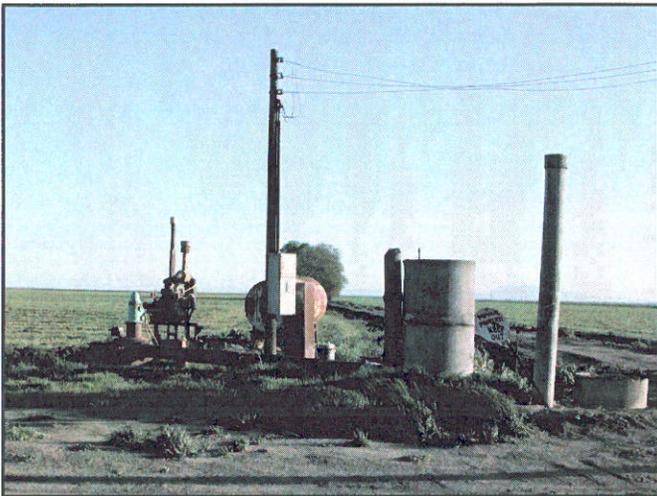


Reclamation District 2068

# GROUNDWATER MANAGEMENT PLAN



Adopted  
December 8, 2005

272-00-03-01.073

# Groundwater Management Plan

---

**Prepared for**

**Reclamation District 2068**

Adopted  
December 8, 2005



272-00-03-01.073

## RESOLUTION 2005-09

### RECLAMATION DISTRICT NO. 2068 GROUNDWATER MANAGEMENT PLAN

WHEREAS, the District pursuant to Part 2.75 of Division 6 of the Water Code was provided the opportunity to develop a management program for the groundwater resources within the District boundaries, and

WHEREAS, the District did adopt, on January 9, 1997, a Reclamation District No. 2068 Groundwater Management Plan, and

WHEREAS, it was deemed by the District Board to be advantageous to the District and to landowners presently utilizing groundwater resources and those not yet having access to the groundwater, that such groundwater management plan be updated to conform to the requirements of SB 1938 and other appropriate California requirements in order to continue to exercise local jurisdiction over the management of groundwater,

WHEREAS, the Groundwater Management Plan will further ongoing efforts to protect groundwater and the interdependent resources in the District groundwater area, will facilitate the collection of information to further understand and evaluate policies and programs for the protection of groundwater resources in the area of the District, and will assist in the ongoing efforts to investigate the feasibility of conjunctive use programs to the benefit of District landowners,

NOW THEREFORE, BE IT RESOLVED, that the District Board of Trustees adopts an updated Reclamation District No. 2068 Groundwater Management Plan, dated December 8, 2005,

RESOLVED FURTHER, the Board of Trustees finds that the adoption of the Reclamation District No. 2068 Groundwater Management Plan, December 8, 2005, is exempt from the requirements of the California Environmental Quality Act. (CEQA Guidelines § § 15061,15306,15307,15308 and 15262).

Passed and adopted by unanimous action of the Board of Trustees  
of Reclamation District No. 2068 this 8th day of December, 2005



T.M. Hardesty, Secretary

# TABLE OF CONTENTS

<b>SECTION 1. INTRODUCTION.....</b>	<b>1-1</b>
AGENCY DESCRIPTION AND OVERVIEW.....	1-2
AREA COVERED BY THE PLAN.....	1-2
AUTHORITY AND ADMINISTRATION.....	1-2
PURPOSE OF THE RD 2068 GROUNDWATER MANAGEMENT PLAN.....	1-5
ORGANIZATION OF THE GROUNDWATER MANAGEMENT PLAN.....	1-5
<b>SECTION 2. BASIN DESCRIPTION AND AGENCY WATER SUPPLIES .....</b>	<b>2-1</b>
Topography.....	2-1
Climate.....	2-1
Surface Water.....	2-1
Geology.....	2-1
Groundwater Elevations and Flow.....	2-2
Water Supplies.....	2-3
Current Supplies.....	2-3
Planned or Potential Future Supplies.....	2-12
Water Deliveries.....	2-12
Known Groundwater Management Issues.....	2-12
<b>SECTION 3. GROUNDWATER MANAGEMENT GOAL     AND PLAN COMPONENTS .....</b>	<b>3-1</b>
OVERALL GROUNDWATER MANAGEMENT GOAL.....	3-1
BASIN MANAGEMENT OBJECTIVES.....	3-1
GROUNDWATER MANAGEMENT PLAN COMPONENTS.....	3-2
Agency Coordination, Stakeholder Involvement and Public Outreach.....	3-3
Monitoring Program.....	3-6
Groundwater Sustainability.....	3-8
Groundwater Resource Protection.....	3-9
Planning Integration.....	3-10
<b>SECTION 4. PLAN IMPLEMENTATION .....</b>	<b>4-1</b>
GROUNDWATER MANAGEMENT REPORTS.....	4-1
FUTURE GROUNDWATER MANAGEMENT PLAN UPDATES.....	4-1
FINANCING.....	4-1
<b>SECTION 5. REFERENCES.....</b>	<b>5-1</b>
<b>APPENDIX A. North Delta Water Agency Information</b>	
<b>A-1. Contract Between State of California Department of Water Resources and         North Delta Water Agency for the Assurance of a Dependable Water         Supply of Suitable Quality</b>	
<b>A-2. Memorandum of Understanding between the North Delta Water Agency         and the California Department of Water Resources</b>	

**APPENDIX B. Public Notification and Outreach Information**  
**APPENDIX C. Water Use Efficiency Information**

**List of Tables**

Table 2-1. Water Rights Summary ..... 2-3

**List of Figures**

Figure 1-1. Location Map ..... 1-3  
Figure 1-2. Surface Water Conveyance ..... 1-4  
Figure 2-1. Sacramento Valley Geologic Cross Section ..... 2-2  
Figure 2-2. Groundwater Level and Land Subsidence Monitoring Locations ..... 2-4  
Figure 2-3. Hydrograph of 07N03E04Q001M ..... 2-5  
Figure 2-4. Hydrograph of 07N03E19N001M ..... 2-6  
Figure 2-5. Hydrograph of 07N02E33D002M ..... 2-7  
Figure 2-6. Hydrograph of 06N02E02M003M..... 2-8  
Figure 2-7. Hydrograph of 06N03E07M001M..... 2-9  
Figure 2-8. Spring 2002 Groundwater Elevations ..... 2-10  
Figure 2-9. Fall 2002 Groundwater Elevations..... 2-11  
Figure 2-10. Historical Water Deliveries in RD 2068’s Service Area ..... 2-13

# SECTION 1. INTRODUCTION

Reclamation District 2068 (RD 2068) adopted a groundwater management plan on January 9, 1997, pursuant to Sections 10753 *et. seq.* of the California Water Code (CWC). The plan included components addressing monitoring of water levels and quality; conjunctive use; mitigation of overdraft; coordination with state and federal regulatory agencies; well construction policies; and administration of a well abandonment and destruction program. However, effective January 2003, the CWC sections addressing groundwater management plans were revised as a result of Senate Bill No. 1938 (SB 1938), Machado. The CWC Section 10753 *et. seq.* amendments provide a revised framework for groundwater management plans with the intent of encouraging local agencies to work cooperatively to manage groundwater.

To be eligible for funding for construction and groundwater projects administered by DWR, the CWC amendments require local agencies to:

1. Make available to the public a written statement describing the manner in which interested parties may participate in development of a groundwater management plan, which may include appointing an advisory committee.
2. Prepare and implement a groundwater management plan that includes Basin Management Objectives (BMOs) for the groundwater basin that is subject to the plan.
3. Include components relating to the monitoring and management of groundwater levels within the groundwater basin, groundwater quality degradation, inelastic land subsidence, and changes in surface water flow and quality that directly affect groundwater levels or quality or are caused by groundwater pumping in the basin. Consider additional components listed in CWC Section 10753.8 (a) through (l).
4. Prepare a groundwater management plan that involves other agencies and enables the local agency to work cooperatively with other public entities whose service areas or boundaries overly the groundwater basin.
5. Adopt monitoring protocols that are designed to detect changes in groundwater levels, groundwater quality, inelastic subsidence in basins for which subsidence has been identified as a potential problem and flow and quality of surface water that directly affect groundwater levels or quality or are caused by groundwater pumping in the basin. The monitoring protocols should be designed to generate information that promotes efficient and effective groundwater management and supports attainment of the BMOs.
6. Prepare a map that details the areas of the groundwater basin, as defined in DWR Bulletin 118, the area that will be subject to the plan, and the boundaries of the local agencies overlying the basin.

Compliance with these statutes affect the eligibility and award of DWR-administered funding authorized or appropriated after September 1, 2002.

On February 10, 2005, the RD 2068 Board of Trustees adopted a resolution to prepare this updated groundwater management plan to reflect the current understanding of the groundwater basin and to be consistent with the amended CWC. RD 2068 has cooperated in groundwater data collection activities with other local agencies overlying the groundwater basin since 1994

through the auspices of the Solano Water Authority (SWA). Three of these agencies, Maine Prairie Water District (MPWD), the City of Vacaville and Solano Irrigation District (SID), also possess adopted groundwater management plans for their respective service areas (Figure 1-1). This groundwater management plan was developed in coordination with the three other local agencies with adopted plans and other basin stakeholders. This plan will be administered by the RD 2068 Board of Trustees with consideration of the recommendations of an advisory committee made up of members of the SWA.

## **AGENCY DESCRIPTION AND OVERVIEW**

RD 2068 encompasses an approximately 13,000-acre area in Solano and Yolo Counties (Figure 1-1). RD 2068 was formed in 1924 under the provisions of the reclamation district section of the CWC, currently Division 15 (Sections 50000 *et. seq.*). Reclamation works included levees, drains and a drainage pumping plant. Concurrent with the reclamation work, an irrigation system of pumping plants, canals and distribution system was constructed to deliver surface water from the Delta. Surface water deliveries began in 1926. Currently, RD 2068 irrigates approximately 13,000 acres from a delivery system of 50 miles of canals, four primary surface water pumping plants, numerous agricultural drain water recovery pumping plants and 47 miles of associated drainage canals (Figure 1-2). Effectively, all land within RD 2068 has been developed for irrigated agriculture. RD 2068 has not developed groundwater production facilities because of the existence of the surface water delivery system and secure surface water rights.

## **AREA COVERED BY THE PLAN**

Figure 1-1 shows the location of RD 2068 in relation to the boundaries of other local agencies overlying the groundwater basin. RD 2068 is located in the Solano Sub-basin of the Sacramento Valley Groundwater Basin as defined in the California Department of Water Resources (DWR) Bulletin 118 update (DWR, 2003). The DWR sub-basin designation is 5-21.66. This plan covers the RD 2068 service area.

## **AUTHORITY AND ADMINISTRATION**

The CWC provides RD 2068's authority to adopt a groundwater management plan. RD 2068 is a reclamation district pursuant to CWC, Sections 50000 *et. seq.* RD 2068 overlies the Solano Groundwater Sub-basin and provides water service and flood control within its service area. RD 2068 is, therefore, a local agency pursuant to CWC Section 10752, and is authorized and intends to adopt a groundwater management plan as provided for in CWC Sections 10753 (a) and (b).

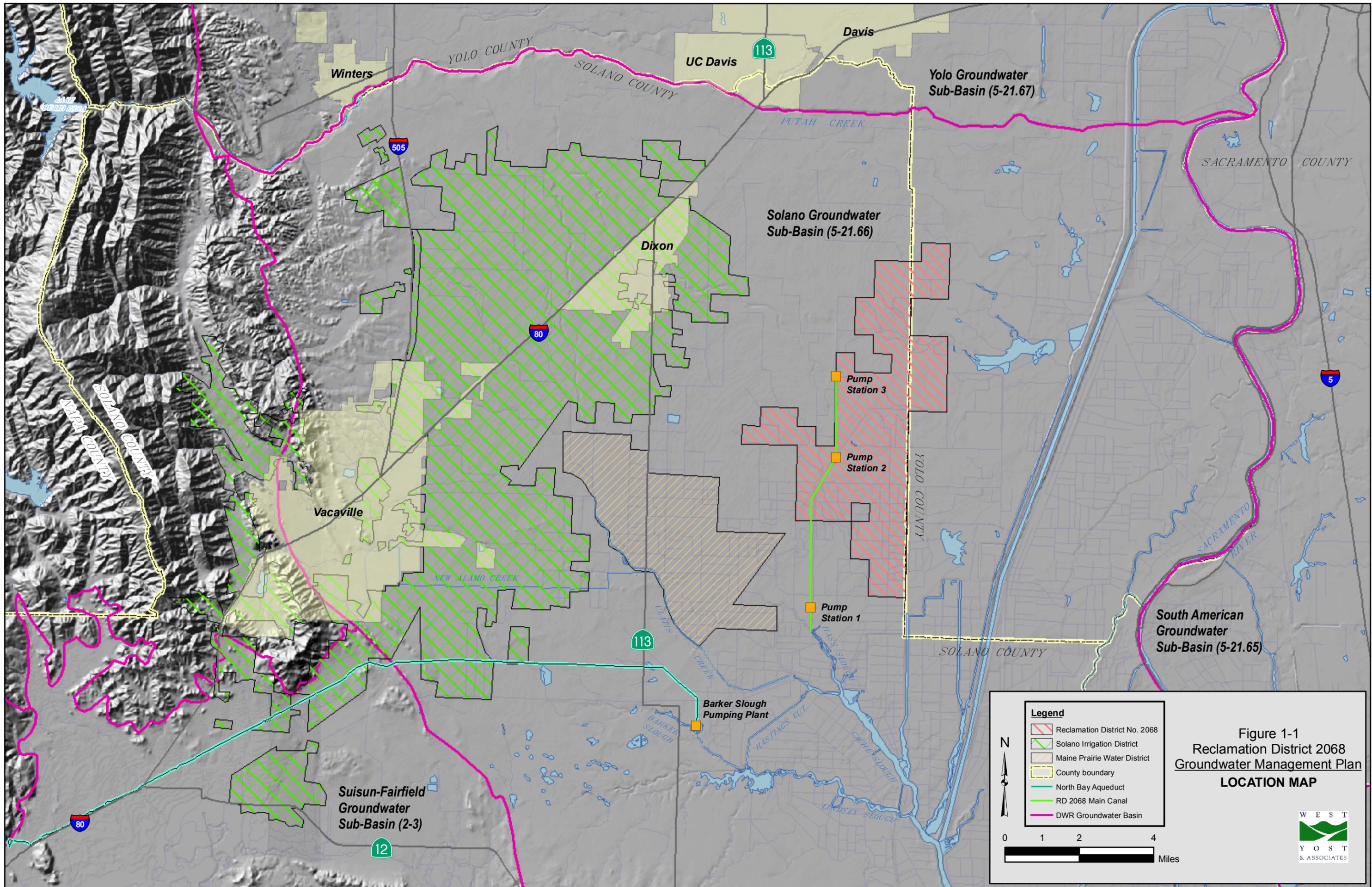
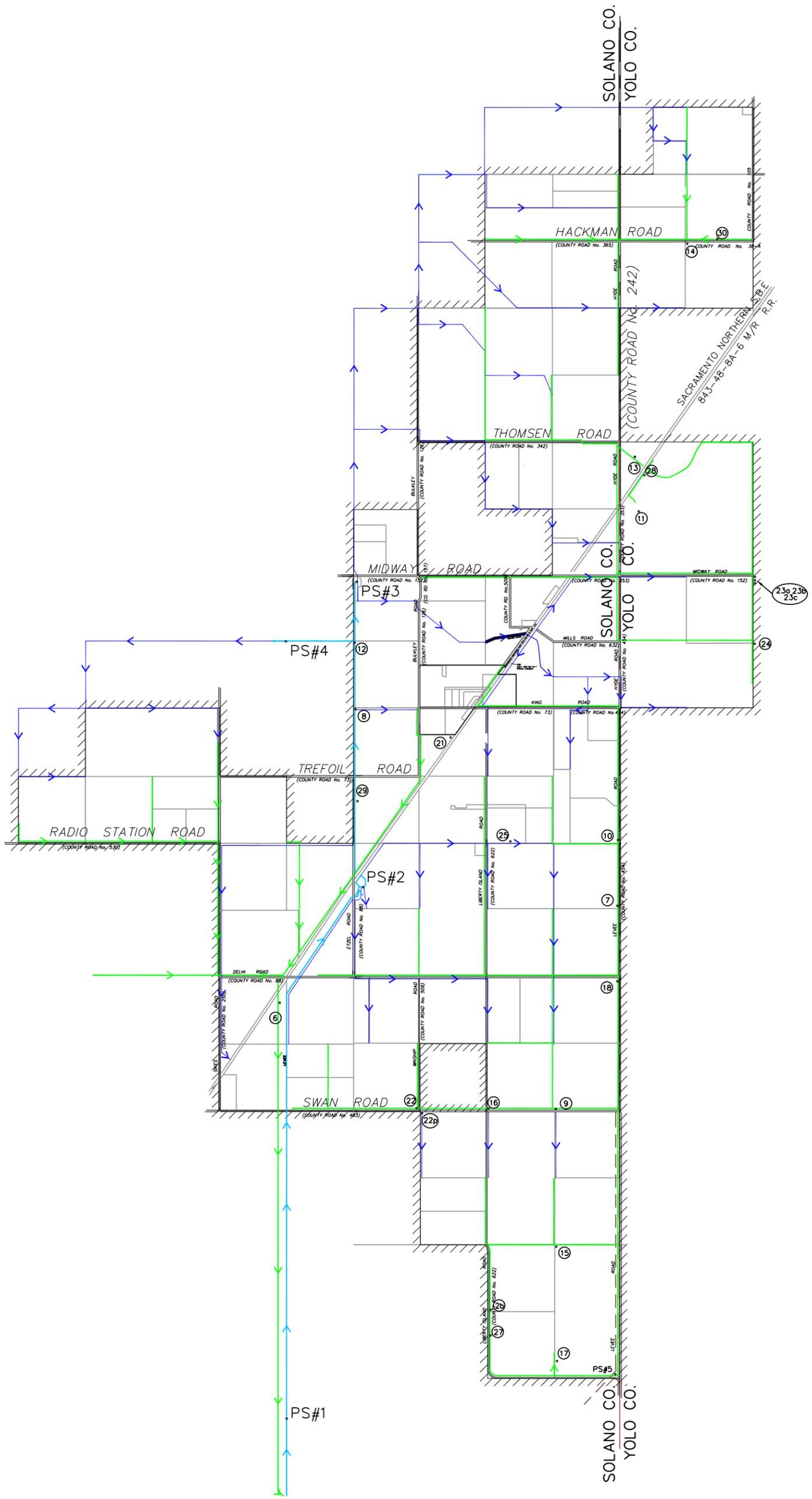


Figure 1-1  
 Reclamation District 2068  
 Groundwater Management Plan  
**LOCATION MAP**





**LEGEND**

- |  |                                   |
|--|-----------------------------------|
|  DISTRIBUTION CANAL | <b>PUMP STATIONS</b>              |
|  DRAINAGE CANAL     | • PS#4 - SURFACE WATER CONVEYANCE |
|  | • (12) - DRAINAGE                 |



NOT TO SCALE

**Figure 1-2**  
**Reclamation District 2068**  
**Groundwater Management Plan**  
**SURFACE WATER CONVEYANCE**



## **PURPOSE OF THE RD 2068 GROUNDWATER MANAGEMENT PLAN**

RD 2068 has not used groundwater within its service area but is considering the feasibility of implementing a conjunctive use program that could include the use of groundwater in the future. If RD 2068 could use groundwater within its service area to offset the demand for surface water currently diverted from the Delta, additional surface water could be made available in the Delta.

