APPENDIX D

RIO DEL ORO SPECIFIC PLAN PROJECT AMENDED WATER SUPPLY ASSESSMENT

Rio del Oro Specific Plan Project

Amended Water Supply Assessment

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May 2006

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Rio del Oro Specific Plan Project

Amended Water Supply Assessment

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Table of Contents

Tables **Page**

Table of Contents
(continued)

Exhibits **Page**

Acronyms and Abbreviations

af	acre-feet
af/ac/yr	acre-feet per acre per year
afy	acre-feet per year
BMP	best management practices
Cal-Am	California American Water Company
CEQA	California Environmental Quality Act
CIP	Capital Improvements Program
City	City of Rancho Cordova
County	County of Sacramento
CSCGF	Central Sacramento County Groundwater Forum
CSCGMP	Central Sacramento County Groundwater Management Plan
CVP	Central Valley Project
du/ac	dwelling units per acre
DWR	California Department of Water Resources
EIR	environmental impact report
EPA	U.S. Environmental Protection Agency
GenCorp	Aerojet General Corporation
GET	groundwater extraction and treatment
GMP	Groundwater Management Plan
GSWC	Golden State Water Company
IGSM	Integrated Groundwater Surface Water Model
mgd	million gallons per day
msl	mean sea level
POU	Place of Use
PSA	Purveyor Specific Agreement

Reclamation	U.S. Bureau of Reclamation
RWQCB	Regional Water Quality Control Board
RWSP	Replacement Water Supply Project
SB 610	Senate Bill 610
SCWA	Sacramento County Water Agency
SMUD	Sacramento Municipal Utility District
SWRCB	State Water Resources Control Board
UPA	Urban Policy Area
UWMP	Urban Water Management Plan
Vineyard WTP	Vineyard Water Treatment Plant
WFA	Water Forum Agreement
WRIME	Water Resources & Information Management Engineering, Inc.
WSA	Water Supply Assessment
WSMP	Water Supply Master Plan

1 EXECUTIVE SUMMARY

This Water Supply Assessment (WSA) has been prepared for the Rio del Oro Specific Plan project (proposed project) pursuant to Senate Bill 610 (SB 610) (Chapter 643, Statutes of 2001; Section 21151.9 of the California Public Resources Code and Section 10910 et seq. of the California Water Code). The Specific Plan area, referred to in this document as the "project site," includes approximately 3,828 acres located in the city of Rancho Cordova in eastern Sacramento County; 1,100 acres are owned by Elliott Homes, constituting Phase 1 of the proposed project and 2,728 acres are owned by Aerojet General Corporation (GenCorp), constituting Phases 2-5 of the proposed project. The proposed project would convert a prior industrial site to mixed-use development.

The City of Rancho Cordova has identified Sacramento County Water Agency (SCWA) as the water purveyor for the proposed project. The project site is located in eastern Sacramento County within the service area of SCWA's Zone 40. The SCWA Board of Directors previously adopted a WSA for the proposed project. However, because additional information has become available regarding the timing and availability of water supplies for the proposed project, it is appropriate to prepare an amended WSA. Once adopted, this amended WSA will supersede the existing WSA for the proposed project.

Water supply planning within the Sacramento region is complex. Regional water supply planning has been going on for many years and has involved numerous stakeholders. In 2000, the Water Forum Agreement (WFA) (Sacramento City-County Office of Metropolitan Water Planning 2000) was adopted by various stakeholder groups, including water supply purveyors. The WFA was formulated based on the two coequal objectives of the Water Forum: (1) Provide a reliable and safe water supply for the region's economic health and planned development through the year 2030; and (2) preserve the fishery, wildlife, recreational, and aesthetic values of the Lower American River. The WFA provided a program for how the region will meet its water needs and how the region will address key issues such as groundwater management, water diversions, dry-year water supplies, water conservation, and protection of the Lower American River. SCWA is a signatory to the WFA.

The *Zone 40 Water Supply Master Plan* (WSMP) (adopted in February 2005) (SCWA 2005a) is a comprehensive water supply document that identifies available water supplies, as well as infrastructure necessary to deliver water to a subarea within Zone 40 known as the 2030 Study Area, based on the WFA. The project site lies wholly within Zone 40 and partially within the 2030 Study Area.

During the environmental review and since adoption of the Zone 40 WSMP Environmental Impact Report (EIR), SCWA has pursued and is in various stages of planning for several projects that would implement specific elements of the WSMP. These projects include:

- **Zone 40 Vineyard Water Treatment Plant—**SCWA is proposing to construct the Vineyard Water Treatment Plant (Vineyard WTP) and associated water supply facilities to provide up to 100 million gallons of potable water to existing and approved future development within the SCWA Zone 40 area. The Vineyard WTP is located west of the intersection of Florin and Excelsior Roads, at the northeast corner of Florin and Knox Roads in Sacramento County. The objective of constructing the Vineyard WTP is to provide capacity for treating 100 million gallons per day (mgd) of raw surface water and remediated groundwater, and to serve approved land uses in the Zone 40 service area. Initial phases of facility construction are anticipated to be completed by 2010, with full buildout by 2029.

- **Freeport Regional Water Project**—SCWA and East Bay Municipal Utility District are constructing a diversion structure on the Sacramento River near the community of Freeport and a raw-water conveyance pipeline from the diversion structure to the central portion of Zone 40. SCWA will construct a 100-mgd surface-water treatment facility in the central portion of Zone 40 (the Vineyard WTP described above), and the associated treated-water conveyance pipelines to deliver water to SCWA customers. This project is anticipated to be completed by 2010.

- **Eastern County Replacement Water Supply Project (RWSP)—**The RWSP is a proposal by SCWA to use remediated groundwater obtained through the agreements between the County of Sacramento, SCWA, GenCorp, and McDonnell Douglas Corporation/Boeing for replacement of water lost as a result of past activities resulting in groundwater contamination in the Rancho Cordova area, for new development on Aerojet lands, and for environmental enhancement. SCWA has initiated environmental review of this project, which evaluates several discharge, diversion, and treatment options for using remediated groundwater from GenCorp and Boeing groundwater treatment and extraction facilities. The RWSP would identify the necessary facilities and timing of delivery of remediated water. Environmental review is anticipated to be completed by late summer 2006, with construction of all project-related facilities completed by 2010.

Estimated water demand for the proposed project at full buildout is approximately 8,888 acre-feet per year (afy). To determine whether water is available to serve the demand of proposed project, it is important to understand what water is available to SCWA and how these water supplies are managed.

- Existing water available to SCWA includes a combination of surface water and groundwater that is conjunctively managed, and recycled water. Groundwater is extracted from the Central Sacramento County Groundwater Basin. Surface water used by SCWA includes Central Valley Project (CVP) supplies (Sacramento Municipal Utility District [SMUD] I, SMUD II, and Fazio water).

- SCWA is in the process of securing additional water to meet the demand for its service area. The future supplies include surface water appropriated from the American and Sacramento Rivers, transfer-water supplies, and water from wholesale water agreements with the City of Sacramento. SCWA has pending water right applications before the State Water Resources Control Board.

- The RWSP, described above, would treat and make available a portion of its remediated groundwater supply for new development within SCWA's service area.

A portion of the water demand for the proposed project was accounted for in the Zone 40 WSMP. Specifically, 1,500 afy was counted for an area that SCWA identified as Security Park. (The Security Park region of the WSMP includes both the Security Park and lands immediately surrounding it, and therefore includes some of the lands that are located within the project site. However, the Security Park itself is not part of the project site.) This water would be available to the proposed project once the Vineyard WTP and associated conveyance facilities are completed (estimated 2010).

The RWSP would supply the remaining water for the proposed project (7,388 afy). The RWSP is currently undergoing environmental review. Construction of all project-related facilities is estimated to be completed by 2010. This water would not be available for the proposed project until all the necessary permits and approvals are in place and the facilities are constructed.

Because of SCWA's extensive planning efforts in implementing the WFA, preparing the Zone 40 WSMP and the *2005 Zone 41 Urban Water Management Plan* (UWMP) (SCWA 2005a, 2005b), and participating in the Central Sacramento Groundwater Forum (CSCGF), SCWA has demonstrated that it has planned for both water supplies and the infrastructure necessary to meet future water demand through 2030 within Zone 40. However, not all of these water supplies will be available until the planned SCWA facilities are constructed (including Vineyard WTP and RWSP).

The permanent long-term water supply identified in this document cannot be delivered to the proposed project until the Vineyard WTP, RWSP, and other facilities described above have been approved and constructed (currently estimated at 2011). If a temporary supply of water from another source could be secured until the completion of these water projects, some initial development of the Rio del Oro project could occur. This short-term "gap" water supply is currently conceptual and has not been fully developed in order to evaluate in detail whether it can be determined to be a reliable source of water. Ultimately, the gap water supply (if approved and utilized before the RWSP comes online) will be replaced with the RWSP. Until further technical study is

conducted, SCWA is not in a position to make an evaluation as to whether or not the gap water supply is a reliable long-term source of water. Notwithstanding the question as to the reliability of the gap water as a long-term water supply source, it is SCWA's continued intention to be the retail water purveyor for this development.

The project applicants have discussed the availability of a gap water supply with the nearby GSWC and have identified potential water supply options for providing gap water to Rio del Oro. These gap supplies, listed and qualified below, could support a portion of the initial phases of development of Rio del Oro until SCWA has constructed the facilities necessary to deliver permanent water supplies to the project site.

- **Option A—**Existing GSWC water supply capacity that exceeds its current projected maximum-day system demand could be delivered to Rio del Oro.

- **Option B—**Existing GSWC wells that have been taken out of service as a result of groundwater contamination could be provided with wellhead treatment to remove contaminants. If these wells are then brought back online, the GSWC system could have excess capacity that could be delivered to Rio del Oro, as described in Option A.

- **Option C—**If water treated at GenCorp's groundwater extraction and treatment plant J (GET J) is piped to the nearby Coloma/Pyrites Water Treatment Plant and blended with other potable surface water supplies, the GSWC system could have excess capacity that could be delivered to Rio del Oro, as described in Option A.

Options B and C would require a change in current regulatory agency policy regarding sources of drinking water supply. Furthermore, any delivery of a gap water supply for initial development at Rio del Oro will require an agreement with SCWA that must describe capital improvements required to deliver the water, the source of funding for any such improvements, the price of gap water, and a commitment of the gap supply. Other existing agreements that address water supply in this area may need to be amended.

While SCWA has approved and started design of the Vineyard WTP and associated projects that will provide 1,500 afy for the Rio del Oro project site, the RWSP, which will provide the remaining 7,388 afy, is currently in the environmental review stage. Until all necessary approvals and permits for construction have been secured, the RWSP cannot be guaranteed as a reliable long-term supply of water for the Rio del Oro project. If the the RWSP is delayed or not approved, SCWA would need to identify other sources of supply for Rio del Oro.

2 INTRODUCTION

This report presents the Water Supply Assessment (WSA) prepared for the Rio del Oro Specific Plan project (proposed project) pursuant to Senate Bill 610 (SB 610) (Chapter 643, Statutes of 2001; Section 21151.9 of the California Public Resources Code and Section 10910 et seq. of the California Water Code). The Specific Plan area, referred to in this document as the "project site," includes approximately 3,828 acres located in the city of Rancho Cordova in eastern Sacramento County; 1,100 acres (Phase 1 of the proposed project) are owned by Elliott Homes and 2,728 acres (Phases 2-5 of the proposed project) are owned by Aerojet General Corporation (GenCorp). The proposed project would convert a prior industrial site to mixed-use development.

Because of the size of the proposed project, a WSA is required under the provisions of the Water Code. The City of Rancho Cordova (City) has identified Sacramento County Water Agency (SCWA) as the wholesale water provider for the proposed project and as the lead agency responsible for preparation of this WSA. SCWA is required to make a determination through this WSA whether sufficient water is available to meet project demand (Water Code Section 10910[c][1]). Assuming that this WSA makes that determination, the City will adopt the WSA on certification of the environmental impact report (EIR) prepared for the project.

The SCWA Board of Directors previously adopted a WSA for the proposed project. However, because additional information has become available regarding the timing and availability of water for the proposed project, it is appropriate to prepare an amended WSA. Once adopted, this amended WSA will supersede the existing WSA for the proposed project.

2.1 SENATE BILL 610

SB 610 became effective January 1, 2002. The purpose of SB 610 is to strengthen the process by which local agencies determine whether current and future water supplies are adequate and sufficient to meet current and future demand. SB 610 amended the California Public Resources Code to incorporate Water Code requirements within the California Environmental Quality Act (CEQA) process for certain types of projects. SB 610 also amended the Water Code to broaden the types of information included in an Urban Water Management Plan (UWMP) (Water Code Section 10620 et seq.).

WATER CODE PART 2.10

Water Code Part 2.10 clarifies the roles and responsibilities of the lead agency under CEQA and the water supplier (i.e., the public water system) with respect to describing current and future supplies compared to current and future demand. It also defines the projects for which a WSA must be prepared as well as the responsibilities of the lead agency related to the WSA. For the proposed project, the City of Rancho Cordova is the lead agency. A WSA is required for:

- proposed residential developments of more than 500 dwelling units;
- proposed shopping centers or business establishments employing more than 1,000 persons or having more than 500,000 square feet of floor space;
- proposed commercial office buildings employing more than 1,000 persons or having more than 250,000 square feet of floor space;
- proposed hotels or motels, or both, having more than 500 rooms;
- proposed industrial, manufacturing, or processing plants, or industrial parks planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area;

- mixed-use developments that include one or more of the uses described above;
- developments that would demand an amount of water equivalent to or greater than the amount of water required by a 500-dwelling-unit project; and
- for lead agencies with fewer than 5,000 water service connections, any new developments that will increase the number of water service connections in the service area by 10% or more.

