the interim until a water reclamation facility is available.

At the time this DEIR/DEIS was released for public review, however, the recycled-water system had not yet been designed. Although, absent some sort of semidetained design, the City and USACE lack sufficient information to definitively address the environmental effects of a recycled-water system in this DEIR/DEIS, any such effects occurring within the boundaries of the project area would be expected to be very minimal and no different in kind or scope than the impacts of other, similar pipelines installed as part of project construction. The City anticipates that purple pipe would be installed at the same time that water and sewer pipes are being installed, typically

within streets and other rights-of-way, in areas that the DEIR/DEIS already anticipates will be disturbed. Because the DEIR/DEIS already addresses the impacts of installing these kinds of pipelines within the project area, the City and USACE believe that, once enough details of the proposed system are available to ascertain its environmental impacts, any impacts solely attributable to the purple-pipe system would likely be less than significant, and thus will not require the recirculation of, or supplementation to, this DEIR/DEIS.

## Sewer

Sanitary sewer service for the project site would be provided by SRCSD and County Sanitation District No. 1 (CSD-1). SRCSD is responsible for interceptor collection (sanitary sewers that are designed to carry flows in excess of 10 million gallons per day [mgd]) and wastewater treatment. CSD-1 is responsible for local collection facilities including trunk sewers with capacity of 1–10 mgd. These districts own, operate, and are responsible for the public collection, trunk, and interceptor sewer systems throughout Sacramento County as well as the Regional Wastewater Treatment Plant located south of Freeport. Although the project site is located within the sphere of influence of both of the County’s public sewer providers, it must be annexed to SRCSD and CSD-1 before service can begin.

The only existing public sewer facilities adjacent to the project site are small sewer laterals ranging in size from 6 to 8 inches in diameter along the western site boundary. These facilities would not support the proposed development under the specific plan.

The project site lies almost entirely within CSD-1’s AJ Douglas White Rock Trunk Shed sewer system, serving flows between 1 and 10 mgd. The northwest corner of the project site is part of the AJ Aerojet Trunk Shed, which is planned to be lifted to the AJ Interceptor, Section 2. Project design would address future construction of this interceptor.

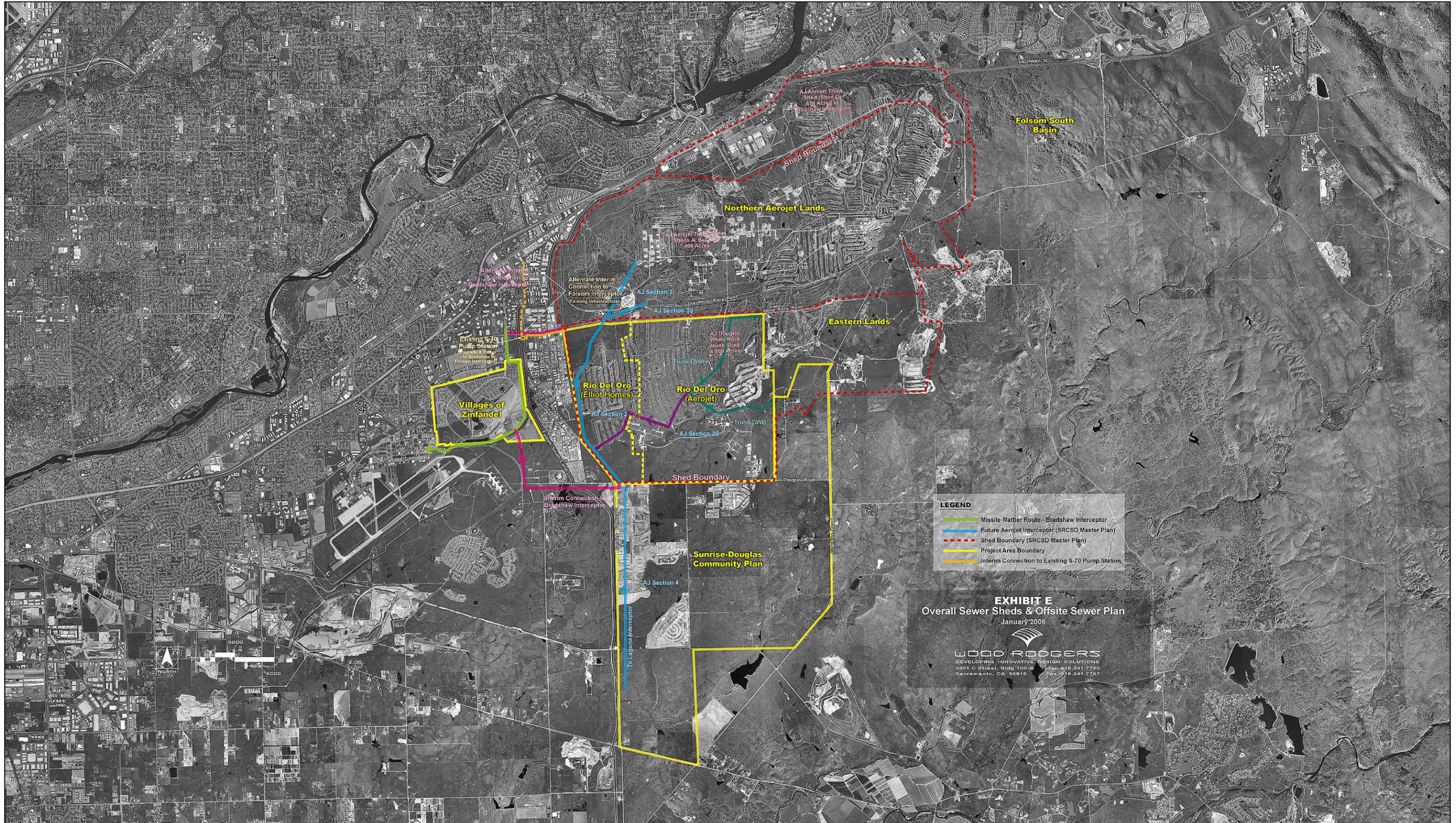
A conceptual diagram of on-site sewer facilities has been developed to serve development under the specific plan (Exhibit 2-10a). With the exception of the northwest corner, the ultimate system for the project site would be entirely gravity fed. An on-site interceptor and trunk system would be split between the north and south areas, consistent with the CSD-1 Master Plan. A southeast lateral would be extended to provide public service to the adjacent Security Park, which is currently served by private septic systems. The Sewer Master Plan shows the locations of gravity sewer lines (primarily 8- to 12-inch diameter pipes buried within each street) and the trunk facilities.

Planned off-site improvements and sewer shed boundaries are shown in Exhibit 2-10b. The Aerojet and Laguna Interceptors, as designated in the *SRCSD Interceptor System Master Plan 2000*, would service the proposed development under the specific plan. The Aerojet Interceptor (Section 2) would run along the western side of the project site, then south along Sunrise Boulevard to a connection point with the Laguna Interceptor. Discharge from the entire Rio del Oro project site would ultimately flow into the Laguna Creek Interceptor, which is not scheduled for completion until after 2024. Interim facilities for portions of the area to be served would flow into the Bradshaw Interceptor upon its completion. Total interim flows into the Bradshaw Interceptor from all projects may not exceed 39 mgd in the year 2020. It is assumed that up to 10 mgd of flows generated by the Rio del Oro project would need to be serviced on an interim basis. Initial development (development Phase 1) of the proposed project would require construction of on-site facilities to a common point near the intersection of Sunrise Boulevard and Douglas Road, where off-site facilities would then be required to convey flows to existing facilities.

Interim facilities are shown in Exhibit 2-10c. The following features would likely be constructed:

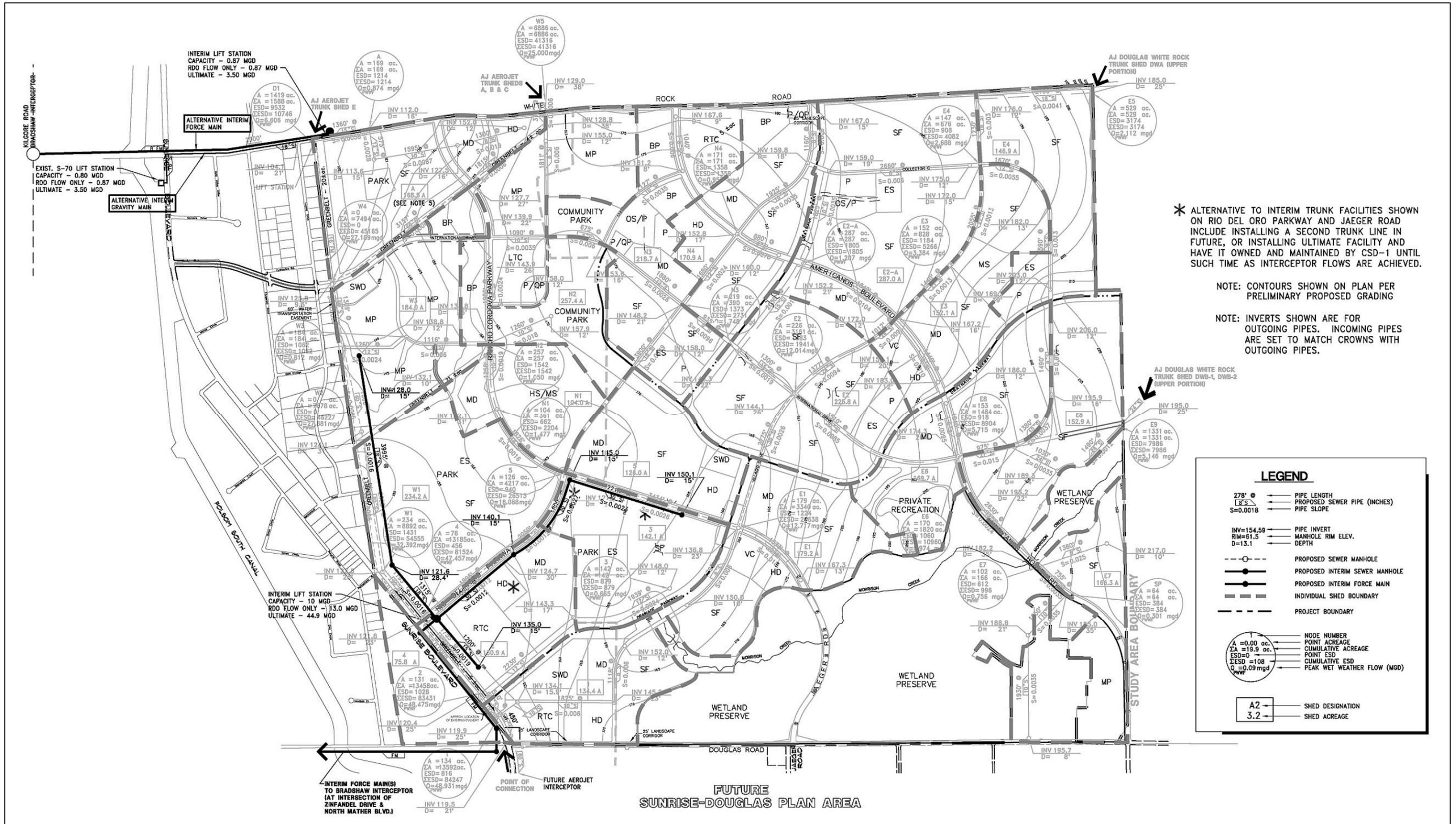
- ▶ A lift station and force main to connect to the Bradshaw Interceptor where it intersects Zinfandel Drive. The lift station would be located in the southwest corner of the Rio del Oro project site, and would be expected to service up to 10 mgd of peak wet-weather flow. The force main would travel south along Sunrise Boulevard, east along Douglas Road, across the Folsom South Canal, then north along the Zinfandel Drive alignment to a connection with the Bradshaw Interceptor or west along White Rock to Kilgore Road.





Source: Wood Rodgers 2006

Existing Sewersheds and Off-Site Sewer Facilities



Source: Wood Rodgers 2006

Interim Sewer Facilities

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- ▶ A new gravity sewer main running west to east along White Rock Road, then connecting to an existing 18-inch sanitary sewer.
- ▶ A lift station that would convey 1 mgd at the northwest corner of the project site, the location of a permanent trunk lift station identified in the CSD-1 Master Plan.
- ▶ Interim gravity facilities along the eastern project boundary, parallel to the future SJ Interceptor Section 2.
- ▶ Facilities along Rancho Cordova Parkway and the proposed Rio del Oro Parkway, which would be constructed before construction of an interceptor.

## Electricity

Electrical service would be provided by Sacramento Municipal Utility District (SMUD). All electrical lines under 69 kilovolts (kV) would be routed underground within the rights-of-way of project site streets. The project applicant(s) are currently working with SMUD to develop detailed design plans for electrical service to the project site. Draft plans are shown in Exhibit 2-11.

## Natural Gas

Natural gas service would be provided by Pacific Gas & Electric Company (PG&E), and would be routed underground within the rights-of-way of project site streets. The project applicant is currently working with PG&E to develop detailed design plans for natural-gas service to the project site.

## Telephone

AT&T has existing underground and overhead telephone service in the vicinity of the project site. AT&T would extend lines and construct facilities to serve the project site concurrently with development phases.

## Solid Waste Disposal

Browning Ferris Industries waste services began providing pickup and disposal of solid waste in Rancho Cordova on February 1, 2005. Services include refuse transfer, residential refuse collection, refuse disposal, and resource recovery. Waste is transported to the Kiefer Landfill located near the intersection of Grant Line Road and Kiefer Boulevard, or to the transfer station located near the intersection of Fruitridge Road and Florin Road.

## ***Circulation Improvements***

As shown in Exhibit 2-12, the proposed project includes the development of an estimated 227 acres of major roadways and associated landscaping within the project site. Access and circulation within the project site would be provided through the construction of the following primary roadways:

- ▶ Rancho Cordova Parkway, a north-south connector between Douglas Road and White Rock Road in the western part of the project site. Six lanes are proposed on the segment between White Rock Road and Villagio Drive; four lanes are proposed for the remainder of Rancho Cordova Parkway through the project site. Rancho Cordova Parkway would include a 38-foot-wide landscaped median that would accommodate future planned Bus Rapid Transit lanes.
- ▶ Americanos Boulevard, a north-south connector between Douglas Road and White Rock Road in the eastern part of the project site. Four lanes are proposed along the entire length, with a 14-foot-wide landscaped median.
- ▶ International Drive, a proposed six-lane east-west connector with a 14-foot-wide landscaped median.