The purposes of this groundwater management plan are to: 1) state RD 2068's overall groundwater management goal; 2) put forth preliminary basin management objectives applicable to the RD 2068 service area; 3) provide a mechanism for the continued collection of baseline groundwater and aquifer information; and 4) establish preliminary management actions, including provisions for updating the plans as conditions change and new information becomes available.

## **ORGANIZATION OF THE GROUNDWATER MANAGEMENT PLAN**

This groundwater management plan is organized in five sections. Section 1 provides an introduction to the plan. Section 2 describes the physical setting of the plan area and provides an overview of RD 2068's water supply and demand. Section 3 documents RD 2068's overall groundwater management goal, preliminary basin management objectives (BMOs) and components of the plan. Section 4 discusses implementation of the plan. Section 5 provides a list of references cited in the plan.

## **SECTION 2. BASIN DESCRIPTION AND AGENCY WATER SUPPLIES**

RD 2068 is located in the Solano Sub-basin (Sub-basin 5-21.66) of the Sacramento Valley Groundwater Basin as defined in the California Department of Water Resources (DWR) Bulletin 118 update (DWR, 2003). Figure 1-1 shows the location of the groundwater sub-basin. The sub-basin is bounded by Putah Creek on the north; the Sacramento River on the east; Delta channels to the southeast and south; and a hydrologic divide on the west (DWR, 2004a). The western hydrologic divide corresponds to the crest of the English Hills and Montezuma Hills and separates the Solano Sub-basin from the Suisun-Fairfield Groundwater Basin.

### **Topography**

Land surface elevations within the Solano Sub-basin range from approximately 0 feet along the southeast edge to approximately 550 feet along the west edge. Except near the western edge of the basin, where land surface elevations increase with proximity to the Coast Ranges, the topographic relief is low. Land surface elevations within the RD 2068 service area range from approximately 10 to 40 feet.

### **Climate**

The Solano Sub-basin has a Mediterranean climate with cool, wet winters and hot, dry summers. Regionally, temperature and precipitation vary with elevation, with the lower temperatures and higher precipitation occurring at higher elevations. The average annual precipitation varies from 16 inches near the eastern edge of the sub-basin to 23 inches near the western edge (DWR, 2004a). However, because of the low topographic relief over most of the sub-basin, temperature and precipitation do not vary greatly over the sub-basin.

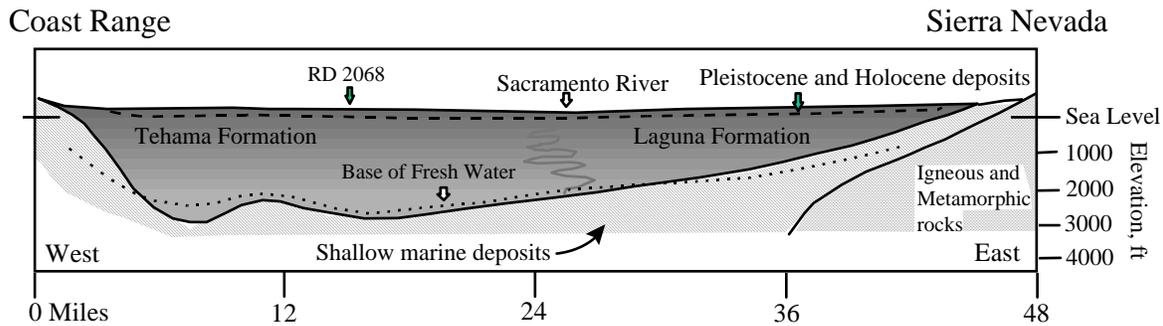
### **Surface Water**

Most of the major surface water features in the vicinity of the sub-basin form the sub-basin's boundaries. These features include Putah Creek, the Sacramento River and various Delta Channels (Figure 1-1). The Sacramento River Deep Water Channel spans the eastern edge of the sub-basin. There are no significant streams in the vicinity of RD 2068. All surface water drainage is controlled by RD 2068's drainage and flood control infrastructure. Major elements of this infrastructure are shown on Figure 1-2.

### **Geology**

A generalized geologic cross section for the Sacramento Valley is shown in Figure 2-1.

**Figure 2-1. Sacramento Valley Geologic Cross Section**



**Source: California Department of Water Resources, 1978**

The productive aquifers in the area occur in the Plio-Pleistocene age Tehama Formation, which includes related continental sediments, and the overlying unconsolidated alluvial sediments (Older Alluvium). The Tehama Formation and related continental sediments are the thickest aquifer in the sub-basin with thicknesses ranging from 1,500 to 2,500 feet (DWR, 2004a). The Tehama Formation and related continental sediments consist of moderately compacted silt, clay, and silty fine sand enclosing lenses of sand and gravel, silt and gravel, and cemented conglomerate. Permeability varies but is generally less than in the overlying unconsolidated alluvial deposits (Older Alluvium). Because of the thickness of the producing zones, production from the Tehama Formation can be up to several thousand gallons per minute (gpm) per well (DWR, 2004a).

Older Alluvium consists of loose to moderately compacted silt, silty clay, sand and gravel deposited in alluvial fans during the Pliocene and Pleistocene ages (DWR, 2004a). Thicknesses range from approximately 60 to 130 feet. Wells penetrating the sand and gravel units produce between 300 and 1,000 gpm (DWR, 2004a). The majority of the domestic wells in the vicinity of RD 2068 produce water from the Older Alluvium.

The regional hydrostratigraphic framework is defined in U. S. Geological Survey Water-Supply Paper 1464, *Geology and Usable Ground-Water Storage Capacity of Part of Solano County, California* (Thomasson, et al, 1960). Thomasson, et al (1960) shows three broad hydrostratigraphic zones within the Tehama Formation and related continental sediments:

- A relatively coarse-grained zone extending to a depth of approximately 1,500 feet
- A predominantly fine-grained zone between depths of approximately 1,500 and 1,800 feet
- A predominantly coarse-grained zone between depths of approximately 1,700 and 2,700 feet (the inferred base of the Tehama Formation and related continental sediments, and the approximate base of fresh water).

### **Groundwater Elevations and Flow**

Figure 2-2 shows the locations of monitoring wells in the vicinity of RD 2068. Five of the six wells were selected based on their long history of groundwater elevation measurements. The sixth well is a nested monitoring well installed at RD 2068 Pump Station 3 in October 2004 to monitor groundwater elevations near the pump station. Hydrographs for the five wells with long

historical records of groundwater level measurements are shown on Figures 2-3 through 2-7. The hydrographs with the longest record show that groundwater levels declined through the early 1960s, but then began to recover as surface water from the Solano Project began to be delivered to the area overlying the groundwater sub-basin. Water levels stabilized by the early 1980s at depths ranging from roughly 5 to 30 feet below land surface.

Figures 2-8 and 2-9 show groundwater elevation contours in the vicinity of RD 2068 for the spring and fall of 2002. The figures show that groundwater flowed in an east-southeasterly direction.

### Water Supplies

This section describes RD 2068’s current and potential future supplies. Current supplies consist entirely of surface water diverted from the Delta under appropriative rights. Potential future supplies may be a combination of these surface water supplies, plus groundwater pumped within RD 2068 and used to irrigate the overlying district lands.

### Current Supplies

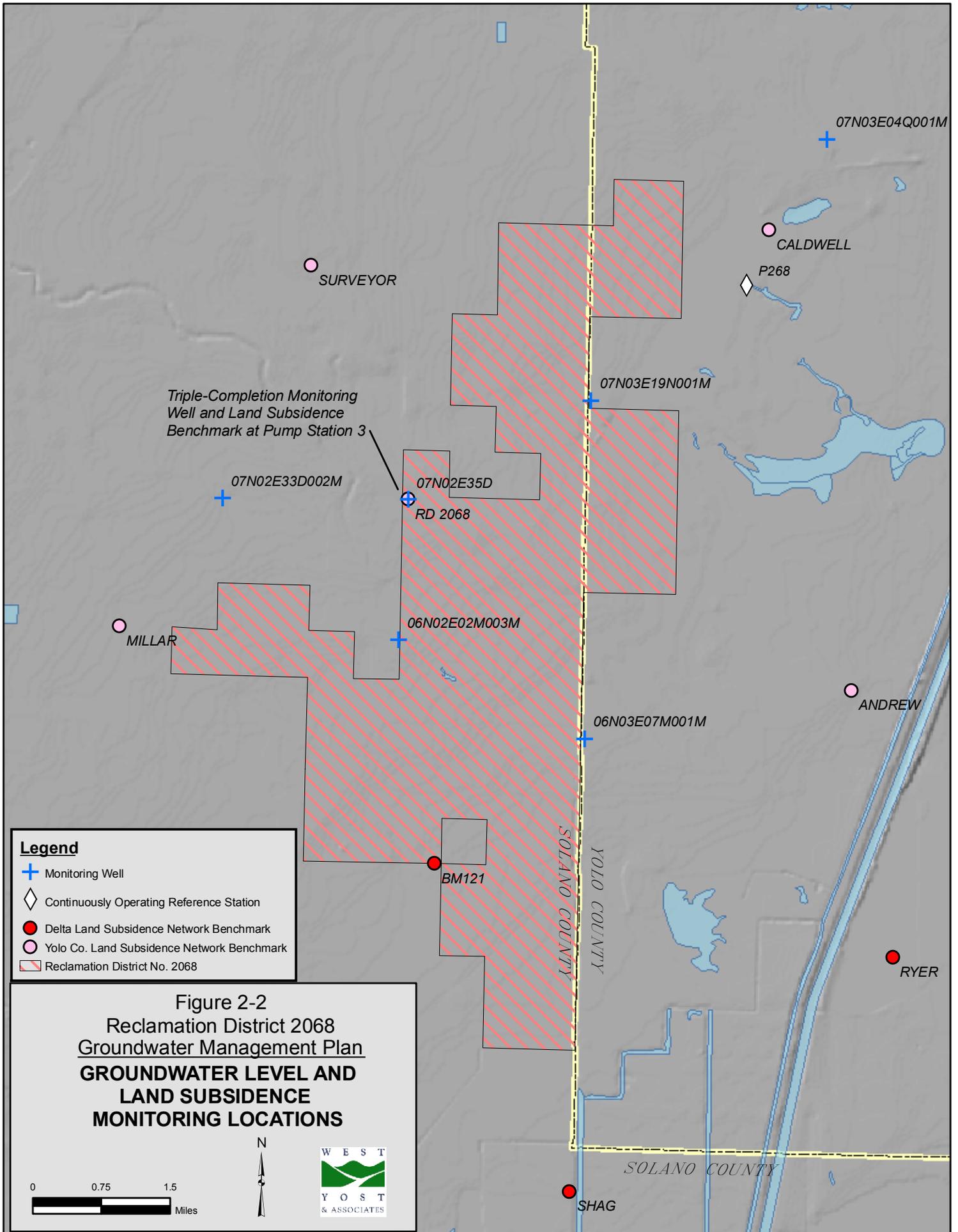
RD 2068 diverts roughly 50,000 acre-feet (ac-ft) of surface water annually. This water is withdrawn from the north Delta through Haas Slough (Figure 1-1). Historically, diversions have ranged from 35,000 to 70,000 ac-ft.

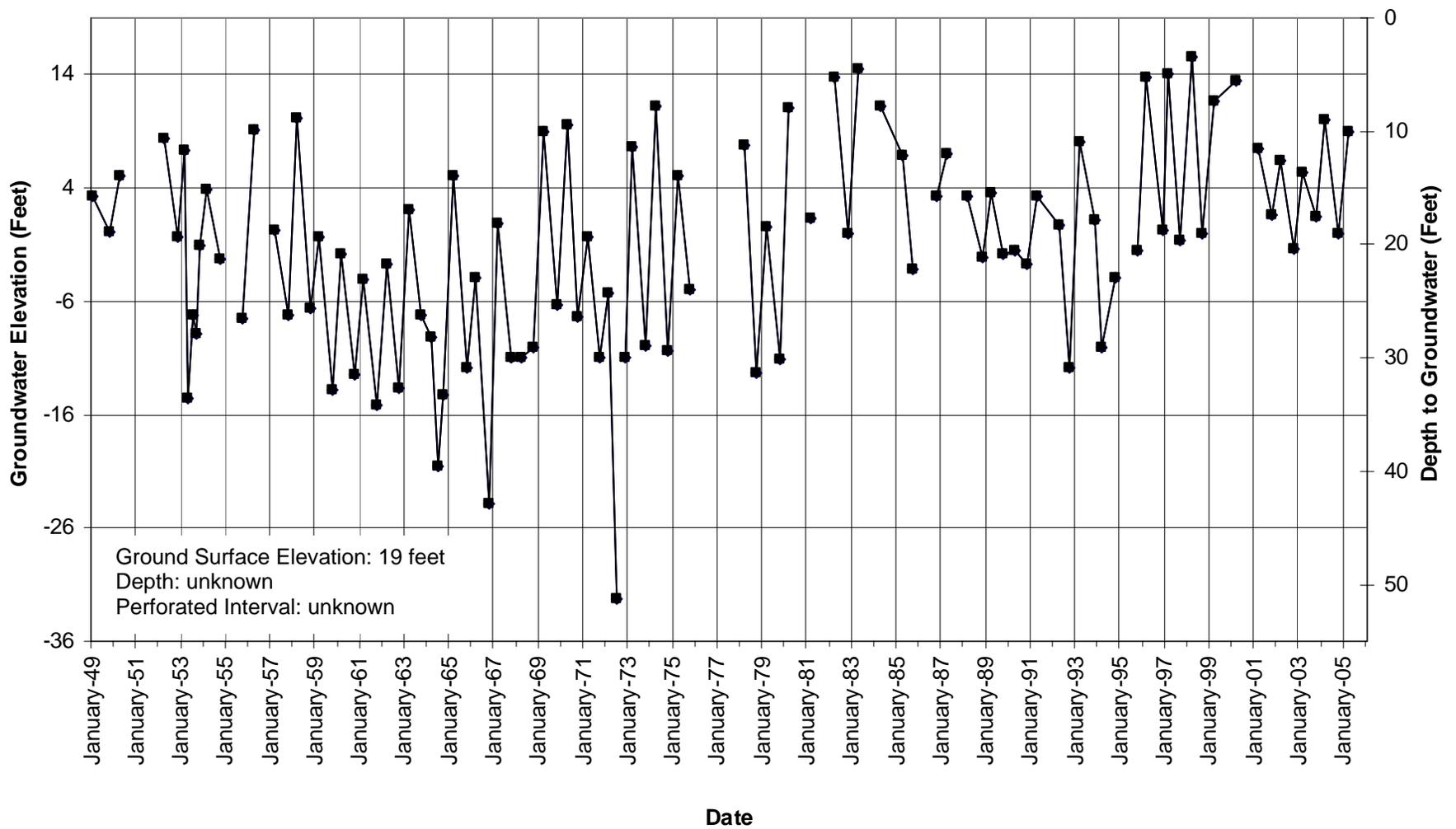
RD 2068 holds water right Licenses 6103 (Application 2318) and 9339 (Application 19229) and Permit 19205 (Application 24961). Table 2-1 summarizes these rights. The water rights are for diversions for irrigation and recreation.

**Table 2-1. Water Rights Summary**

	License 6103	License 9339	Permit 19205
Source:	Haas Slough	Haas Slough	Dixon Drainage
Season:	March 1 to Oct 31	November 1 to March 1	March 1 to October 31
Priority Date:	April 22, 1921	February 11, 1960	December 23, 1975
Amount:	200 cubic feet per second (cfs)	42 cfs	55 cfs (not to exceed 20,000 ac-ft)
Purpose:	Irrigation	Irrigation and recreation	Irrigation

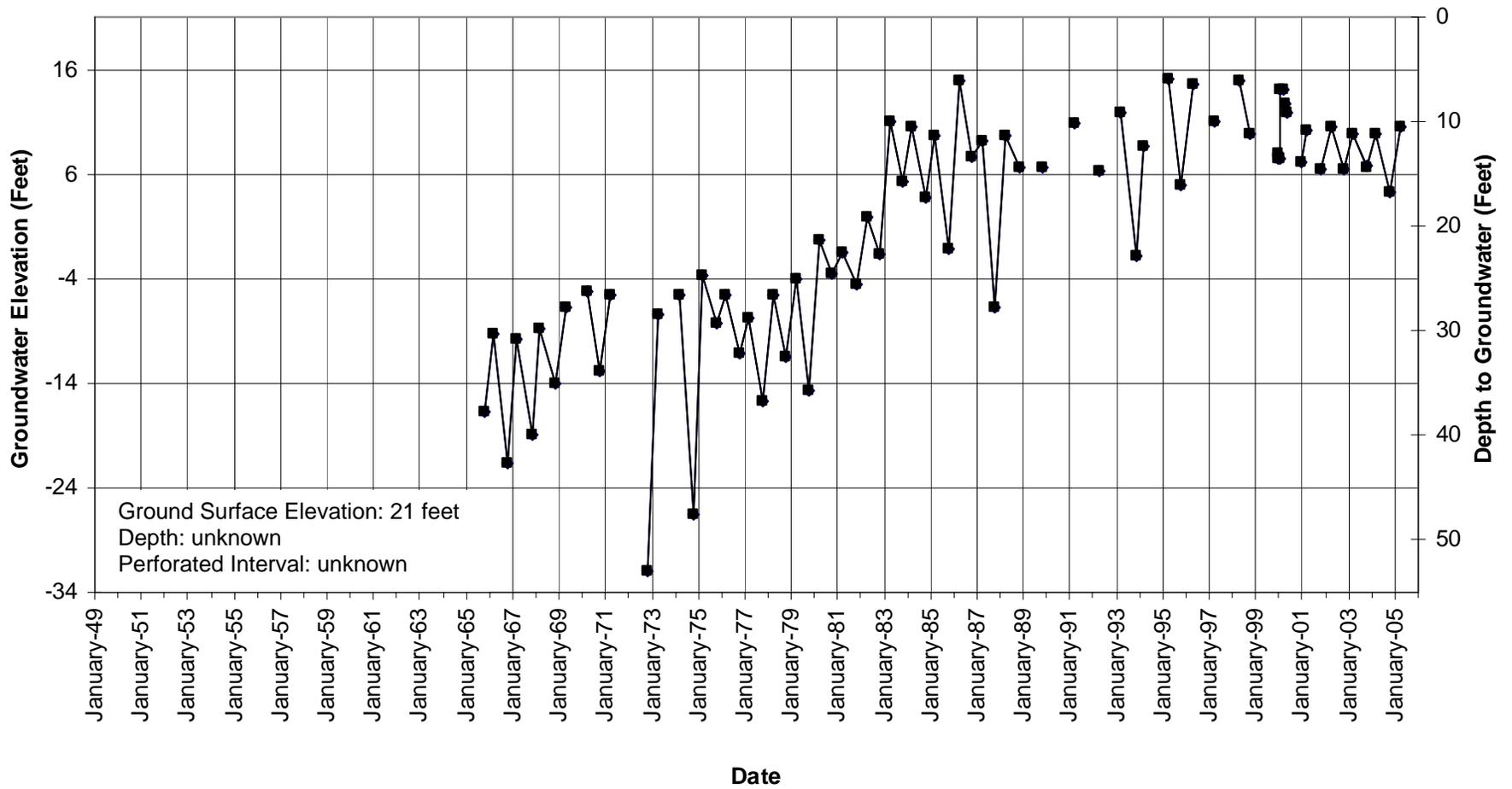
RD 2068 has filed 21 Statements of Diversion for water diverted from either constructed and/or natural drainages within RD 2068.