Under Part 2.10, the lead agency must identify the affected water supplier and ask the supplier whether the new demand associated with the project is included in the supplier's UWMP. If the UWMP includes the demand, it may be incorporated by reference in the WSA (Water Code Section 10910[c][2]). If there is no public water system to serve the project, the lead agency must prepare the WSA itself. (Water Code Section 10910[b].)

The 2005 Zone 41 UWMP (SCWA 2005b) was adopted by the SCWA Board of Directors on December 6, 2005.

2.2 URBAN WATER MANAGEMENT PLANNING ACT

The Urban Water Management Planning Act requires water suppliers to document water supplies available during normal, single dry, and multiple dry water years during a 20-year projection period and the existing and projected future water demand during a 20-year projection period. The act requires that the projected supplies and demand be presented in 5-year increments for the 20-year projection period (Water Code Section 10631).

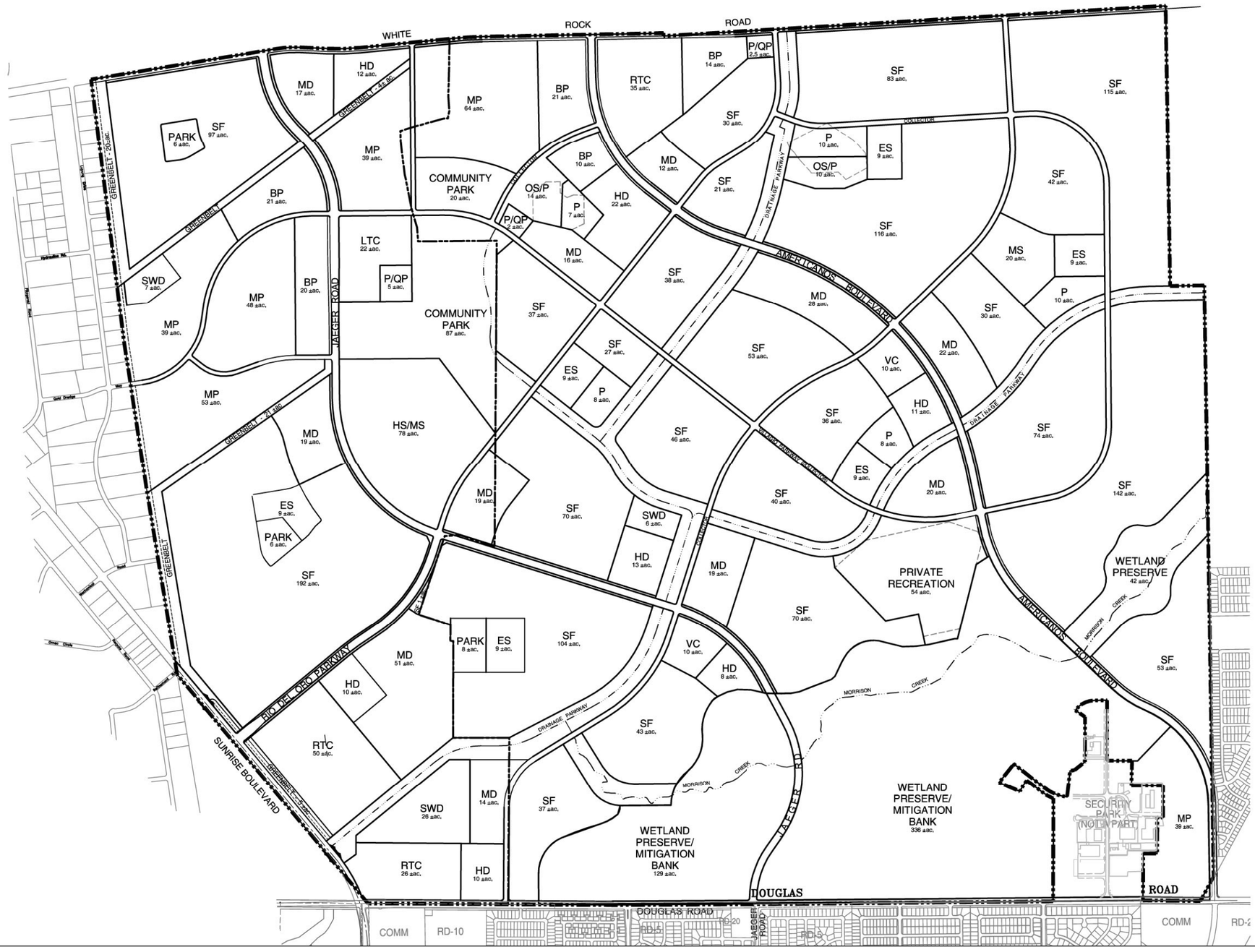
3 RIO DEL ORO SPECIFIC PLAN PROJECT

The proposed project consists of approximately 3,828 acres in the city of Rancho Cordova. Buildout of the proposed project consists of multiple development phases and is anticipated to occur over a 25- to 30-year period. The proposed project meets the statutory criteria for projects requiring a WSA. Table 1 and Exhibit 1 identify the proposed land uses at buildout for the proposed project.

Table 1
Acres of Land Uses for the Rio del Oro Specific Plan Project by Development Phase

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
Total Acreage	**1,115**	**639.5**	**611**	**521**	**942**	**3,828.5**

Note: LTC = Local Town Center; RTC = Regional Town Center
Source: G. C. Wallace 2006



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/ MITIGATION BANK	507				
	DRAINAGE PARKWAY	4				
	PRIVATE RECREATION	54				
OS/P	OPEN SPACE/ PRESERVE	24				
	LANDSCAPE CORRIDORS	44				
GB	GREENBELTS	50				
	ROADS	183				
TOTALS:		3828.5			11,601	100%

Source: G. C. Wallace 2006

Rio del Oro Specific Plan Land Use Plan **Exhibit 1**

3.1 RESIDENTIAL

The proposed project provides for the construction of 11,601 dwelling units in three residential land use classifications. The proposed density for the Single Family Residential category is 5 units per acre (du/ac). The proposed density is 8 du/ac for the Medium Density Residential category and 20 du/ac for the High Density Residential category. A total of 1,920 acres is proposed for residential development.

3.2 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. 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.

3.3 OPEN SPACE/PARKS/RECREATION/PUBLIC

The proposed project includes development of a 107-acre Community Park and various Neighborhood Parks totaling 63 acres. In addition, 54 acres are proposed for Private Recreation, 9.5 acres are proposed for Public/Quasi Public Use, 44 acres are designated for Landscape Corridors, and 50 acres are designated for Greenbelts.

3.4 WATER SUPPLY PLANNING FOR THE RIO DEL ORO PROJECT

The 2005 Zone 41 UWMP (SCWA 2005b) was adopted by the SCWA Board of Directors on December 6, 2005. The UWMP includes water demand for the proposed project. The information provided in the 2005 UWMP can be relied upon for this WSA, and is therefore incorporated by reference in this document. In addition to the UWMP, the Zone 40 WSMP was relied upon in preparation of this WSA.

SCWA has undertaken an extensive planning effort for the facilities and water supplies necessary to serve future growth and development within the central portion of Sacramento County known as Zone 40. SCWA recently prepared and adopted its Zone 40 WSMP (SCWA 2005a). While the UWMP addresses water demand and supplies for all of the Zone 41 service area within Sacramento County, the Zone 40 WSMP focuses on the central portion of the county and identifies water demand and supplies to serve future growth and development over a 20-year planning horizon.

The proposed project is located within SCWA's Zone 40 and partially within a subarea of Zone 40 referred to as the 2030 Study Area. The 2030 Study Area is the area where development of industrial, commercial, office, and residential land uses is expected to occur and where demand for water is expected to be concentrated during the planning horizon of the Zone 40 WSMP (i.e., 2030). As such, water supplies, water demand, and facilities described in the adopted Zone 40 WSMP are relevant for the proposed project. The Zone 40 WSMP describes the facilities and construction financing mechanisms to provide water to the 2030 Study Area. Additional details regarding the boundaries of the 2030 Study Area are provided in Section 4.2, "Zone 40 Water Supply Master Plan," of this WSA.

3.5 EXISTING AND PROJECTED SCWA ZONE 40 WATER DEMAND

Table 2 identifies existing and projected 2000 and 2030 land use and water demand within SCWA's Zone 40 2030 Study Area.

Table 2
Current and Projected Water Demand for SCWA Zone 40

Land Use Category	Year 2000 Land Use and Water Demand			Year 2030 Water Demand		
	Unit Water Demand Factors (af/ac/yr)	Land Use (acres)	Water Demand (afy)	Unit Water Demand Factors (af/ac/yr)	Land Use (acres)	Water Demand (afy)
Rural Estates	1.57	304	477	1.33	718	955
Single Family	3.40	3,387	11,516	2.89	14,867	42,966
Multi Family—Low Density	4.36	285	1,243	3.70	1,173	4,340
Multi Family—High Density	4.85	0	0	4.12	0	0
Commercial	3.24	254	823	2.75	1,042	2,866
Industrial	3.19	1,257	4,010	2.71	2,395	6,490
Industrial—Unutilized	0.00	0	0	0.00	1,463	0
Public	1.22	692	844	1.04	4,349	4,523
Public Recreation	4.08	400	1,632	3.46	2,865	9,913
Mixed Land Use	2.95	840	2,478	2.51	12,985	32,592
Developed Land Use		**7,419**	**23,023**		**41,857**	**104,645**
Right-of-Way	0.25	726	182	0.21	2,526	530
Water Use Subtotal			**23,205**			**105,175**
Water System Losses (7.5%)			1,740			7,888
Zone 40 Water Production			**24,945**			**113,063**
Urban and rural areas not currently being served by Zone 40		5,127	NA		0	NA
Vacant		27,583	NA		2,225	NA
Agriculture		5,766	NA		12	NA
Total Land and Water Use		**46,621**	**24,945**		**46,620**	**113,063**

Notes: af/ac/yr = acre-feet per acre per year; afy = acre-feet per year; NA = not applicable; SCWA = Sacramento County Water Agency
SCWA Zone 40 does not supply water to meet agricultural demand within its Zone 40 service area. Agricultural water demand within Zone 40 would be in addition to urban water demand.
Minor discrepancies in acreage totals are a result of rounding errors in land use data.
Source: SCWA 2005a

3.6 EXISTING WATER DEMAND AND PROJECTED DEMAND FOR THE RIO DEL ORO SPECIFIC PLAN PROJECT

A small volume of groundwater is currently being extracted from the project site for the Clark Cattle Company. The Clark Cattle Company has a lease agreement to use the land for grazing and pumps a small volume of groundwater from the shallow aquifer to supply on-site stock ponds. Historical groundwater extraction volumes are unknown. The grazing operation would be abandoned to allow for development of the proposed project.

Buildout water demand for the proposed project was projected by applying a water demand factor to each proposed land use. The proposed land uses are identified in Table 1 and are summarized in Table 3 along with anticipated buildout water demand (Wood Rodgers 2004).

Table 3
Summary of Land Use and Water Demand for the Rio del Oro Project

Land Use	Area (acres)	Unit Water Demand Factor[1] (af/ac/yr)	Water Demand (afy)
Rural Estates	-	1.33	-
Single Family	1,597	2.89	4,615
Multi Family—Low Density	257	3.7	877
Multi Family—High Density	86	4.12	354
Commercial	293	2.75	806
Industrial	282	2.71	764
Industrial—Unutilized	-	0	-
Public	161.5	1.04	168
Public Recreation	170	3.46	588
Mixed Land Use	-	2.51	-
Right-of-Way	459	0.21	96
Vacant	543	0	-
Urban Reserve	-	2.75	-
Agriculture	-	0	-
Total	**3,828.5**		**8,268**
Water System Losses (7.5%)			620
Total Demand			**8,888**

Note: af/ac/yr = acre-feet per acre per year; afy = acre-feet per year

[1] The unit water demand factors provided in this table are consistent with the unit water demand factors used in the *Zone 40 Water Supply Master Plan.*

Source: Wood Rodgers 2004

As part of the Zone 40 WSMP, water demand was calculated for various land uses within the 2030 Study Area. To calculate existing and proposed water demand, Zone 40 was divided into several subregions (WRIME 2003). A portion (1,505 acres) of the project site lies within the 2030 Study Area. This portion falls within what SCWA identified in the Zone 40 WSMP as the Security Park area, where a water demand of 1,500 afy was assumed. (Please note that the Security Park region of the WSMP includes both the Security Park and lands immediately surrounding it, and therefore includes some of the lands that are located within the project site. However, the Security Park itself is not part of the project site.) The remaining water demand (7,388 afy) for the project site were addressed in the 2005 UWMP and would be met with water and infrastructure made available through the Eastern County Replacement Water Supply Project (RWSP), described in Section 4.4.

This WSA evaluates whether the total water supply necessary to meet the demand of the proposed project (8,888 afy) are available and could be delivered by SCWA in normal, single dry, and multiple dry water years in addition to meeting its existing and projected future demand.

4 RELEVANT WATER SUPPLY PLANNING DOCUMENTS AND AGREEMENTS

4.1 WATER FORUM AGREEMENT

The Water Forum Agreement (WFA) (Sacramento City-County Office of Metropolitan Water Planning 2000) is a plan that provides for the effective long-term management of the Sacramento region's water resources. The WFA was developed by a diverse group of stakeholders known as the Water Forum, which consisted of water agencies, business groups, agricultural interests, environmentalists, citizen groups, and local governments. SCWA is a signatory to the WFA. The WFA was formulated based on the two coequal objectives of the Water Forum: (1) Provide a reliable and safe water supply for the region's economic health and planned development through the year 2030; and (2) preserve the fishery, wildlife, recreational, and aesthetic values of the Lower American River.