- ▶ Rio del Oro Parkway, a proposed four-lane connector from Sunrise Boulevard to Rancho Cordova Parkway. A 38-foot-wide landscaped median would accommodate future planned Bus Rapid Transit lanes.

In addition, a number of two-lane internal roadways are proposed as local roads and to accommodate front-on lots. In most instances, a continuous left-turn lane or turn pockets would be necessary on these streets. On-street parking would be prohibited. These local roads would contain two-lane Class II bike lanes and an adjacent 20-foot-wide landscape corridor incorporating 6-foot-wide detached sidewalks. In 1992, SACOG approved a Metropolitan Transportation Plan that included the following regional roadway network and transit improvements: Alta-Sunrise Interchange, Grant Line Road Extension, Zinfandel Drive Extension, Douglas Road Extension, Eagles Nest Road Extension, and International Drive Extension. The project applicant(s) would be required to pay their fair share of various regional and local roadway improvements, which are discussed in Chapter 3.14, “Traffic and Transportation.”

As shown in Exhibit 2-13, the proposed project includes the development of bicycle and pedestrian trails within the project site. In addition to sidewalks, more than 15 miles of Class I paved off-street bike paths would be provided, and would be divided into five separate trails in open-space areas and parks, and along drainage parkways. Class II bicycle lanes, 7–8 feet wide, would be provided along paved streets within neighborhoods.

## **PROJECT LEVEL (DEVELOPMENT PHASE 1)**

### **Proposed Phase 1 Land Uses**

Phase 1 of the proposed project consists of the land uses described below and shown in Table 2-4 and Exhibit 2-14 (phasing map). Phase 1 buildout would be split into four subphases and would include the elements described below.

#### ***Residential***

Phase 1 of the proposed project provides for construction of 2,994 dwelling units in all three residential land-use density classifications. A total of 435 acres are proposed for residential development.

#### ***Commercial/Industrial***

Phase 1 of the proposed project includes the commercial land use classifications of Shopping Center, Business Park, and Office Park (Table 2-4). Shopping centers would comprise 98 acres of development Phase 1. The business park portion of the proposed development comprises 41 acres and is proposed along Rancho Cordova Parkway near the northwest corner of the site. In addition, 188 acres of industrial park are proposed near the northwest corner of the site.

#### ***Open Space/Parks/Recreation/Public***

Phase 1 of the proposed project includes development of 71 acres of community park and two neighborhood parks totaling 12 acres. There are also 50 acres for greenbelts proposed as components of Phase 1.

#### ***Drainages/Wetlands***

Phase 1 of the proposed project includes the creation of 33 acres of stormwater detention areas and approximately 17 acres of drainage parkway. All or portions of the wetland preserve would be created during Phase 1 depending on USACE Section 404 Clean Water Act permit requirements.

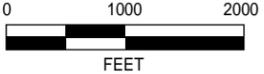


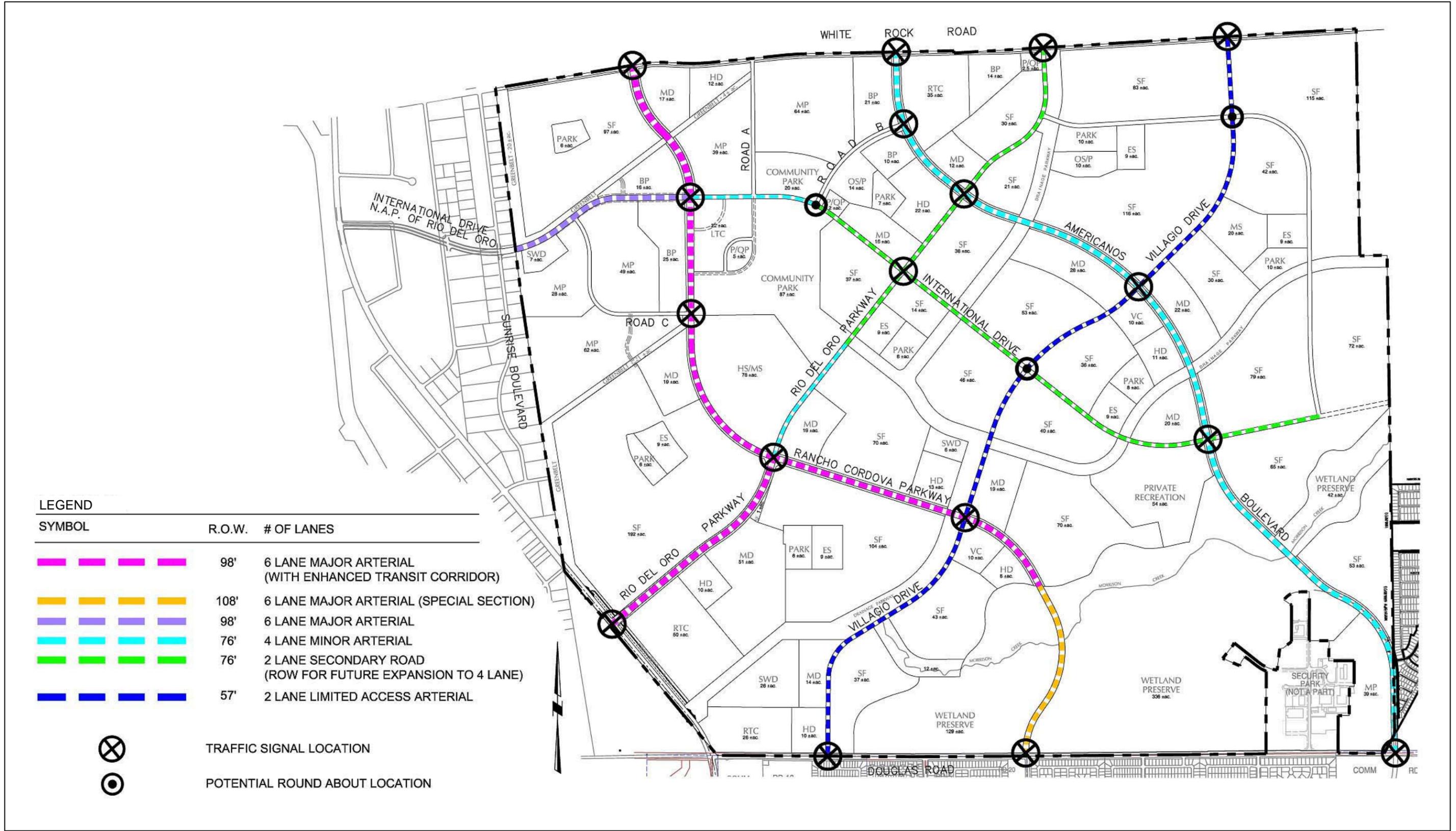
Source: G.C. Wallace 2005

**Draft Electrical Facilities Plan**

EXHIBIT 2-11

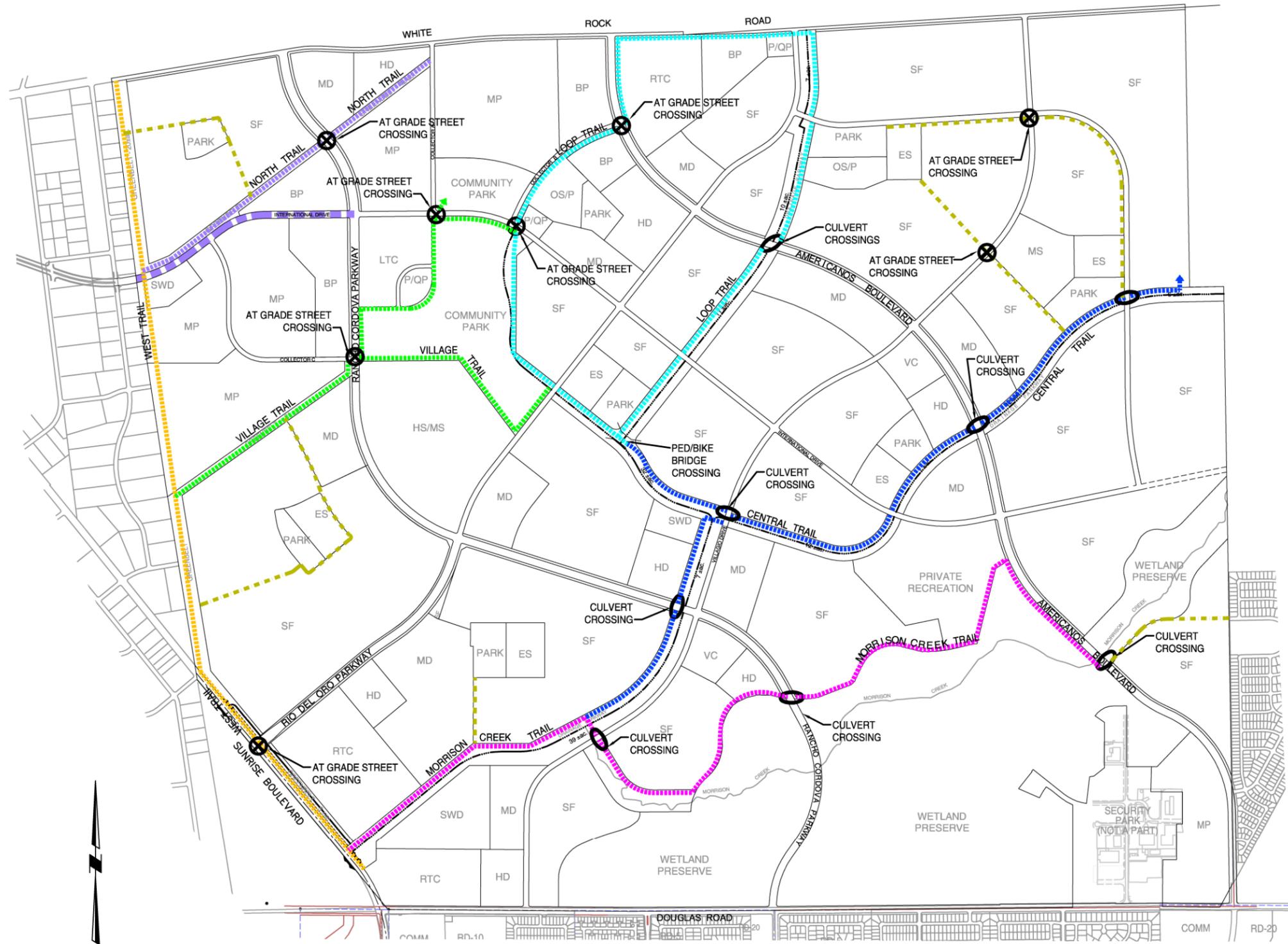
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Source: G.C. Wallace 2006

Roadway Circulation Plan



**LEGEND**

- CLASS I 10' OFF-STREET TRAIL**
- WEST TRAIL - - - - -
- NORTH TRAIL - - - - -
- CENTRAL TRAIL - - - - -
- LOOP TRAIL - - - - -
- VILLAGE TRAIL - - - - -
- MORRISON CREEK TRAIL - - - - -
- CLASS II TRAIL**
- NEIGHBORHOOD TRAILS  
(TO BE DETERMINED  
BY TENTATIVE SUBDIVISION MAP) - - - - -
- CULVERT STREET CROSSING ○
- AT GRADE STREET CROSSING ⊗



Source: G.C. Wallace 2005



**Table 2-4  
Acreage of Proposed Rio del Oro Specific Plan Land Uses – Development Phase 1**

Land Use	Phase 1 Acres
Single-Family Residential	290
Medium-Density Residential	113
High-Density Residential	32
Village Commercial	-
Shopping Center	98
Business Park	41
Industrial Park	188
Public/Quasi Public	5
High School/Middle School	78
Middle School	-
Elementary School	9
Community Park	71
Neighborhood Park	12
Stormwater Detention	39
Future Wetland Mitigation Bank	-
Drainage Parkway	17
Private Recreation	-
Open Space Preserve	-
Greenbelt	50
Major Road with Landscaping	78
<b>Total</b>	<b>1,121</b>

Sources: G. C. Wallace 2005, data compiled by EDAW in 2005

## Drainage Conveyance

Phase 1 of the project includes proposed development of approximately 1,100 acres of land. The development effort would require that drainage watercourses be provided to effectively drain the site, control flooding, and provide recreation and water quality benefits. Exhibit 2-6a shows the drainage features such as parkways, detention basins, and water quality treatment facilities that would be integrated into the proposed project. A network of conveyance pipes, inlets, manholes, and regulating structures would deliver runoff to the aforementioned system components.

A 26-acre detention basin and water quality pond would be constructed at the southwest corner of the project site during development Phase 1, to serve as a large overflow basin for flows exceeding the bank-full capacity of Morrison Creek where it exits the project site. A second 7-acre detention basin would be constructed adjacent to the greenbelt in the northwestern portion of development Phase 1. A third 6-acre detention basin would be constructed in the central portion of development Phase 3. Storm drainage pipes would be 72 inches in diameter or less, with the majority being less than 48 inches in diameter.

## **Schools**

### **Elementary School**

FCUSD is in the planning stages for the first elementary school to be located in the central portion of development Phase 1 on 9 acres. This school would have a capacity of approximately 600 students. Support facilities would include an administration area, multipurpose room and learning resource center, library, classrooms, kindergarten, special-education center, and overflow portable classrooms. Parking would be provided for approximately 80 staff members and visitors. Hardcourt play areas (e.g., tetherball, kickball, hopscotch) would be provided for kindergarten, primary, and intermediate grades, and would include apparatus areas and drinking fountains. A multiuse field for soccer, softball, and physical education would be provided. The Learning Resource Center would be centrally located on the campus, close to all classroom buildings, to provide maximum accessibility. Outdoor learning areas with benches for students along with a fenced outdoor patio for staff members would be included. An outdoor amphitheater would be constructed on-site. Elementary school facilities such as the library, restrooms, and outdoor sports fields would be accessible to the public after hours and on weekends. Finally, a student daycare facility and an adult-education school would also be provided on-site. Construction of the elementary school is dependent on development proposed in the Rio del Oro project, and would occur following buildout of development Phase 1. Conceptual site plans for the proposed elementary schools are not yet available.