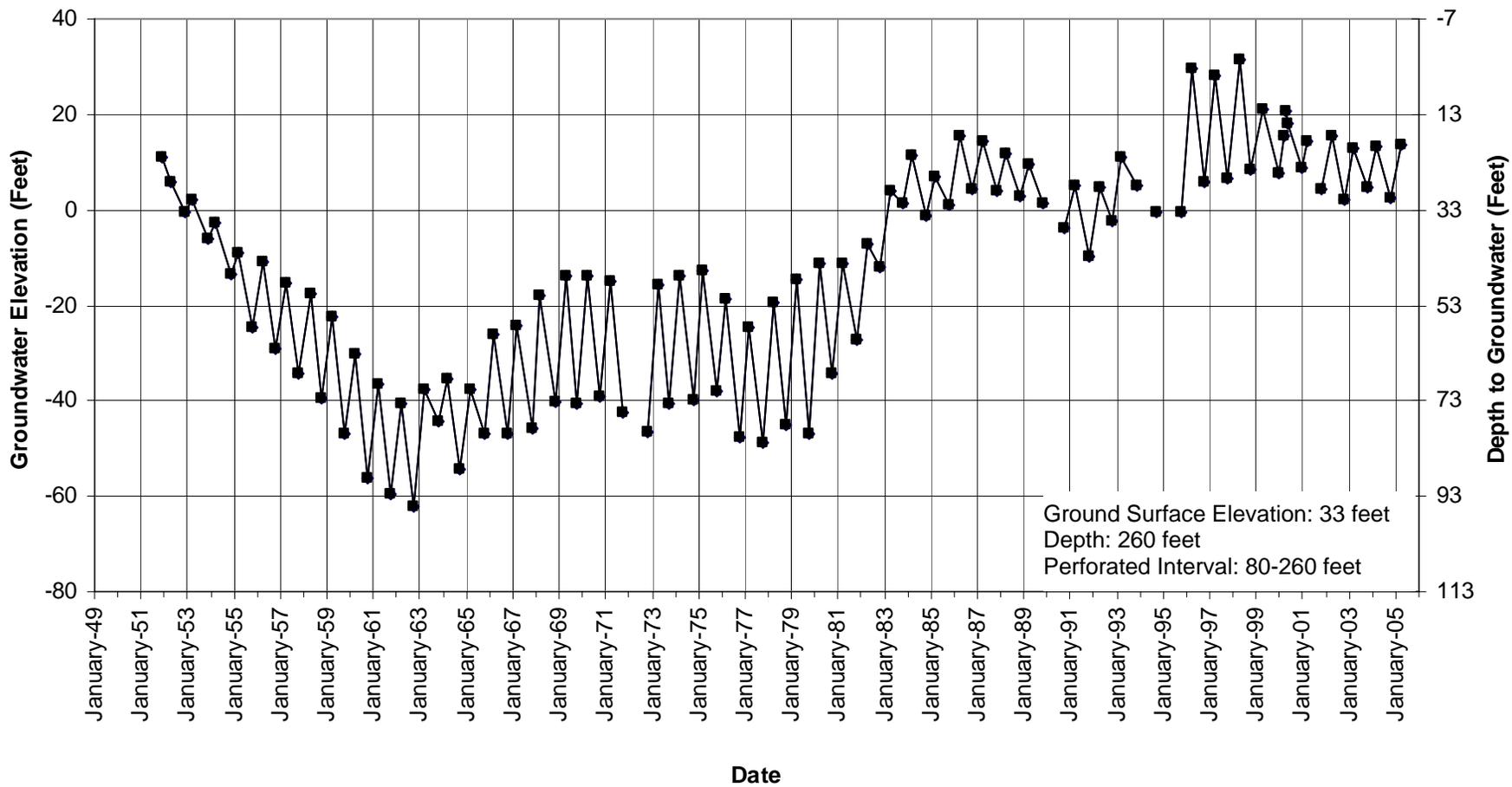
**Figure 2-3**  
**RECLAMATION DISTRICT 2068**  
**GROUNDWATER MANAGEMENT PLAN**  
 HYDROGRAPH OF 07N03E04Q001M





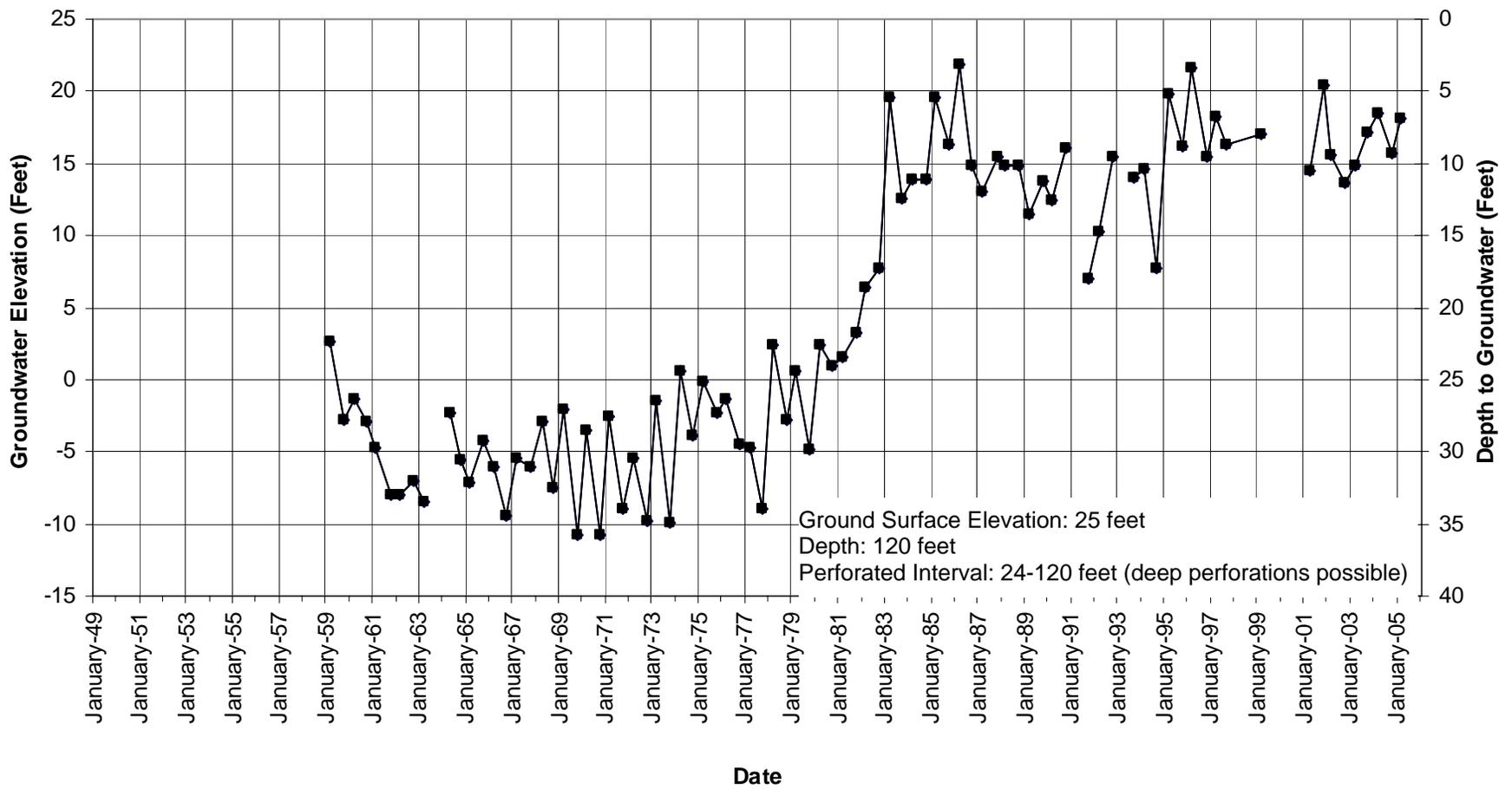
**Figure 2-4**  
**RECLAMATION DISTRICT 2068**  
**GROUNDWATER MANAGEMENT PLAN**  
 HYDROGRAPH OF 07N03E19N001M





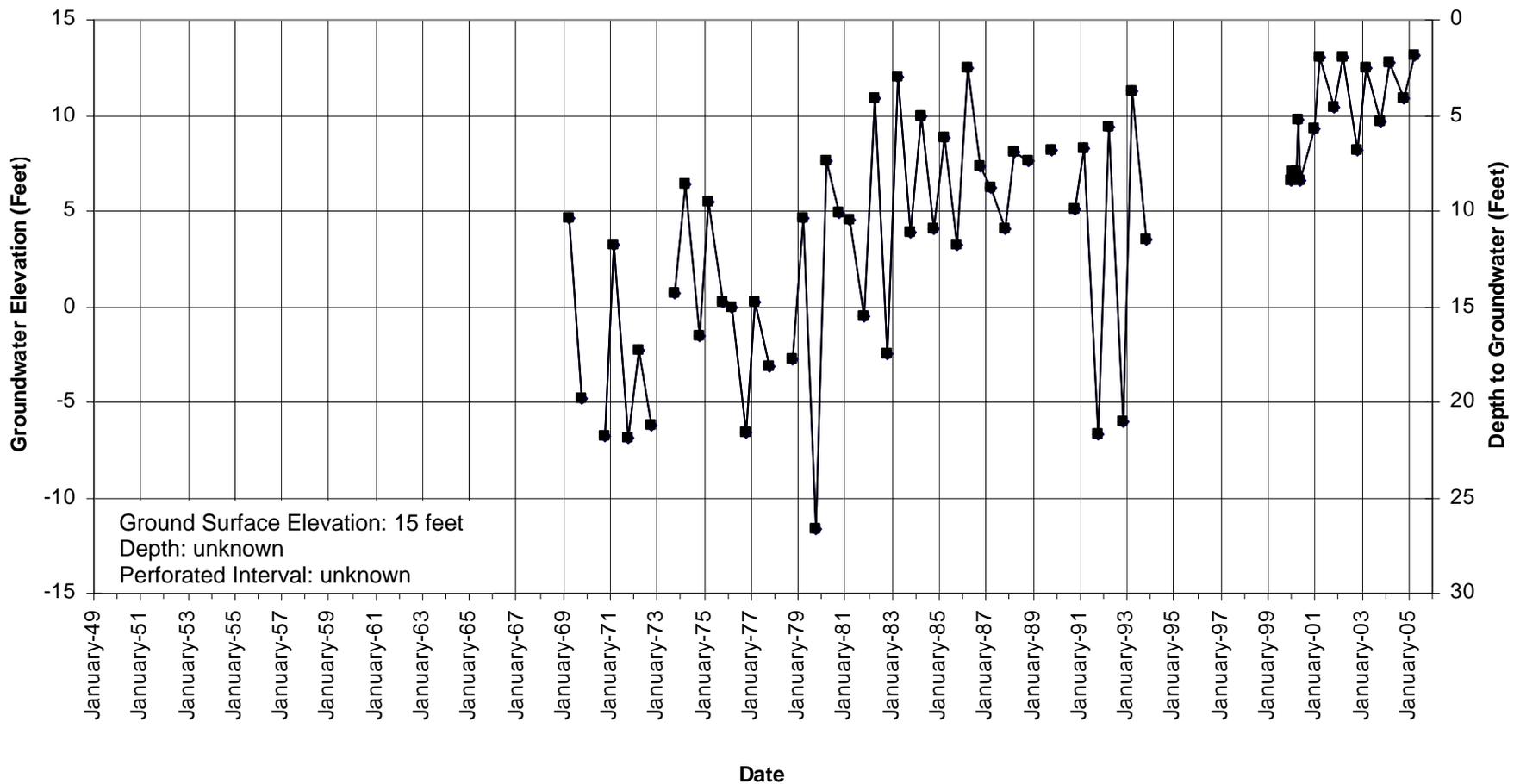
**Figure 2-5**  
**RECLAMATION DISTRICT 2068**  
**GROUNDWATER MANAGEMENT PLAN**  
 HYDROGRAPH OF 07N02E33D002M





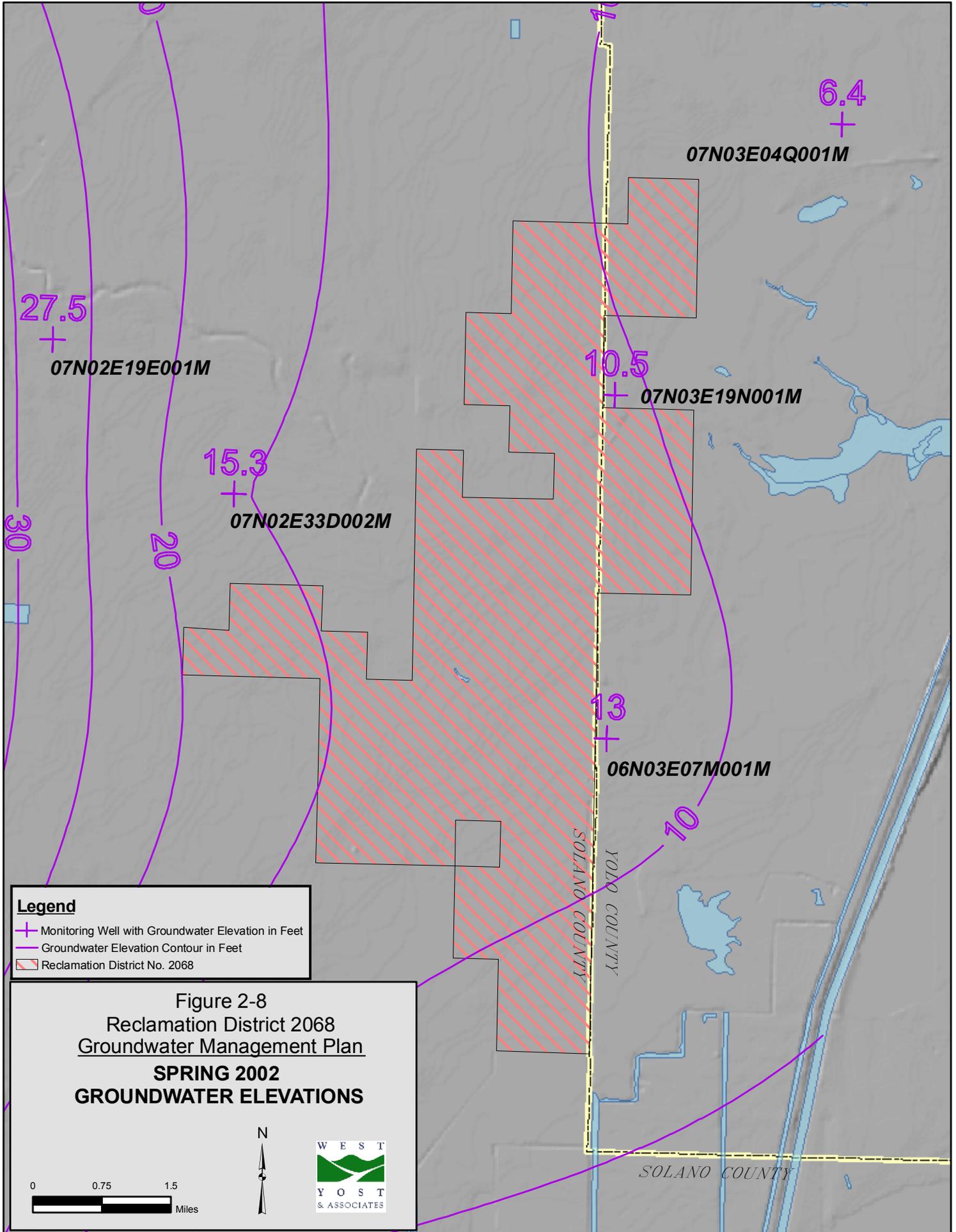
**Figure 2-6**  
**RECLAMATION DISTRICT 2068**  
**GROUNDWATER MANAGEMENT PLAN**  
 HYDROGRAPH OF 06N02E02M003M