To achieve the Water Forum's objectives, a comprehensive package of linked actions was developed to make more water available for consumption while protecting the natural resources of the Lower American River from environmental damage. The plan requires support and participation by each of the Water Forum stakeholders. The WFA includes seven elements:

I. Increased Surface Water Diversions

II. Actions to Meet Customer's Needs while Reducing Diversion Impacts on the Lower American River in Drier Years

III. Support for an Improved Pattern of Fishery Flow Releases from Folsom Reservoir

IV. Lower American River Habitat Management Element

V. Water Conservation

VI. Groundwater Management

VII. Water Forum Successor Effort

The WFA is a comprehensive document that describes how the Sacramento region will meet its water needs through implementation of the above seven elements and how the region will address key issues such as groundwater management, water diversions, dry-year water supply, water conservation, and protection of the Lower American River. The WFA also includes important provisions assuring each signatory that it will receive specific benefits as it fulfills its responsibilities, and that other signatories will also be honoring their commitments.

The WFA includes purveyor-specific agreements that define the benefits each water purveyor receives as a stakeholder and the actions each must take to receive these benefits. These assurances are supplemented by specific actions, such as contracts, joint power authorities, and water right actions. The Water Forum Successor Effort was created to implement the provisions contained in the WFA, maintain stakeholder relationships, provide an early-warning system for potential problems, and resolve issues that might arise.

The WFA includes definitions of the long-term average annual production yield (defined as the "sustainable yield") for each of the three subbasin of the groundwater basin in Sacramento County: 131,000 acre-feet (af) for the North Area (north of the American River); 273,000 af for the Central Area (between the American and Cosumnes Rivers); and 115,000 af for the South Area (south of the Cosumnes River). Any proposed project must

recognize the groundwater sustainable yield of the WFA. The proposed project is located within the Central Area groundwater subbasin (referred to in this document as the "Central Basin").

Water conservation and demand management are essential to meeting the objectives of the WFA. Conservation will reduce the volume of groundwater and surface water (including water from the American River) that is needed for future growth. As a signatory to the WFA and as a Central Valley Project (CVP) water contractor with the U.S. Bureau of Reclamation (Reclamation), SCWA is committed to implementing the Water Conservation Best Management Practices (BMPs) defined in the Water Conservation Element of the WFA. Technical studies prepared in support of the WFA indicate that implementation of the BMPs will result in a demand reduction factor of 25.6%, relative to the baseline 1990 demand, by the year 2030.

The 1999 Water Forum Agreement EIR evaluated SCWA's water supply needs in combination with the region's other water supply needs. As an outcome of the process, SCWA agreed to a series of actions and commitments related to surface-water diversions, dry-year supply, fishery flows, habitat management, water conservation, and groundwater management. Based on SCWA's agreement to adhere to the WFA, the EIR evaluated areas of development that could be served by future water supplies.

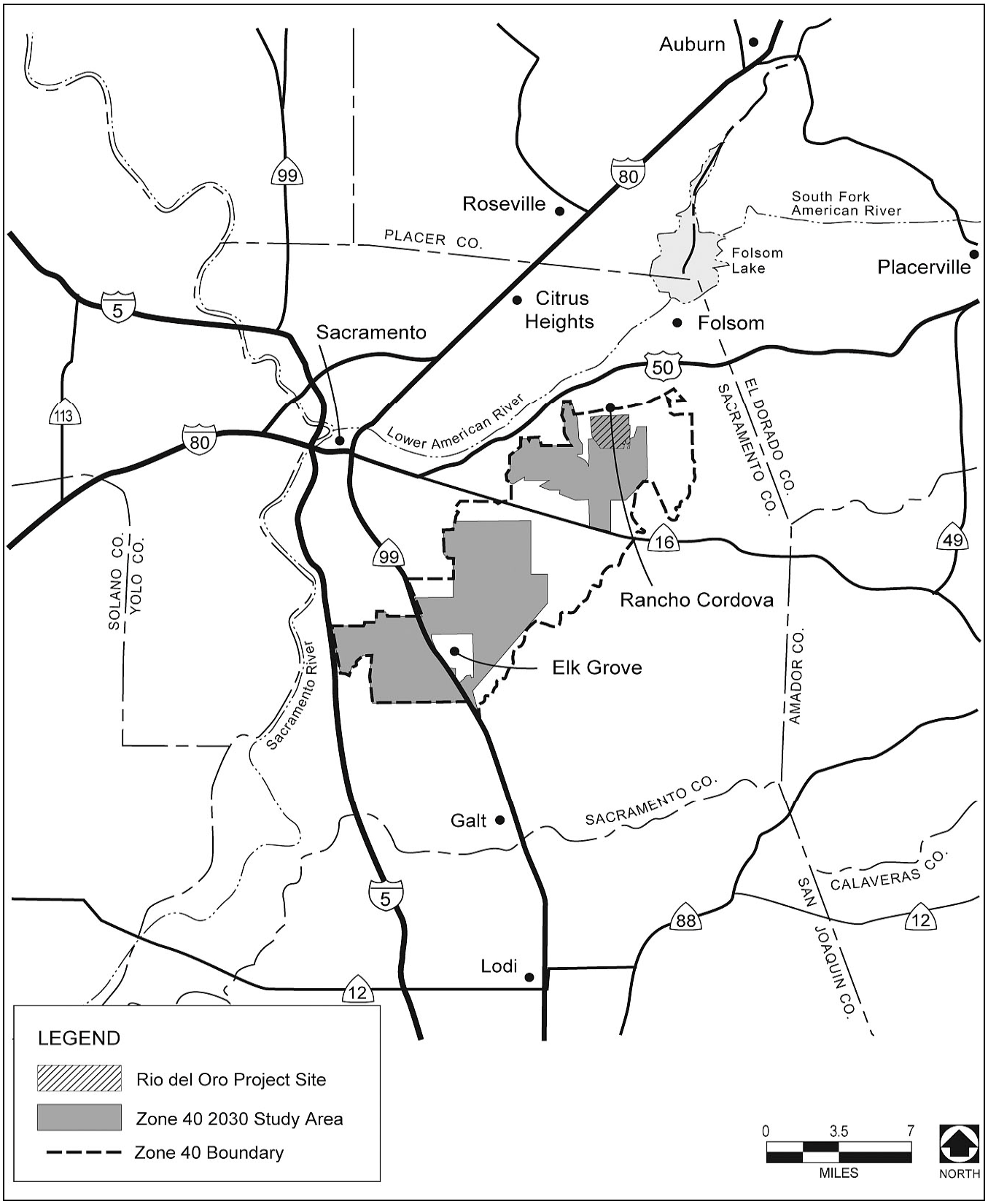
4.2 ZONE 40 WATER SUPPLY MASTER PLAN

In response to the requirements of the WFA, SCWA undertook a comprehensive water supply planning process through the *Sacramento County Water Agency Zone 40 Water Supply Master Plan* (SCWA 2005a) to identify available water and the infrastructure necessary to deliver water to a subarea within Zone 40 known as the 2030 Study Area. The 2030 Study Area encompasses approximately 46,600 acres (including portions of the cities of Elk Grove and Rancho Cordova) (Exhibit 2 and Exhibit 3) where development of industrial, commercial, office, and residential land uses is expected to occur and where demand for water is expected to be concentrated during the planning horizon of the WSMP (i.e., 2030).

As a signatory to the WFA, SCWA would ensure that water conservation and demand management—necessary steps to achieve WFA objectives—are integrated into future growth and water planning activities in its service area. In planning the future use of SCWA's water supply, a land area that could be served was identified based on growth areas identified in the *County of Sacramento General Plan*. This area is known as the 2030 Study Area (Exhibit 4).

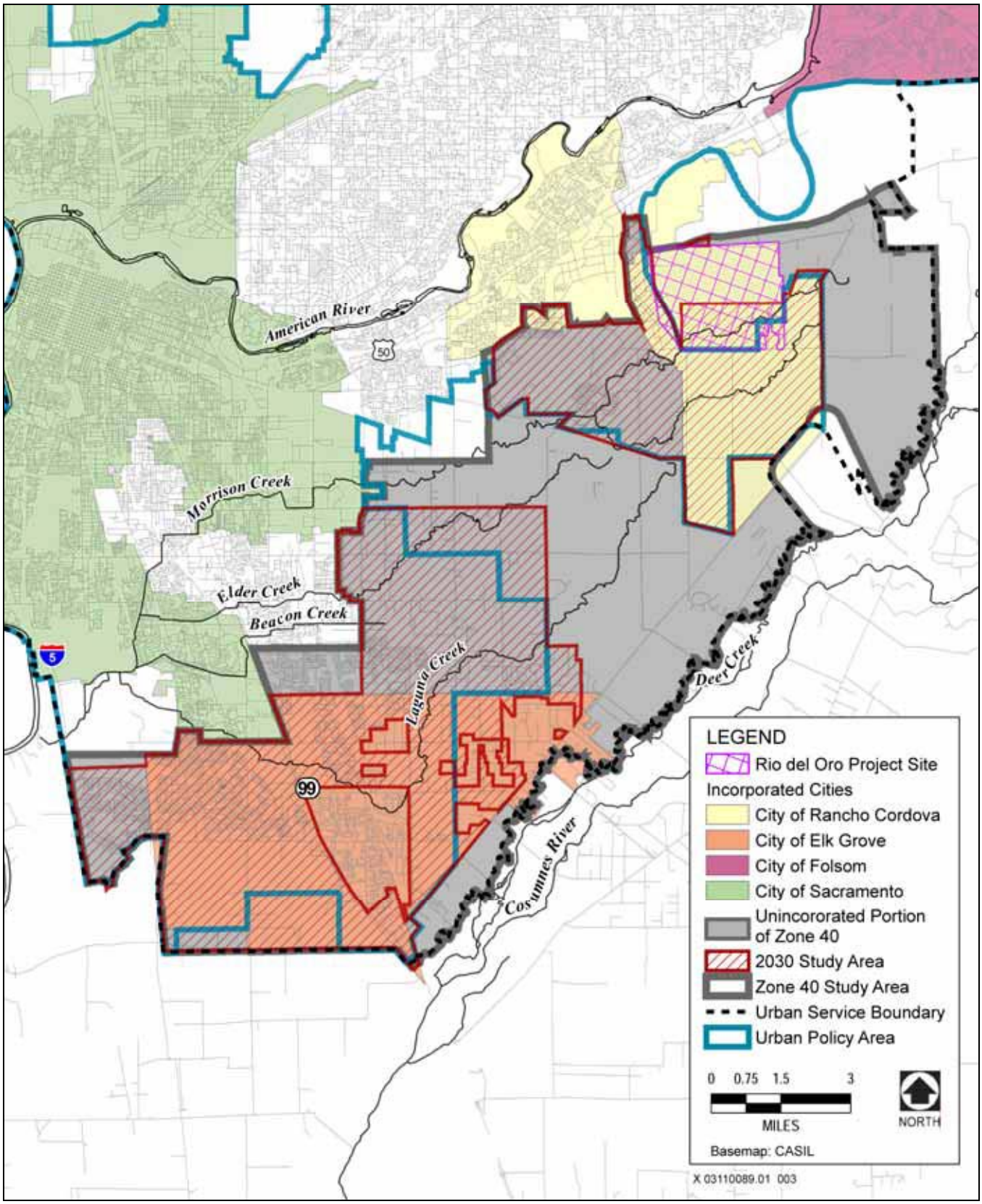
The Zone 40 WSMP provides a flexible plan of water management options that can be implemented and modified if conditions that affect the availability and feasibility of water supply sources change in the future. The goal of the Zone 40 WSMP is to define a conjunctive-use program of groundwater, surface water, remediated water, and recycled water supplies and a financing program for the construction of a new surface-water diversion structure; surface-water treatment plant; water conveyance pipelines; and groundwater extraction, treatment, and distribution facilities. The Zone 40 WSMP evaluates several options for facilities to deliver surface water and groundwater to development within Zone 40, as well as the financing mechanisms to provide water to the 2030 Study Area.

In planning for future growth and development within Zone 40, SCWA acknowledges that it is not a land use agency and is not responsible for approving growth and development within its service area, and identified the County of Sacramento (County), the City of Rancho Cordova, and the City of Elk Grove as the lead agencies responsible for such decisions. During development of the Zone 40 WSMP, the general plans for the newly incorporated cities of Elk Grove and Rancho Cordova were not available; therefore, the *County of Sacramento General Plan* (County of Sacramento 1993) was the planning document used to project growth and development anticipated to occur within an area defined as the Urban Policy Area (UPA). The County's UPA is defined as the area anticipated to build out with urban development within the planning horizon of the general plan (year 2024) (Exhibit 5).