### **Combined High School/Middle School**

FCUSD would construct and operate a combined high school/middle school facility (Mather High School and Morrison Creek Middle School) on property to be purchased from the project applicant in Phase 1. The high school would have capacity to accommodate approximately 2,100 students, and the middle school would have capacity to accommodate approximately 900 students, both on a traditional (late August–early June) calendar. The school would include an approximately 3,500-seat, lighted stadium.

- ▶ **School Facilities**—The proposed high school/middle school project would consist of approximately 315,000 square feet of overall building space on approximately 78 acres and would accommodate a total of approximately 3,000 students. The proposed site plan is provided in Exhibit 2-15.

The proposed high school would include construction of approximately 225,000 square feet (sf) of building space to house 2,100 students in 9th through 12th grades and 150 staff members on approximately 56 acres. Based on preliminary site and facility plans, the building area would consist of a kitchen, a school library (shared with the middle school and the City), a multipurpose room, two gymnasiums, classrooms, administration buildings, support facilities, and approximately 30 acres of paved and turfed play fields, including a track.

The middle school would consist of approximately 90,000 sf of building area and is anticipated to house 900 students in 6th, 7th, and 8th grades and 75 staff members on approximately 22 acres. In addition to the teaching stations, the middle school would include a gymnasium, multipurpose room, kitchen, library (shared with the high school and the City), administration and support facilities, and approximately 15 acres of paved and turfed play areas.

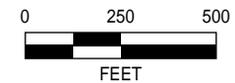
The sports fields would consist of paved and turfed areas, including tracks, baseball diamonds, soccer fields, tennis courts, and other typical hardcourt uses. Outdoor security lighting would be provided for school facilities. A lighted, approximately 3,500-seat stadium is planned that would host football games, all-school assemblies, and other large events during school hours as well as during evenings and weekends.



Source: Rainforth & Grau 2005

## Proposed Rio del Oro Combined High School/Middle School Conceptual Site Plan

EXHIBIT 2-15



- ▶ **Access, Circulation, and Parking**—Primary access to the campuses would be by means of two signalized intersections located on Rancho Cordova Parkway and Rio del Oro Parkway. One student dropoff/pickup area off Rancho Cordova Parkway for the high school students and one student dropoff/pickup area for the middle school students would be provided off Rio del Oro Parkway.

Bus access to both the high school and middle school campuses would be provided via a service road that would connect with Rio del Oro Parkway.

Parking for approximately 995 vehicles would be available for the combined high school/middle school and stadium, spread among three lots over approximately 21 acres.

- ▶ **School Operation**—FCUSD typically operates middle and high schools on a traditional schedule (late August–early June). The proposed project would have capacity to accommodate approximately 3,100 students under a traditional schedule. FCUSD typically does not operate high schools or middle schools on a year-round schedule.

School is anticipated to be in session from 7:45 a.m. to 3:15 p.m., Monday through Friday. The schedules of the two schools would be staggered to avoid simultaneous start and finish times. Approximately 225 teachers and support staff members would be employed. Custodial and maintenance operations, along with security services, may occur 24 hours per day.

The construction schedule for the project would be determined by the timing of funding approval and the need to provide facilities to adequately house the number of students projected from the development. Funding could be made available from a combination of district construction funds, developer fees, and state and local bonds that have been approved by voters. Depending on funding, construction of the proposed school would begin within 18 months to 2 years from completion of Phase 1 buildout. The estimated opening date for the high school/middle school would be 2009 (pending funding).

### **Public Utilities and Services**

Public services, utilities, and other infrastructure improvements would be needed to support Phase 1 of the proposed project. The project applicant(s) have initiated coordination with the various service providers regarding provision of these services on an as-needed basis. Table 2-5 shows the site improvements necessary for development Phase 1.

<b>Table 2-5 Project Site Improvements for Rio del Oro Specific Plan Development Phase 1</b>	
Improvement	On- or Off-Site?
Install electrical lines as shown in Exhibit 2-11	On-site
Install natural-gas lines as developed with PG&E	On-site
Install internal roadways as shown in Exhibit 2-12	On-site
Install bicycle paths as shown in Exhibit 2-13	On-site
Install water lines as shown in Exhibits 2-9a and 2-9c	On- and off-site
Install sewer lines as shown in Exhibits 2-10a and 2-10b	On- and off-site
Source: Information compiled by EDAW in 2005	

Interim facilities would likely involve construction of the following features:

- ▶ A lift station and force main to connect to the Bradshaw Interceptor where it intersects Zinfandel Drive. The lift station would be located in the southwest corner of the Rio del Oro project, and would be expected to service up to 10 mgd of peak wet-weather flow. The force main would travel south along Sunrise Boulevard, west along Douglas Road, across the Folsom South Canal, then north along the Zinfandel Drive alignment to a connection with the Bradshaw Interceptor. These facilities would go out of service when the Laguna Interceptor is constructed.
- ▶ A lift station that would convey 1 mgd at the northwest corner of the project site, the location of a permanent trunk lift station identified in the CSD-1 Master Plan. This facility would remain in service at buildout.
- ▶ Facilities along Rancho Cordova Parkway and Rio del Oro Parkway, which would be constructed before construction of an interceptor. SRCSD would decide whether these facilities would be dismantled/abandoned in place or whether they could serve another purpose that could be identified in future updates to the SRCSD Master Plan.
- ▶ A new gravity sewer main running west to east along White Rock Road, then connecting to an existing 18-inch sanitary sewer.

### ***Roadway and Bike Trail Improvements***

Phase 1 of the proposed project includes the development of an estimated 78 acres of major roadways with associated landscaping within the project site. Access and circulation within the project site would be provided through the construction of the following primary roadways: four-lane and six-lane sections of Rancho Cordova Parkway, all of Rio del Oro Parkway, and portions of three 60-foot collectors.

As shown in Exhibit 2-14, development Phase 1 would also include construction of two Class II bike trails within neighborhoods, as well as the North Bike Trail, most of the Village Bike Trail, a portion of the Morrison Creek Trail, and a trail within the greenbelt along the western project boundary.

### **SUBSEQUENT DEVELOPMENT PHASES OF THE SPECIFIC PLAN**

Development Phases 2–5 of the specific plan would occur subsequent to development Phase 1 and would encompass lands on the remaining 2,728 acres owned by GenCorp as shown in exhibit 2-14. These development phases are analyzed at the program level in this DEIR/DEIS.

#### **Phase 2**

Development Phase 2 would include the north central 639.5 acres of the project site. Proposed construction of this phase would consist of the following improvements, assuming timely receipt of all necessary approvals:

- ▶ Seven areas of single-family residential housing (252 acres)
- ▶ Three areas of medium-density residential housing (56 acres)
- ▶ One area of high-density residential housing (22 acres)
- ▶ One elementary school (9 acres)
- ▶ Two neighborhood parks (15 acres)
- ▶ Completion of the community parks initiated in Phase 1 and construction of a second community park (36 acres)
- ▶ Drainage parkways (60 acres)
- ▶ One open space/preserve (14 acres)
- ▶ Two public/quasipublic areas (4.5 acres)
- ▶ Three business parks (45 acres)

- ▶ One industrial park (55 acres)
- ▶ One regional town center (35 acres)
- ▶ The northern portion of Americanos Boulevard and International Drive, and at least two additional 60-foot local roads (36 acres)
- ▶ A Class I off-street bicycle trail (the Loop Trail), and a portion of the Central Bike Trail (also Class I)

### **Phase 3**

Development Phase 3 would include the south central 611 acres of the project site. Proposed construction of this phase would consist of the following improvements, assuming timely receipt of all necessary approvals:

- ▶ Five areas of single-family residential housing (324 acres)
- ▶ Two areas of medium-density residential housing (26 acres)
- ▶ Two areas of high-density residential housing (21 acres)
- ▶ One village commercial center (10 acres)
- ▶ One elementary school (9 acres)
- ▶ One neighborhood park (8 acres)
- ▶ Drainage parkways (29 acres)
- ▶ Stormwater detention basin (6 acres)
- ▶ Open space (12 acres)
- ▶ Completion of Rancho Cordova Parkway and at least one 60-foot local road (37 acres)
- ▶ Portions of the Central Bike Trail and the Morrison Creek Bike Trail

### **Phase 4**

Development Phase 4 would include the northeast 521 acres of the project site. Proposed construction of this phase would consist of the following improvements, assuming timely receipt of all necessary approvals:

- ▶ Five areas of single-family residential housing (386 acres)
- ▶ One area of medium-density residential housing (22 acres)
- ▶ One middle school (20 acres)
- ▶ Two elementary schools (18 acres)
- ▶ Two neighborhood parks (20 acres)
- ▶ Drainage parkways (18 acres)
- ▶ Open-space preserve (10 acres)
- ▶ Two 60-foot local roads (27 acres)
- ▶ Two Class II bike trails within neighborhoods and the remaining portion of the Central Bike Trail

### **Phase 5**

Development Phase 5 would include the southeast 942 acres of the project site. Proposed construction of this phase would consist of the following improvements, assuming timely receipt of all necessary approvals:

- ▶ Five areas of single-family residential housing (345 acres)
- ▶ One area of medium-density residential housing (20 acres)
- ▶ One area of high-density residential housing (11 acres)
- ▶ One village commercial center (10 acres)
- ▶ Industrial park (39 acres)
- ▶ Private recreation area (54 acres)
- ▶ Elementary school (9 acres)
- ▶ Neighborhood park (8 acres)
- ▶ Drainage parkway (19 acres)
- ▶ Completion of Americanos Boulevard and the southern half of a 60-foot local road (49 acres)

- ▶ A Class II bike trail within neighborhoods, and completion of the Morrison Creek Bike Trail

## **CONSTRUCTION ACTIVITIES**

In addition to on-site project development, off-site improvements for proposed roadway alignments and utility construction would also be necessary. Such improvements would include new buildings, parking lots, utility relocations and installations, and roadway construction. Within the construction sites, areas would be protected from disturbance where feasible to preserve specimen trees and native vegetation. Construction activities also includes demolition of existing structures.

Construction staging areas would be established during each phase of Rio del Oro project development. These fenced staging areas would be used for storage of vehicles, equipment, materials, fuels, lubricants, and solvents. The stockpiling or vehicle staging areas would be identified in the improvement plans and would be located as far as practical from protected resources in the area. All staging areas would be sited in disturbed areas. No sensitive resources would be affected by staging area implementation.

Mining activities at the project site are currently being conducted by Teichert Aggregates, Inc. (Teichert), pursuant to a Conditional Use Permit (originally issued by the County as predecessor to the City). The City has also issued a Conditional Use Permit to Teichert for mining at the Grantline West location, and expects to receive one or more additional applications for Conditional Use Permits or Implementation Permits (the latter for mining activities within the project site). These mining activities are not part of the Rio del Oro project and would continue under the individual permits already issued by the County and City or issued in the future, if applicable. Environmental evaluations for removal of dredge tailings (i.e., mining activities) are separate actions from the proposed project and would be prepared (if applications are submitted) independent of any project approvals. Existing, pending, and future Conditional Use Permit or Implementation Permit applications to remove the dredge tailings are discussed below under “On-Site Mining Activities under Existing (2005) and Future Baseline Conditions (No Project Alternative)” in Section 2.7, “No Project Alternative.”

## **2.4 HIGH DENSITY ALTERNATIVE**

This alternative was designed to further embrace the concept of “Smart Growth,” consistent with the SACOG Blueprint. SACOG has been involved in a multiyear study of its six-county area to consider how best to accommodate anticipated growth over the next 50 years, while maintaining regional amenities such as open space (i.e., agriculture and habitat), efficient infrastructure, and livable communities. The SACOG Blueprint vision promotes the development of compact, mixed-use development and more transit choices as an alternative to low-density development.

Both the Proposed Project Alternative and the High Density Alternative were designed based on a realistic long-term planning process intended to minimize the extent of the inevitable physical expansion of the overall regional urban area. Thus, both the Proposed Project and High Density Alternatives were designed with Smart Growth principles in mind; however, the High Density Alternative provides for a greater concentration of development. A summary comparison of the long-term environmental benefits to be gained, or adverse impacts to be avoided, among all alternatives is provided at the end of this chapter; detailed comparisons are provided within each section of Chapter 3, “Affected Environment, Environmental Consequences, and Mitigation Measures.”

Although low density on a particular property may reduce the levels of impacts occurring on or emanating from the property, low densities can be considered an inefficient use of finite land resources. In areas with growing populations, low-density development coupled with increasing market demand can result in development being pushed outward toward other areas on the urban periphery, with the long-term consequence of more overall loss of habitat, open space, and farmland. Under Smart Growth principles, areas that are planned for development are developed at higher densities. Although these higher densities may result in greater localized impacts on resources, the overall area of disturbance is reduced by concentrating development in particular locations.

Sacramento County is experiencing demographic pressure reflecting an increasing statewide population and intrastate migration from the San Francisco Bay Area and southern California, and the City is interested in furthering its goals and objectives of providing a mix of affordable housing and new jobs to its residents; therefore, Smart Growth principles suggest that developing the site with a higher density use while avoiding wetland areas would focus market demand for development into an area near existing development, infrastructure, and services.

The High Density Alternative envisions a greater density of residential development on a similar footprint as the Proposed Project Alternative, resulting in more dwelling units per acre. The total acreage of residential development would be the same, but the density would be increased such that approximately 3,800 additional residential units would be constructed. The acreage of commercial and industrial development would be the same. The types of land uses and general on- and off-site infrastructure improvements under the High Density Alternative (Exhibit 2-16) would remain the same as under the Proposed Project Alternative. A 507-acre wetland preserve (the same size as under the Proposed Action Alternative) is also designated under the High Density Alternative. Tables 2-6 and 2-7 list the total estimated development under this alternative.