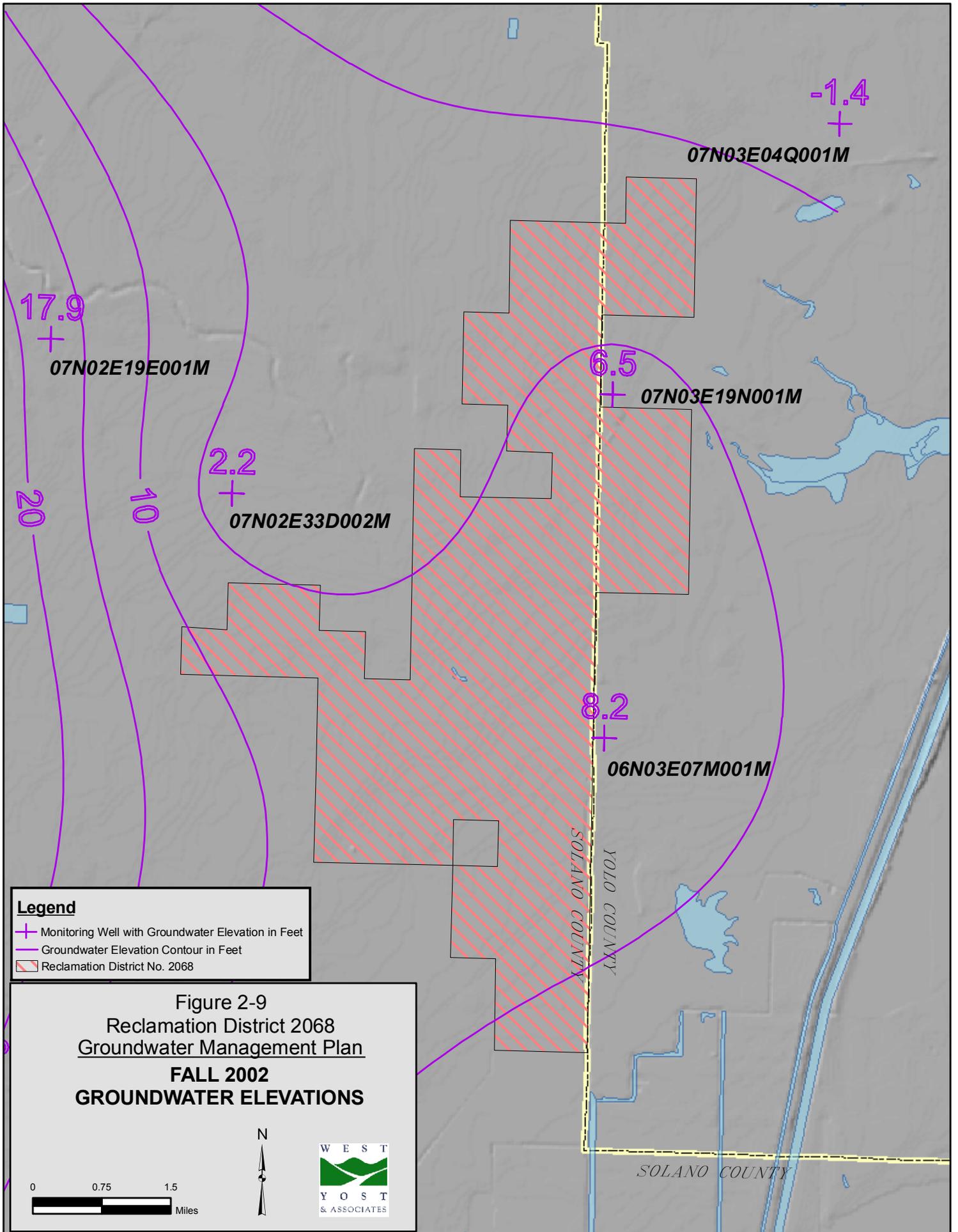




**Figure 2-7**  
**RECLAMATION DISTRICT 2068**  
**GROUNDWATER MANAGEMENT PLAN**  
 HYDROGRAPH OF 06N03E07M001M







RD 2068 lands are included in and receive the contractual protections of the “*Contract Between State of California Department of Water Resources and North Delta Water Agency for the Assurance of a Dependable Water Supply of Suitable Quality*”, which is included as Appendix A. This contract recognizes rights based on riparian and appropriative claims, and provides assurance of water quantity and quality to lands within the North Delta Water Agency. These assurances are affirmed in the Memorandum of Understanding between the North Delta Water Agency and DWR, dated May 26, 1998 (Appendix A).

Additionally, RD 2068 has agreements with MPWD and the Dixon Resource Conservation District for the transfer and use of water conveyed to RD 2068 through their respective and/or common drainage collection systems.

RD 2068’s surface water rights have historically provided sufficient supply to meet irrigation needs, and RD 2068 currently uses available supply to meet these needs. No irrigation wells operate within RD 2068, and the aquifer underlying RD 2068 is essentially unused.

### **Planned or Potential Future Supplies**

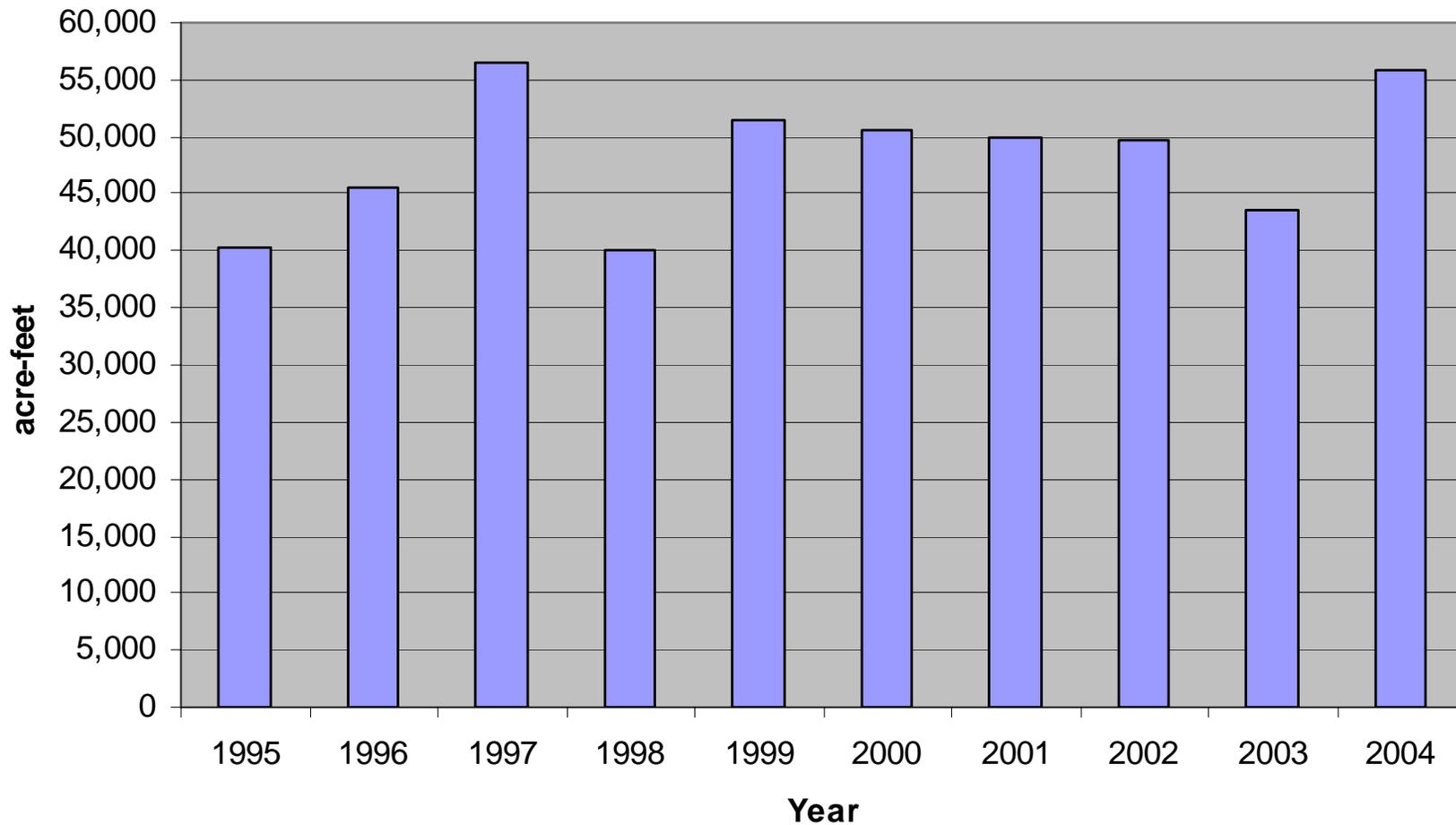
RD 2068 has secure and reliable appropriative rights to surface water, as described above. The supplies available through these rights are sufficient to meet RD 2068’s needs for the foreseeable future. However, RD 2068 is pursuing an evaluation of conjunctive use to determine whether groundwater could be used to offset surface water demands within its service area, thereby making additional surface water available for transfer in the Delta.

### **Water Deliveries**

Annual water deliveries ranged from 40,000 acre-feet to 56,000 acre-feet during the period of 1995 through 2004 (Figure 2-10). All of the water was obtained from the Delta, or channels flowing to the Delta, and was used for agriculture. Since most of the land within RD 2068 is currently developed for agriculture, it is not expected that the future water deliveries will change appreciably relative to recent historical deliveries. However, if conjunctive use is determined to be feasible, a percentage of demands may be met with groundwater in the future.

### **Known Groundwater Management Issues**

There are no known groundwater management issues in the vicinity of RD 2068.



Note: Based on surface water deliveries made by RD 2068 to lands within its service area. No groundwater was pumped by RD 2068.

**Figure 2-10**  
**RECLAMATION DISTRICT 2068**  
**GROUNDWATER MANAGEMENT PLAN**

HISTORICAL WATER DELIVERIES IN  
 RD 2068 SERVICE AREA



## SECTION 3. GROUNDWATER MANAGEMENT GOAL AND PLAN COMPONENTS

This section describes RD 2068's overall groundwater management goal, BMOs and groundwater management plan components.

### OVERALL GROUNDWATER MANAGEMENT GOAL

RD 2068's overall groundwater management goal is to work cooperatively with landowners and groundwater basin stakeholders to maintain a sustainable, reliable, high-quality groundwater supply for beneficial use on district lands.

### BASIN MANAGEMENT OBJECTIVES

BMOs have been developed on a preliminary basis to support RD 2068's overall groundwater management goal. Preliminary BMOs have been established to address the following four areas:

- Groundwater elevations
- Groundwater quality
- Inelastic land subsidence
- Changes in surface water flow and quality that directly affect groundwater levels or quality, or are caused by groundwater pumping in the basin.

#### 1. **Maintain groundwater elevations that result in a net benefit to basin**

**groundwater users.** Groundwater in the Solano Sub-basin is used for domestic and agricultural supply. No other source of supply is available to meet domestic needs in areas not supplied by municipal water systems, or to meet agricultural needs in areas not supplied by local agencies. If conjunctive use is determined to be feasible, groundwater may also become an important source of emergency and supplemental supply. RD 2068 recognizes the need to maintain groundwater levels at elevations that support all of these uses. If RD 2068 implements a conjunctive use program to enable the use of groundwater for emergency and supplemental supply, groundwater elevations could be lowered, particularly during dryer years. Under these conditions, the intent of this BMO is to minimize any decreases in groundwater elevation during those times when RD 2068 uses groundwater, and maintain groundwater elevations at sustainable levels over the long term.

#### 2. **Protect and maintain groundwater quality within the RD 2068 service area for the benefit of basin groundwater users.**

Although groundwater quality information is limited in the RD 2068 service area, the available information indicates that the quality is suitable for agricultural and domestic uses. However, the quality could be degraded by existing or future point or non-point sources of pollution. RD 2068 also recognizes that, if a conjunctive use program is implemented, its future pumping could exacerbate the spread of contaminants from these sources. Therefore, RD 2068 intends to coordinate with the appropriate local, state and federal regulatory agencies to review proposed projects that could degrade groundwater quality on or near

RD 2068 lands; and to evaluate potential point and non-point sources of pollution during siting of any wells it may construct.

3. **Minimize the risk of future significant impact due to inelastic land subsidence.** Differential land subsidence and associated earth fissuring resulting from groundwater withdrawal have had significant consequences in several California groundwater basins, including the Yolo Groundwater Sub-basin (Borchers, 1998). Significant impacts have not been reported in the Solano Groundwater Sub-basin. However, the risk of future significant impacts depends on a complex array of variables including: the degree of new groundwater development, especially in areas or at depths not previously exploited; changing land use, which could bring to light an impact that would otherwise go unnoticed; and the mineral composition of the aquifer skeleton, and its consolidation history. In light of these uncertainties, RD 2068 plans to evaluate land subsidence survey results for direct evidence of inelastic land subsidence, and groundwater levels for indirect evidence of increased risk of land subsidence. RD 2068 plans to take appropriate action if land subsidence is confirmed by survey results, or appears imminent due to declining groundwater elevations.
4. **Plan and implement a conjunctive use program that minimizes short-term decreases in groundwater elevations, maintains groundwater elevations at acceptable levels over the long-term, and minimizes water quality impacts resulting from the use of groundwater to meet some of the demands previously met by surface water.** Groundwater and surface water naturally have different chemical quality. For example, groundwater has higher concentrations and different proportions of dissolved solids, inorganic constituents and trace metals than surface water. If RD 2068 implements a conjunctive use program, these differences could potentially have wide-ranging affects. These could include: degradation of agricultural soils caused by increased sodium adsorption ratios and salt build up; impacts to trace metal or salt-sensitive crops; degradation of groundwater quality due to recharge of applied groundwater in which salts have been concentrated by evaporation; and degradation of agricultural drainage discharged to surface water. If conjunctive use is determined to be feasible, the district will seek to plan and implement a conjunctive use program that manages adverse impacts to water quality to acceptable levels.

These BMOs are linked to management actions that are planned or triggered to attain the BMOs and overall groundwater management goal. Because groundwater is essentially unused in the RD 2068 service area, RD 2068 plans to continue to participate in the collection of baseline information about the groundwater basin. It is anticipated that management actions will be oriented toward groundwater resource protection and data collection. If the district determines that conjunctive use is feasible and implements a conjunctive use program, this groundwater management plan will be updated to include actions that are oriented toward more active management of the portion of the groundwater sub-basin underlying RD 2068's service area.

## **GROUNDWATER MANAGEMENT PLAN COMPONENTS**

The components of this groundwater management plan are organized in five categories:

- Agency Coordination, Stakeholder Involvement and Public Outreach

- Monitoring Program
- Groundwater Sustainability
- Groundwater Resource Protection
- Planning Integration.

## **Agency Coordination, Stakeholder Involvement and Public Outreach**

### Agency Coordination

RD 2068 is a member of the SWA and coordinates its groundwater monitoring activities with other member agencies in the groundwater basin. SWA was established in 1987 as a joint exercise of powers agency comprised of:

- Solano County Board of Supervisors
- Mayors of the cities of Vallejo, Benicia, Suisun City, Dixon, Rio Vista, Fairfield and Vacaville
- SID
- MPWD
- RD 2068

These agencies are also the member agencies of the Solano County Water Agency (SCWA). Although SCWA and SWA are legally separate entities, they have close coordination. SWA conducts its work through project agreements. One such project agreement, known as SWA Project 4, the Coordinated Groundwater Data Analysis Project (SWA-4), is a data collection and study of the Solano Groundwater Sub-basin. The study is supported by the entire stakeholder group. The active participants are local agencies overlying the Solano Groundwater Sub-basin, and include:

- |                     |           |
|---------------------|-----------|
| • SID               | • MPWD    |
| • City of Vacaville | • RD 2068 |
| • City of Dixon     | • SCWA    |

The purpose of SWA-4 is to provide data for groundwater management. Data collection activities have been performed by the participating agencies, DWR and the U.S. Bureau of Reclamation. SCWA compiles and manages the data, and SWA-4 member agencies periodically confer on the status of the groundwater basin to determine the need for future actions.

Goals, objectives and accomplishments to date under SWA-4 include:

- Development of a DWR-format database allowing the filing of all relevant, publicly available groundwater data collected to date in Solano County
- Coordination of monthly, semiannual and annual water level monitoring
- Preparation of groundwater monitoring reports documenting the historical and prevailing groundwater conditions
- Support to the member agencies in the development of groundwater management plans.

DWR developed an initial database for the groundwater basin in 1992. SCWA began management of the local groundwater database in 1994, under the auspices of the SWA-4. Coordinated groundwater monitoring was also initiated through SCWA in 1994. SCWA issued the first annual groundwater monitoring report in 1996.

**Actions:** RD 2068 will continue to be a member of and a participant in SWA-4.

#### Involvement of Other Local Agencies near the Plan Area

In addition to the members of SWA, other stakeholders in the groundwater basin include Solano County, the Rural North Vacaville Water District (RNVWD), the City of Dixon, Dixon-Solano Municipal Water Service (DSMWS), and California Water Service Company (CWSC). These stakeholders do not have their own groundwater management plans. RNVWD delivers groundwater to rural Solano County residents. RNVWD is directed by members of the Solano County Board of Supervisors and is, therefore, represented in the SWA-4 stakeholder group. DSMWS supplies groundwater to the City of Dixon as a joint exercise of powers agency operated by SID and administered by the City of Dixon. These two agencies provide the DSMWS with representation in the SWA-4 stakeholder group. CWSC also operates wells that are used for public drinking water supply within the City of Dixon.

The City of Davis and the University of California at Davis (UC Davis) are jointly developing a Groundwater Management Plan that will be applied within their service areas. These service areas are mostly in the Yolo Groundwater Sub-basin (Sub-basin 5.21-67; [DWR, 2004b]), but part of the UC Davis service area is in the Solano Sub-basin (Figure 1-1). Coordination of the City of Davis/UC Davis and RD 2068 planning efforts will be accomplished through SWA-4.

**Action:** RD 2068 will continue to coordinate with other local agencies near the plan area through the existing SWA-4 structure.

#### Public Involvement Process

RD 2068 recognizes that groundwater is a limited resource and that coordinated management is critical to ensuring a reliable water source across the region. The principal reasons for encouraging public involvement are to:

- Encourage continued support for implementation of the Groundwater Management Plan and the proposed conjunctive use project
- Ensure that stakeholders and other interested parties understand and have ownership in implementing and supporting the Groundwater Management Plan and proposed conjunctive use project
- Build on local knowledge and provide technical review of the Groundwater Management Plan elements and proposed conjunctive use project
- Help develop consensus among stakeholders and other interested parties
- Help promote awareness of water quality and availability issues, and build support for pollution prevention and conservation activities in the community

RD 2068 has and will continue to place a high priority on coordinating groundwater management efforts with stakeholders and the public through the SCWA, SWA, and regular briefings to the RD 2068 Board of Trustees at regular public-noticed meetings. Public outreach and notification efforts for this groundwater management plan were initiated in July 2004 when SCWA published a notice that RD 2068, SID, MPWD, and the City of Vacaville were evaluating their existing groundwater management plans with the objective of developing BMOs that the agencies held in common. Other milestone events in the public involvement process for this groundwater management plan were:

- February 2 and 9, 2005. RD 2068 published a public notice in advance of hearing on whether or not to adopt a resolution of intent to prepare this groundwater management plan.
- February 10, 2005. The RD 2068 Board of Trustees held a public hearing on whether or not to adopt a resolution of intent to prepare this groundwater management plan. The resolution of intent was adopted on the same date.
- February 18 and 25, 2005. RD 2068 issued public and stakeholder notices describing how the public and stakeholders can participate in the groundwater management plan development process.
- March 10, 2005. RD 2068 convened a public meeting to present and discuss the groundwater management plan and the conjunctive use program under evaluation (included Board of Trustees, members of the public, and stakeholders).
- April 18, 2005. RD 2068 convened a meeting with Solano Groundwater Sub-basin stakeholders to review and comment on RD 2068's IGSM2 groundwater modeling effort, which was undertaken to support groundwater management.

Documentation of these notifications and public meetings is provided in Appendix B.