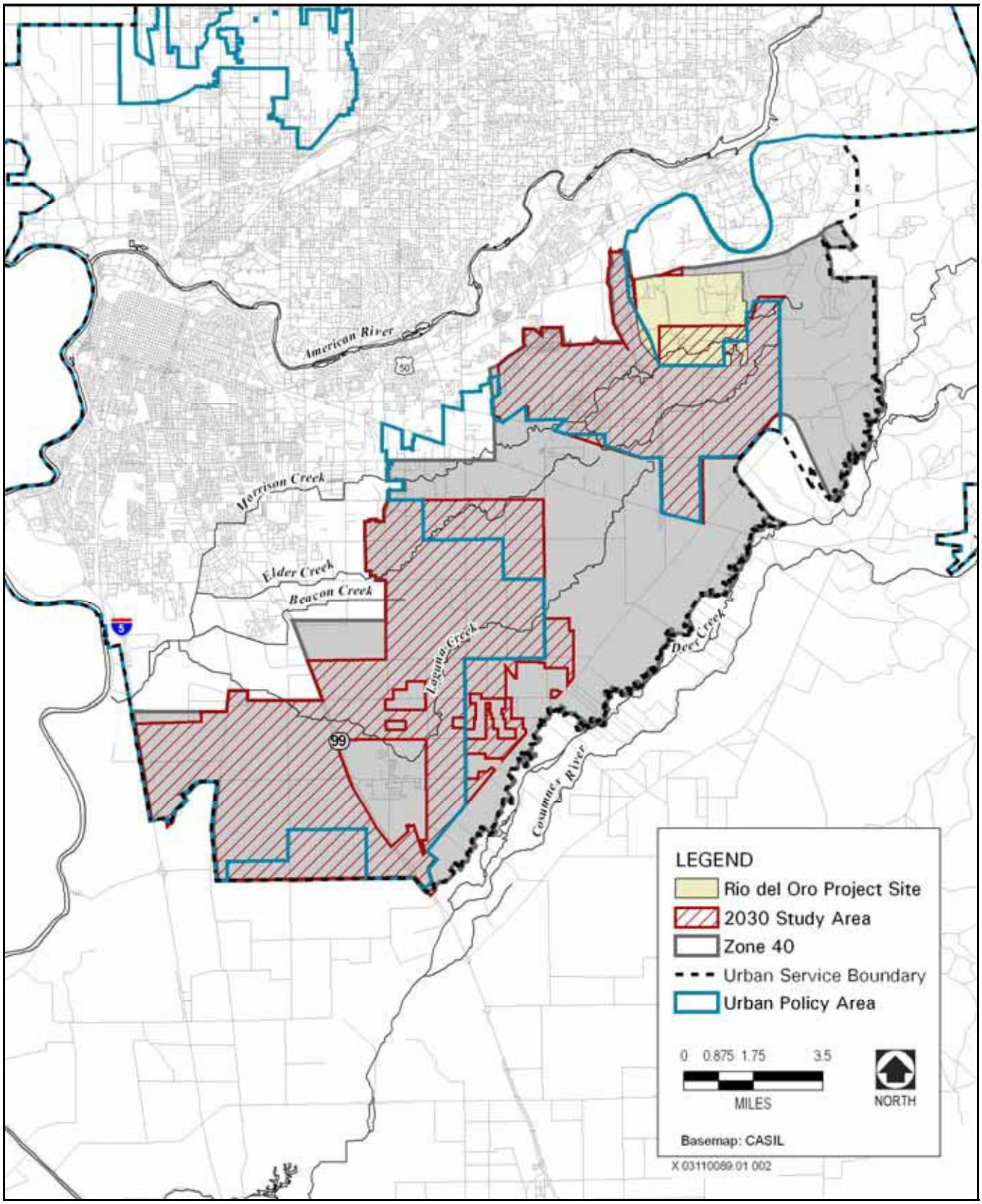
Source: SCWA 2003a

Regional Location **Exhibit 2**



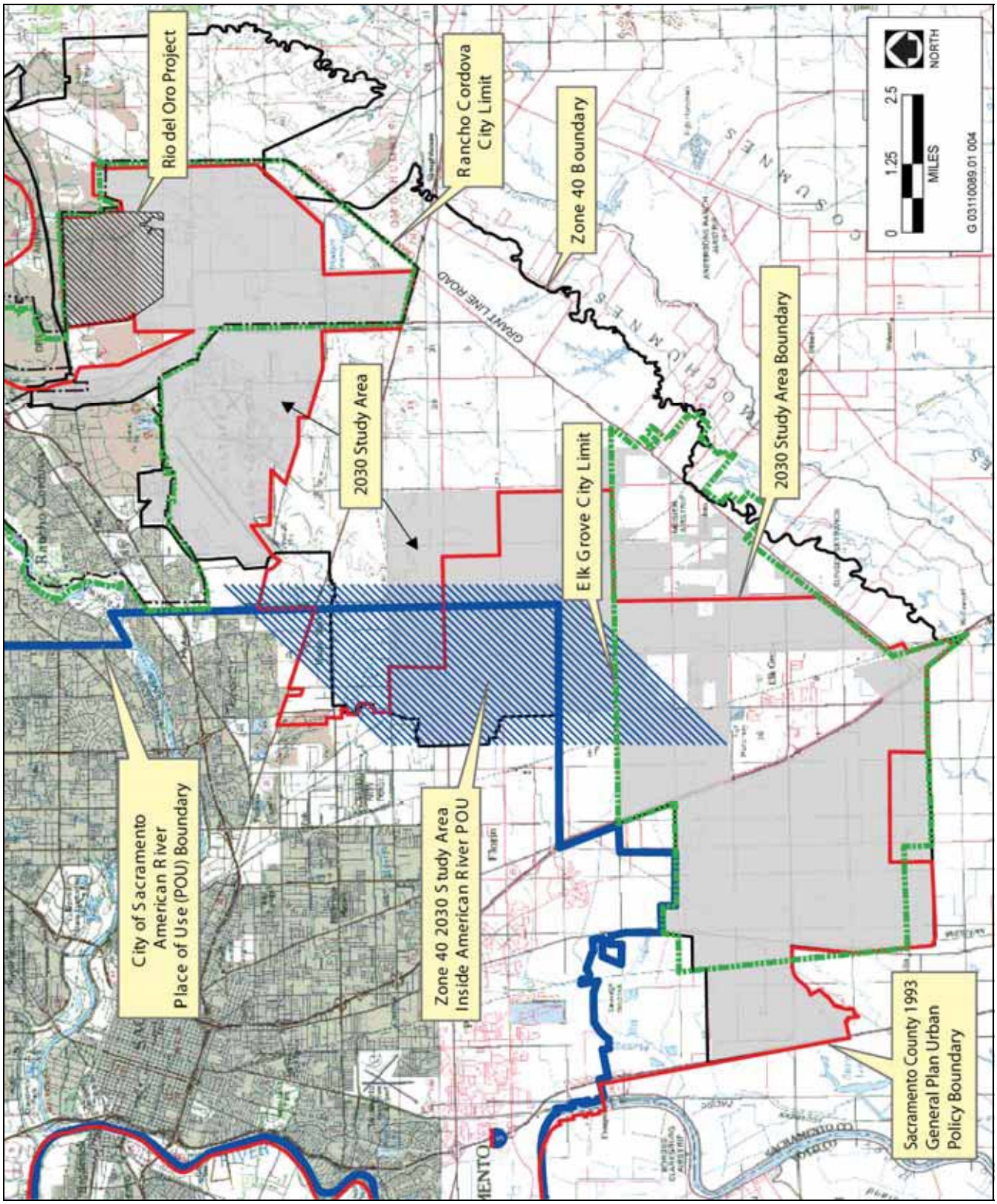
Source: SCWA 2004

Incorporated Cities within SCWA Zone 40 **Exhibit 3**



Source: SCWA 2004

SCWA Zone 40 2030 Study Area and Rio del Oro Project Site **Exhibit 4**



Sources: Sacramento County Water Agency and MWH 2003, data compiled by EDAW in 2006

Zone 40 2030 Study Area and Sacramento County Urban Policy Area **Exhibit 5**

The southern boundary of the 2030 Study Area generally coincides with the County's UPA. The 2030 Study Area was delineated based on the County's identified growth areas and the area of land that was planned to be served by the negotiated firm water supply identified in the WFA. The 2030 Study Area includes approximately 46,600 acres, about 8,400 more acres than the land remaining within the UPA in Zone 40. Because of the time frame of the Zone 40 WSMP and the likelihood that the UPA would be expanded in the next general plan update cycle (currently under way), SCWA identified four likely areas outside the UPA where urban expansion was logical and could occur; however, it acknowledged that decisions for growth and development would lie with the County Board of Supervisors or the governing bodies of other local jurisdictions. The areas included in the 2030 Study Area were selected based on their adjacency to the UPA. The 2030 Study Area also captured active projects and included the newly incorporated City of Rancho Cordova.

One of the areas included in the 2030 Study Area that lies partially outside the County's UPA is the project site. While the 2030 Study Area does not cover the entire project site, a portion of the water supply demand (1,500 afy) for this area, identified in the Zone 40 WSMP as the Security Park area, has been included within the Zone 40 WSMP.

Since approval of the Zone 40 WSMP (SCWA 2005a), SCWA has pursued and is in various stages of planning several projects that would implement specific elements of the WSMP. These projects include:

- **Zone 40 Vineyard Water Treatment Plant.** SCWA is proposing to construct the Vineyard Water Treatment Plant (Vineyard WTP) and associated water supply facilities to provide up to 100 million gallons of potable water to existing and approved future development within the SCWA Zone 40 area. The Vineyard WTP is located west of the intersection of Florin and Excelsior Roads, at the northeast corner of Florin and Knox Roads in Sacramento County. The objective of constructing the Vineyard WTP is to provide capacity for treating 100 million gallons per day (mgd) of raw surface water and remediated groundwater, and to serve approved land uses in the Zone 40 service area. Initial phases of facility construction are anticipated to be completed by 2010, with full buildout by 2029.

- **Freeport Regional Water Project.** SCWA and East Bay Municipal Utility District are constructing a diversion structure on the Sacramento River near the community of Freeport and a raw-water conveyance pipeline from the diversion structure to the central portion of Zone 40. SCWA will construct a 100-mgd surface-water treatment facility in the central portion of Zone 40 (Vineyard WTP described above), and the associated treated-water conveyance pipelines to deliver water to SCWA customers. This project is anticipated to be completed by 2010.

4.3 AGREEMENTS BETWEEN SACRAMENTO COUNTY, SCWA, GENCORP, AND BOEING

The framework for addressing water supply issues associated with the contamination of the local groundwater supply from historical uses of the GenCorp site (a portion of which is now referred to as the project site, located within the City's planning area) is provided in the agreements between Sacramento County, SCWA, and GenCorp (August 27, 2003) and between the County, SWCA, and McDonnell Douglas/Boeing (August 29, 2003). Under directives from the U.S. Environmental Protection Agency (EPA), the Central Valley Regional Water Quality Control Board (RWQCB), and the California Department of Toxic Substances Control, both GenCorp and McDonnell Douglas Corporation/Boeing are required to pump groundwater that has been contaminated by chemicals associated with past activities at their sites; remove those chemicals by various treatment processes (remediation); and discharge the remediated water to surface water bodies/surface streams. The agreements prescribe the capture of remediated groundwater for beneficial use. The agreements are provided in Appendix A.

Pursuant to the agreements, all rights, title, and interest in the remediated groundwater was granted to SCWA, which would capture the remediated water and provide additional treatment as needed for beneficial urban and environmental use. The agreements specify that the highest priority beneficial use of remediated water is for the

replacement of groundwater capacity lost by water purveyors in the Rancho Cordova area. This includes groundwater capacity lost by local water purveyors Golden State Water Company (GSWC) and California American Water Company (Cal-Am). The next highest priority beneficial use of remediated water is for the supply of potable water to proposed development on Aerojet lands, which includes the Rio del Oro and Westborough projects. The remaining priority use includes other development and environmental enhancement. The remediated groundwater would be made available as part of SCWA's proposed RWSP described below.

4.4 EASTERN COUNTY REPLACEMENT WATER SUPPLY PROJECT

The RWSP is a proposal by SCWA to use remediated groundwater obtained through the agreements between the County, SCWA, GenCorp, and McDonnell Douglas Corporation/Boeing for replacement of water lost as a result of past activities resulting in groundwater contamination in the Rancho Cordova area, for new development on Aerojet lands, and for environmental enhancement. SCWA has initiated environmental review of this project, which evaluates several discharge, diversion, and treatment options for using remediated groundwater from GenCorp and McDonnell Douglas Corporation/Boeing groundwater extraction and treatment (GET) facilities. The RWSP would identify the necessary facilities and timing of delivery of remediated water. Environmental review is anticipated to be completed by late summer 2006, with construction of all project-related facilities completed by 2010. The RWSP would provide water to serve the water demand of the proposed project above and beyond the 1,500-afy water demand that was planned for in the Zone 40 WSMP, which would be conveyed through the new Central Water Treatment Plant and facilities.

4.5 CENTRAL SACRAMENTO COUNTY GROUNDWATER FORUM

Acting on behalf of the Water Forum Successor Effort, the California Department of Water Resources (DWR) initiated the Central Sacramento County Groundwater Forum (CSCGF) by signing a Memorandum of Understanding with the Sacramento City-County Office of Metropolitan Water Planning. The purpose of the CSCGF, which is funded by SCWA and the City of Sacramento, is to support discussions among stakeholders representing all segments of the community with an interest in developing a groundwater management structure and ultimately a groundwater management plan (GMP) for the Central Basin. Stakeholders are organized into six interest groups: agriculture, agriculture/residential, business, environmental/community organizations, local governments/public agencies, and water purveyors. Each interest group is represented by five individuals who participate in the collaborative process known as the CSCGF.

5 WATER SUPPLY ASSESSMENT FOR THE RIO DEL ORO SPECIFIC PLAN PROJECT

5.1 INTRODUCTION

RESPONSIBILITIES OF THE LEAD AGENCY AND PUBLIC WATER SYSTEM

The City of Rancho Cordova is the CEQA lead agency responsible for evaluating the environmental impacts of the proposed project in compliance with CEQA, certifying the EIR, approving the project, and issuing the associated City entitlements.

The City has identified SCWA as the responsible water purveyor for the proposed project and has requested that SCWA prepare a WSA that must do the following:

- Determine the sufficiency of its water supply to meet the project demand under normal, single dry, and multiple dry years.
- Identify existing water supply entitlements and water rights for the proposed project and quantify water received in prior years pursuant to these existing entitlements and rights.
- Describe the groundwater basin from which the proposed project will be supplied, if applicable. The description must include information regarding any overdraft occurring in the basin. The amount and location of groundwater pumped by SWCA must be quantified, based on reasonably available information.
- Describe and analyze the amount and location of groundwater projected to be pumped by SWCA from a basin from which the project will be supplied. The assessment must include an analysis of the sufficiency of groundwater from the basin to meet the projected water demand associated with the proposed project.
- Provide information related to capital outlay programs for financing delivery of water supply.
- Provide information on federal, state, and local permits for construction of necessary infrastructure and regulatory requirements associated with delivery of the water supply.