<b>Table 2-6 Summary Comparison of Residential Development under the High Density Alternative and the Proposed Project Alternative</b>						
Land Use Type	High Density Alternative			Proposed Project Alternative		
	Acres	du/ac <sup>1</sup>	Units	Acres	du/ac <sup>1</sup>	Units
Single-Family Residential	1,567	6	9,402	1597	5	7,985
Medium-Density Residential	249	14	3,486	237	8	1,896
High-Density Residential	104	25	2,600	86	20	1,720
<b>Total</b>	<b>1,920</b>		<b>15,488</b>	<b>1,920</b>		<b>11,601</b>
<sup>1</sup> du/ac = dwelling units per acre Source: G. C. Wallace 2005						

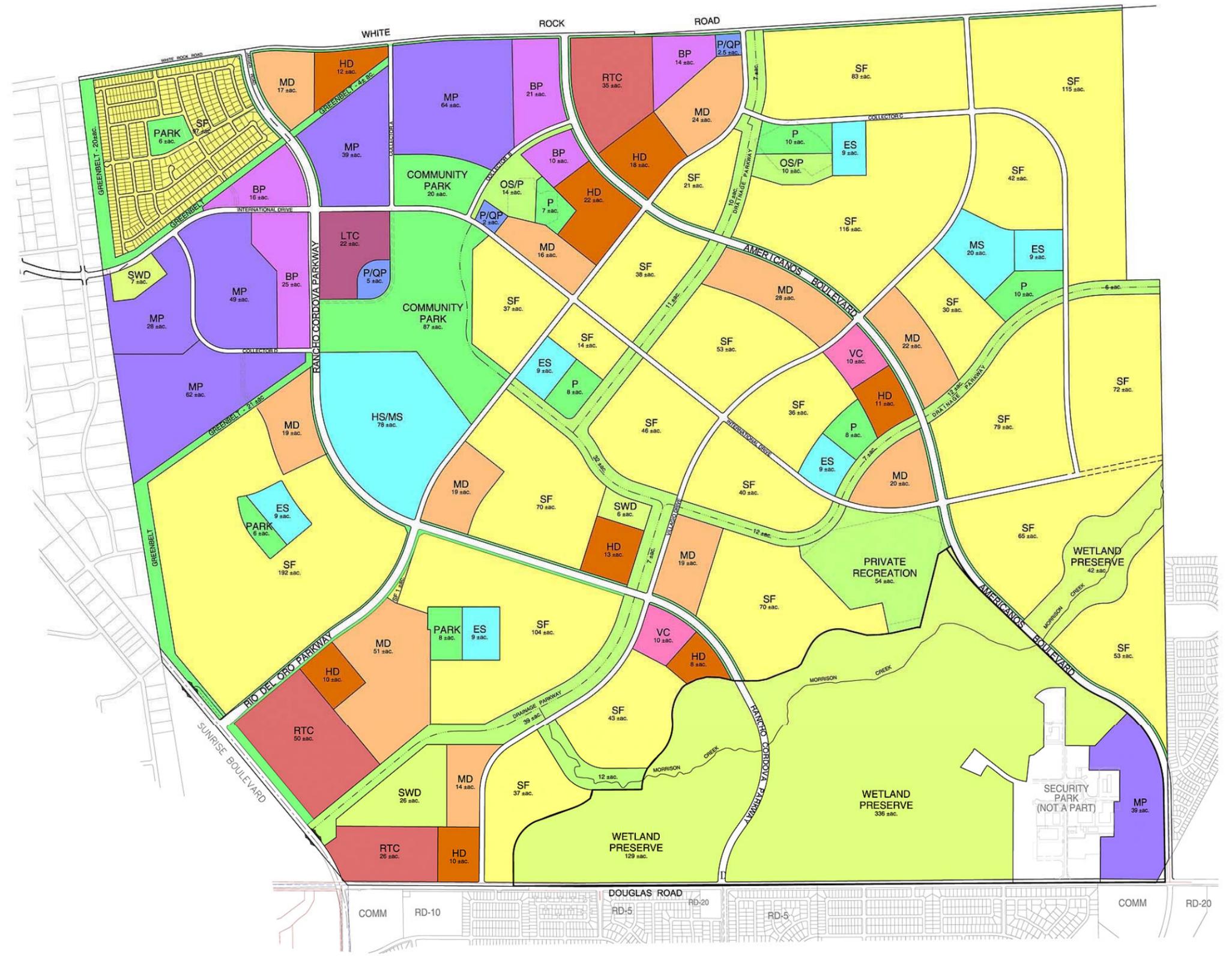
<b>Table 2-7 Summary Comparison of Commercial and Industrial Development under the High Density Alternative and the Proposed Project Alternative</b>		
	High Density Alternative Acres	Proposed Project Alternative Acres
Village Commercial	20	20
Shopping Center	133	133
Business Park	86	86
Industrial Park	282	282
<b>Total</b>	<b>521</b>	<b>521</b>
Source: G. C. Wallace 2005		

## 2.5 IMPACT MINIMIZATION ALTERNATIVE

This alternative was formulated to provide a reduced level of environmental impacts when compared with the Proposed Project Alternative, while still meeting some of the City’s CEQA goals and objectives and satisfying USACE’s overall NEPA and 404(b)(1) project purpose to provide a large-scale mixed-use community within Sacramento County. Under the Impact Minimization Alternative, project components would be reconfigured to avoid most, but not all impacts on USACE jurisdictional wetlands and high-quality biological habitat, and the level of residential development would be decreased to reduce the amount of project-generated traffic, air quality emissions, and noise (Exhibit 2-17). A permit for wetland fill would still be required under this alternative. An additional 485 acres in the southern portion of the project site would be designated as part of the wetland

### LAND USE SUMMARY

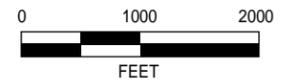
LAND USE	ACRES	DENSITY RANGE	FIXED COUNT	UNITS	UNIT %
SF	1,567	2.1 TO 6.0	6 DU/AC	9,402	69%
MD	249	6.1 TO 18.0	14 DU/AC	3,486	16%
HD	104	18.1 TO 40.0	25 DU/AC	2,600	15%
VC	20				
LTC	22				
RTC	111				
BP	86				
MP	282				
P/QP	9.5				
MS/HS	78				
MS	20				
ES	54				
CP	107				
P	63				
SWD	39				
WETLAND PRESERVE	507				
DRAINAGE PARKWAY	143				
PRIVATE RECREATION	54				
OS	12				
OS/P	24				
LANDSCAPE CORRIDORS	44				
GB	50				
MAJOR ROADS	183				
<b>TOTALS:</b>	<b>3828.5</b>			<b>15,488</b>	<b>100%</b>



Source: G.C. Wallace 2005

### High Density Alternative Land Use Plan

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 City of Rancho Cordova and USACE  
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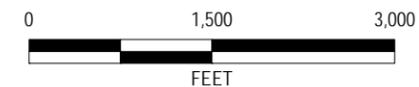
**LAND USE SUMMARY**

LAND USE	ACRES	DENSITY RANGE	FIXED COUNT	UNITS	UNIT%
SF SINGLE FAMILY RESIDENTIAL	1,032.0	2.1 to 6.0	5 DU/AC	5,160	44%
MD MEDIUM DENSITY RESIDENTIAL	241.0	8.1 to 18.0	8 DU/AC	1,826	15%
HD HIGH DENSITY RESIDENTIAL	174.0	18.1 to 40	20 DU/AC	3,480	41%
VC VILLAGE COMMERCIAL	20.0				
LTC LOCAL TOWN CENTER	22.0				
RTC REGIONAL TOWN CENTER	87.0				
BP BUSINESS PARK	107.0				
MP INDUSTRIAL PARK	261.0				
P/Q/P PUBLIC/QUASI PUBLIC	10.0				
HS/MS SCHOOL CAMPUS	77.3				
MS MIDDLE SCHOOL	20.0				
ES ELEMENTARY SCHOOL	44.5				
CP COMMUNITY PARK	108.0				
P NEIGHBORHOOD PARKS	59.0				
SWD STORM WATER DETENTION	36.0				
WETLAND PRESERVE/ MITIGATION BANK	894.5				
DRAINAGE PARKWAY	147.0				
PRIVATE RECREATION	50.0				
OSP OPEN SPACE/PRESERVE	24.0				
LANDSCAPE CORRIDORS	44.0				
GB GREENBELTS	45.0				
MAJOR ROAD	225.0				
<b>TOTALS:</b>	<b>3,829</b>			<b>10,968</b>	

Source: EDAW 2005, City of Rancho Cordova 2005

**Impact Minimization Alternative Land Use Plan**

Rio del Oro Specific Plan Project DEIR/DEIS  
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preserve, and the 60-acre retail center in the southwestern portion of the project site would be moved farther north. Thus, a total of 994.5 acres, approximately 25% of the project site, would become a protected wetland preserve. Under this alternative, 13.5 acres of jurisdictional waters of the United States would be filled, 12.9 acres of nonjurisdictional wetland would be filled, and 43.1 acres of existing wetland would be preserved. The total acreage of residential development would be reduced by approximately 470 acres and approximately 1,040 fewer residential units would be constructed, although overall density would increase (a greater proportion of residential acreage would be developed with medium and high density). Commercial and industrial development sites would be reduced by approximately 30 acres. The types of land uses and general on- and off-site infrastructure improvements would remain the same as under the Proposed Project Alternative. Tables 2-8 and 2-9 list the total estimated residential, commercial, and industrial development under this alternative. (See also Appendix E for the habitat assessment prepared for the Rio del Oro project that aided in the development of this alternative.)

Land Use Type	Impact Minimization Alternative			Proposed Project Alternative		
	Acres	du/ac <sup>1</sup>	Units	Acres	du/ac <sup>1</sup>	Units
Single-Family Residential	1,032.5	5	5,162	1,597	5	7,985
Medium-Density Residential	241	8	1,928	237	8	1,896
High-Density Residential	173.5	20	3,470	86	20	1,720
<b>Total</b>	<b>1,447</b>		<b>10,560</b>	<b>1,920</b>		<b>11,601</b>

<sup>1</sup> du/ac = dwelling units per acre  
Sources: G. C. Wallace 2005, City of Rancho Cordova 2005, data compiled by EDAW in 2005

	Impact Minimization Alternative Acres	Proposed Project Alternative Acres
Village Commercial	20	20
Shopping Center	109	133
Business Park	105.5	86
Industrial Park	258.5	282
<b>Total</b>	<b>493</b>	<b>521</b>

Source: G. C. Wallace 2005

## 2.6 NO FEDERAL ACTION ALTERNATIVE

This alternative was designed to avoid the placement of dredged or fill material into waters of the United States, including wetlands, thus eliminating the need for a USACE Section 404 permit. This alternative, however, would still constitute a “federal” action because it would require compliance with the ESA. A land use map showing development areas and jurisdictional wetlands with a 50-foot avoidance buffer is provided in Exhibit 2-18. Under this alternative, the 507-acre wetland preserve that would be created under the Proposed Project, which would require continuing activities as part of a Mitigation and Monitoring Plan approved by USACE, would not exist. Instead, 835 acres of the project site would be designated “Natural Resources” under the City General Plan. Land with this use designation is set aside as natural habitat with no urban development. While open-space trails may

be located adjacent to areas designated as Natural Resources, the City would prohibit public access into the area. This alternative would also eliminate the 76-acre Regional Town Center proposed for the southwest corner of the project site; instead, an 18-acre Local Town Center would be developed. This Regional Town Center could not be relocated on the site under this alternative, for the same reasons described in Section 2.10, “Increased Preserve/No Regional Town Center Alternative.” This alternative also would not entail construction of the southern end of either Rancho Cordova Parkway or Americanos Boulevard, which would consequently eliminate designated utility rights-of-way (sewer and water) and therefore would require alternative, and more expensive/time consuming, methods of construction such as horizontal directional drilling. Under this alternative, approximately 836 fewer residential housing units would be constructed, and approximately 90 fewer acres would be used for commercial/industrial development, than under the proposed project. Tables 2-10 and 2-11 list the total estimated residential, commercial, and industrial development under this alternative.

<b>Table 2-10 Summary Comparison of Residential Development under the No Federal Action Alternative and the Proposed Project Alternative</b>						
Land Use Type	No Federal Action Alternative			Proposed Project Alternative		
	Acres	du/ac <sup>1</sup>	Units	Acres	du/ac <sup>1</sup>	Units
Single-Family Residential	1,447	5	7,385	1,597	5	7,985
Medium-Density Residential	210	8	1,680	237	8	1,896
High-Density Residential	85	20	1,700	86	20	1,720
<b>Total</b>	<b>1,772</b>		<b>10,765</b>	<b>1,920</b>		<b>11,601</b>

<sup>1</sup> du/ac = dwelling units per acre  
Source: G. C. Wallace 2006

<b>Table 2-11 Summary Comparison of Commercial and Industrial Development under the No Federal Action Alternative and the Proposed Project Alternative</b>		
	No Federal Action Alternative Acres	Proposed Project Alternative Acres
Village Commercial	32	20
Shopping Center	75	133
Business Park	92	86
Industrial Park	232	282
<b>Total</b>	<b>431</b>	<b>521</b>