**Actions:** RD 2068 plans to continue the public involvement process through the use of focused public meetings and workshops, and printed media, such as the Dixon Tribune and "The Irrigator" newsletter, which is published by the Solano County Agricultural Water Conservation Committee (SCAWCC).

#### Relationships to State and Federal Regulatory Agencies

RD 2068 is coordinating with the DWR Division of Planning and Local Assistance, the Central District, and the Modeling Support Branch; and the U.S. Bureau of Reclamation to conduct the conjunctive use feasibility study. The DWR Central District and U.S. Bureau of Reclamation are actively collecting and managing groundwater level and quality data in the Solano Sub-basin. The data collection activities are coordinated with SCWA and SWA-4.

RD 2068 also has working relationships with the State Water Resources Control Board, which regulates RD 2068's water rights; the Central Valley Regional Water Quality Control Board, which regulates agricultural runoff and groundwater pollution; and the California Department of Health Services, which regulates drinking water quality.

**Actions:** RD 2068 plans to maintain its existing relationships with state and federal regulatory agencies.

## Monitoring Program

This section describes the six elements of the monitoring program. These include:

- Groundwater Elevation Monitoring
- Groundwater Quality Monitoring
- Inelastic Land Subsidence Monitoring
- Groundwater-Surface Water Interaction Monitoring
- Data Management
- Data Quality Assurance and Quality Control

Information obtained through the monitoring program will be used to improve understanding of the groundwater basin; update and refine thresholds triggering management actions; and support the BMOs and overall goal. The monitoring program will be reviewed and revised as necessary during periodic plan updates.

### Groundwater Elevation Monitoring

Groundwater elevations will be monitored on a periodic basis in six wells in and near the RD 2068 service area. The location of these wells are shown on Figure 2-2. These wells are included in the SWA-4 and DWR data collection and data management program. Five of the wells have been monitored for many years and constitute a significant record of groundwater elevations in the vicinity of RD 2068. Hydrographs for the wells are shown on Figures 2-3 through 2-7. Continued monitoring of these wells will provide a record of the baseline conditions without a conjunctive use program. If a conjunctive use program is implemented, the wells will be used to monitor groundwater elevations relative to baseline conditions.

Monitoring well 07N02E35D, located at RD 2068 Pump Station 3, is a nested monitoring well completed at three distinct depths in the aquifer. The well was constructed in October 2004 and is included in the SWA-4 and DWR data collection and data management program. The perforated zones include the watertable, and two permeable, confined zones at depths of approximately 220 and 430 feet below ground surface. Groundwater levels measured in these zones will be used to develop a baseline for the groundwater elevations at RD 2068 Pump Station 3. If a conjunctive use program is implemented, the nested monitoring well will be used to assess potential changes in groundwater levels and groundwater-surface interactions at the pump station.

**Actions:** Continue periodic groundwater elevation monitoring through the SWA-4 and DWR data collection and data management programs at the six well locations shown on Figure 2-2. Review the groundwater elevation data annually and during periodic update of the groundwater management plan.

### Groundwater Quality Monitoring

In fall 2004 and spring 2005, RD 2068 collected semiannual water quality samples from the nested monitoring well at Pump Station 3 (Figure 2-2). DWR Central District periodically collects baseline groundwater quality data in the Solano Groundwater Sub-basin and plans to sample the nested monitoring well. Data collected from this well and any other wells in the

vicinity of RD 2068 that may be sampled by DWR will be used to establish a baseline groundwater quality data set. The baseline data will be used to assess potential water quality impacts if a conjunctive use program is implemented.

**Actions:** Continue to coordinate with SWA-4 and DWR Central District on sampling locations, parameters and frequencies. Obtain available water quality data from DWR Central District. Review the available water quality data annually and during periodic update of the groundwater management plan.

#### Inelastic Land Subsidence Monitoring

Figure 2-2 shows the location of land subsidence benchmarks and Continuously Operating Reference Station (CORS) in the vicinity of RD 2068. The benchmarks are part of the Yolo Land Subsidence Network and the Delta Land Subsidence Network. Benchmark RD 2068 was installed by RD 2068 at the Pump Station 3 headworks and is part of the Yolo Land Subsidence Network. Repeat surveys of both networks will be conducted periodically to assess changes in land surface elevation that could be attributable to inelastic subsidence. RD 2068 will use the results of these surveys to assess baseline subsidence rates using results from the benchmarks shown on Figure 2-2. If a conjunctive use program is implemented, RD 2068 will compare the baseline land subsidence rates to rates measured during implementation of the conjunctive use program. The comparison will be performed for the benchmarks shown on Figure 2-2. Appropriate management actions will be based on this comparison.

**Actions:** Coordinate with other local, state and federal agencies through SWA-4 to schedule repeat surveys of the networks. Endeavor to ensure that the benchmarks shown on Figure 2-2 are included in the repeat surveys. Assess the survey results for these benchmarks to establish baseline rates of land subsidence.

#### Groundwater-Surface Water Interaction Monitoring

Groundwater is not currently used by RD 2068. Therefore, data collection activities under this monitoring program element will be limited to the baseline data collection activities described under the Groundwater Elevation and Quality Monitoring elements. RD 2068 will continue to record surface water delivery volumes and periodically obtain available baseline surface water quality data.

**Actions:** Continue baseline groundwater level and quality monitoring as described in the corresponding monitoring program elements. Continue to record surface water deliveries. Review the data annually and during periodic update of the groundwater management plan.

#### Data Management, Data Quality Assurance and Quality Control

Management of groundwater elevation data is performed by SCWA on behalf of the SWA-4 member organizations. Groundwater quality data management for the Solano Sub-basin is performed by DWR Central District. Management of the Yolo Land Subsidence Network and Delta Land Subsidence Network are performed by project staff overseen by the participating agencies. These entities are also responsible for data quality assurance and data quality control.

**Actions:** Through its participation in SWA-4, RD 2068 will communicate with the entities responsible for data management, data quality assurance and data quality control to assess whether each entity's QA/QC standards are being met. RD 2068, through SWA-4, will make recommendations to correct deficiencies that may affect data used by RD 2068, and, if deemed necessary, to improve the quality of the data used by RD 2068.

## **Groundwater Sustainability**

This section discusses management actions taken and planned to help ensure groundwater sustainability in the RD 2068 service area.

### Conjunctive Use

RD 2068 does not use groundwater. If groundwater could be used to offset the demand for surface water within RD 2068, particularly during dry and critically dry years, additional surface water would be available in the Delta for other users. RD 2068 has undertaken a study to evaluate the feasibility of using groundwater to offset surface water demand within the RD 2068 service area, based on consideration of groundwater availability, quality and cost, and potential impacts to stakeholders. The preliminary findings of the study indicate that conjunctive use is feasible for RD 2068.

The results obtained to date indicate that the aquifer is sufficiently permeable to yield about 1,200 gpm per well. The measured water quality is suitable for agricultural supply. Water level monitoring has verified that the groundwater basin is essentially full, indicating that future pumping may result in acceptance of recharge that is currently rejected. The potential for future land subsidence is being monitored using a subsidence benchmark installed at the Pump Station 3 headworks. Several meetings have been convened to present and discuss the conjunctive use program and groundwater management planning process with the public and basin stakeholders. Members of the public have not expressed concerns over either topic and both have the support of the basin stakeholders.

RD 2068 is developing a numerical groundwater model using the DWR Modeling Support Branch's IGSM2 model. The primary purpose of the modeling is to develop the preliminary locations for the production wells, assess their affects on the aquifer system, and provide a basis for preliminary cost estimates. The modeling effort will also help constrain the upper bounds on future water transfers for a variety of hydrologic conditions. Although the focus of this modeling effort is on the vicinity of RD 2068, the model boundaries encompass the entire groundwater subbasin. This will help ensure that the model boundary conditions are linked to the hydrologic boundaries of the subbasin and will allow the model to be used for future efforts throughout the Solano groundwater subbasin.

**Actions:** Complete the conjunctive use feasibility study. Seek state funding for implementation of a full scale pilot test to be conducted near Pump Station 3.

### Water Use Efficiency

RD 2068 has developed an agricultural water management procedure that enables calculation of the optimal water delivery to individual farmers in its service area. This information is communicated to

the individual farmers as part of their monthly water bill (Appendix C). Voluntary use of the information by the farmers lowers their costs and improves water use efficiency.

RD 2068 is a participating agency in the SCAWCC. Established in 1992 by Solano County's agricultural water agencies, SCAWCC's objective is to provide growers in Solano County with technical assistance to increase water use efficiency and farm water conservation. SCAWCC provides irrigation management services including irrigation scheduling assistance, regional weather forecasts, and irrigation system evaluations. In addition, SCAWCC conducts irrigation and water use workshops for growers and their employees; publishes a quarterly grower newsletter, "The Irrigator;" maintains four local CIMIS weather stations; manages the dissemination of local crop weather data to growers via website, phone, and local newspapers; and performs pump efficiency testing.

**Actions:** Continue to provide farmers with estimates of the optimal irrigation volumes on a regular basis. Continue education and outreach activities aimed at expanding the use of the service. Seek feedback from the farmers and modify the service as needed to maximize farm profitability and water conservation. Continue to participate in the activities of the SCAWCC.

## **Groundwater Resource Protection**

This section describes policies and measures planned to help protect groundwater resources within the RD 2068 service area.

### Well Construction and Destruction Policies

The need for special well construction and destruction policies has not been identified within the RD 2068 service area. Therefore, the construction and destruction standards put forth in CWC Section 13700 and detailed in DWR Bulletins 74-81 and 74-90 have been adopted as the applicable standards. These standards are enforced through the well construction and destruction permitting process administered by the Solano County Department of Environmental Health.

**Actions:** RD 2068 will ensure that any well construction or destruction projects that it undertakes meet the applicable standards. RD 2068 will also include information on these standards in its education and outreach activities to private well owners within the RD 2068 service area.

### Wellhead and Recharge Area Protection Policies and Management of Sources of Groundwater Contamination

To date, there are no formally adopted wellhead or recharge area protection policies applicable to the RD 2068 service area, except for the well construction and destruction standards described in the preceding section. RD 2068 understands that point and non-point sources of contamination could jeopardize wells and recharge areas within its service area. RD 2068 has identified the following actions for minimizing the potential for impacts to wells and recharge areas.

**Actions:** RD 2068 will endeavor to evaluate the potential for proposed projects in the vicinity of its service area to impact existing private wells and future wells that may be constructed by RD 2068. If a conjunctive use program is implemented, RD 2068 will also consider the location of existing potential point and non-point sources of contamination when selecting well sites. Wells

constructed by RD 2068 will be designed to minimize the risk of wellhead contamination and spread of contaminants caused by pumping. RD 2068 will continue to coordinate with the Solano County Planning Department during evaluation of new projects in the vicinity of its service area; the Solano County Department of Environmental Health for permitting of any wells it may construct; and the Regional Board and the California Department of Toxic Substances Control for updates on known and suspected point and non-point sources of groundwater contamination.

### Control of Saline Water Intrusion

Saline water intrusion has not been identified in the vicinity of RD 2068 and is not expected to be an issue in the future. However, RD 2068 has retained this element of groundwater resource protection in its groundwater management plan in the unlikely event that groundwater quality data show increasing salinity in the future.

**Actions:** RD 2068 will continue to evaluate groundwater quality data collected and managed by DWR Central District for evidence of increasing salinity. This review will be performed annually and during the periodic review and update of the groundwater management plan.

### **Planning Integration**

RD 2068 is coordinating planning activities with other local agencies in the Solano Groundwater Sub-basin and has endeavored to integrate this groundwater management plan with other relevant planning activities.

### Integrated Regional Water Management Planning

SCWA adopted an Integrated Regional Water Management Plan (IRWMP) in 2005. The IRWMP identifies and prioritizes all water related actions for the Solano County agencies, including RD 2068. One of the highest priorities of the IRWMP is implementation of conjunctive use and associated groundwater management. Implementation of the IRWMP includes applying for state funding to conduct a full scale pilot test of conjunctive use at RD 2068 Pump Station 3. This groundwater management plan is integrated with, and supports implementation of, the IRWMP. RD 2068 adopted the IRWMP on July 14, 2005, by action of the Board of Trustees, as documented in Appendix B.

### Groundwater Management Planning

In 2004 and 2005, SCWA coordinated a series of meetings and information exchanges between the four local agencies in the sub-basin with adopted groundwater management plans. These agencies were RD 2068, the City of Vacaville, MPWD, and SID. Each agency's plan was adopted prior to the January 2003 CWC amendments. The purpose of the effort was to identify common elements that could be used by each agency to update its individual groundwater management plan to be consistent with the amended CWC. Implementation, periodic review and update of the plans, including this plan, will be guided by an advisory committee comprised of the SWA-4 member agencies. This membership includes representation of all local agencies in the groundwater sub-basin. These entities were also members of the stakeholder group during development of the IRWMP.

## Land Use Planning

RD 2068 coordinates with the Solano County Planning Department to review proposed projects that could potentially impact groundwater quality as described in preceding sections.

**Actions:** Continue to participate in IRWMP implementation activities and to monitor and provide input to Solano County land use planning policies and entitlements.

## **SECTION 4. PLAN IMPLEMENTATION**

### **GROUNDWATER MANAGEMENT REPORTS**

SCWA plans to produce periodic groundwater monitoring reports for the Solano Groundwater Sub-basin. For the foreseeable future, or until such time as RD 2068 implements a conjunctive use program, RD 2068 will rely on annual review of these reports to evaluate baseline conditions in the groundwater sub-basin and in the RD 2068 service area.

### **FUTURE GROUNDWATER MANAGEMENT PLAN UPDATES**

The need for future updates of this groundwater management plan will be determined by the RD 2068 Board of Trustees, who will consider the recommendations of an advisory committee made up of the SWA-4 members. The SWA-4 committee plans to meet at least annually to review the annual groundwater monitoring report for the Solano Groundwater Sub-basin prepared by SCWA. If RD 2068 implements a conjunctive use program within its service area, the plan will be updated to meet the needs of the program.

### **FINANCING**

It is anticipated that the implementation of this groundwater management plan will be funded by RD 2068. Ongoing coordination activities will be performed by district staff using district funds. Most baseline data collection activities will also be funded by RD 2068 through its participation in SWA-4. It is anticipated that DWR Central District will provide funds and staffing for baseline groundwater quality sampling and data management. RD 2068 will provide a proportional share of costs for other regional data collection efforts, such as land subsidence monitoring.

## SECTION 5. REFERENCES

Borchers, J.W., 1998, Using Down-Well Television Surveys to Evaluate Land Subsidence Damage to Water Wells in the Sacramento Valley, in Land Subsidence, Case Studies and Current Research, Proceedings of the Dr. Joseph F. Poland Symposium on Land Subsidence, J.W. Borchers, ed., Star Publishing Company, 576 p.

California Department of Water Resources (DWR), 1978, Evaluation of Groundwater Resources: Sacramento Valley, Bulletin 118-6, prepared in cooperation with the U.S. Geological Survey, August.

DWR, 2003, California's Groundwater, Bulletin 118 Update 2003, October.

DWR, 2004a, California's Groundwater, Bulletin 118, Sacramento Valley Groundwater Basin, Solano Sub-basin, February 27.

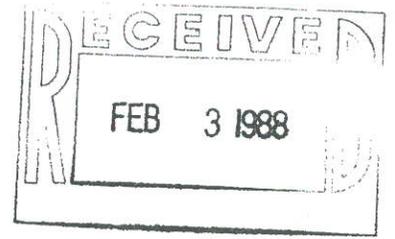
DWR, 2004b, California's Groundwater, Bulletin 118, Sacramento Valley Groundwater Basin, Yolo Sub-basin, February 27.

## **APPENDIX A**

---

### **North Delta Water Agency Information**

- A-1. Contract Between State of California Department of Water Resources and North Delta Water Agency for the Assurance of a Dependable Water Supply of Suitable Quality
- A-2. Memorandum of Understanding between the North Delta Water Agency and the California Department of Water Resources



CONTRACT  
BETWEEN  
STATE OF CALIFORNIA  
DEPARTMENT OF WATER RESOURCES  
AND  
NORTH DELTA WATER AGENCY  
FOR THE ASSURANCE  
OF A DEPENDABLE WATER SUPPLY OF SUITABLE QUALITY

# TABLE OF CONTENTS

Topic	Page
RECITALS .....	1
AGREEMENTS .....	1
1. Definitions .....	1
2. Water Quality .....	2
3. Monitoring .....	2
4. Emergency Provisions .....	2
5. Overland Water Supply Facilities .....	2
6. Flow Impact .....	2
7. Place of Use of Water .....	3
8. Scope of Contract .....	3
9. Term of Contract .....	3
10. Amount and Method of Payment for Water .....	3
11. Participation of the United States .....	3
12. Remedies .....	3
13. Comparable Treatment .....	4
GENERAL PROVISIONS	
14. Amendments .....	4
15. Reservation with Respect to State Laws .....	4
16. Opinions and Determinations .....	4
17. Successors and Assigns Obligated .....	4
18. Assignment and Subcontract .....	4
19. Books, Records, Reports and Inspections Thereof .....	4
20. Waiver of Rights .....	4
21. Assurance Relating to Validity of Contract .....	4
22. Notices .....	4
ATTACHMENTS	
Attachment A. Water Quality Contract Criteria .....	5
Part 1 of 4. Sacramento at Emmaton	
Part 2 of 4. North Fork Mokelumne at Walnut Grove, Sacramento at Walnut Grove, Steamboat Slough at Sutter Slough	
Part 3 of 4. San Joaquin at San Andreas Landing, Sacramento at Rio Vista	
Part 4 of 4. Mokelumne at Terminus	
Attachment B. Location of Water Quality Stations .....	6

**CONTRACT BETWEEN THE STATE OF CALIFORNIA DEPARTMENT OF WATER RESOURCES  
AND THE NORTH DELTA WATER AGENCY  
FOR THE ASSURANCE OF A DEPENDABLE WATER SUPPLY OF SUITABLE QUALITY**

THIS CONTRACT, made this 28 day of Jan., 1981, between the STATE OF CALIFORNIA, acting by and through its DEPARTMENT OF WATER RESOURCES (State), and the NORTH DELTA WATER AGENCY (Agency), a political subdivision of the State of California, duly organized and existing pursuant to the laws thereof, with its principal place of business in Sacramento, California.

**RECITALS**

(a) The purpose of this contract is to assure that the State will maintain within the Agency a dependable water supply of adequate quantity and quality for agricultural uses and, consistent with the water quality standards of Attachment A, for municipal and industrial uses, that the State will recognize the right to the use of water for agricultural, municipal, and industrial uses within the Agency, and that the Agency will pay compensation for any reimbursable benefits allocated to water users within the Agency resulting from the Federal Central Valley Project and the State Water Project, and offset by any detriments caused thereby.

(b) The United States, acting through its Department of the Interior, has under construction and is operating the Federal Central Valley Project (FCVP).