If water supplies are insufficient, SCWA shall provide its plans for acquiring additional water supplies and the measures being taken to acquire and develop those water supplies. Information to be provided shall include costs; methods of financing; required permits, approvals, and entitlements; estimated time frame of development; and any environmental documents prepared for the acquisition of those supplies.

REQUIREMENTS OF THE WATER SUPPLY ASSESSMENT

SB 610, as codified in California Water Code Sections 10910–10915, requires that a WSA for a project include:

- a description and quantification of the existing and planned water sources;
- a description of the reliability and vulnerability of the water supply to seasonal or climatic shortages in the average (i.e., normal) water year, single dry water year, and multiple dry water year during a 20-year projection period;
- contingency plans, including demand management and potential for conjunctive use;
- a description of current and projected water demand; and

- a description of all water supply projects and water supply programs that may be undertaken by SCWA to meet the total projected water use.

In addition, because SCWA uses groundwater as one of its supply sources, the WSA should include:

- a description of any groundwater basin (or basins) from which SWCA pumps groundwater;
- information that characterizes the condition of the groundwater basin and a description of the measures currently being taken by SWCA to minimize any potential for overdraft;
- a detailed description and analysis of the amount and location of groundwater pumped by SWCA for the past 5 years from any groundwater basin from which the proposed project would be supplied; and
- an analysis of the location, amount, and sufficiency of the groundwater from the basin or basins from which the proposed project would be supplied to meet the projected water demand associated with the proposed project.

The following analysis presents the WSA for the proposed project in compliance with the requirements of SB 610.

5.2 COMPLIANCE WITH PROVISIONS OF THE WATER CODE

DETERMINE WHETHER PROJECT IS SUBJECT TO THE CALIFORNIA ENVIRONMENTAL QUALITY ACT [WATER CODE SECTION 10910(A)]

The City has determined that the proposed project is subject to CEQA, and that it is considered a "project" as defined by Water Code Section 10912(a) because it would result in the construction of more than 500 dwelling units, shopping centers occupying more than 500,000 square feet of floor space, commercial office buildings occupying more than 250,000 square feet of floor space, and an industrial park occupying more than 40 acres of land (refer to Exhibit 1 and Table 1). All criteria for projects requiring a WSA apply to the proposed project.

IDENTIFY THE PUBLIC WATER SYSTEM THAT WILL SUPPLY WATER FOR THE PROJECT [WATER CODE SECTION 10910(B)]

The City has identified SCWA as the responsible public water provider for the proposed project.

IS THERE AN ADOPTED URBAN WATER MANAGEMENT PLAN? [WATER CODE SECTION 10910(C)]

As described above, the 2005 Zone 41 UWMP was adopted by the SCWA Board of Directors on December 6, 2005. This WSA relies on information presented in the 2005 UWMP as well as information from the SCWA 2005 Zone 40 WSMP.

IS THE PROJECTED WATER DEMAND ASSOCIATED WITH THE PROPOSED PROJECT ACCOUNTED FOR IN THE MOST RECENTLY ADOPTED URBAN WATER MANAGEMENT PLAN? [WATER CODE SECTION 10910(C)]

The most recently adopted UWMP (SCWA 2005b) accounts for long-term water supplies to meet the projected water demand associated with the proposed project. The water supply infrastructure for the proposed project would be met by the Vineyard WTP (1,500 afy) and the RWSP (7,388 afy) once the necessary facilities are constructed (estimated to be constructed by 2010). Until these projects are constructed, SCWA would not be able to supply water to the proposed project.

IDENTIFY EXISTING WATER SUPPLIES FOR THE PROJECT [WATER CODE SECTION 10910(D)]

A. Water Code Section 10910(d)(1) Requires Identification of Existing Water Supply Entitlements, Water Rights, or Water Service Contracts Relevant to the Rio del Oro Project and a Description of the Quantities of Water Obtained by SCWA Pursuant to These Water Supply Entitlements, Water Rights, or Water Service Contracts in Previous Years.

SCWA, through its conjunctive-use water supply system, would provide wholesale water to the proposed project. The water supplies for the proposed project have been included and addressed in existing SCWA comprehensive water supply planning and agreements, specifically:

- 2005 Zone 41 UWMP (SCWA, December 2005);
- *Sacramento County Water Agency Zone 40 Water Supply Master Plan* (SCWA, February 2005);
- *Agreement Between Sacramento County, The Sacramento County Water Agency, and Aerojet General Corporation with Respect to Groundwater and Related Issues within the Eastern Portion of Sacramento County* (August 27, 2003); and
- *Agreement Between Sacramento County, The Sacramento County Water Agency, and McDonnell Douglas Corporation with Respect to Groundwater and Related Issues within the Eastern Portion of Sacramento County* (August 29, 2003).

Water demand for the proposed project would be met through SCWA's conjunctive-use water supply plan that would use surface, groundwater, and remediated water. Table 4 provides a summary of the available water supplies that could be used to serve the project once the necessary infrastructure facilities are constructed.

It should be noted that until the SCWA facilities are constructed, SCWA would not be able to deliver water to the project site. Approximately 1,500 afy of water would also be available in 2010 if the Vineyard WTP is constructed, and the remaining water would also be available in 2010 if the RWSP is complete. The analysis that follows in this document evaluates whether SCWA could meet the project's water demand in addition to demand associated with SCWA's existing and projected future customers over a 20-year planning period.

These supplies are described in greater detail below.

Table 4
Water Supplies for the SCWA 2030 Study Area and Rio del Oro Specific Plan Project

Component of Water Supply	Average Annual Supply (afy)
SCWA Supplies Identified in Zone 40 WSMP and 2005 UWMP	
► Surface Supplies identified in Zone 40 WSMP	68,637
► Zone 40 Recycled Water	4,400
► Groundwater Identified in Zone 40 WSMP	40,900
► Zone 40 Remediated Water through GenCorp and McDonnell Douglas Agreement for Rio del Oro	7,388
Total SCWA Supplies	**121,325**

Note: afy = acre-feet per year; SCWA = Sacramento County Water Agency; UWMP = Urban Water Management Plan; WSMP = Water Supply Master Plan;
Source: Data compiled by EDAW in 2006

SCWA Zone 40 Surface Water Supplies

SCWA surface water supplies come from the American and Sacramento Rivers. The components of the surface water supply in Zone 40 are described below and shown in Table 5. The Zone 40 WSMP has planned for and would provide for the delivery of surface water and groundwater as part of a comprehensive program to maintain a long-term groundwater balance within the Central Basin. SCWA's total estimated long-term average annual surface water supply (existing entitlements and proposed future entitlements) is 68,637 af (SCWA 2005a). Some entitlement volumes are undetermined at this time because the water right applications for these entitlements are pending before the State Water Resources Control Board (SWRCB). It is reasonably expected that SCWA will be able to obtain permits to appropriate water from the American and Sacramento Rivers; these entitlement volumes are presented in Table 5. Further, consistent with Water Code Section 10911 et seq., the analysis presented below identifies those supplies for which entitlements have not been secured, but are planned to be and reasonably could be secured by SCWA in the near future (i.e., 5–10 years) and presents the associated steps (permits, approvals, timing, and funding) required to deliver these supplies to Zone 40.

Table 5
Surface Water Supplies for SCWA Zone 40

Component		Water Source	Existing Proposed Future Supply	Entitlement Amount (afy)	Estimated Long Term Average Supply (afy)	Reliability
Appropriative Water Supplies		American and Sacramento Rivers	Proposed	Undetermined	14,586	Low
CVP Supplies	SMUD 1 Assignment	American River	Existing	15,000	13,000	Moderate
	SMUD 2 Assignment	American River	Existing	15,000	13,000	Moderate
	"Fazio" Water (PL 101-514)	American River	Existing	15,000	13,551	Moderate
Other Water	Other Transfer Water Supplies	American and Sacramento Rivers	Proposed	Undetermined	5,200	Variable (Moderate to High)
	Wholesale Water Agreement(s) within the city of Sacramento to serve portion of Zone 40 in the City of Sacramento's American River POU	American River	Existing	9,300	9,300	High
				Total Surface Water	**68,637**	

Note: afy = acre-feet per year; CVP = Central Valley Project; PL = Public Law; POU = Place of Use; SCWA = Sacramento County Water Agency; SMUD = Sacramento Municipal Utility District
Source: SCWA 2005a

Appropriative Water Supplies (Potential Future Supplies)

SCWA has submitted an application to the SWRCB for the appropriation of water from the American and Sacramento Rivers (the County Board of Supervisors authorized submittal of this application on May 30, 1995). This water is considered "intermittent water" that typically would be available during the winter months of normal or wet years (e.g., years when rainfall and hence water supply are greater than average). This water could be used to meet system demand, and possibly for future groundwater recharge through recharge percolating groundwater basins or direct injection of surface water into the aquifer.

This water is an anticipated future water supply (Water Code Section 10911[a]) that SCWA is currently pursuing as part of its overall Zone 40 WSMP. The use and delivery of this water was evaluated in the Zone 40 WSMP EIR that was certified in February 2005 (SCWA 2003a). Similar to other existing and future water supplies contemplated in the Zone 40 WSMP, this water supply would likely be available within 5–10 years and would be an element of SCWA's overall conjunctive-use water supply system. SCWA is pursuing entitlements for this water supply source from the SWRCB. Because infrastructure associated with the Freeport Regional Water Project and Central Water Treatment Plant would be used to deliver surface water, no additional approvals are necessary beyond those that were or will be required for these projects.

Central Valley Project Supplies (Existing Secured Supplies)

SMUD 1 Assignment

Under the terms of a three-party agreement (SCWA, SMUD, and the City of Sacramento), and in accordance with SMUD's Purveyor Specific Agreement (PSA), the City of Sacramento provides surface water to SMUD for use at two of SMUD's cogeneration facilities. (Because the cogeneration facilities are located within the City of Sacramento's American River Place of Use [POU], authorization for this CVP water assignment by Reclamation is not required.) SMUD, in turn, has assigned 15,000 afy of its CVP contract water to SCWA for municipal and industrial use. This CVP contract assignment is complete.

SMUD 2 Assignment

SMUD's PSA directs SMUD to assign a second 15,000 afy of surface water to SCWA for municipal and industrial uses and for SCWA to construct groundwater facilities necessary to provide water to meet SMUD's dry-year water shortage demand of up to 10,000 afy at its cogeneration facility. This CVP contract assignment is complete. SCWA and SMUD are continuing to negotiate the timing and exact amount of the dry-year shortage deliveries. Delivery of the dry-year shortage water supplies would be through the construction of additional groundwater facilities that would discharge into the Folsom South Canal.

Central Valley Project Water (Public Law 101-514—"Fazio Water")

In April 1999, SCWA obtained a CVP water service contract pursuant to Public Law 101-514 (referred to as "Fazio water") that provides a permanent water supply of 22,000 afy, with 15,000 afy allocated to SCWA and 7,000 afy allocated to the City of Folsom.

Other Surface Water Supplies (Potential Future Supplies)

SCWA would pursue purchase and transfer agreements with other entities that currently hold surface-water rights in the north Sacramento River basin. Estimated long-term average annual use of these water supplies would be approximately 5,200 af. This water would be purchased only in dry and critically dry years.

SCWA and the City of Sacramento are currently negotiating an agreement whereby Sacramento will sell surface water to SCWA for use in the portion of the 2030 Study Area that lies within the American River POU for the City of Sacramento. The estimated long-term average annual volume of water that could be used within this American River POU would be approximately 9,300 af. The American River POU for the City of Sacramento is identified in Exhibit 5.

This water represents anticipated future water supplies (Water Code Section 10911[a]) that SCWA is currently pursuing as part of its overall Zone 40 WSMP. The use and delivery of this water was evaluated in the Zone 40 WSMP EIR that was certified in February 2005 (SCWA 2003a) and was also addressed in the WFA EIR (Sacramento City-County Office of Metropolitan Water Planning 1999).

Recycled-Water Component (Existing Supplies)

Recycled water is currently used in Zone 40. Recycled water is tertiary treated "recycled" wastewater that is used for nonpotable uses such as landscape irrigation at parks, schools, and rights-of-way. Approximately 4,400 afy of recycled water is used to offset demand for parks and for other nonpotable uses within Zone 40 (Table 4).

Dry-Year Surface Water Supplies

Water demand for the proposed project would be met through the conjunctive use of surface water, groundwater, and remediated water supplies identified in the Zone 40 WSMP. In wet and normal water years, SCWA would divert surface water from the American and Sacramento Rivers consistent with the entitlement contracts described above. The underlying groundwater basin would be replenished in wet years as a result of this reliance on surface water. In dry water years, SCWA's surface water could be reduced based on recommended dry-year cutback volumes outlined in the WFA. The dry-year cutback volumes are those volumes that purveyors have agreed to not divert from the American River during dry years. During dry years SCWA would increase groundwater pumping so that it could continue to meet customers' water demand, and it would implement a water-shortage contingency plan that would result in a water demand reduction of 28% (SCWA 2005b).

SCWA Zone 40 Groundwater Supplies

SCWA currently exercises and will continue to exercise its rights as a groundwater appropriator and will extract water from the groundwater basin underlying Zone 40 for the beneficial use of its customers. The WFA recommended a long-term average volume of groundwater that can be pumped from the Central Basin. As a signatory to the WFA, SCWA is committed to adhering to the long-term average sustainable yield of the Central Basin (i.e., 273,000 afy) recommended in the WFA. Total groundwater pumping (i.e., urban and agricultural pumping) within the Central Basin is approximately 248,500 afy, of which approximately 59,700 afy is pumped within Zone 40 (agricultural demand, 21,900 afy; urban demand, 37,800 afy) (SCWA 2005a). The remaining groundwater is pumped by the City of Sacramento, Elk Grove Water Service, Cal-Am, GSWC, and private and agricultural pumpers.