Source: G. C. Wallace 2006

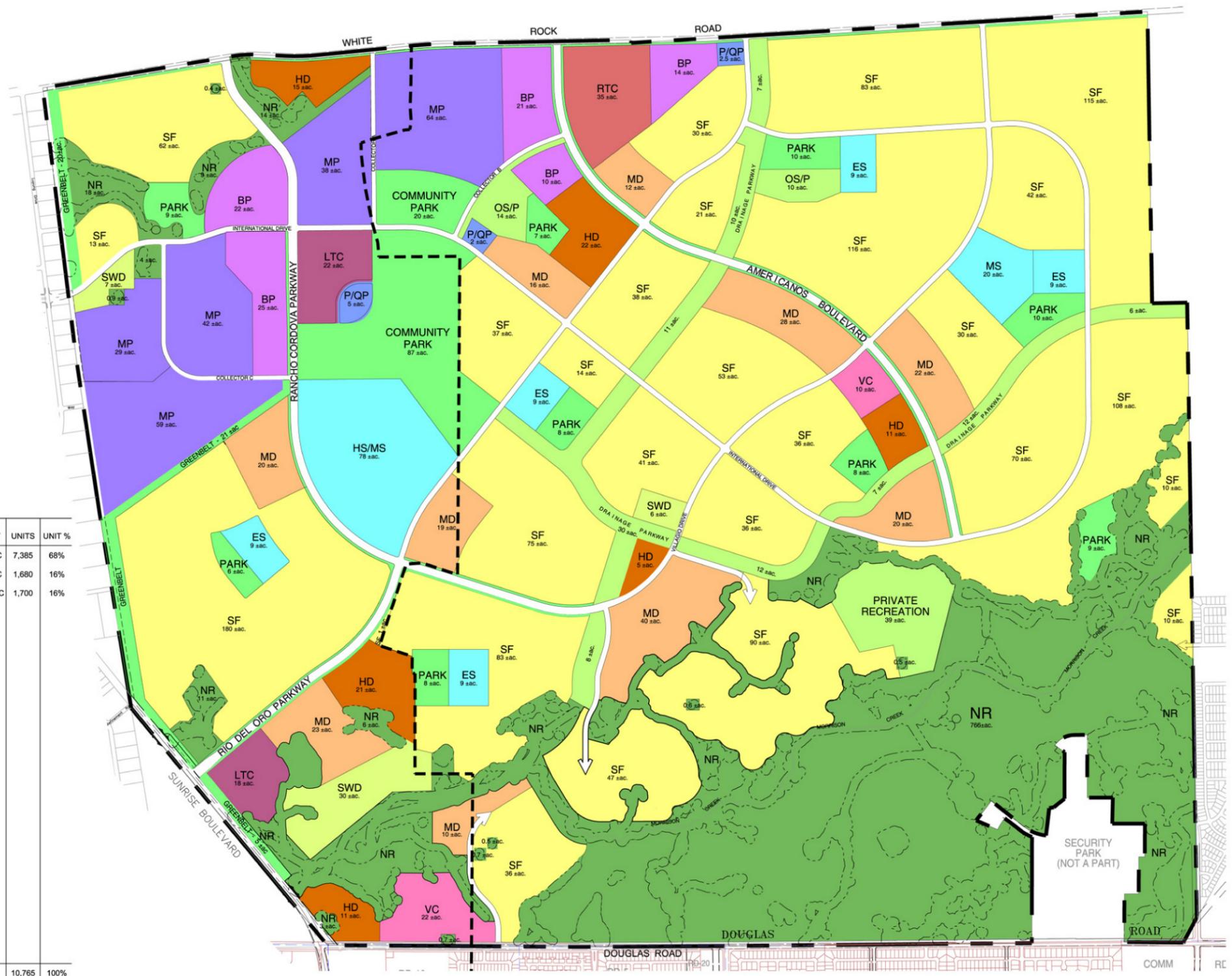
## 2.7 NO PROJECT ALTERNATIVE

Under this alternative, the project would not be developed. However, the No Project Alternative assumes that aggregate mining operations to remove portions of the existing dredge tailings at the project site would continue under existing, pending, and proposed Conditional Use and Implementation Permits, described below. The future mining activities may also require a Section 404 permit from USACE. The majority of the project site would remain under the jurisdiction of the City. This analysis uses existing site conditions at the time that the NOP was published (December 2003) as the “existing conditions” portion of the “no project” scenario (see State CEQA Guidelines Section 15126.6[e][2]) to allow consideration of a full range of alternatives. Remediation of

**LEGEND**  
 50-foot buffer around jurisdictional waters of the U.S. including wetlands

**LAND USE SUMMARY**

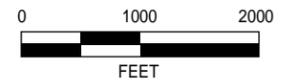
LAND USE	ACRES	DENSITY RANGE	FIXED COUNT	UNITS	UNIT %
SF SINGLE FAMILY RESIDENTIAL	1,477	2.1 TO 6.0	5 DU/AC	7,385	68%
MD MEDIUM DENSITY RESIDENTIAL	210	6.1 TO 18.0	8 DU/AC	1,680	16%
HD HIGH DENSITY RESIDENTIAL	85	18.1 TO 40.0	20 DU/AC	1,700	16%
VC VILLAGE COMMERCIAL	32				
LTC LOCAL TOWN CENTER	40				
RTC REGIONAL TOWN CENTER	35				
BP BUSINESS PARK	92				
MP INDUSTRIAL PARK	232				
P/Q/P PUBLIC / QUASI PUBLIC	9.5				
MS/HS SCHOOL CAMPUS	78				
MS MIDDLE SCHOOL	20				
ES ELEMENTARY SCHOOL	45				
CP COMMUNITY PARK	107				
P NEIGHBORHOOD PARKS	75				
SWD STORM WATER DETENTION	43				
NR NATURAL RESOURCES	835				
DRAINAGE PARKWAY	103				
PRIVATE RECREATION	39				
OS/P OPEN SPACE/ PRESERVE	24				
LANDSCAPE CORRIDORS	34				
GB GREENBELTS	46				
MAJOR ROADS	167				
<b>TOTALS:</b>	<b>3,828.5</b>			<b>10,765</b>	<b>100%</b>



Source: G.C. Wallace 2006

**No Federal Action Alternative**

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contaminated soil and groundwater is a separate action that will continue either with or without project implementation.

### **2.7.1 ON-SITE MINING ACTIVITIES UNDER EXISTING (2005) AND FUTURE BASELINE CONDITIONS (NO PROJECT ALTERNATIVE)**

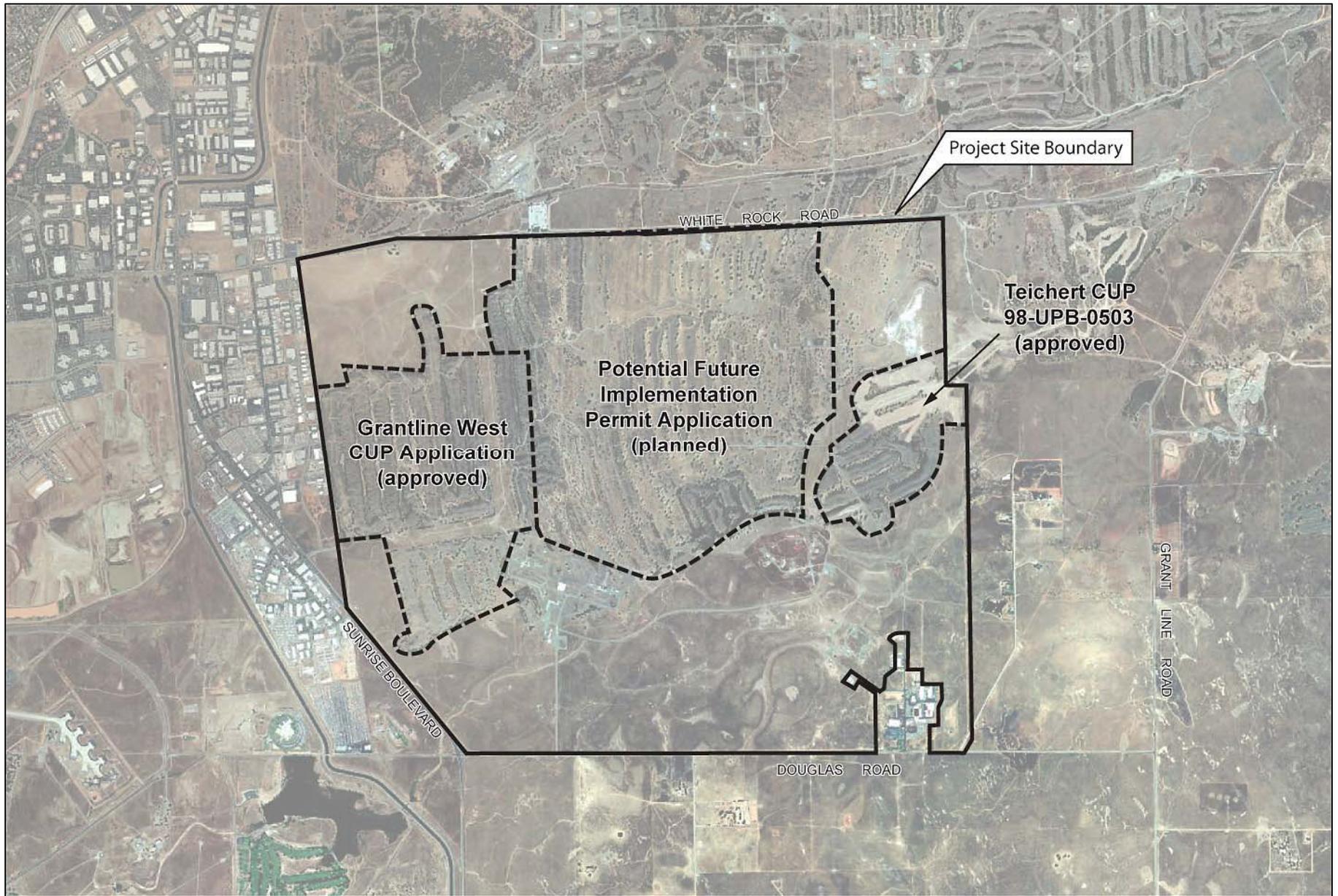
Under the No Project Alternative, project-related development would not occur. The analysis of impacts under the No Project Alternative contained in Chapter 3, “Affected Environmental, Environmental Consequences, and Mitigation Measures” relies, as noted above, on conditions at the project site as of the date of filing of the NOP (December 12, 2003) as the baseline. However, because the site contains economically valuable aggregate resources, it is assumed that already locally approved and proposed mining activities would continue at the site regardless of whether or not the project was implemented. Thus, baseline environmental conditions under the No Project Alternative would change as a result of approved and planned aggregate mining activities. Although NEPA permits the use of future conditions after the initiation and/or completion of ongoing activities as a potential baseline, the City and USACE chose to use the most conservative approach in this DEIR/DEIS analysis, which is existing site conditions at the time that the NOP was published. In other words, this DEIR/DEIS could have analyzed the project’s potential effects as compared to a baseline environmental setting that included any changes made to the existing setting since December 12, 2003. Instead, this document treats the baseline as the setting before initiation of any mining activities that have resulted in a removal of aggregate material from the project site.

This approach is consistent with the State CEQA Guidelines (14 CCR Section 15125), which state that the description of the physical environmental conditions in the vicinity of the project, as they exist at the time that the NOP is published, is the environmental setting that will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant. This approach also has the virtue of avoiding the potential confusion that might result from using different baselines for CEQA and NEPA purposes.

Mining activities are currently being conducted by Teichert on the eastern portion of the project site. A Mitigated Negative Declaration was prepared by the City in May 2004 on Teichert’s request to expand its existing Conditional Use Permit (CUP 98-UPB-0503) to include an additional 180 acres on the Rio del Oro project site (Exhibit 2-19). Teichert applied for a second Conditional Use Permit (Grantline West Mining Plan) in the western portion of the project site. This Conditional Use Permit would remove a portion of the dredge tailings on approximately 583 acres in the central portion of development Phase 1 (Exhibit 2-19). In June 2005, the City completed a Mitigated Negative Declaration to evaluate potential impacts that could result from these mining activities, and approved this second Conditional Use Permit application. Another application to remove a portion of the dredge tailings in the central portion of the project site is expected from Granite Construction Company in the future (Exhibit 2-19). The City would prepare another, separate environmental document to assess potential impacts from this future application.

As a result of aggregate mining, at the start of each phase of project-related construction activities, a portion of the piles of dredge tailings will have been removed down to the current natural grade and most of the associated vegetation will have been removed. However, mining activities will not disturb any land within a 50-foot radius of an elderberry shrub, will avoid all native oak trees, and will not disturb any land within a 250-foot radius of a vernal pool. Thus, mining activities will avoid all sensitive species and sensitive habitats. Land in the southern portion of the project site does not contain aggregate resources and will not be mined. Before the start of project-related grading activities, the project applicant(s) would obtain all necessary permits related to sensitive species and habitats so that project construction activities in the sensitive areas avoided by the mining activities could move forward.

Although the environmental impacts of the mining activities have been addressed in separate environmental documents, a brief summary of the analysis of impacts that would occur under the No Project Alternative, assuming that mining activities continue, is provided in Table 2-12.



Source: City of Rancho Cordova 2004 and 2005

## Aggregate Mining Locations

**Table 2-12  
Summary of Potential Impacts from Ongoing Mining Activities for the Approved Grantline West and Aerojet Mining Amendment Conditional Use Permits under the No Project Alternative**

Issue Area	Potential Impact
Aesthetics	Implementation of mining activities would not create any new sources of light or glare. There are no scenic views from the mining sites that would be affected by mining activities, nor are the mining sites visible from any designated scenic highway. The Grantline West and Aerojet Mining Amendment mining sites do not contain any scenic resources.
Air Quality	PM <sub>10</sub> emissions from equipment used during mining operations could exceed SMAQMD standards. The <i>Grantline West Mitigated Negative Declaration</i> (City of Rancho Cordova 2005) and the <i>Aerojet Mining Amendment Mitigated Negative Declaration</i> (City of Rancho Cordova 2004), however, contain mitigation measures to reduce PM <sub>10</sub> emissions. As mitigated, mining activities would not exceed SMAQMD standards for other criteria pollutants.
Biological Resources	Mining activities could adversely affect habitat for the valley elderberry longhorn beetle and Swainson’s hawk. The <i>Grantline West Mitigated Negative Declaration</i> (City of Rancho Cordova 2005) and the <i>Aerojet Mining Amendment Mitigated Negative Declaration</i> (City of Rancho Cordova 2004), however, contain mitigation measures to reduce impacts on valley elderberry longhorn beetle and Swainson’s hawk. Mining activities have been designed to avoid all wetland features on the project site, and should not interfere with the movement of any wildlife species. Mining activities would be designed to avoid impacts on 19 oak trees identified through surveying activities as meeting City criteria for protection. Because there is no adopted habitat conservation plan that would include the mining sites, mining activities would not conflict with any such plans.
Cultural Resources	Investigations conducted by City staff indicated that the Grantline West and Aerojet Mining Amendment mining sites did not contain known historic or cultural resources. Even so, however, the <i>Grantline West Mitigated Negative Declaration</i> (City of Rancho Cordova 2005) and the <i>Aerojet Mining Amendment Mitigated Negative Declaration</i> (City of Rancho Cordova 2004) contain mitigation measures to reduce impacts on previously unknown cultural resources if any are encountered during mining activities.
Geology, Soils, and Mineral Resources	Although grading activities associated with mining would remove vegetative cover and expose soils to wind and surface-water runoff, mining activities would be subject to the County Land Grading and Erosion Control Ordinance (the ordinance in effect at the time of preparation of the mitigated negative declarations), which requires conformance with established procedures to control erosion and sedimentation. Mining site soil types do not constitute a hazard related to landslides, liquefaction, or subsidence. The clay content of mining site soils would not affect mining activities because buildings and other structures would not be constructed. The mining sites are not located in a seismically active area that would present a safety hazard related to rupture of a known earthquake fault or strong seismic ground shaking. Mining activities would result in a beneficial use of the aggregate resources at the two sites.
Hazards and Hazardous Materials	The Aerojet mining site in the eastern portion of the project site is within 250 feet of the Alpha Complex, which was built and operated by McDonnell Douglas Corporation to test rocket engines. TCE was used to clean engine parts and has been found in soil and groundwater beneath the Alpha Complex. However, the Alpha Complex site is fenced, and available data from soil and groundwater testing indicate that TCE contamination does not extend to soil outside of the fenced complex. Thus, TCE contamination would not present a hazard to activities at that mining site. Soil is not contaminated at the location of the Grantline West mining activities. Mining activities would not involve the routine transport of hazardous materials. Although mining activities would involve the use of oils, fuels, lubricants, and other potentially hazardous substances associated with equipment maintenance, these materials would be limited in quantity and would be stored off-site. Although the mining sites are within 2 miles of Mather Airport, they are not within the area covered by the Mather Airport Comprehensive Land Use Plan. Mining activities would have no effect on Mather Airport safety or operations, nor would they impair implementation of adopted County emergency response plans, in effect at the time of preparation of the mitigated negative declarations. The mining sites are not located in a wildland fire hazard zone.