(c) The State has under construction and is operating the State Water Project (SWP).

(d) The construction and operation of the FCVP and SWP at times have changed and will further change the regimen of rivers tributary to the Sacramento-San Joaquin Delta (Delta) and the regimen of the Delta channels from unregulated flow to regulated flow. This regulation at times improves the quality of water in the Delta and at times diminishes the quality from that which would exist in the absence of the FCVP and SWP. The regulation at times also alters the elevation of water in some Delta channels.

(e) Water problems within the Delta are unique within the State of California. As a result of the geographical location of the lands of the Delta and tidal influences, there is no physical shortage of water. Intrusion of saline ocean water and municipal, industrial and agricultural discharges and return flows, tend, however, to deteriorate the quality.

(f) The general welfare, as well as the rights and requirements of the water users in the Delta, require that there be maintained in the Delta an adequate supply of good quality water for agricultural, municipal and industrial uses.

(g) The law of the State of California requires protection of the areas within which water originates and the watersheds in which water is developed. The Delta is such an area and within such a watershed. Part 4.5 of Division 6 of the California Water Code affords a first priority to provision of salinity control and maintenance of an adequate water supply in the Delta for reasonable and beneficial uses of water and relegates to lesser priority all exports of water from the Delta to other areas for any purpose.

(h) The Agency asserts that water users within the Agency have the right to divert, are diverting, and will continue to divert, for reasonable beneficial use, water from the Delta that would have been available therein if the FCVP and SWP were not in existence, together with the right to enjoy or acquire such benefits to which the water users may be entitled as a result of the FCVP and SWP.

(i) Section 4.4 of the North Delta Water Agency Act, Chapter 283, Statutes of 1973, as amended, provides that the Agency has no authority or power to affect, bind, prejudice, impair, restrict, or limit vested water rights within the Agency.

(j) The State asserts that it has the right to divert, is diverting, and will continue to divert water from the Delta in connection with the operation of the SWP.

(k) Operation of SWP to provide the water quality and quantity described in this contract constitutes a reasonable and beneficial use of water.

(l) The Delta has an existing gradient or relationship in quality between the westerly portion most seriously affected by ocean salinity intrusion and the interior portions of the Delta where the effect of ocean salinity intrusion is diminished. The water quality criteria set forth in this contract establishes minimum water qualities at various monitoring locations. Although the water quality criteria at upstream locations is shown as equal in some periods of some years to the water quality at the downstream locations, a better quality will in fact exist at the upstream locations at almost all times. Similarly, a better water quality than that shown for any given monitoring location will also exist at interior points upstream from that location at almost all times.

(m) It is not the intention of the State to acquire by purchase or by proceeding in eminent domain or by any other manner the water rights of water users within the Agency, including rights acquired under this contract.

(n) The parties desire that the United States become an additional party to this contract.

**AGREEMENTS**

1. **Definitions.** When used herein, the term:

(a) "Agency" shall mean the North Delta Water Agency and shall include all of the lands within the boundaries at the time the contract is executed as described in Section 9.1 of the North Delta Water Agency Act, Chapter 283, Statutes of 1973, as amended.

(b) "Calendar year" shall mean the period January 1 through December 31.

(c) "Delta" shall mean the Sacramento-San Joaquin Delta as defined in Section 12220 of the California Water Code as of the date of the execution of the contract.

(d) "Electrical Conductivity" (EC) shall mean the electrical conductivity of a water sample measured in millimhos per centimeter per square centimeter corrected to a standard temperature of 25° Celsius determined in accordance with procedures set forth in the publication entitled "Standard Methods of Examination of Water and Waste Water", published jointly by the American Public Health Association, the American Water Works Association, and the Water Pollution Control Federation, 13th Edition, 1971, including such revisions thereof as may be made subsequent to the date of this contract which are approved in writing by the State and the Agency.

(e) "Federal Central Valley Project" (FCVP) shall mean the Central Valley Project of the United States.

(f) "Four-River Basin Index" shall mean the most current forecast of Sacramento Valley unimpaired runoff as presently published in the California Department of Water Resources Bulletin 120 for the sum of the flows of the following: Sacramento River above Bend Bridge near Red Bluff; Feather River, total inflow to Oroville Reservoir; Yuba River at Smartville; American River, total inflow to Folsom Reservoir. The May 1 forecast shall continue in effect until the February 1 forecast of the next succeeding year.

(g) "State Water Project" (SWP) shall mean the State Water Resources Development System as defined in Section 12931 of the Water Code of the State of California.

(h) "SWRCB" shall mean the State Water Resources Control Board.

(i) "Water year" shall mean the period October 1 of any year

through September 30 of the following year.

## 2. Water Quality.

(a) (i) The State will operate the SWP to provide water qualities at least equal to the better of: (1) the standards adopted by the SWRCB as they may be established from time to time; or (2) the criteria established in this contract as identified on the graphs included as Attachment A.

(ii) The 14-day running average of the mean daily EC at the identified location shall not exceed the values determined from the Attachment A graphs using the Four-River Basin Index except for the period February through March of each year at the location in the Sacramento River at Emmaton for which the lower value of the 80 percent probability range shall be used.

(iii) The quality criteria described herein shall be met at all times except for a transition period beginning one week before and extending one week after the date of change in periods as shown on the graphs of Attachment A. During this transition period, the SWP will be operated to provide as uniform a transition as possible over the two-week period from one set of criteria to the next so as to arrive at the new criteria one week after the date of change in period as shown on the graphs of Attachment A.

(b) While not committed affirmatively to achieving a better water quality at interior points upstream from Emmaton than those set forth on Attachment A, the State agrees not to alter the Delta hydraulics in such manner as to cause a measurable adverse change in the ocean salinity gradient or relationship among the various monitoring locations shown on Attachment B and interior points upstream from those locations, with any particular flow past Emmaton.

(c) Whenever the recorded 14-day running average of mean daily EC of water in the Sacramento River at Sacramento exceeds 0.25 mmhos, the quality criteria indicated on the graphs of Attachment A may be adjusted by adding to the value taken therefrom the product of 1.5 times the amount that the recorded EC of the Sacramento River at Sacramento exceeds 0.25 mmhos.

3. **Monitoring.** The quality of water shall be measured by the State as needed to monitor performance pursuant to Article 2 hereof with equipment installed, operated, and maintained by the State, at locations indicated on "Attachment B". Records of such measurements shall at regular intervals be furnished to the Agency. All monitoring costs at North Fork Mokelumne River near Walnut Grove, Sacramento River at Walnut Grove, and Steamboat Slough at Sutter Slough incurred by the State solely for this contract shall be shared equally by the Agency and the State. All monitoring costs to be borne by the Agency for monitoring at the above locations are included in the payment under Article 10.

## 4. Emergency Provisions.

(a) If a structural emergency occurs such as a levee failure or a failure of an SWP facility, which results in the State's failure to meet the water quality criteria, the State shall not be in breach of this contract if it makes all reasonable efforts to operate SWP facilities so that the water quality criteria will be met again as soon as possible. For any period in which SWP failure results in failure of the State to meet the water quality criteria, the State shall waive payment under Article 10, prorated for that period, and the amount shall be deducted from the next payment due.

(b) (i) A drought emergency shall exist when all of the following occur:

(1) The Four-River Basin Index is less than an average of 9,000,000 acre feet in two consecutive years (which occurred in 1933-4 and 1976-7); and

(2) An SWRCB emergency regulation is in effect providing for the operation of the SWP to maintain water quality different from that provided in this contract; and

(3) The water supplied to meet annual entitlements of

SWP agricultural contractors in the San Joaquin Valley is being reduced by at least 50 percent of these agricultural entitlements (it being the objective of the SWP to avoid agricultural deficiencies in excess of 25 percent) or the total of water supplied to meet annual entitlements of all SWP contractors is being reduced by at least 15 percent of all entitlements, whichever results in the greater reduction in acre feet delivered.

(ii) A drought emergency shall terminate if any of the conditions in (b) (i) of this Article ceases to exist or if the flow past Sacramento after October 1 exceeds 20,000 cubic feet per second each day for a period of 30 days.

(iii) Notwithstanding the provisions of Article 2 (a), when a drought emergency exists, the emergency water quality criteria of the SWRCB shall supersede the water quality requirements of this contract to the extent of any inconsistency; provided, however, that the State shall use all reasonable efforts to preserve Delta water quality, taking into consideration both the limited water supply available for that purpose and recognizing the priority established for Delta protection referred to in Recital (g).

(iv) When a drought emergency exists, and an overland supply is not available to an individual water user comparable in quality and quantity to the water which would have been available to the user under Attachment A, the State shall compensate the user for loss of net income for each acre either (A) planted to a more salt-tolerant crop in the current year, (B) not planted to any crop in the current year provided such determination not to plant was reasonable based on the drought emergency, or (C) which had a reduced yield due to the drought emergency, calculated on the basis of the user's average net income for any three of the prior five years for each such acre. A special contract claims procedure shall be established by the State to expedite and facilitate the payment of such compensation.

## 5. Overland Water Supply Facilities.

(a) Within the general objectives of protecting the western Delta areas against the destruction of agricultural productivity as a result of the increased salinity of waters in the Delta channels resulting in part from SWP operation, the State may provide diversion and overland facilities to supply and distribute water to Sherman Island as described in the report entitled "Overland Agricultural Water Facilities Sherman Island" dated January 1980. Final design and operating specifications shall be subject to approval of the Agency and Reclamation District No. 341. The Agency or its transferee will assume full ownership, operation, and maintenance responsibility for such facilities after successful operation as specified. After the facilities are constructed and operating, the water quality criteria for the Sacramento River at Emmaton shall apply at the intake of the facilities in Three Mile Slough.

(b) The State and the Agency may agree to the construction and operation of additional overland water supply facilities within the Agency, so long as each landowner served by the overland facilities receives a quality of water not less than that specified in Attachment A for the upstream location nearest to his original point of diversion. The design and operation of such facilities and the cost sharing thereof are subject to approval of any reclamation district which includes within its boundaries the area to be served. The ownership, operation, and maintenance of diversion works and overland facilities shall be the subject of a separate agreement between the Agency or its transferees and the State.

6. **Flow Impact.** The State shall not convey SWP water so as to cause a decrease or increase in the natural flow, or reversal of the natural flow direction, or to cause the water surface elevation in Delta channels to be altered, to the detriment of Delta channels or water users within the Agency. If lands, levees, embankments, or revetments adjacent to Delta channels within the Agency incur seepage or erosion damage or if diversion facilities must be modi-

fied as a result of altered water surface elevations as a result of the conveyance of water from the SWP to lands outside the Agency after the date of this contract, the State shall repair or alleviate the damage, shall improve the channels as necessary, and shall be responsible for all diversion facility modifications required.

#### 7. Place of Use of Water.

(a) Any subcontract entered into pursuant to Article 18 shall provide that water diverted under this contract for use within the Agency shall not be used or otherwise disposed of outside the boundaries of the Agency by the subcontractor.

(b) Any subcontract shall provide that all return flow water from water diverted within the Agency under this contract shall be returned to the Delta channels. Subject to the provisions of this contract concerning the quality and quantity of water to be made available to water users within the Agency, and to any reuse or recapture by water users within the Agency, the subcontractor relinquishes any right to such return flow, and as to any portion thereof which may be attributable to the SWP, the subcontractor recognizes that the State has not abandoned such water.

(c) If water is attempted to be used or otherwise disposed of outside the boundaries of the Agency so that the State's rights to return flow are interfered with, the State may seek appropriate administrative or judicial action against such use or disposal.

(d) This article shall not relieve any water user of the responsibility to meet discharge regulations legally imposed.

#### 8. Scope of Contract.

(a) During the term of this contract:

(i) This contract shall constitute the full and sole agreement between the State and the Agency as to (1) the quality of water which shall be in the Delta channels, and (2) the payment for the assurance given that water of such quality shall be in the Delta channels for reasonable and beneficial uses on lands within the Agency, and said diversions and uses shall not be disturbed or challenged by the State so long as this contract is in full force and effect.

(ii) The State recognizes the right of the water users of the Agency to divert from the Delta channels for reasonable and beneficial uses for agricultural, municipal and industrial purposes on lands within the Agency, and said diversions and uses shall not be disturbed or challenged by the State so long as this contract is in full force and effect, and the State shall furnish such water as may be required within the Agency to the extent not otherwise available under the water rights of water users.

(iii) The Agency shall not claim any right against the State in conflict with the provisions hereof so long as this contract remains in full force and effect.

(b) Nothing herein contained is intended to or does limit rights of the Agency against others than the State, or the State against any person other than the Agency and water users within the Agency.

(c) This contract shall not affect, bind, prejudice, impair, restrict, or limit vested water rights within the Agency.

(d) The Agency agrees to defend affirmatively as reasonable and beneficial the water qualities established in this contract. The State agrees to defend affirmatively as reasonable and beneficial the use of water required to provide and sustain the qualities established in this contract. The State agrees that such use should be examined only after determination by a court of competent jurisdiction that all uses of water exported from the Delta by the State and by the United States, for agricultural, municipal, and industrial purposes are reasonable and beneficial, and that irrigation practices, conservation efforts, and groundwater management within areas served by such exported water should be examined in particular.

(e) The Agency consents to the State's export of water from

the Delta so long as this contract remains in full force and effect and the State is in compliance herewith.

#### 9. Term of Contract.

(a) This contract shall continue in full force and effect until such time as it may be terminated by the written consent and agreement of the parties hereto, provided that 40 years after execution of this contract and every 40 years thereafter, there shall be a six-month period of adjustment during which any party to this contract can negotiate with the other parties to revise the contract as to the provisions set out in Article 10. If, during this period, agreement as to a requested revision cannot be achieved, the parties shall petition a court of competent jurisdiction to resolve the issue as to the appropriate payment to be made under Article 10. In revising Article 10, the court shall review water quality and supply conditions within the Agency under operation of the FCVP and SWP, and identify any reimbursable benefits allocated to water users within the Agency resulting from operation of the FCVP and SWP, offset by any detriments caused thereby. Until such time as any revision is final, including appeal from any ruling of the court, the contract shall remain in effect as without such revision.

(b) In the event this contract terminates, the parties' water rights to quality and quantity shall exist as if this contract had not been entered into.

#### 10. Amount and Method of Payment for Water.

(a) The Agency shall pay each year as consideration for the assurance that an adequate water supply and the specific water quality set forth in this contract will be maintained and monitored, the sum of one hundred seventy thousand dollars (\$170,000.00). The annual payments shall be made to the State one-half on or before January 1 and one-half on or before July 1 of each year commencing with January 1, 1982.

(b) The payment established in (a) above shall be subject to adjustment as of January 1, 1987, and every fifth year thereafter. The adjusted payment shall bear the same relation to the payment specified in (a) above that the mean of the State's latest projected Delta Water Rate for the five years beginning with the year of adjustment bears to \$10.00 per acre foot; provided that, no adjusted payment shall exceed the previous payment by more than 25 percent.

(c) The payments provided for in this article shall be deposited by the State in trust in the California Water Resources Development System Revenue Account in the California Water Resources Development Bond Fund. The trust shall continue for five years (or such longer period as the State may determine) but shall be terminated when the United States executes a contract as provided in Article 11 with the State and the Agency at which time the proportion of the trust fund that reflects the degree to which the operation of the FCVP has contributed to meeting the water quality standard under this contract as determined solely by the State shall be paid to the United States (with a pro rata share of interest). In the event that the United States has not entered into such a contract before the termination of the trust, the trust fund shall become the sole property of the State.

11. **Participation of the United States.** The Agency will exercise its best efforts to secure United States joinder and concurrence with the terms of this contract and the State will diligently attempt to obtain the joinder and concurrence of the United States with the terms of this contract and its participation as a party hereto. Such concurrence and participation by the United States in this contract shall include a recognition ratified by the Congress that the excess land provisions of Federal reclamation law shall not apply to this contract.

#### 12. Remedies.

(a) The Agency shall be entitled to obtain specific perfor-

mance of the provisions of this contract by a decree of the Superior Court in Sacramento County requiring the State to meet the standards set forth in this contract. If the water quality in Delta channels falls below that provided in this contract, then, at the request of the Agency, the State shall cease all diversions to storage in SWP reservoirs or release stored water from SWP reservoirs or cease all export by the SWP from Delta channels, or any combination of these, to the extent that such action will further State compliance with the water quality standards set forth in this contract, except that the State may continue to export from Delta channels to the extent required to meet water quality requirements in contracts with the Delta agencies specified in Section 11456 of the California Water code.

(b) To the extent permitted by law, the State agrees to forego the use of eminent domain proceedings to acquire water rights of water users within the Agency or any rights acquired under this contract for water or water quality maintenance for the purpose of exporting such water from the Delta. This provision shall not be construed to prohibit the utilization of eminent domain proceedings for the purpose of acquiring land or any other rights necessary for the construction of water facilities.

(c) Except as provided in the water quality assurances in Article 2 and the provisions of Article 6 and Article 8, neither the State nor its officers, agents, or employees shall be liable for or on account of:

(i) The control, carriage, handling, use, disposal, or distribution of any water outside the facilities constructed, operated and maintained by the State.

(ii) Claims of damage of any nature whatsoever, including but not limited to property loss or damage, personal injury or death arising out of or connected with the control, carriage, handling, use, disposal or distribution of any water outside of the facilities constructed, operated and maintained by the State.

(d) The use by the Agency or the State of any remedy specified herein for the enforcement of this contract is not exclusive and shall not deprive either from using any other remedy provided by law.

13. **Comparable Treatment.** In the event that the State gives on the whole substantially more favorable treatment to any other Delta entity under similar circumstances than that accorded under this contract to the Agency, the State agrees to renegotiate this contract to provide comparable treatment to the Agency under this contract.

### GENERAL PROVISIONS

14. **Amendments.** This contract may be amended or terminated at any time by mutual agreement of the State and the Agency.

15. **Reservation With Respect to State Laws.** Nothing herein contained shall be construed as estopping or otherwise preventing the Agency, or any person, firm, association, corporation, or public body claiming by, through, or under the Agency, from contesting by litigation or other lawful means, the validity, constitutionality, construction or application of any law of the State of California.

16. **Opinions and Determinations.** Where the terms of this contract provide for action to be based upon the opinion, judgment, approval, review, or determination of either party hereto, such terms are not intended to be and shall never be construed as permitting such opinion, judgment, approval, review, or determination to be arbitrary, capricious, or unreasonable.

17. **Successors and Assigns Obligated.** This contract and all of its provisions shall apply to and bind the successors and assigns of the parties hereto.

18. **Assignment and Subcontract.** The Agency may enter into subcontracts with water users within the Agency boundaries in which the assurances and obligations provided in this contract as

to such water user or users are assigned to the area covered by the subcontract. The Agency shall remain primarily liable and shall make all payments required under this contract. No assignment or transfer of this contract, or any part hereof, rights hereunder, or interest herein by the Agency, other than a subcontract containing the same terms and conditions, shall be valid unless and until it is approved by the State and made subject to such reasonable terms and conditions as the State may impose. No assignment or transfer of this contract or any part hereof, rights hereunder, or interest herein by the State shall be valid except as such assignment or transfer is made pursuant to and in conformity with applicable law.