Projected future urban water delivered by SCWA within Zone 40 would be approximately 113,000 afy and would be met through a combination of surface water, groundwater, and recycled water supplies. Available surface water supplies would be maximized in wet years; groundwater supplies would be maximized in dry years through increased pumping at SCWA's groundwater facilities. With implementation of the Zone 40 WSMP, projected 2030 groundwater pumping volumes from the Central Basin would range from 235,000 afy to 253,000 afy for urban and agricultural demand (SCWA 2005a). Of that amount, it is projected that SCWA Zone 40 would pump an average of 40,900 afy to meet urban water demand within Zone 40 through 2030 (Table 6).

Remediated Groundwater

SCWA has the right to remediated groundwater supplies pursuant to the GenCorp and Boeing agreements. The agreements assign priority use (as identified below) of remediated groundwater to:

1. replace municipal groundwater supplies lost because of contamination;
2. provide a supply for new development on GenCorp property;
3. provide a supply for other new development in Zone 40; and
4. achieve environmental benefit.

Table 7 shows the estimated demand for each of the priority uses described above. Approximately 7,388 afy of the remediated groundwater that is allocated as water supply for new development on GenCorp property would be used for the proposed project.

Table 6 Existing and Projected Average Groundwater Supply in Zone 40			
Water Source	Estimated Maximum Use (afy)	Estimated Long Term Average Use (afy)	Reliability
Groundwater extracted from Central Basin pursuant to Zone 40 WSMP	69,900	40,900	High[1]

Note: afy = acre-feet per year; Central Basin = Central Area groundwater subbasin; SCWA = Sacramento County Water Agency; WSMP = Water Supply Master Plan

[1] The reliability of this water source is "high" because SCWA is a groundwater appropriator and existing and projected future pumping scenarios would not exceed the sustainable yield of the Central Basin.

Source: SCWA 2005a

Table 7 Priorities of Use of Remediated Groundwater Supplies			
Priority	Use	Location	Amount (afy)
1	Replacement of Municipal Groundwater Supplies	City of Rancho Cordova	15,000
2	Supply for New Development on GenCorp property	Rio del Oro project site and others	15,000
3	Supply for other New Development in Zone 40	To be determined	0
4	Environmental Benefits	Cosumnes River	5,000
Total			**35,000**

Note: afy = acre-feet per year

Source: Data compiled by EDAW in 2006

Dry-Year Groundwater Supplies

Within Zone 40, groundwater use would be variable and would depend on the hydrologic year, dry-year surface water deliveries to SMUD, and the variability in the availability of CVP and other surface water supplies. The Zone 40 WSMP estimated that 2030 maximum, minimum, and average groundwater demand would be 69,900 af; 27,300 af; and 40,900 af, respectively (Table 6 above).

B. Water Code Section 10910(d)(2)(A) Requires Information Related to Written Contracts or Other Proof of Entitlements to the Water Supplies Identified to Serve the Project.

As described above, SCWA is a groundwater appropriator, has existing surface water entitlements, and is pursuing appropriative and other surface water supplies as part of its Zone 40 WSMP. SCWA has entered into agreements with SMUD for CVP water and GenCorp and McDonnell Douglas Corporation/Boeing for remediated groundwater supplies. The agreements are listed below and are available for review at SCWA.

- *Agreement for Partial Assignment of Entitlement to CVP Water between the Sacramento Municipal Utility District and the Sacramento County Water Agency*
- *Agreement Between Sacramento County, the Sacramento County Water Agency, and Aerojet General Corporation with Respect to Groundwater and Related Issues within the Eastern Portion of Sacramento County,* August 27, 2005

- *Agreement Between Sacramento County, the Sacramento County Water Agency, and McDonnell Douglas Corporation with Respect to Groundwater and Related Issues within the Eastern Portion of Sacramento County,* August 27, 2005

C. Water Code Section 10910(d)(2)(B) Requires Information Related to Copies of the Capital Outlay Program for Financing the Delivery of the Identified Water Supply.

Section 7 of the Zone 40 WSMP and the Feasibility Report for 2003 Sacramento County Water Financing Authority Revenue Bonds (*Feasibility Report for 2003 Sacramento County Water Financing Authority Revenue Bonds [SCWA Zone 40 and Zone 41 Water System Projects]—May 2003*) (SCWA 2003b) evaluate the total cost and fee requirements to implement the Zone 40 conjunctive use program, incorporating all future Zone 40 expenditures for the major surface-water treatment plants, groundwater treatment plants, and major transmission mains. The Zone 40 Development Fee and User Fee Program, implemented through SCWA Ordinance 18 and Title 3 of the SCWA Code, respectively, are both currently in place and will continue to collect revenues to finance all aspects of the Zone 40 conjunctive use program. Both fee programs are evaluated annually and adjusted as needed to accommodate modifications of the service area, water demand, capital projects, and required debt financing. Partial financing for the remediated water project is identified in the GenCorp and McDonnell Douglas Corporation/Boeing agreements, which are discussed in more detail above. Additional financing plans will be developed as part of the proposed project for the construction of the smaller distribution facilities required to deliver the identified surface water and groundwater supplies. Fee increases were approved by SCWA to fund a comprehensive Capital Improvements Program (CIP). The CIP includes facilities associated with the conveyance and treatment of surface water, groundwater facilities to provide redundant supply during dry-year shortages in surface water, and facilities required for recycled water. Copies of the CIP are available for review at SCWA.

D. Water Code Section 10910(d)(2)(C) Requires Information Related to Federal, State, and Local Permits for Construction of Infrastructure Necessary for Delivering the Water Supply.

As described above, SCWA has secured water supplies (groundwater, SMUD entitlements, and remediated groundwater supplies) and is in process of securing water supplies (appropriative and other supplies) to meet existing and future water demand within Zone 40 over a 20-year period. The use and delivery of all of these supplies and necessary infrastructure was evaluated in the Zone 40 WSMP EIR that was certified in February 2005 (SCWA 2005a). SCWA is proceeding with the design and construction of the Vineyard WTP and all necessary conveyance infrastructure to deliver those water supplies. Individual infrastructure projects proposed as elements of the Zone 40 WSMP will require separate approvals for project construction as well as permits from local and state regulatory agencies. The types of approvals and permits for construction of the facilities and infrastructure necessary for delivery of the water supplies that may be required are described in Table 8.

E. Water Code Section 10910(d)(2)(D) Requires Information Related to any Regulatory Approvals Required for Delivery of the Water Supply.

As described above, all approvals for use of SCWA's existing and proposed future supplies (except for the RWSP) have been secured through the adoption of the Zone 40 WSMP. The delivery of remediated water made available through the RWSP will require approvals and permitting. The approvals from local and state regulatory agencies that may be required for delivery of the water supplies made available through the RWSP are described in Table 8.

Table 8 Permits and Authorizations that May Be Required for Water Supply Delivery Infrastructure		
Federal	State	Local
U.S. Army Corps of Engineers—Section 404 of the Clean Water Act Permit	California Department of Fish and Game—Streambed Alteration Agreement	County of Sacramento Department of Health Services—Review and approval
U.S. Fish and Wildlife Service—Endangered Species Act Consultation	Central Valley Regional Water Quality Control Board—Section 401 Water Quality Certification, National Pollutant Discharge Elimination System Construction Stormwater Permit	Encroachment Permits
U.S. Bureau of Reclamation—Review and approval	Sacramento Metropolitan Air Quality Management District—Authority to Construct	
Source: Data compiled by EDAW in 2006		

IDENTIFY PARTIES DEPENDENT ON PROPOSED SUPPLY [WATER CODE SECTION 10910(E)]

The intent of this section is to identify any conflicts that may arise from the initial exercise of a water supply entitlement, water right, or water service contract to serve a proposed project.

The proposed project would be served by SCWA through its implementation of the Zone 40 WSMP and the RWSP. SCWA's surface water and groundwater supplies, as identified above, include CVP water, intermittent and other surface water supplies, groundwater, and recycled water.

Other groundwater pumpers in the Central Basin that could be affected by SCWA's groundwater pumping are the City of Sacramento, Elk Grove Water Service, City of Folsom, GSWC, Cal-Am, and private and agricultural pumpers, among others.

SCWA also has the right to remediated groundwater supplies pursuant to the GenCorp and McDonnell Douglas Corporation/Boeing agreements with SCWA.

DOES THE SUPPLY INCLUDE GROUNDWATER AS A SOURCE? [WATER CODE SECTION 10910(F)]

A portion of the water demand from the proposed project would be met with groundwater. Consequently, Section 10910(f) requires the following additional information.

Water Code Section 10910(f)(1) Requires a Review of Groundwater Data Contained in the UWMP.

The 2005 UWMP presents information about the groundwater basins from which Zone 41 pumps. This WSA focuses only on information presented in the UWMP regarding the Central Basin, which is the groundwater basin underlying Zone 40. The UWMP characterizes the basin, describes GMPs that have been prepared for the region, and lists historical and projected SCWA groundwater pumping amounts within the Zone 40 region.

Water Code Section 10910(f)(2) Requires a Description of the Groundwater Basin and the Efforts Being Taken to Prevent Long-Term Overdraft.

The Sacramento County groundwater system is part of the larger Sacramento Valley groundwater basin. Within Sacramento County three separate groundwater subbasins have been identified: North Area (the area north of the

American River), Central Area (roughly the area between the American River and the Cosumnes River where Zone 40 is located), and South Area (generally the area south of the Cosumnes River) (Exhibit 6).

Central Basin

The Central Area groundwater subbasin (i.e., the Central Basin) corresponds to the South American Sub-Basin (DWR Basin Number 5-21.65) and is located between the American River and the Cosumnes River. Zone 40 is located within the Central Basin.

Groundwater in the Central Basin is classified as occurring in a shallow aquifer zone or in an underlying deeper aquifer zone. Within Zone 40, the shallow aquifer extends to approximately 200–300 feet below the ground surface; in general, the water quality in this zone is considered to be good except for the occurrence of low levels of arsenic in some locations. The shallow aquifer is typically used for private domestic wells and requires no treatment unless naturally occurring arsenic is encountered.

The deep aquifer is semiconfined by and separated from the shallow aquifer by a discontinuous clay layer. The base of the deep aquifer averages approximately 1,400 feet below the ground surface. Water at the base of the deep aquifer has higher concentrations of total dissolved solids. Iron and manganese typically found in the deep aquifer are at levels requiring treatment. Groundwater used in Zone 40 is supplied from both the shallow and deeper aquifer systems.

Recharge to the aquifer system occurs along river and stream channels where extensive sand and gravel deposits exist, particularly along the American, Cosumnes, and Sacramento River channels. Additional recharge occurs along the eastern boundary of Sacramento County at the transition point from the consolidated rocks of the Sierra Nevada.

The WFA recommended a long-term average volume of groundwater that can be pumped from the Central Basin. The negotiated sustainable yield for the Central Basin is 273,000 af. As a signatory to the WFA, SCWA is committed to operating within the sustainable yield of the Central Basin recommended in the WFA.

The CSCGF has developed a GMP, the *Central Sacramento County Groundwater Management Plan* (CSCGMP) (CSCGMP Task Force 2006), to assist overlying water providers in maintaining a safe, sustainable, and high-quality groundwater resource. The CSGGMP is intended to adapt to changing conditions within the groundwater basin and to be updated and refined to reflect progress made in achieving the CSGCMP's objectives. Exhibit 7 shows water purveyors within the Central Basin.

Water Code Section 10910(f)(3) Requires a Description of the Volume and Geographic Distribution of Groundwater Extractions from the Basin for the Last 5 Years.

Historical groundwater extractions by SCWA in the Central Basin and pumping locations are summarized below in Table 9 and Exhibit 8, respectively. Groundwater level trends for the Central Basin can be seen in Exhibit 8. The hydrographs for these wells show groundwater levels generally varying between 40 feet above (+40) and 40 feet below (-40) mean sea level (msl) (CSCGMP Task Force 2006).

Table 9
Historical Groundwater Extractions by SCWA in the Central Basin (afy)

Basin	2000	2001	2002	2003	2004
Central Basin					
Zone 40	20,022	22,306	22,949	22,745	25,790

Note: afy = acre-feet per year; SCWA = Sacramento County Water Agency
Source: SCWA 2005b

Water Code Section 10910(f)(4) Requires a Description and Analysis of the Amount and Location of Groundwater that is Projected to be Pumped by the Public Water System, or the City or County from the Basin from which the Proposed Project will be Supplied. The Description and Analysis Shall be Based on Historical Data and Include a Description of the Projected Volume and Geographic Distribution of Groundwater Extractions from the Basin.

The hydrologic effects of implementing the 2005 Zone 40 WSMP were analyzed using the Sacramento County Integrated Groundwater Surface Water Model (Sacramento County IGSM) (WRIME 2003). The IGSM was originally developed in the early 1990s to analyze the impacts of different water supply planning scenarios on the groundwater resources of Sacramento County. Based on its theoretical foundation, past applications, and sensitivity testing, the IGSM model was determined by SCWA to be the appropriate tool for assessing the impacts of the Zone 40 WSMP. The IGSM model runs performed to analyze the effects of the Zone 40 WSMP evaluated the 2030 Study Area as well as surrounding areas to assess the overall impacts on the groundwater basin under existing conditions as well as 2030 conditions for different combinations of surface water and groundwater use. The IGSM model evaluated two basic scenarios: the 2000 Baseline Condition and 2030 Condition.