**Table 2-12**

**Summary of Potential Impacts from Ongoing Mining Activities for the Approved Grantline West and Aerojet Mining Amendment Conditional Use Permits under the No Project Alternative**

Issue Area	Potential Impact
Hydrology and Water Quality	Mining activities have the potential to result in both short-term and long-term water quality effects from runoff and sedimentation. However, mining operators would be required to prepare a SWPPP, apply BMPs, and comply with County erosion-control policies in effect at the time of preparation of the mitigated negative declarations. A minimal amount of water for mining activities (i.e., washing equipment and wetting on-site roads) would be obtained from East Well No. 1, which is located on the Clark Cattle Company site. This well is currently used for existing mining operations and is periodically monitored. Use of water from this well would not significantly affect groundwater resources. There are no drainages at the Grantline West site that would be affected by mining activities. Existing drainage swales and berms at the Aerojet Mining Amendment site currently direct water around the area of mining activities, and would not be affected by the additional mining operations. Furthermore, a natural berm constructed during earlier dredge mining activities separates the Aerojet mining site from existing swales on adjacent undisturbed land. Mining operations would not place housing within a 100-year floodplain.
Land Use and Agriculture	Mining activities at the project site would be consistent with the site’s existing zoning for industrial land use, and would be an approved land use within the 65-dB CNEL contour under the Mather Airport Land Use Compatibility Plan. Because the Rio del Oro area is currently undeveloped and is surrounded by only a limited amount of development, mining operations would not physically divide an established community. Mining activities would not convert any Prime Farmland, Farmland of Statewide Importance, or Unique Farmland to a nonagricultural use, nor would it convert land held under a Williamson Act contract.
Noise	Environmental acoustics analyses were conducted for both mining sites (see <i>Grantline West Mitigated Negative Declaration</i> [City of Rancho Cordova 2005] and <i>Aerojet Mining Amendment Mitigated Negative Declaration</i> [City of Rancho Cordova 2004]). The results of these analyses indicated that mining activities would not exceed daytime criteria listed in the County Noise Ordinance (the ordinance in effect at the time of preparation of the mitigated negative declarations. The nearest residences are located 1,200 feet from the Aerojet Mining Amendment site and 5,000 feet from the Grantline West mining site. Results of the environmental acoustics analyses indicated that under worst-case scenarios when equipment would be operating closest to these residences, noise levels would not exceed daytime criteria listed in the County Noise Ordinance. Although the mining sites are within 2 miles of Mather Airport, they are not within the area covered by the Mather Airport Comprehensive Land Use Plan, and noise levels from mining activities would have no effect on Mather Airport safety or operations.
Public Services	Mining operations would not affect existing public services in the area, and no housing, businesses, and/or infrastructure would be constructed as part of the projects.
Recreation	Mining operations would not affect existing parks or recreational facilities, nor would construction of additional recreation facilities be required.
Traffic	Each mining site is expected to employ six employees. The use of existing area roadways by these employees would not cause a substantial increase in vehicle trips or congestion at intersections in relation to the existing traffic load, nor would it cause degradation in levels of service. Aggregate material would continue to be removed from the Aerojet mining site by a conveyor belt, which would reduce the number of truck trips on local roadways. Although aggregate materials would be hauled off-site from the Grantline West mining site, the amount of truck traffic on area roadways would remain constant because the same number of trucks from other mining sites would be rerouted for use at the Grantline West site. Existing trucks currently being used at the Aerojet mining site would continue to be used for additional mining activities at that location. The mining sites have multiple access points for emergency vehicles. Employees would park on-site in areas devoid of vegetation, or would park off-site in existing parking spaces at the processing plant.
Utilities and Services	Mining operations would not involve wastewater discharge, would not increase stormwater runoff, and would not require solid-waste disposal services. Sufficient water supplies are available from East Well No. 1.

Notes: BMP = Best Management Practices; City = City of Rancho Cordova; CNEL = Community Noise Equivalent Level; County = County of Sacramento; dB = decibel; PM<sub>10</sub> = particulate matter less than or equal to 10 microns in diameter; SMAQMD = Sacramento Metropolitan Air Quality Management District; SWPPP = Storm Water Pollution Prevention Plan; TCE = trichloroethene

Sources: City of Rancho Cordova 2004, 2005

Although this No Project/No Action Alternative (referred to elsewhere in this document as the “No Project Alternative”) is evaluated herein, consistent with CEQA and NEPA requirements, it is an unlikely long-term alternative for the Rio del Oro project site because, according to the City General Plan, the project site is located in an area planned for urban development. Entitlements are actively being sought for development in the vicinity of the project site (e.g., Sunrise Douglas Community Specific Plan, Mather Field Redevelopment Project, Easton Planning Area, SunCreek Specific Plan area). Infrastructure planning is also occurring for the area, as part of the South County Water Authority’s Water Treatment Plant, CSD-1 Sewer Master Plan, SRCSD Interceptor System Master Plan, Alta-Sunrise Interchange, Zinfandel Drive Extension, and Douglas Road Extension. The regional economic base will continue to expand as a result of these and other development projects in the region, and the associated growth in housing demand will increase the development pressure on the Rio del Oro project site. Therefore, it is unreasonable to assume that the site would remain in its current agricultural and industrial use on a long-term basis. It would be speculative to assume what type of development, other than the project, would be planned in the future.

Consistent with CEQA and NEPA requirements, this No Project/No Action Alternative is evaluated in this DEIR/DEIS. The No Project/No Action Alternative would not meet either the CEQA or NEPA project purpose, need, or objectives of the proposed Rio del Oro project as described in Chapter 1, “Introduction and Statement of Purpose and Need.”

## **2.8 OFF-SITE ALTERNATIVES**

Off-site alternatives are usually considered in environmental documents when one of the means to avoid or eliminate the significant impacts of a project is to develop it in a different available location. To be considered feasible by the City, development on potential off-site locations must be able to fulfill the project purpose and attain most of the basic objectives of the Rio del Oro project. To satisfy the project applicant(s)’ and the City’s project objectives under CEQA, a large undeveloped site in Rancho Cordova would be needed. To satisfy USACE’s project purpose under NEPA, a large undeveloped site elsewhere in the Sacramento County region would be needed that could be reasonably obtained, used, expanded, or managed. Two off-site alternative locations were determined within the Urban Services Boundary (USB) after consultation with Dave Pevney, Senior Planner with the County (Pevney, pers. comm., 2004), about locations of tracts of uncommitted land large enough to accommodate the project; see Exhibits 2-20 and 2-21.

Policy LU 81 of the County General Plan provides very limited conditions under which the County can expand the USB, which would be necessary if the proposed project were constructed in an off-site location anywhere other than on lands south of Kiefer Boulevard, east of the North Vineyard Station and Vineyard Springs areas, and northwest of Grant Line Road. When considering such a proposal, the County must make several findings, including a finding that there is insufficient land within the USB to accommodate the project’s 20-year demand for urban uses. If all of the criteria are not met, the County Board of Supervisors must approve moving the USB by a 4/5 vote. Since enactment of this policy in 1993, the board has never approved consideration of an application for any project of even a moderate size outside the USB.

The identification of off-site alternative locations was limited to those locations that could satisfy certain criteria. First, as discussed above, the geographic area for off-site alternatives was limited to areas within the USB. In addition to the policy reasons discussed above, the USB was chosen as an appropriate geographic boundary because locating the project outside of the USB would require a massive expansion of infrastructure that is not currently planned.

Next, consideration of off-site alternatives was limited to areas along major transportation corridors. This criterion was established to implement key project needs and objectives. As discussed below in Section 2.10, the project’s retail component is an essential aspect of the project. A study prepared by Wes Ervin of Applied Development Economics confirms that a location along a major arterial, preferably adjacent to a freeway, is essential for a retail project of this size.

Furthermore, consideration of off-site alternatives was limited to areas encompassing a size similar to the project site (3,000–3,800 acres).

The primary obstacle in identifying an off-site alternative that otherwise satisfies the primary criteria discussed above is aggregating enough parcels to create a project of an adequate size. The project applicant(s) have identified several geographical areas within the USB and along major transportation corridors, but each of those geographical areas is divided by many different parcels (from about 20 parcels to more than 80 parcels). It is infeasible to aggregate that number of parcels to create a project of a sufficient size. Therefore, the two off-site alternatives discussed below are representative of ways in which the uncommitted land south of Kiefer Boulevard, east of the North Vineyard Station and Vineyard Springs areas, and northwest of Grant Line Road could be configured to accommodate the proposed development.

The proposed Rio del Oro project site represents the only available major undeveloped land area in Rancho Cordova that is capable of providing substantial job opportunities and a mix of uses, and that would fulfill the project applicant(s)' and the City's CEQA project purpose and attain most of the basic project objectives. The balance of undeveloped land in Rancho Cordova is currently undergoing project level planning for separate projects (e.g., Sunrise Douglas Community Specific Plan, Mather Field Redevelopment, Easton Planning Area, SunCreek Specific Plan area). Therefore, alternative locations for the proposed Rio del Oro project inside Rancho Cordova are not available. Furthermore, although large areas of undeveloped land outside and south of Rancho Cordova have development potential, development outside of the City's corporate boundaries would not attain basic CEQA objectives such as providing employment and housing opportunities in Rancho Cordova what conformed the Urban Policy Area boundary to past land use decisions that already designated the property for urban development.

## **2.8.1 QUALITATIVE IMPACT ASSESSMENT**

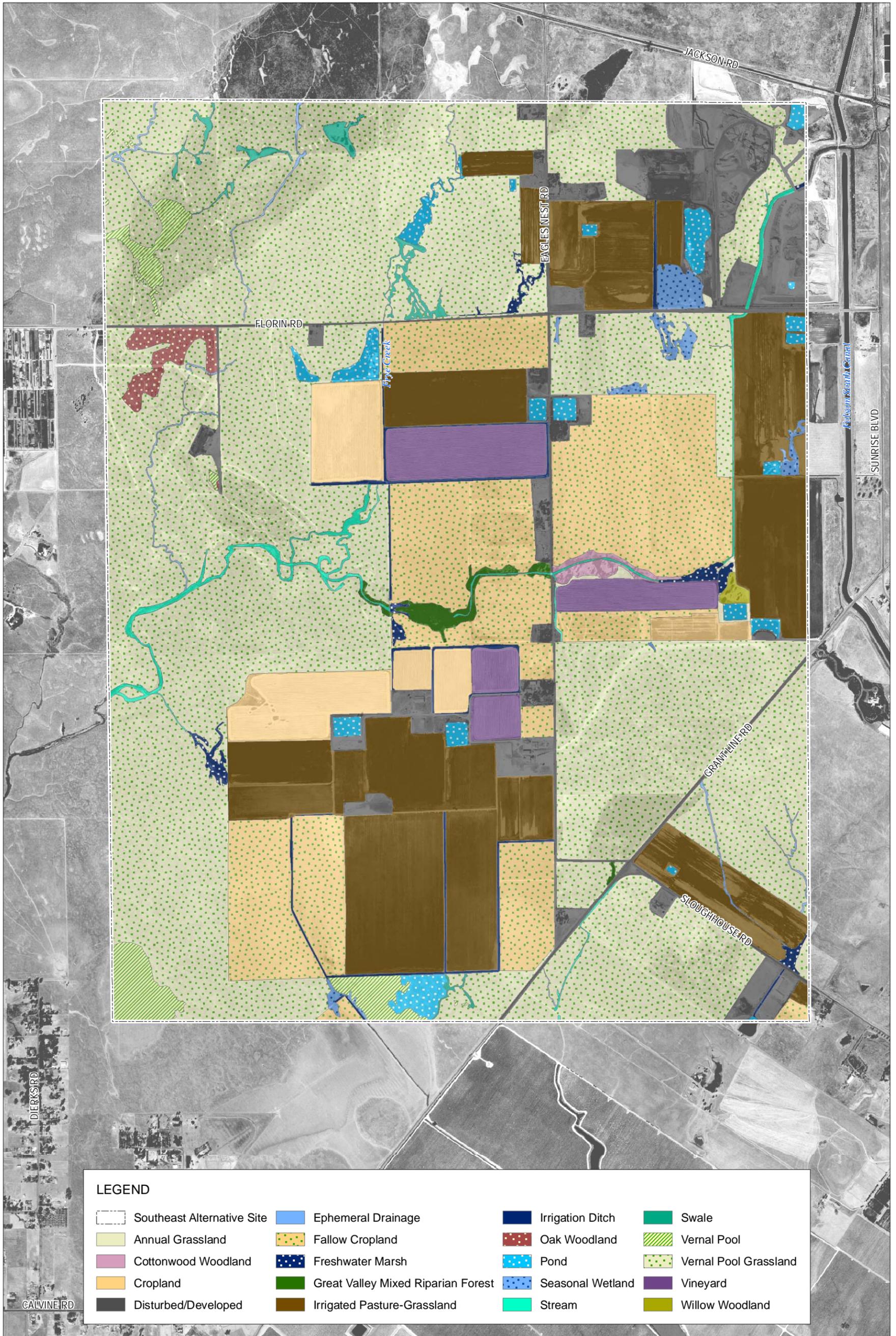
For biological resources, the analysis of the off-site locations in this DEIR/DEIS was based on:

- ▶ searches of the California Native Plant Society's (CNPS's) electronic database and the California Natural Diversity Database (CNDDDB),
- ▶ review and interpretation of aerial photographs of the sites,
- ▶ EDAW biologists' knowledge of biological resources occurring in the vicinity of the project site, and
- ▶ review of relevant literature.