19. **Books, Records, Reports, and Inspections Thereof.** Subject to applicable State laws and regulations, the Agency shall have full and free access at all reasonable times to the SWP account books and official records of the State insofar as the same pertain to the matters and things provided for in this contract, with the right at any time during office hours to make copies thereof, and the proper representatives of the State shall have similar rights with respect to the account books and records of the Agency.

20. **Waiver of Rights.** Any waiver at any time by either party hereto of its rights with respect to a default, or any other matter arising in connection with this contract, shall not be deemed to be a waiver with respect to any other default or matter.

21. **Assurance Relating to Validity of Contract.** This contract shall be effective after its execution by the Agency and the State. Promptly after the execution and delivery of this contract, the Agency shall file and prosecute to a final decree, including any appeal therefrom to the highest court of the State of California, in a court of competent jurisdiction a special proceeding for the judicial examination, approval, and confirmation of the proceedings of the Agency's Board of Directors and of the Agency leading up to and including the making of this contract and the validity of the provisions thereof as a binding and enforceable obligation upon the State and the Agency. If, in this proceeding or other proceeding before a court of competent jurisdiction, any portion of this contract should be determined to be constitutionally invalid, then the remaining portions of this contract shall remain in full force and effect unless modified by mutual consent of the parties.

22. **Notices.** All notices that are required either expressly or by implication to be given by one party to the other shall be deemed to have been given if delivered personally or if enclosed in a properly addressed, postage prepaid, envelope and deposited in a United States Post Office. Unless or until formally notified otherwise, the Agency shall address all notices to the State as follows:

Director, Department of Water Resources

P.O. Box 388

Sacramento, California 95802

and the State shall address all notices to the Agency as follows:

North Delta Water Agency

921 - 11th St., Rm. 703

Sacramento, California 95814

IN WITNESS WHEREOF, the parties hereto have executed this contract on the date first above written.

Approved as to legal form  
and sufficiency:

STATE OF CALIFORNIA

By /s/ P. A. TOWNER  
Chief Counsel  
Dept. of Water Resources

By /s/ RONALD B. ROBBIE  
Dept. of Water Resources

Approved as to legal form  
and sufficiency:

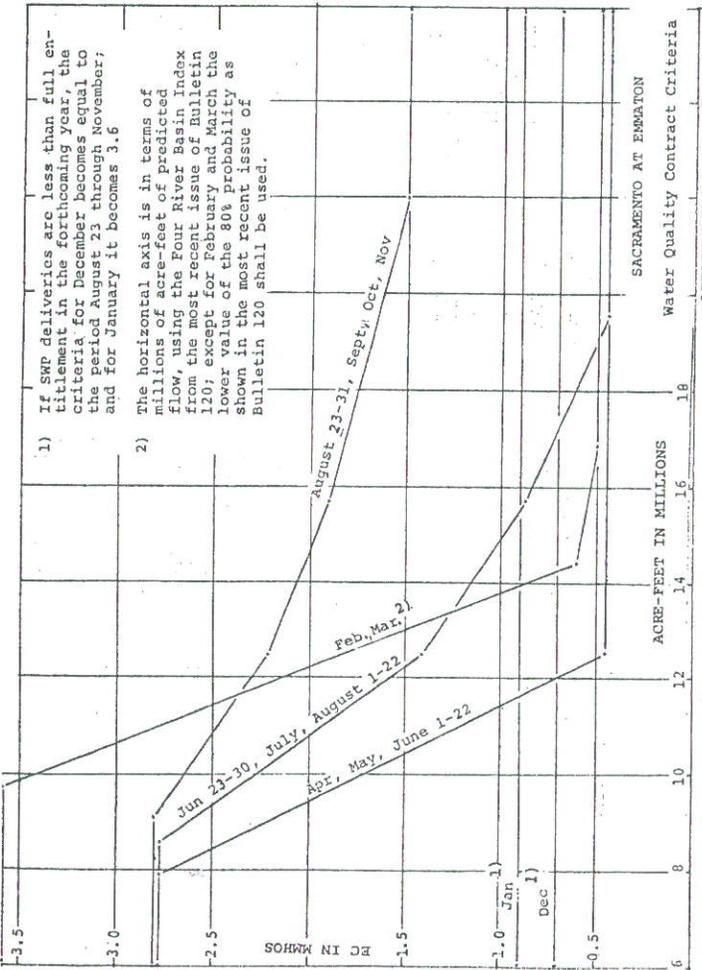
NORTH DELTA WATER  
AGENCY

By /s/ GEORGE BASYE  
General Counsel  
North Delta Water Agency

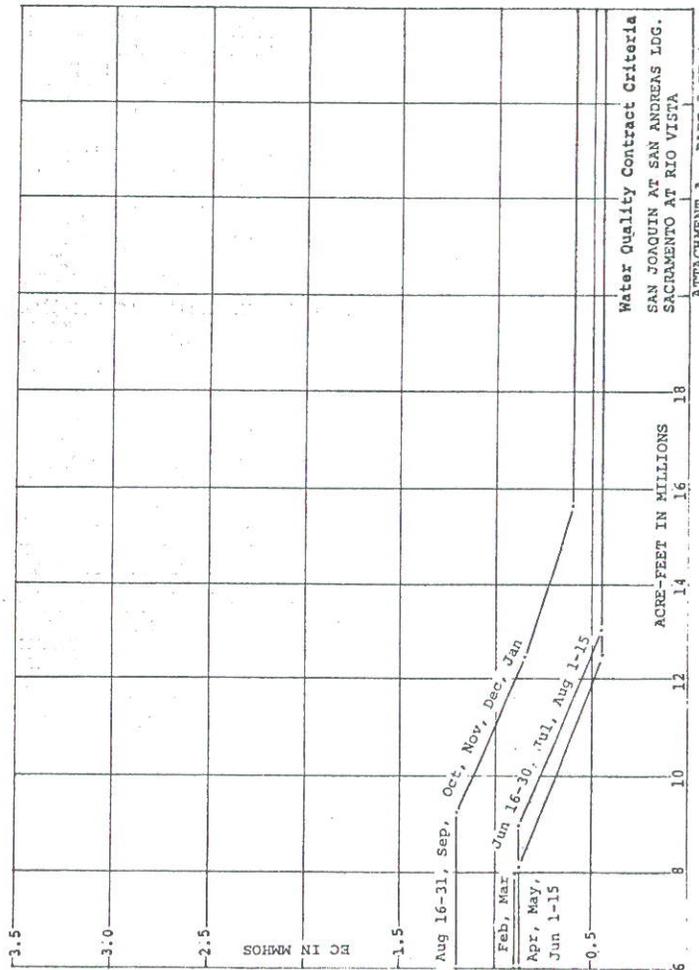
By /s/ W. R. DARSIE  
Chairman  
Board of Directors

1) If SWP deliveries are less than full entitlement in the forthcoming year, the criteria for December becomes equal to the period August 23 through November 7 and for January it becomes 3.6

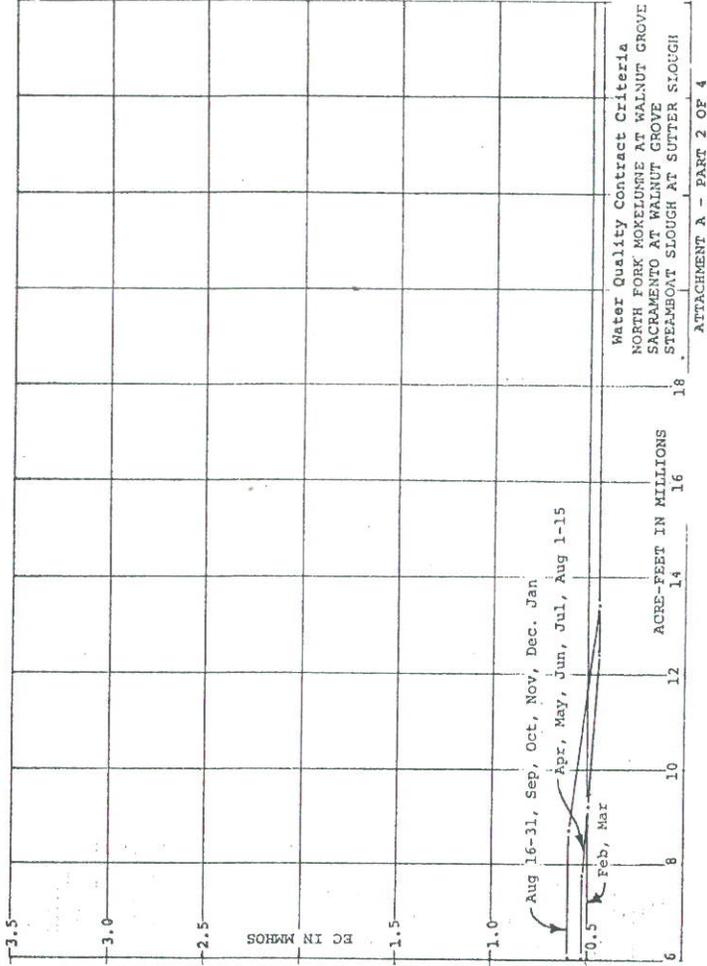
2) The horizontal axis is in terms of millions of acre-feet of predicted flow, using the Four River Basin Index from the most recent issue of Bulletin 120; except for February and March the lower value of the 80% probability as shown in the most recent issue of Bulletin 120 shall be used.



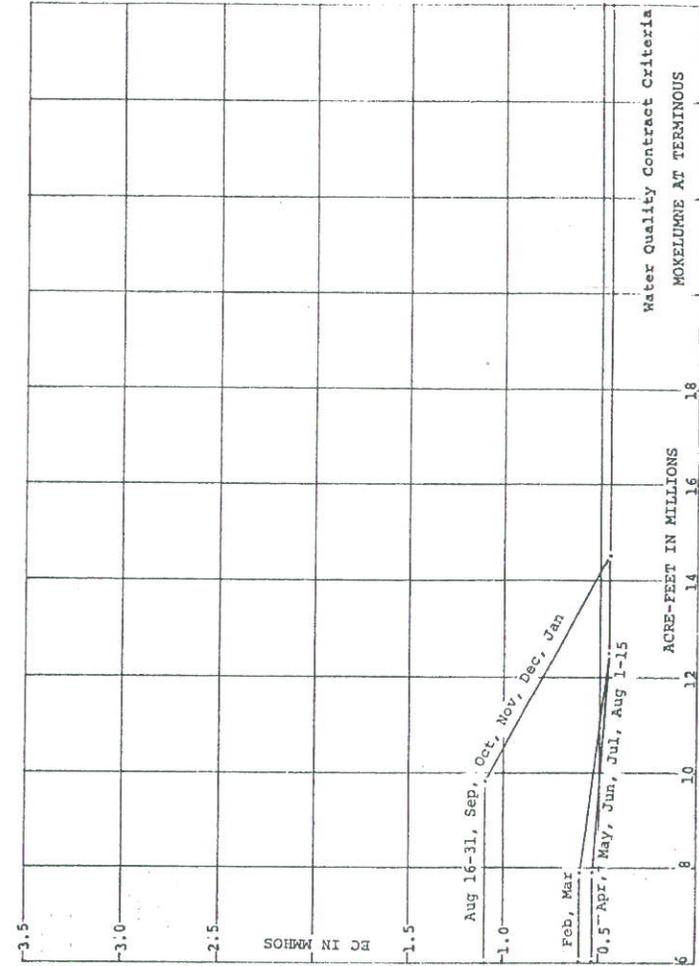
Water Quality Contract Criteria  
SACRAMENTO AT EMERTON



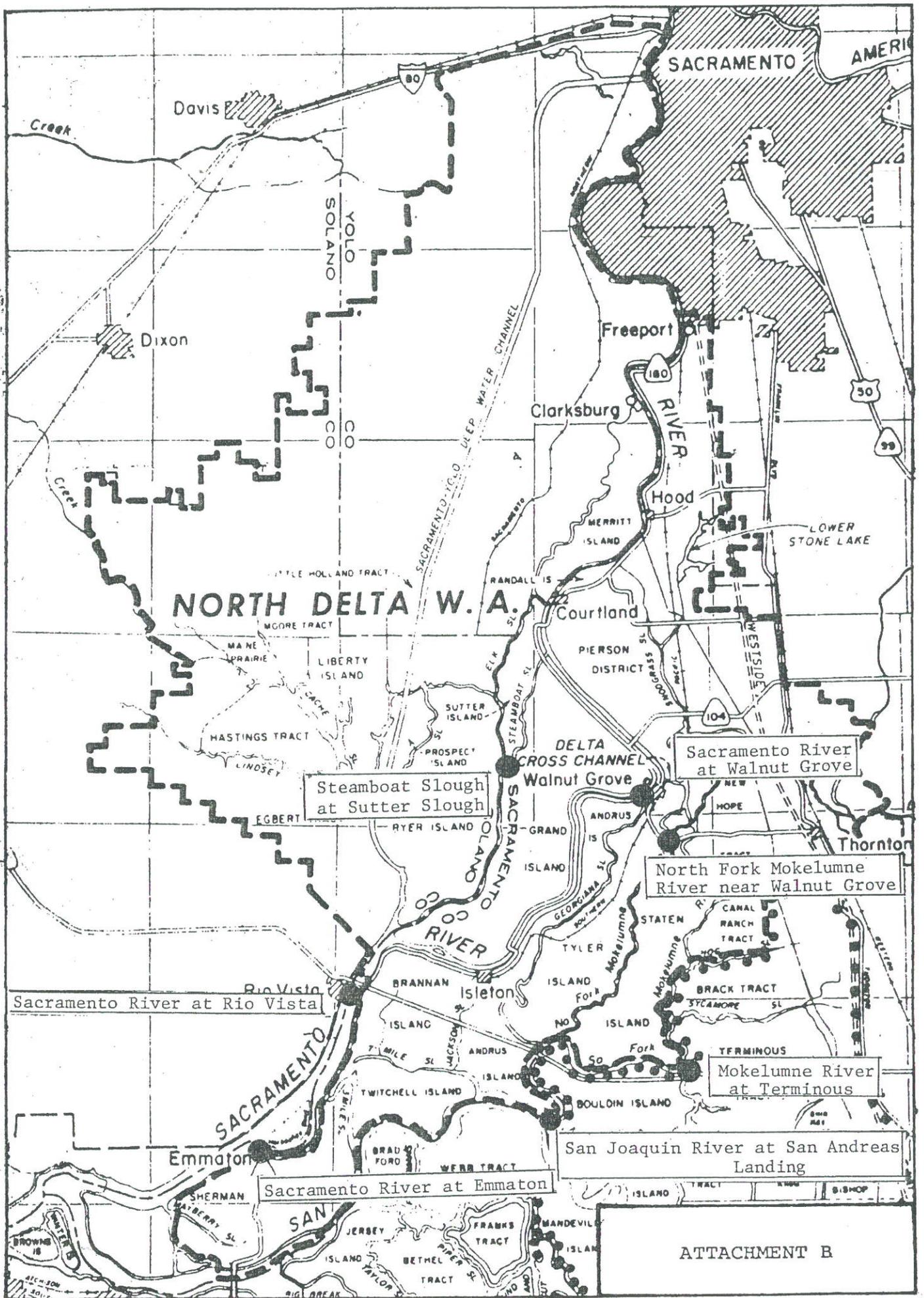
Water Quality Contract Criteria  
SAN JOAQUIN AT SAN ANDREAS LDG.  
SACRAMENTO AT RIO VISTA



Water Quality Contract Criteria  
NORTH FORK MORELONNE AT WALNUT GROVE  
SACRAMENTO AT WALNUT GROVE  
STEAMBOAT SLOUGH AT SUTTER SLOUGH



Water Quality Contract Criteria  
MORELONNE AT TERMINOUS



ATTACHMENT B

## MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding is entered into this 26th day of May, 1998, by and between North Delta Water Agency (hereinafter "Agency") and Department of Water Resources, State of California (hereinafter "DWR").

### RECITALS

A. In 1981, DWR entered into a contract (hereinafter "1981 Contract") with Agency under which Agency agreed to make certain payments to DWR in exchange for DWR making water of a specified quality and adequate quantity available for the use of diverters within the boundaries of Agency. The 1981 Contract remains in full force and effect.

B. The State Water Resources Control Board ("State Board") has initiated a water right proceeding in order to allocate the obligation to implement water quality objectives contained in the Bay-Delta Water Quality Control Plan adopted by the State Board on May 22, 1995 (hereinafter "1995 Plan").

C. The purpose of this Memorandum of Understanding is to set forth the joint position of Agency and DWR as to the legal effect of the 1981 Contract with respect to the obligation of water users within Agency, if any, to implement water quality objectives contained in the 1995 Plan.

### UNDERSTANDINGS

1. DWR agrees that any obligation to curtail or modify diversions in order to assist in achieving any flow or salinity objective of the 1995 Plan imposed upon the use of water within Agency is entirely in the scope of the existing obligation of DWR under the 1981 Contract to provide water from the State Water Project supply, subject to the

limitations of reasonable and beneficial use. During the term of this Memorandum of Understanding, no party shall assert, before the State Board or in any court, that any other party must reduce or eliminate any of its direct diversions, diversions to storage or re-diversion of stored water, or release any previously stored water so long as the other party's method of use and method of diversion are reasonable under Article X, Section 2 of the California Constitution.

2. The parties agree that the payments made by Agency to DWR pursuant to the 1981 Contract constitute full and adequate consideration for the obligation of DWR described in paragraph 1 of this Memorandum of Understanding.

3. The parties agree that the assurances contained in the 1981 Contract, including the obligation of DWR to provide water to Agency users from State Water Project supplies, and in paragraph 1 of this Memorandum of Understanding, do not apply to any transfer of water outside Agency. The parties agree that the 1981 Contract does not affect any underlying rights the water users within the Agency may have to transfer water to the extent that such a transfer would be permissible under California law in the absence of the 1981 Contract.

4. Nothing in this Memorandum of Understanding constitutes an admission by Agency, express or implied, that the State Board has authority to limit or otherwise modify any right to divert water for use within Agency.

5. Nothing in this Memorandum of Understanding constitutes an amendment of the 1981 Contract as it presently exists.

6. This Memorandum of Understanding shall be effective only for the purposes of the currently pending SWRCB water right hearings to allocate the obligation to implement the 1995 Plan's water quality objectives, and for no other purpose.