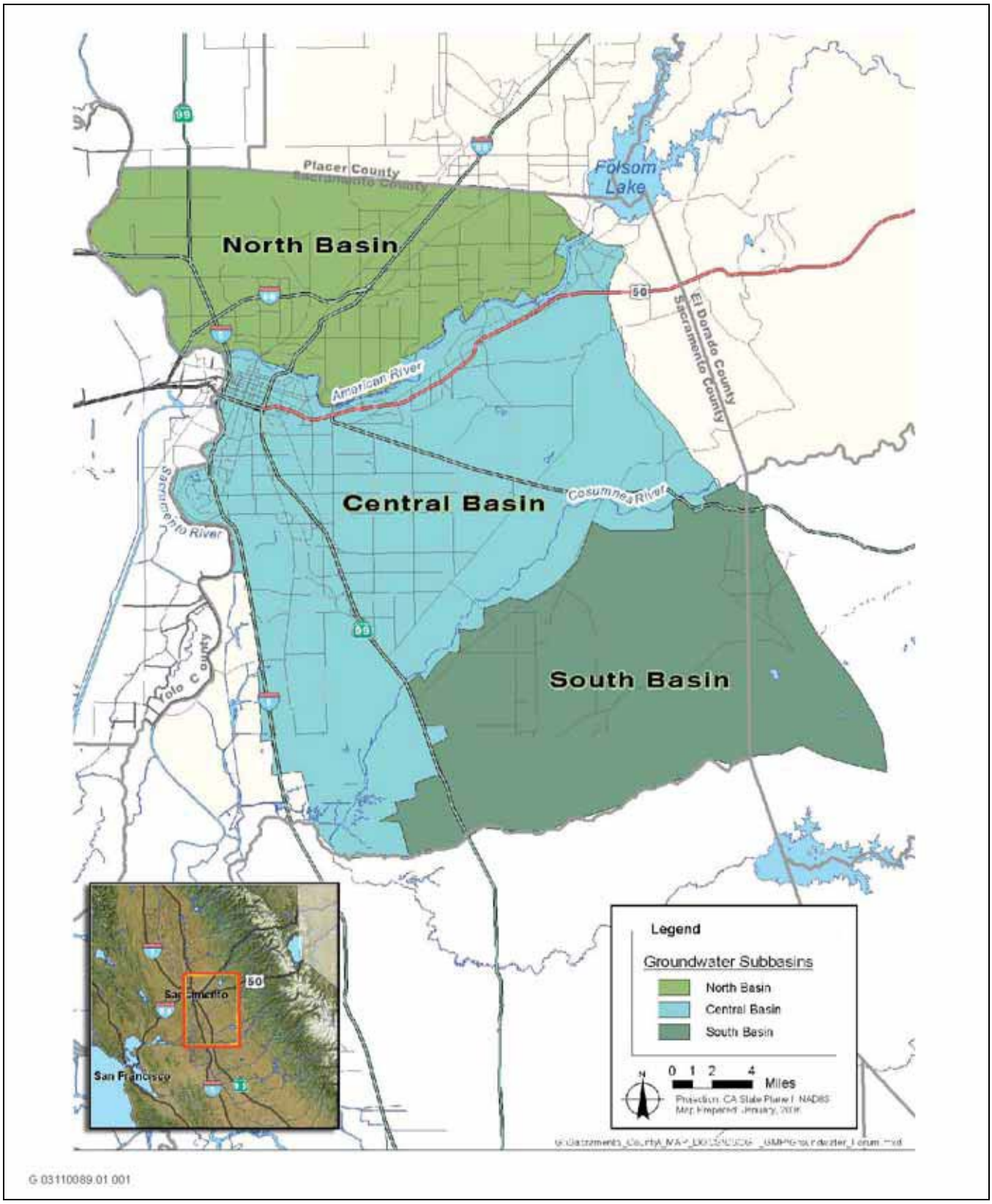
The 2000 Baseline Condition represents the long-term effect of water demand and supply conditions at the 2000 level of development, held constant over a 74-year period of historical hydrology.

The 2030 Condition represents the long-term effects of the 2030 level of development over the 74-year period of historical hydrology. The condition assumes development of approved specific plans and associated reductions in agricultural acreage and water demand in Zone 40 and increases in surface water supplies to satisfy the increased urban demand. Groundwater pumping would still be used to supplement water supplies for urban areas and to meet agricultural demand.

The model runs for the 2030 Condition were conducted to illustrate potential effects related to (1) groundwater pumping locations (pumping within the subarea of use, pumping concentrated in the northern portion of Zone 40, pumping concentrated in the southern portion of Zone 30, and a uniform pumping scenario); (2) variable volumes of reuse of remediated groundwater; (3) increases in surface water from availability of appropriative water; and (3) enhancement of Cosumnes River flows.

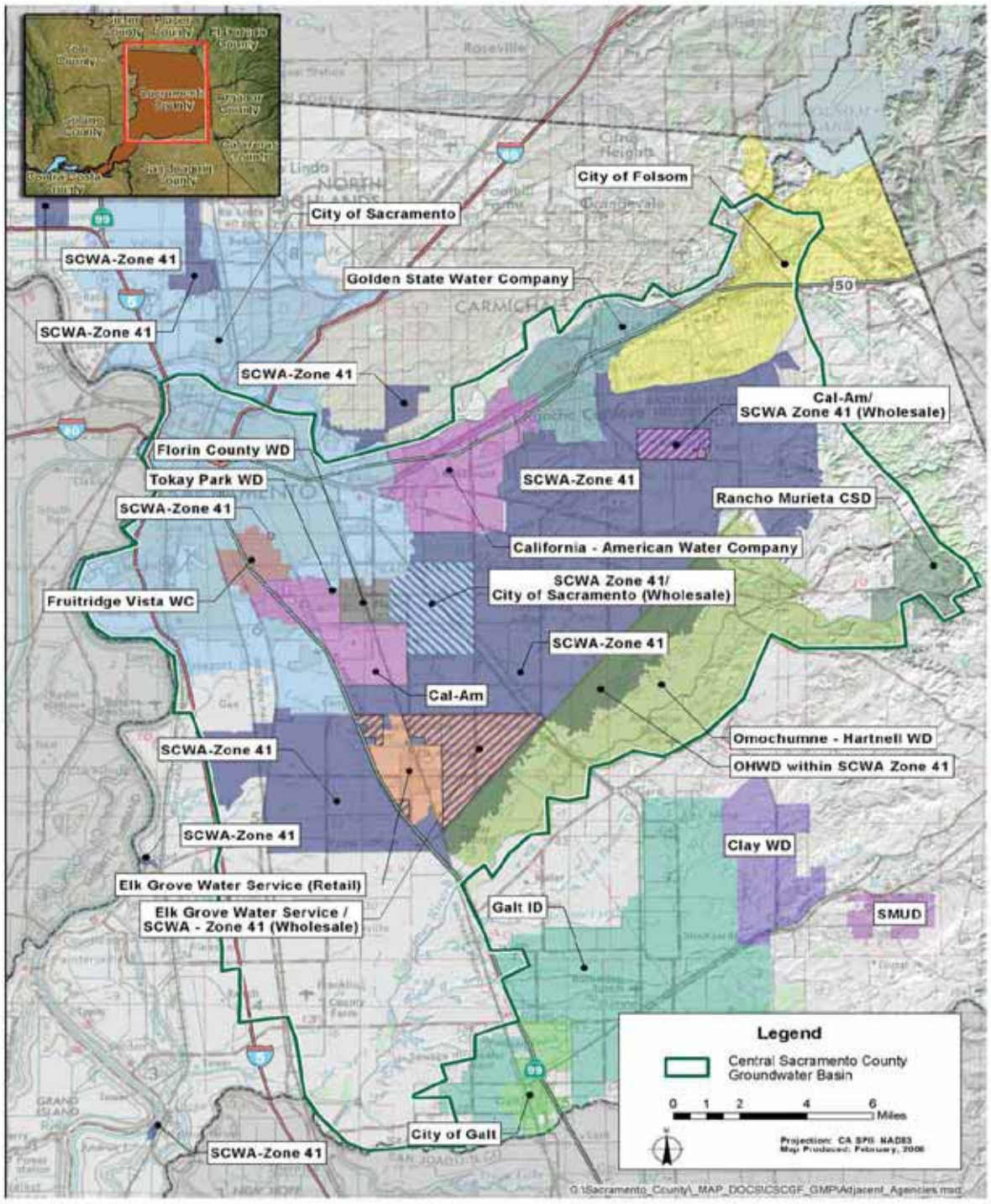
The modeling evaluated projected groundwater pumping by SCWA as well as all water users, including those for agriculture within the groundwater basin. Exhibit 9 shows the geographical distribution of groundwater pumping areas within the Central Basin assumed for the IGSM model. Exhibit 8 shows the geographical distribution of both SCWA wells and DWR/U.S. Geological Survey wells within the Central Basin and Zone 40.

The results of the groundwater model indicate that in 2030, approximately 74,000 afy of groundwater is expected to be pumped by SCWA and private urban and agricultural water users for use in the Zone 40 2030 Study Area. This volume, combined with other pumping in the Central Basin (including pumping for groundwater remediation), would be below the WFA sustainable-yield recommendation of 273,000 afy for all modeled scenarios except the scenario in which no reuse of remediated groundwater is assumed. The agreement between the County, SCWA, and Aerojet/McDonnell Douglas Corporation/Boeing suggests that reuse of the water would occur. Stabilized groundwater elevations at the Central Basin cone of depression under the modeled scenarios would range from approximately -50 feet msl to -84 feet msl, which are all substantially higher than the WFA projected level of -116 to -130 feet msl. Because groundwater pumping associated with the Zone 40 WSMP would not cause sustainable-yield recommendations to be exceeded except under an unlikely cumulative scenario, and groundwater levels at the Central Basin cone of depression are projected to be higher than those determined to be acceptable to the Water Forum, this was considered a less-than-significant environmental impact in the Zone 40 WSMP EIR (SCWA 2003a).