Exhibits 2-20 and 2-21 show the location of natural communities at the two off-site alternative locations. For consistency reasons, habitats were initially mapped on aerial photographs at a scale of 1 inch = 400 feet, the same scale that was used for mapping habitats at the project site. The natural community types were then digitized and quantified. Tables 2-13 and 2-14 show the extent of natural communities present at the off-site alternative locations.

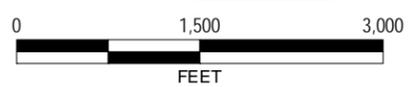
## **2.8.2 SUMMARY**

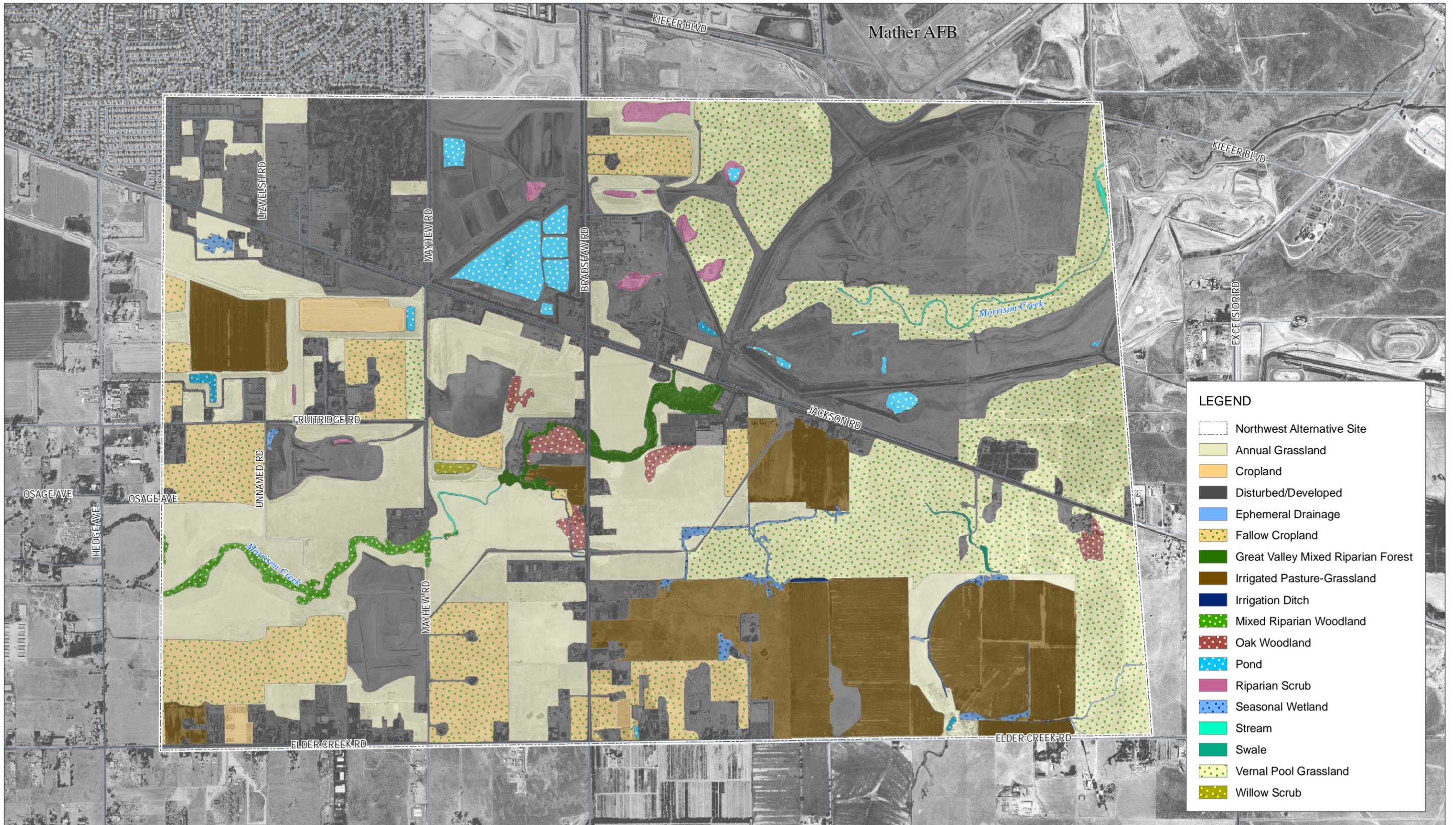
In addition to the natural community types listed below in Tables 2-13 and 2-14, the northwest parcel contains approximately 3,823 acres, and the southeast parcel contains approximately 3,833 acres, of developed and disturbed areas including high- and low-density residential and commercial development, and cleared and graded areas.



Source: EDAW 2005, Sacramento County 2002

Habitat Types at the Off-Site Alternative - Southeast Site



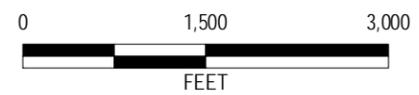


Sources: EDAW 2005, Sacramento County 2002

Habitat Types at the Off-Site Alternative - Northwest Site

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<b>Table 2-13</b>	
<b>Natural Community Types at the Southeast Off-Site Alternative Location</b>	
Community Type	Acreage <sup>3</sup>
Annual grassland	4.17
Cottonwood woodland	9.58
Cropland <sup>1</sup>	133.40
Disturbed/developed	276.72
Seasonal drainages	10.35
Fallow cropland <sup>1</sup>	534.79
Freshwater marsh	16.33
Great Valley mixed riparian forest	14.66
Irrigated ditch	27.16
Irrigated pasture—grassland <sup>1</sup>	604.95
Oak woodland	20.33
Pond	59.26
Stream	27.10
Swale	16.72
Vernal pool	54.79
Vernal pool grassland <sup>2</sup>	1,892.16
Vineyard <sup>1</sup>	102.99
Willow woodland	3.44
<b>Total</b>	<b>3,833.01</b>
<sup>1</sup> No delineation of waters of the United States that would enable quantification of an exact acreage of vernal pools in the study area for the off-site alternative locations was conducted for this analysis. <sup>2</sup> Community types not present on the project site. <sup>3</sup> Acreages are not exact because the numbers have been rounded to the nearest tenth of an acre. Source: Data compiled by EDAW in 2005	

<b>Table 2-14</b>	
<b>Natural Community Types at the Northwest Off-Site Alternative Location</b>	
Community Type	Acreage <sup>1</sup>
Annual grassland	776.26
Cropland <sup>2</sup>	29.55
Disturbed/developed	1,504.40
Seasonal drainages	0.87
Fallow cropland <sup>2</sup>	307.40
Great Valley mixed riparian forest	24.94
Irrigated ditch	3.81
Irrigated pasture—grassland <sup>2</sup>	433.41
Mixed riparian woodland	22.62
Oak woodland	23.51
Pond	51.44
Riparian scrub	19.32
Stream	5.61
Swale	1.65
Vernal pool grassland <sup>3</sup>	599.98
Willow scrub	2.42
<b>Total</b>	<b>3,823.35</b>
<sup>1</sup> Acreages are not exact because the numbers have been rounded to the nearest tenth of an acre. <sup>2</sup> No delineation of waters of the United States that would enable quantification of an exact acreage of vernal pools in the study area for the off-site alternative locations was conducted for this analysis. <sup>3</sup> Community types not present on the project site. Source: Data compiled by EDAW in 2005	

## **SENSITIVE NATURAL COMMUNITIES**

The vernal pools scattered throughout the vernal pool grassland habitat, as well as the freshwater marsh, seasonal drainages, the pond, streams, mixed riparian forest, mixed riparian woodland, and mixed riparian scrub would all be considered sensitive natural communities, some of which are subject to USACE jurisdiction under Section 404 of the Clean Water Act, Central Valley Regional Water Quality Board jurisdiction under the Porter-Cologne Act, and/or California Department of Fish and Game jurisdiction under Section 1602 of the California Fish and Game Code.

## **SPECIAL-STATUS SPECIES**

The off-site alternative locations are situated within the Sloughouse, Elk Grove, and Carmichael Quadrangles, which were included in the database search for the Proposed Project Alternative site. To account for species documented in adjacent areas, EDAW biologists also conducted CNDDDB and CNPS electronic database searches for the Galt, Clay, and Goose Creek Quadrangles. Results of the database searches were then used to compare the potential for special-status species to occur at the off-site alternative site locations with the potential for them to occur at the project site.

### **Special-Status Plant Species**

All of the same special-status plant species that are known from or have potential to occur on the project site also have potential to occur on the off-site alternative site locations because most of these species are associated with vernal pool habitat (which is present at all three locations). In addition, one special-status plant species, Sanford's arrowhead (CNPS 1B), could potentially occur at the off-site alternative site locations because there are streams/creeks and open-water habitat that could support marsh vegetation.

### **Special-Status Wildlife Species**

The off-site alternative site locations contain vernal pool grassland and could potentially support the same vernal pool invertebrates as the project site. Because the analysis of the off-site locations is based on interpretation of aerial photographs, it is unknown whether elderberry shrubs are present that could support valley elderberry longhorn beetle. However, the off-site locations contain several types of riparian habitat that could include elderberry shrubs. All of the special-status species associated with grassland, wetland, riparian, and oak woodland habitat that are known from or have potential to occur at the project site also could occur at the off-site alternative location sites because the same habitat types are present. In addition, the off-site alternative sites could provide suitable habitat for giant garter snake because they contain streams/creeks and open-water habitats that could support freshwater marsh vegetation. Giant garter snake is considered unlikely at the project site because of lack of suitable habitat.

The database searches of the additional quadrangles also revealed previously documented occurrences of golden eagle, great egret, and great blue heron rookeries in areas adjacent to those occupied by the off-site alternative site locations. These species are unlikely to occur at the project site because of the lack of suitable habitat.

## **2.8.3 IMPACTS**

Development of the off-site alternative sites would be expected to result in significant adverse effects on common and sensitive natural communities and special-status species. Species and communities affected would be similar to those affected at the proposed project site; however, the acreages affected by community differ (see Tables 2-13 and 2-14 above).

In addition, development at the two known sites of substantially similar size (the project site is more than 3,800 acres) within the County USB would be expected to result in environmental impacts (related to traffic, biological

resources, air quality, noise, etc.) similar to those of the proposed Rio del Oro project. Undeveloped areas in the region are used primarily for agriculture, the region is experiencing substantial growth in traffic, and it is in nonattainment of air quality standards. Consequently, any major development in Sacramento County would be expected to generate significant agricultural, traffic, and air quality impacts, and any development that adds significant levels of traffic to regional roadways would contribute to substantial noise levels. Although the Rio del Oro project site contains sensitive biological resources (including vernal pools), the alternative sites also contain protected wetlands; thus, similar impacts on biological resources would result on the alternative project sites. In addition, the alternative sites would be more distant than the proposed Rio del Oro project from freeways and urban areas, requiring construction of additional on- and off-site utility and transportation infrastructure to serve the alternative sites.

Given the above, while there may be other land combinations in the vicinity of the two sites identified above that are both within Sacramento County and within the USB, there are no known alternative sites that would reduce the significant impacts of the project, and there are no feasible alternative sites that can meet the Rio del Oro CEQA project objectives. For this reason, an off-site alternative is not evaluated further in this DEIR/DEIS.

## **2.9 REDUCED PRESERVE ALTERNATIVE**

This alternative would result in complete development of all 3,828 acres at the project site. All of the vernal pools, seasonal wetlands, swales, ponds, and seasonal drainages (56.63 acres) would be filled, and the entire length of Morrison Creek through the project site would be piped underground. Although none of the site's existing wetland features would be preserved, some form of off-site mitigation would be provided.

Implementation of this alternative would meet all of the stated CEQA project purposes and needs, but it would not meet the Section 404(b)(1) Guidelines, which require impact minimization and avoidance; thus, it was eliminated from further detailed study.

## **2.10 INCREASED PRESERVE/NO REGIONAL TOWN CENTER ALTERNATIVE**

This alternative would increase the amount of wetland preserve (as compared to the Proposed Project Alternative) by 599 acres, for a total of 1,106 acres. The area south of Rio del Oro Parkway and north of the proposed drainage parkway (near the corner of Sunrise Boulevard and Douglas Road) would be included in the preserve boundary, but all other land uses would remain the same as under the Proposed Project Alternative.