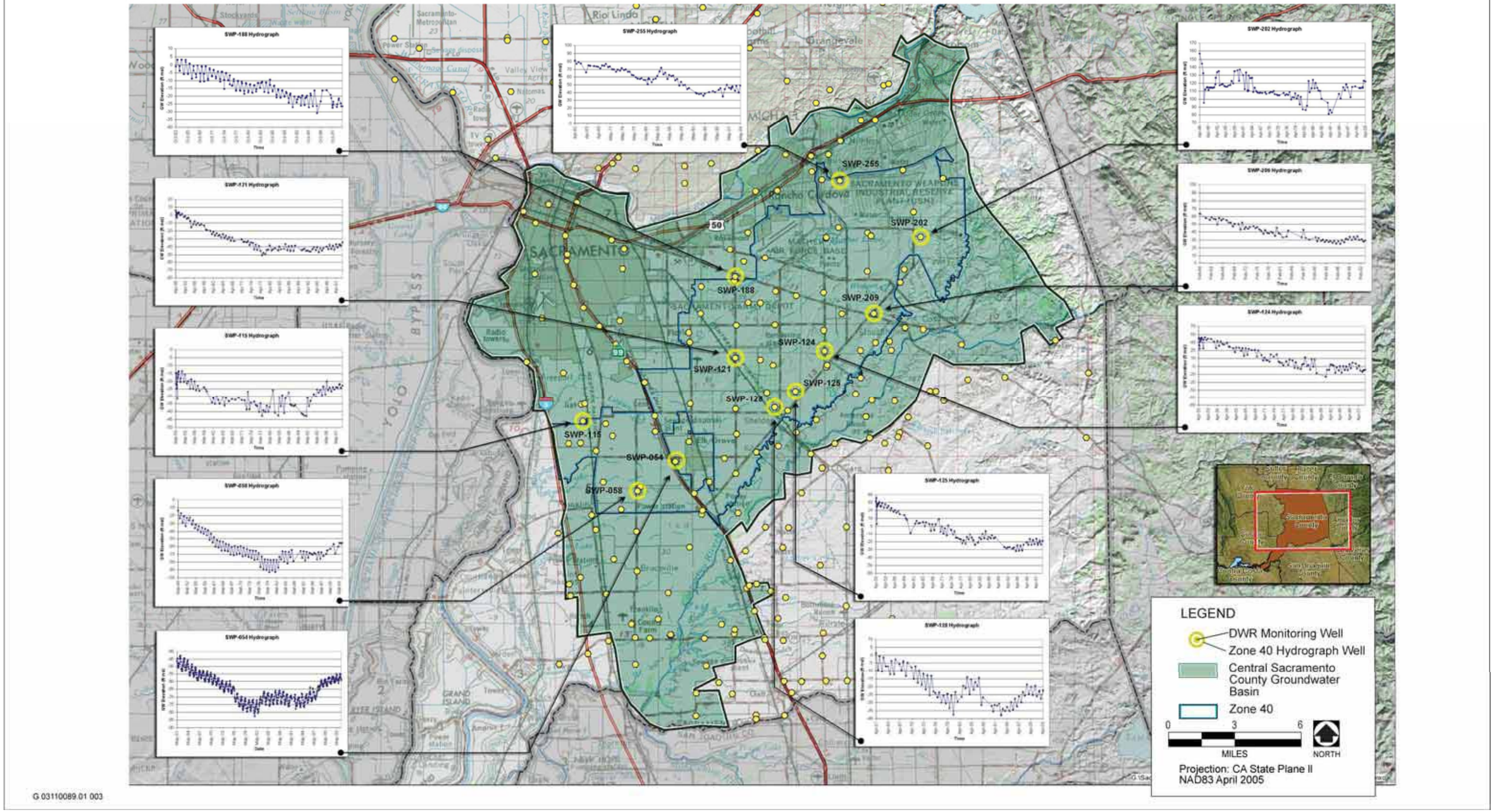
Source: CSCGMP Task Force 2006

Sacramento County Groundwater Basins **Exhibit 6**



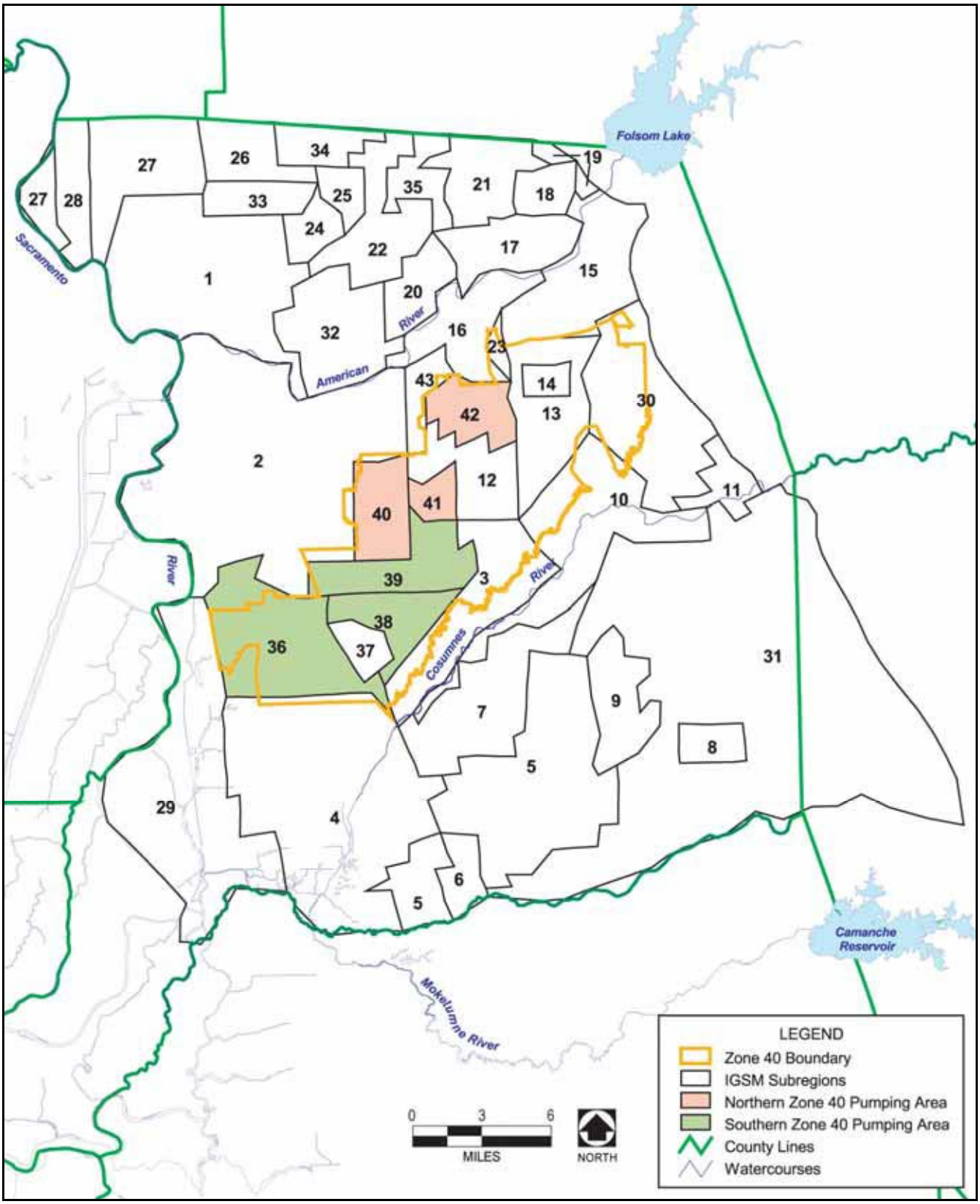
Source: CSCGMP Task Force 2006

Water Purveyors in the Central Basin **Exhibit 7**



Source: CSCGMP Task Force 2006

Zone 40 Pumping Locations and Groundwater Elevation Hydrographs **Exhibit 8**



Source: WRIME 2003, cited in SCWA 2003a. Note: Numbers represent subregions within the groundwater basin for the groundwater model.

SCWA Zone 40 Groundwater Pumping Areas **Exhibit 9**

5.3 SUPPLY RELIABILITY ANALYSIS

The proposed project would be served by SCWA Zone 40 through its conjunctive-use water supply system and the RWSP. SCWA has surface-water entitlements, is a groundwater appropriator, and has entered into an agreement to beneficially reuse remediated groundwater from the GenCorp and McDonnell Douglas Corporation/Boeing properties. The following discussion regarding supply reliability is from the Zone 41 UWMP (SCWA 2005b).

Table 10 lists available water supplies in Zone 40 during normal, single dry, and multiple dry years. This table reflects a conjunctive use pattern in Zone 40 where, in normal years, groundwater use averages 39,000 afy. In dry years, when surface water availability is limited, groundwater production increases to 70,000 afy to make up for the reduction in surface water. In all consecutive dry years, water demand management programs would be implemented to a higher degree (e.g., greater conservation, reduced outdoor use) to reduce the potential impacts from increased extraction of groundwater.

Table 10
SCWA Zone 40 Supply Reliability for 2030

Water Supply Sources	Normal Water Year	Single Dry Water Year	Multiple Dry Water Years			
			Year 1	Year 2	Year 3	Year 4
Zone 40 Surface Water	69,567	34,683	26,106	26,106	23,183	20,909
Zone 40 Groundwater	39,097	68,327	65,599	65,599	68,522	70,795
Zone 40 Recycled Water	4,400	4,400	4,400	4,400	4,400	4,400

Note: SCWA = Sacramento County Water Agency
Source: SCWA 2005b

COMPARISON OF AVAILABLE WATER SUPPLIES VERSUS DEMAND

SCWA compared projected water demand within Zone 40 to available water supplies over the 2005–2030 planning period, in 5-year increments, to determine whether water supplies were sufficient to meet demand within the SCWA service area in normal and dry years. The available surface water supplies are based on CALSIM II modeling performed for the 70-year hydrologic period (SCWA 2005b). Tables 11 and 12 present the comparison of available supplies to demand. It should be noted that because SCWA operates a conjunctive use program, water supplies will equal water demand in a given year. Groundwater pumping would equal the deficiency in water demand not met by surface water supplies.

Tables 11 and 12 show that SCWA has adequate water supplies to meet projected water demand in both normal and dry years with implementation of its conjunctive use program. The tables show that water demand is expected to increase by approximately 119% between 2010 and 2030. The two largest 5-year increases in water demand are expected to occur in 2010–2015 and 2015–2020.

SUPPLY RELIABILITY ASSESSMENT

Because of SCWA's extensive planning efforts in implementing the WFA, preparing the Zone 40 WSMP and Zone 41 2005 UWMP, and participating in the CSCGF, SCWA has demonstrated that it has planned for both sufficient water supplies and the infrastructure necessary to meet buildout water demand in its 2030 Study Area through 2030. This demand is estimated to be 113,064 afy, including a portion of the water demand associated with the proposed project. The reliability of these water supplies and the ability to meet projected demand in normal and dry years are shown in Tables 10, 11, and 12, respectively.

Table 11
Normal-Year Comparison of Water Supply and Demand (afy)

Source	2010	2015	2020	2025	2030
Supply					
Zone 40 Surface Water	13,060	44,143	48,772	68,700	69,567
Zone 40 Groundwater	34,125	28,837	40,470	31,324	39,097
Zone 40 Recycled Water	4,400	4,400	4,400	4,400	4,400
Remediated Water for Rio del Oro	7,388	7,388	7,388	7,388	7,388
Total Supplies	**58,973**	**84,768**	**101,030**	**111,812**	**120,452**
Demand					
Zone 40 (Rio del Oro not included)	50,085	75,880	92,142	102,924	111,564
Rio del Oro	8,888	8,888	8,888	8,888	8,888
Total Demand	**58,973**	**84,768**	**101,030**	**111,812**	**120,452**
Difference (Supply minus Demand)	0	0	0	0	0
Percent Increase in Water Demand from prior years		50%	21%	12%	8%

Note: afy = acre-feet per year
Source: SCWA 2005b

Table 12
Dry-Year Comparison of Water Supply and Demand (afy)

Source	2010	2015	2020	2025	2030
Supply					
Zone 40 Surface Water	243	26,411	29,441	38,606	34,683
Zone 40 Groundwater	44,362	42,700	55,120	56,197	68,327
Zone 40 Recycled Water	4,400	4,400	4,400	4,400	4,400
Remediated Water for Rio del Oro	7,388	7,388	7,388	7,388	7,388
Total Supply	**56,393**	**80,899**	**96,349**	**106,591**	**114,798**
Demand					
Zone 40 (Rio del Oro not included)	47,505	72,011	87,461	97,703	105,910
Rio del Oro	8,888	8,888	8,888	8,888	8,888
Total Demand	**56,393**	**80,899**	**96,349**	**106,591**	**114,798**
Difference (Supply minus Demand)	0	0	0	0	0
Percent Increase in Water Demand from prior years		50%	21%	12%	8%

Notes: afy = acre-feet per year. In dry years, potable drinking water demand is reduced (SCWA 2005b).
Source: SCWA 2005b

SCWA is pursuing a water right permit from the SWRCB to obtain an appropriative water right to divert surface water from the American River (a future source relied upon for preparation of this WSA). Without this water supply source, SCWA may not be able to meet its projected water demand through 2030.

It is important to note that the availability of the water supplies to meet the demand of the proposed project is dependent upon completion of the necessary facilities required to deliver the water supplies, including:

- completion of the initial phase of the Vineyard WTP (2010), which would deliver up to 1,500 afy for the proposed project; and

- completion of the RWSP (estimated to be complete by 2010), which would make available the supply needed to meet the remaining water demand for proposed project (7,388 afy).

SCWA would not be able to deliver water supplies to the proposed project until the facilities are in place for the above listed projects. Elliott Homes, one of the applicants for the proposed project, has indicated that it would like to begin construction of Phase 1 of the project (up to 1,500 homes) before SCWA completes the Vineyard WTP (and associated conveyance facilities) and the RWSP.

The permanent long-term water supply identified in this document cannot be delivered to the proposed project until the Vineyard WTP, RWSP, and other facilities described above have been approved and constructed (currently estimated at 2011). If a temporary supply of water from another source could be secured until the completion of these water projects, some initial development of the Rio del Oro project could occur. This short-term "gap" water supply is currently conceptual and has not been fully developed in order to evaluate in detail whether it can be determined to be a reliable source of water. Ultimately, the gap water supply (if approved and utilized before the RWSP comes online) will be replaced with the RWSP. Until further technical study is conducted, SCWA is not in a position to make an evaluation as to whether or not the gap water supply is a reliable long-term source of water. Notwithstanding the question as to the reliability of the gap water as a long-term water supply source, it is SCWA's continued intention to be the retail water purveyor for this development.

The project applicants have discussed the availability of a gap water supply with the nearby GSWC and have identified potential water supply options for providing gap water to Rio del Oro. These gap supplies, listed and qualified below, could support a portion of the initial phases of development of Rio del Oro until SCWA has constructed the facilities necessary to deliver permanent water supplies to the project site.

- **Option A—Use of Existing GSWC Excess Capacity.** Existing GSWC water supply capacity that exceeds its current projected maximum-day system demand could be delivered to Rio del Oro.

- **Option B—Wellhead Treatment.** Existing GSWC wells that have been taken out of service as a result of groundwater contamination could be provided with wellhead treatment to remove contaminants. If these wells are then brought back online, the GSWC system could have excess capacity that could be delivered to Rio del Oro, as described in Option A.

- **Option C—GET J Water Blending.** GenCorp's groundwater extraction and treatment plant J (GET J) is located near GSWC's Coloma/Pyrites Water Treatment Plant and treats groundwater extracted from wells located north of U.S. Highway 50. If water treated at GET J is piped to the Coloma/Pyrites Water Treatment Plant and blended with other potable surface water supplies, the GSWC system could have excess capacity that could be delivered to Rio del Oro, as described in Option A.

Options B and C would require a change in current regulatory agency policy regarding sources of drinking water supply. Furthermore, any delivery of a gap water supply by GSWC—or any other party—for initial development at Rio del Oro will require an agreement with SCWA that must include a description of any capital improvements required to deliver the water, the source of funding for any such improvements, the price of gap water, and a commitment of the gap supply until such time as SCWA has constructed facilities required to deliver the reliable

permanent supply of water to the Rio del Oro project. Other existing agreements that address water supply in this area may need to be amended as a condition of a gap water agreement.

It should be noted that while SCWA has approved and started design of the Vineyard WTP and associated projects that will provide 1,500 afy for the Rio del Oro project site consistent with its 2030 Master Plan, the RWSP, which will provide the remaining 7,388 afy of water supplies for Rio del Oro, is currently in the environmental review stage. The current schedule calls for the SCWA board to take action on the certification of the RWSP EIR and approval of the project in late summer 2006; until all necessary approvals and permits for construction have been secured, the RWSP cannot be guaranteed as a reliable long-term supply of water for the Rio del Oro project. In the event that the RWSP is either delayed or not approved, SCWA would need to identify other sources of supply to meet the remaining demands (7,388 afy) of Rio del Oro.

Water Code Section 10911(a) Requires a Public Water System to Identify the Plans by which It Means to Acquire Additional Water Supplies in the Event It Concludes Its Water Supplies are or will be Insufficient.

As described above, SCWA has existing secured water supplies (e.g., CVP water, groundwater, and recycled water) and is currently pursuing entitlements for appropriative water supplies (i.e., future water supplies). The appropriative water supplies were considered and evaluated in the Zone 40 WSMP, and SCWA has adopted a financing plan for the facilities necessary to deliver these water supplies to its customers within its 2030 Study Area. SCWA anticipates that it would be able to secure these supplies within 5–10 years. As described above, approvals are required for the RWSP, and the EIR is currently being prepared. Certification of the EIR and project approval are anticipated to occur by late 2006. No new approvals for the use of the water identified in the WSMP are necessary; however, some approvals and permits may be required for the construction of the conveyance and treatment facilities necessary to deliver these water supplies to SCWA customers (see Table 8).

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