An alternative location for the 76-acre proposed retail and commercial development in the southwestern portion of the project site (proposed Regional Town Center) was examined by an independent land planning group (LPA Sacramento, Inc.). This location would be north of Rio del Oro Parkway and east of Sunrise Boulevard. The findings of this study (Chase, pers. comm., 2006) are summarized below:

- ▶ Maximum visibility from a motorist's perspective is imperative for a successful retail development. In general, the length of street frontage should exceed the depth of the site. If this does not occur, some of the retailers, restaurants, and other businesses will not be seen by motorists, and business will suffer accordingly.
- ▶ A maximum number of vehicular access points are important for a major retail center to appropriately distribute traffic and avoid long wait times into and out of the facility.
- ▶ The Regional Town Center location as shown under the proposed project provides for multiple vehicular access points along two major thoroughfares, Sunrise Boulevard and Douglas Road, with additional secondary access from Rio del Oro Parkway. The street frontage for this site is roughly four times the depth of the site. This is a good proportion of street frontage to retail development for a site of this size and assures

that the majority of uses are visible from the major thoroughfares, thus providing for a financially viable retail center that will attract a credible developer and desirable retail businesses.

- ▶ The alternative Regional Town Center location north of Rio del Oro Parkway and east of Sunrise Boulevard would only allow vehicular access from one major thoroughfare, Sunrise Boulevard (not Douglas Road), and secondary access from Rio del Oro Parkway. The approximate frontage along major thoroughfares would be reduced to only 800 feet, as compared to 3,100 feet under the proposed project. This alternative would result in 2,500–3,000 feet of roadway frontage along a secondary street, Rio del Oro Parkway, the opposite of the way in which a viable major retail center should be sited. Because this location would substantially reduce visibility from major thoroughfares, it would make it extremely difficult to find a qualified real estate developer and desirable retail businesses. Furthermore, assuming that the Rio del Oro Parkway/Sunrise Boulevard intersection would be signalized, it is highly unlikely that the City would allow full-turning movement access along Sunrise Boulevard, resulting in long traffic backups to access the retail site.
- ▶ Finally, if the Regional Town Center were constructed in the alternative location, that would displace the residential housing currently planned for that location. Relocating the residential housing to the corner of Sunrise Boulevard and Douglas Road, which is a major intersection, would not be appropriate because of the amount of vehicular traffic noise. Reducing the noise to acceptable levels as required by the City’s General Plan would require approximately 3,000 feet of continuous masonry sound wall; even with the sound wall, there would still be a substantial portion of this residential development that would be subjected to traffic noise from a major intersection, which would make these units more difficult to sell, in addition to a less than aesthetically pleasing appearance along both major thoroughfares. Because residential housing cannot be located within the Mather Airport noise contours in the northwestern portion of the project site, the office/business park uses must remain where they are under the proposed project, and cannot be relocated to this southwestern corner of the project site.

Therefore, for the reasons summarized above, under this alternative, the 76 acres of proposal retail and commercial development (proposed Regional Town Center) at the corner of Douglas Road and Sunrise Boulevard would not be constructed.

Implementation of the Increased Preserve/No Regional Town Center Alternative would result in the placement of fill material into 11.22 acres of waters of the United States (ECORP 2005), as well as partial fill of five drainage swale features (1.61 acres).

This alternative would have a negative impact on the ability of the City and other public agencies to meet funding needs for regional public infrastructure. For instance, according to an analysis prepared by Economic Planning Systems (EPS), this alternative would reduce the City’s roadway funding by \$53 million compared with the Proposed Project Alternative. These funds were identified after numerous technical studies as necessary for the City to achieve a functioning transportation network and minimize worsening congestion in the Sunrise Boulevard corridor.

This alternative would also reduce or shift \$9.0 million in funding for the City’s museum, library, new policy building, Proposed Project Alternative. In addition, if this alternative were implemented, \$10 million for regional parks and \$1.3 million for transit would not be paid into funds set up to construct these important public facilities, again Proposed Project Alternative. The loss of these development impact fees could require a scaling back of the City’s vision for added community amenities. Therefore, the City could have difficulty funding the planned regional parks, transit improvements, library, and museum facilities, to which the City’s capital improvement program would have dedicated the fee revenue from this alternative.

This alternative would shift significant costs related to sewer trunk line costs (shared-capital item between subdivisions outside of the Rio del Oro project) to a much smaller amount of development. The result would be that each individual home, apartment, or square foot of commercial or industrial space that is built would have to

bear a much larger amount of costs, with the resultant potentially undesirable planning impacts and higher cost of housing and commercial and industrial space.

Although implementation of this alternative would likely satisfy the USACE NEPA Section 404(b)(1) Guidelines, it was eliminated from further detailed study because it would not achieve the key CEQA project objectives (listed in Chapter 1, “Introduction and Statement of Purpose and Need”) and thus would not be approved by the City.

## 2.11 SIGNIFICANT TRAFFIC IMPACT AVOIDANCE ALTERNATIVE

Fehr & Peers Transportation Consultants (Fehr & Peers) conducted an analysis of cumulative (year 2030) conditions to determine what percent reduction in project development would be required to substantially reduce significant impacts on area roadway segments. As shown in Table 2-15, a 70% reduction in development would be required to eliminate the majority of impacts, primarily significant impacts on U.S. 50. A certain level of development is required to, at a minimum, finance necessary infrastructure. Under an alternative based on this reduction, there would be too few housing, commercial, and industrial units to pay for necessary infrastructure, with the result that financially the project would not be able to proceed. Therefore, this alternative was eliminated from further consideration.

<b>Table 2-15 Roadway Segment Significant Impacts—Cumulative (Year 2030) Conditions</b>						
Roadway Segment	Percent Development Reduction Necessary to Avoid Impacts <sup>1</sup>					
	20%	30%	40%	50%	60%	70%
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						
Sunrise Boulevard—White Rock Road to Douglas Road	✓					
Sunrise Boulevard—State Route 16 to Grant Line Road	✓	✓	✓	✓	✓	✓
Hazel Avenue—Winding Way to U.S. 50 westbound ramps	✓	✓	✓	✓	✓	✓
U.S. 50—Mather Field Road to Zinfandel Drive	✓	✓	✓			
U.S. 50—Sunrise Reliever to Hazel Avenue	✓	✓	✓	✓	✓	
U.S. 50—Hazel Avenue to Folsom Boulevard	✓	✓	✓	✓	✓	
Douglas Road—Sunrise Boulevard to Jaeger Road	✓	✓				
Kiefer Boulevard—Sunrise Boulevard to Jaeger Road						
Sunrise Boulevard—Douglas Road to Chrysanthy Boulevard	✓	✓	✓	✓	✓	
Sunrise Boulevard—Chrysanthy Boulevard to Kiefer Boulevard	✓	✓	✓	✓	✓	
Sunrise Boulevard—Kiefer Boulevard to State Route 16	✓	✓	✓	✓	✓	✓
Sunrise Reliever—U.S. 50 to Easton Valley Parkway	✓	✓	✓	✓	✓	✓
Sunrise Reliever—Easton Valley Parkway to White Rock Road	✓	✓	✓	✓	✓	✓
Jaeger Road—Douglas Road to Pyramid Boulevard	✓	✓	✓	✓	✓	✓
<b>Total Number of Impacts</b>	<b>17</b>	<b>16</b>	<b>15</b>	<b>13</b>	<b>13</b>	<b>9</b>
Note: <sup>1</sup> Each check mark represents a significant impact. Source: Fehr & Peers 2005						

## 2.12 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The State CEQA Guidelines require identification of an environmentally superior alternative from among the proposed project and the alternatives evaluated. If the No Project Alternative is environmentally superior, CEQA requires identification of the “environmentally superior alternative” other than the No Project Alternative from among the proposed project and the alternatives evaluated. Federal NEPA guidelines also recommend that an environmentally preferred alternative be identified; however, under NEPA, that alternative does not need to be identified until the final Record of Decision is published. Therefore, the discussion in this section of the environmentally superior alternative is intended to satisfy only the state CEQA requirements.

Table 2-16 provides a comparison of some of the project characteristics between the Proposed Project Alternative and the other three action alternatives (High Density, Impact Minimization, and No Federal Action).

Project Characteristics	Alternative			
	Proposed Project	High Density	Impact Minimization	No Federal Action
Population (Number of Residents)	31,671	42,282	28,828	29,388
Residential Development				
Total Acreage	1,920	1,950	1,447	1,772
Total Units	11,601	15,488	10,568	10,765
Commercial Development				
Total Acreage	521	521	493	431
Employment (Number of Jobs)	18,318	18,318	17,517	17,500
Wetlands Filled (acres)	30.3 jurisdictional 12.9 nonjurisdictional	30.3 jurisdictional 12.9 nonjurisdictional	13.5 jurisdictional 12.9 nonjurisdictional	0 jurisdictional 12.9 nonjurisdictional
Acreage of Designated “Wetland Preserve”	507	507	994.5	835
Acreage of Existing Wetland Preserved	26.3	26.3	43.1	56.6
Sufficiency of Parkland (acres)	12-acre surplus	41-acre shortfall	25-acre surplus	37-acre surplus
Water Consumption (acre-feet per year)	8,888	9,245	7,370	8,015
Sources: ECORP Consulting 2005, data compiled by EDAW in 2006				

Table 2-17 shows the overall level of significance for each issue area, and provides a comparison of CEQA significance determinations among the four action alternatives and the No Project Alternative for each of the 16 environmental issues evaluated in this DEIR/DEIS.

Based on the conclusions in Table 2-17, the No Project Alternative would have the fewest environmental impacts and therefore would be the environmentally superior alternative under CEQA. CEQA requires that if the No Project Alternative is determined to be environmentally superior, the EIR must also identify the environmentally superior alternative among the other alternatives.

The No Federal Action Alternative would prohibit development on or within 50 feet of a jurisdictional wetland; as a result, certain residential and commercial areas would not be built under this alternative, a number of roads would not be constructed, and utilities in certain portions of the project site would be installed using jack-and-bore or horizontal directional drilling techniques. This alternative would result in potentially significant impacts related to land use, drainage, hydrology, and water quality, which are greater than impacts that would occur under the other three action alternatives. While this alternative would reduce direct impacts on some biological resources such as vernal pools, the No Federal Action Alternative would not avoid indirect, potentially

significant, and significant impacts related to biological resources. This alternative would also result in more significant and unavoidable traffic and transportation impacts than would occur under the other three action alternatives. Therefore, among the four action alternatives, the No Federal Action Alternative would have the greatest level of adverse impacts on the environment.

**Table 2-17  
Comparison of Impacts of the Proposed Project After Mitigation Implementation to Those of the Alternatives Under Consideration<sup>1</sup>**

Environmental Issue	Alternative				
	Proposed Project	High Density	Impact Minimization	No Federal Action	No Project
Land Use and Agriculture	LTS	LTS	LTS	PS	NI
Population, Employment, and Housing	LTS	LTS	LTS	LTS	NI
Environmental Justice	LTS	LTS	LTS	LTS	NI
Drainage, Hydrology, and Water Quality	LTS	LTS	LTS	PS	NI
Utilities and Service Systems	LTS	LTS	LTS	LTS	NI
Public Services	LTS	LTS	LTS	LTS	NI
Geology, Soils, and Mineral Resources	PS	PS	PS	PS	NI
Paleontological Resources	LTS	LTS	LTS	LTS	NI
Cultural Resources	PS	PS	PS	PS	NI
Biological Resources	S	S	S	S	NI
Visual Resources	S	S	S	S	NI
Parks and Recreation	NI	S	NI	B	NI
Hazards and Hazardous Materials	PS	PS	PS	PS	NI
Traffic and Transportation	S	S	S	SU	NI
Air Quality	S	S	S	S	NI
Noise	PS	PS	PS	PS	NI

Notes: LTS = less than significant, NI = no impact, PS = potentially significant, S = significant, SU = significant and unavoidable, B = Beneficial

<sup>1</sup> The overall impact conclusion for each issue area for each alternative was determined as follows: Separate tables were created for each issue area, and within each alternative, the number of each of the significance conclusions (LTS, PS, S, or NI) before the implementation of mitigation measures was added up and totaled. The significance conclusion that occurred the greatest number of times within each issue area was determined to be the overall impact conclusion for that alternative. For example, if there were four impacts determined to be LTS and two impacts determined to be PS, the impact conclusion would be LTS. In cases where the numbers were the same (i.e., two impacts determined to be LTS and two impacts determined to be PS), the more severe impact was used; in the case of this example, it would be PS.

Source: Data compiled by EDAW in 2006

Under the High Density Alternative, the project would be constructed at a higher level of intensity consistent with the SACOG Sacramento Region Blueprint. This alternative would provide certain long-term benefits to the environment by locating a higher density of residential housing in the same mixed-use community where job opportunities would be provided, thus reducing development pressure on other undeveloped lands in the surrounding area. However, in general, the High Density Alternative would have a greater level of impacts on the environment than the Proposed Project Alternative or the Impact Minimization Alternative because land would be

developed at a higher level of intensity; thus, more residential housing, retail and commercial development, roadways, schools, fire and police services, and demand for water, sewer, and other infrastructure would be necessary, and a greater level of impacts to biological resources would occur. However, by using land more efficiently in dealing with projected long-term population increases in the greater Sacramento region, the High Density Alternative, when compared to the Proposed Project Alternative, could lead to the preservation of approximately 500 more acres of land that would otherwise be lost to development over time; it would also provide 3,887 additional residential units. This long-term avoidance of development would likely have the effect of reducing impacts that would otherwise occur with a more traditional, lower density footprint.

The Impact Minimization Alternative would have a lesser level of impacts on the environment than any of the other action alternatives, including the Proposed Project Alternative, because nearly 500 fewer acres of land would be developed, which would be made part of a managed wetland preserve, and the land would be developed a lower level of intensity. Although impacts would still be significant, this alternative would result in the lowest level of significant impacts among the four action alternatives related to demand for water and wastewater infrastructure; construction-related erosion; loss and degradation of jurisdictional wetlands and other waters of the United States, riparian habitat, special-status wildlife, special-status plants, and associated habitat; degradation of visual character and new skyglow and light and glare effects; increases to traffic volumes and temporary obstruction of roadways during construction; generation of short-term and long-term pollutant emissions; and exposure to on-site and off-site noise sources.

Although both the High Density and Impact Minimization Alternatives would preserve approximately 500 acres of land, the Impact Minimization Alternative would be developed at a lesser intensity than the High Density Alternative and would thus result in less of an impact on the environment overall.

Thus, among the four action alternatives carried forward for analysis in this DEIR/DEIS, the Impact Minimization Alternative would be the environmentally superior alternative for CEQA purposes.