THE NORTH DELTA WATER AGENCY

By: Dennis Leary

COUNSEL:

[Signature]

Date: 4/20/98  
Title: Chairman

THE DEPARTMENT OF WATER RESOURCES

APPROVED FOR LEGAL FORM  
& SUFFICIENCY:

By: [Signature]  
Title: Director

[Signature]  
Chief Counsel

Date: 5/26/98

C:\OFFICE\WPWIN\DAVID\BDHRG.19

## **APPENDIX B**

---

### **Public Notification and Outreach Information**

**PROOF OF PUBLICATION**  
(2015.5 C.C.P.)

STATE OF CALIFORNIA,  
COUNTY OF SOLANO, ss.

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of the DIXON TRIBUNE, a newspaper of general circulation, printed and published weekly in the City of Dixon, County of Solano, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Solano, State of California, under the date of April 21, 1952, Case Number 25594; that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement

thereof on the following dates, to-wit: .....

*February 2, + 9*

all in the year *2005*

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Dixon, California, this *9<sup>th</sup>* .....

day of *February, 2005* .....

*Wharen K. Boyce*  
(Signature)



(This space is for the County Clerk's Filing Stamp)

Proof of Publication of

*Notice of Intent to Adopt a Resolution  
to Update Groundwater Management Plan*

Please Clipping  
of Notice  
**SECURELY**  
in This Space

RECLAMATION DISTRICT  
NO. 2068

NOTICE OF INTENT TO  
ADOPT A RESOLUTION TO  
UPDATE GROUNDWATER  
MANAGEMENT PLAN

Reclamation District No. 2068 is charged with protection and management of the groundwater basin underlying portions of Solano and Yolo counties. To maintain a sustainable groundwater resource for the citizens that rely upon the basin for their water needs, Reclamation District No. 2068 intends to consider the adoption of a resolution to update its groundwater management plan at its February 10, 2005, Board meeting. The meeting, which is open to the public, will begin at 2:00 p.m. at 7178 Yolano Road, Dixon, CA.

Reclamation District No. 2068 encourages any individual interested in the development of the revised groundwater management plan to attend the meeting. For more information on Reclamation District No. 2068 Board meetings, or to find out more about groundwater management efforts, contact Mike Hardesty at (707) 678-5412.

RESOLUTION 2005-03

RECLAMATION DISTRICT NO. 2068  
UPDATE GROUNDWATER MANAGEMENT PLAN

WHEREAS, the District pursuant to Part 2.75 of Division 6 to the Water Code provided the opportunity for this District to develop a management program for the groundwater resources within the District boundaries, and

WHEREAS, the District did adopt, on January 9, 1997, a Reclamation District No. 2068 Groundwater Management Plan, and

WHEREAS, it is deemed by the District Board to be advantageous to the District and to landowners presently utilizing groundwater resources and those not yet having access to the groundwater, that such groundwater management plan be updated to conform to the requirements of SB 1938 and other appropriate California requirements in order to continue to exercise local jurisdiction over the management of groundwater,

NOW THEREFORE, BE IT RESOLVED, that the District Board of Trustees declares its intention to utilize the authority granted under Water Code §10750 et seq. to update its groundwater management plan pursuant to Part 2.75 of Division 6 of the Water code for the purpose of improving the plan and conforming the plan to current state requirements as authorized by that Part,

RESOLVED FURTHER, that this Resolution be published once a week for two consecutive weeks in the Dixon Tribune.

Passed and adopted by unanimous action of the Board  
of Trustees of Reclamation District No. 2068 this  
10th day of February, 2005

  
T.M. Hardesty  
Secretary

TELEPHONE  
(707) 678-5412

7178 YOLANO ROAD  
DIXON, CALIF. 95620

IRRIGATION



DRAINAGE

# RECLAMATION DISTRICT NO. 2068

February 15, 2005

Public Notices Department  
Dixon Tribune  
145 East "A" Street  
Dixon, CA 95620

COPY

Please publish the following notice of public participation, Groundwater Management Plan Update, once a week for two consecutive weeks (Friday, February 18, and, February 25, 2005) and submit an affidavit in duplicate:

*Published  
Feb 19 & 25*

## NOTICE OF PUBLIC PARTICIPATION GROUNDWATER MANAGEMENT PLAN UPDATE

Reclamation District No. 2068 is charged with protection and management of the groundwater basin underlying portions of Solano and Yolo Counties. To maintain a sustainable groundwater resource for the citizens that rely upon the basin for their daily water needs, Reclamation District No. 2068 is updating their groundwater management plan. This is the first critical step in updating the active groundwater management plan that will ensure a safe supply for our present and future generations.

Reclamation District No. 2068 encourages any individual interested in updating this groundwater management plan to participate by either working through one of the Trustees on the Board or by attending any of our public Board meetings held on the second Thursday of each month. For more information on Board meetings please contact Mike Hardesty at (707) 678-5412.

February 15, 2005

RECLAMATION DISTRICT NO. 2068

BY T.M. HARDESTY  
Secretary

Sincerely,

RECLAMATION DISTRICT NO. 2068

T. M. Hardesty  
General Manager

**PROOF OF PUBLICATION**  
(2015.5 C.C.P.)

STATE OF CALIFORNIA,  
COUNTY OF SOLANO, ss.

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of the DIXON TRIBUNE, a newspaper of general circulation, printed and published weekly in the City of Dixon, County of Solano, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Solano, State of California, under the date of April 21, 1952, Case Number 25594; that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement

thereof on the following dates, to-wit: .....

*February 18, & 25*

all in the year

*2005*

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Dixon, California, this .....

*25th*

day of .....

*February, 2005*

*Sharon K. Byrnes*  
(Signature)



(This space is for the County Clerk's Filing Stamp)

Proof of Publication of

*Notice of Public Participation*  
*Groundwater Management Plan Update*

Paste Clipping  
of Notice

**NOTICE OF PUBLIC PARTICIPATION GROUNDWATER MANAGEMENT PLAN UPDATE**

Reclamation District No. 2068 is charged with protection and management of the groundwater basin underlying portions of Solano and Yolo Counties. To maintain a sustainable groundwater resource for the citizens that rely upon the basin for their daily water needs, Reclamation District No. 2068 is updating their groundwater management plan. This is the first critical step in updating the active groundwater management plan that will ensure a safe supply for our present and future generations.

Reclamation District No. 2068 encourages any individual interested in updating this groundwater management plan to participate by either working through one of the Trustees on the Board or by attending any of our public Board meetings held on the second Thursday of each month. For more information on Board meetings please contact Mike Hardesty at (707) 678-5412.

February 15, 2005

Reclamation District No. 2068  
by T. M. Hardesty  
Secretary  
fb18,25

IRRIGATION



DRAINAGE

## RECLAMATION DISTRICT NO. 2068

### NOTICE

Reclamation District No. 2068 is holding a public workshop regarding update of its Groundwater Management Plan.

DATE: March 10, 2005

TIME: 2:30 p.m.

PLACE: 7178 Yolano Road  
Dixon, CA

For additional information please contact Mike Hardesty at 707 678-5412.

### NOTICE OF PUBLIC PARTICIPATION GROUNDWATER MANAGEMENT PLAN UPDATE

Reclamation District No. 2068 is charged with protection and management of the groundwater basin underlying portions of Solano and Yolo Counties. To maintain a sustainable groundwater resource for the citizens that rely upon the basin for their daily water needs, Reclamation District No. 2068 is updating their groundwater management plan. This is the first critical step in updating the active groundwater management plan that will ensure a safe supply for our present and future generations.

Reclamation District No. 2068 encourages any individual interested in updating this groundwater management plan to participate by either working through one of the Trustees on the Board or by attending any of our public Board meetings held on the second Thursday of each month. For more information on Board meetings please contact Mike Hardesty at (707) 678-5412.

Antoinette Hall  
3160 Dow Dr.  
San Jose, CA 95136-1011

Atlantic Richfield Company  
P.O. Box 869205  
Plano, TX 75086

Bettencourt & Rose c/o Steven T.  
Rose  
9297 E. Mesa Avenue  
Clovis, CA 93619-9035

Bruce Lillis  
6600 Casa Tassajara Rd.  
Pleasanton, CA 94588

Chenhsuan Shih  
8077 Hyde Road  
Dixon, CA.95620-9666

Clifford DeTar  
1245 Hillview Dr.  
Dixon, CA 95620-3224

Dale & Beate Crossley  
8324 King Road  
Dixon, CA 95620

Donald L. Smith  
2 Loma Vista Pl.  
Woodland, CA 95695-5208

Donald M. Miller  
P.O. Box 457  
Davis, CA 95617-0457

Eduardo Alcontin  
1301 Grand St.  
Alameda, CA 94501-2504

Emigh Ltd.  
P.O. Box 788  
Rio Vista, CA 94571-0788

Everett Whiting  
7373 Levee Road  
Dixon, CA 95620-9667

Frank Pitto  
P.O. Box 1197  
Dixon, CA 95620-1197

Gene Robben  
6455 Robben Rd.  
Dixon, CA 95620-9658

Gerald Johnson  
8329 Midway Road  
Dixon, CA 95620-9405

Gordon Rasmussen  
6000 Highland Road  
Pleasanton, CA 94588-9580

James Coelho  
1344 Tolteca Ct.  
Fremont, CA 94539-6679

James Egan  
44164 Country Club Dr.  
Dixon, CA 95618

James Jones  
P.O. Box 1383  
Davis, CA 95617-1383

James Wright  
7397 Levee Rd.  
Dixon, CA 95620

Jean Irissarry  
P.O. Box 984  
Dixon, CA 95620-0984

Jeff Ancheta Fortes  
4262 Deer Valley Rd.  
Rescue, CA 95672

Jerry Kaneko  
556 Reed Dr.  
Davis, CA 95616-1807

John & Mary Wheat  
15781 Arnold Dr  
Sonoma, CA 95476-3205

John Gojkovich  
7030 Bulkley Rd.  
Dixon, CA 95620-9626

John Santana  
2149 Waverley  
Palo Alto, CA 94301

John W. Vaughn et al  
400 Harbor Light Rd.  
Alameda, CA 94501-5933

Joseph Sequeira  
4895 Old Adobe Rd.  
Petaluma, CA 94954

Josephine Pitto  
287 Canyon Dr.  
Daly City, CA 94014-1444

Jovia Farms  
8320 King Road  
Dixon, CA 95620

Kay Weddle 6541 24th St. Rio Linda, CA 95673-3803	Klotz Family LLC 49219 Clarksburg Rd Clarksburg, CA 95612-5025	Macero Duck Club 3000 Dorlaine Ct. Sacramento, CA 95821-3903
Marybeth Bontadelli 123 Cypress Pt Ct Aptos, CA 95003	Michael & Allison Simes P.O. Box 456 Davis, CA 95617	Mill Iron D Ranch Corp 7788 Trefoil Rd Dixon, CA 95620
Normal S & Manjit K. Dhillon 4812 N. Laguna Sacramento, CA 95829	Nucrop Inc. 2 Loma Vista Pl. Woodland, CA 95695-5208	Park Avenue Turf P.O. Box 2198 Sebastopol, CA 95473
Pat McMurray 44017 County Road 17 Woodland, CA 95776	Raymond & Leonora M. Reis 7320 Hackman Rd. Dixon, CA 95620	Reclamation Dist. 2068 7178 Yolano Road Dixon, CA 95620
Richard Emigh P.O. Box 788 Rio Vista, CA 94571-0788	Robert Currey P.O. Box 225 Dixon, CA 95620-0225	Ross Rasmussen 7900 Sikes Road Dixon, CA 95620
Ruth Ankenbruck 8119 King Road Dixon, CA 95620	Sally Bowsbey 44222 Greenview Dr. El Macero, CA 95618	Schoenwald-Pearson Ranch 11301 Gold Country Blvd. Gold River, CA 95670-3054
Selby Marks 1107 Beverly Dr. Antioch, CA 94509-1829	Serge J. & Penny R. Florent 8356 Midway Road Dixon, CA 95620	Solano County Fairfield, CA 94533
Stephen & Joan Jones 7927 Midway Road Dixon, CA 95620	Thomas Melton 7365 Levee Road Dixon, CA 95620-9621	Timm Hill Ranch P.O. Box 1000 Dixon, CA 95620-1000
Union Pacific Railroad Co 1400 Douglas, Stop 1640 Omaha, NE 68179-1640	Weger Interest Ltd. 8310 Hwy 29 Lakeport, CA 95453-9405	Wildlands, Inc. 3855 Atherton Rd. Rocklin, CA 95765-3715

Suzanne Butterfield  
Solano Irrigation District  
508 Elmira Road  
Vacaville, CA 95687

Rick Wood  
City of Fairfield  
Dept. of Public Works  
1000 Webster Street  
Fairfield, CA 94533-4883

Mark Akaba  
City of Vallejo  
Dept. of Public Works  
555 Santa Clara Street  
Vallejo, CA 94590

Chris Tomasik  
City of Benicia  
Dept. of Public Works  
250 East "L" Street  
Benicia, CA 94510

City of Dixon  
600 East "A" Street  
Dixon, CA 95620

Don Holdener  
Maine Prairie Water District  
P.O. Box 73  
Dixon, CA 95620

Felix Ajayi  
City of Rio Vista  
P.O. Box 745  
Rio Vista, CA 94571

Paul Wiese  
Solano County  
625 Texas Street  
Suite 5500  
Fairfield, CA 94533-6341

David Okita  
Solano County Water Agency  
PO Box 349  
Elmira, CA 95625-0349

Gerald Cullen  
City of Suisun City  
Department of Public Works  
701 Civic Center Boulevard  
Suisun City, CA 94585

Dave Tompkins  
City of Vacaville  
Dept. of Public Works  
650 Merchant Street  
Vacaville, CA 95688

Sid England  
Planning & Budget Office  
University of California  
312 Mrak Hall  
Davis, CA 95616

John Foster  
Northern Solano County Association of Realtors  
3690 Hilborn Road  
Fairfield, CA 94533

Richard Luthy  
Fairfield-Suisun Sewer District (707) 429-8930  
1010 Chadbourne Road  
Fairfield, CA 94585

PETER ALBERS  
HERITAGE DAIRY  
7755 MIDWAY ROAD  
DIXON CA 95620

GLADYS ATKINSON  
7450 BULKLEY ROAD  
DIXON CA 95620

BULKLEY RANCHES  
815 MARVIN WAY  
DIXON CA 95620

KATHERINE COLLINS  
7901 BULKLEY ROAD  
DIXON CA 95620

PULTE HOME CORPORATION  
6210 STONERIDGE MALL RD., 5<sup>TH</sup> FLOOR  
PLEASANTON, CA 94588

IRRIGATION



DRAINAGE

## RECLAMATION DISTRICT NO. 2068

TO: Solano County Public Agency Groundwater Users

FROM: Mike Hardesty, Reclamation District No. 2068 

DATE: April 7, 2005

Reclamation District No. 2068 invites your participation in a public meeting to review and comment on the District's proposed groundwater modeling effort.

The District is the recipient of an AB303 grant to investigate groundwater conditions and conjunctive use opportunities in the District.

Groundwater modeling is included in the scope of the District's AB303 grant to evaluate conjunctive use. In the grant agreement, this modeling was to be performed using the USGS program MODFLOW. Because of cost savings on other parts of the project, it now appears that there is budget to use a modeling program that has more potential to be of longer term benefit to the Solano Sub-basin stakeholder group. The District has made a formal request to DWR to use IGSM2 to perform the modeling. IGSM2 is a water resources management and planning model that simulates groundwater, surface water, stream-groundwater interaction, and other components of the hydrologic system. The model is well-suited for our conjunctive use evaluation and could be used for other water management purposes in the future. IGSM2 was developed by the DWR Modeling Support Branch. The program is fully documented and the DWR Modeling Support Branch provides technical support to the modeling application.

We would like to meet with Solano County agencies to discuss our plans for the modeling effort and provide an opportunity for you to provide feedback on these plans. We'll also provide a brief overview of IGSM2. We are on a very tight time schedule and would appreciate your assistance.

LOCATION: Reclamation District No. 2068  
7178 Yolano Rd  
Dixon, CA

DATE & TIME: Monday, April 18, 2005  
10:00 AM

For questions or directions please call Mike Hardesty or Nancy Davis at 707 678-5412

**PUBLIC MEETING ANNOUNCEMENT ON DISTRICT'S PROPOSED GROUNDWATER MODELING EFFORT**

<u>NAME</u>	<u>Agency</u>	<u>Phone Number</u>	<u>Fax Number</u>	<u>E-Mail</u>
Suzanne Butterfield Jim Daniels	Solano Irrigation District 508 Elmira Road Vacaville, CA 95687	707-448-6847	707-448-7347	<a href="mailto:sbutterfird@sidwater.org">sbutterfird@sidwater.org</a>
Rick Wood	City of Fairfield Dept. of Public Works 1000 Webster St. Fairfield, CA 94533-4883	707-428-7493 707-428-7481	707-428-7607	<a href="mailto:rwood@ci.fairfield.ca.us">rwood@ci.fairfield.ca.us</a>
Mark Akaba Erik Nugteren	City of Vallejo Dept. of Public Works 555 Santa Clara St. Vallejo, CA 94590	707-648-4315 707-648-4307	707-648-4691 707-648-4060	<a href="mailto:makaba@ci.vallejo.ca.us">makaba@ci.vallejo.ca.us</a> <a href="mailto:enugteren@ci.vallejo.ca.us">enugteren@ci.vallejo.ca.us</a>
Chris Tomasik	City of Benecia Dept. of Public Works 250 East "L" St. Benecia, CA 94510	707-746-4240 707-746-4227	707-747-1637	<a href="mailto:ctomasik@ci.benecia.ca.us">ctomasik@ci.benecia.ca.us</a>
Public Works Dept.	City of Dixon 600 East "A" St. Dixon, CA 95620	707-678-7031	707-678-7039	
Don Holdener	Maine Prairie Water District P.O. Box 73 6595 Pitt School Road Dixon, CA 95620	707-678-5332	707-678-0834	<a href="mailto:mpwd@cal.net">mpwd@cal.net</a>
T.M. (Mike) Hardesty	Reclamation District #2068 7178 Yolano Road Dixon, CA 95620-3621	707-678-5412	707-678-5414	<a href="mailto:rd2068@cal.net">rd2068@cal.net</a> <a href="mailto:mhardesty@cal.net">mhardesty@cal.net</a>
Felix Ajayi	City of Rio Vista P.O. Box 745 Rio Vista, CA 94571	707-374-6747	707-374-6047	<a href="mailto:fajayi@ci.rio-vista.ca.us">fajayi@ci.rio-vista.ca.us</a>
Paul Wiese Mike Yankovich	Solano County 625 Texas St. #5500 Fairfield, CA 94533-6341	707-784-6072	707-784-2894	<a href="mailto:pwwiese@solanocounty.com">pwwiese@solanocounty.com</a>
Davis Okita Thomas Pate	Solano County Water Agency P.O. Box 349 Elmira, CA 95625-0349	707-455-1103 707-455-1104	707-451-6099	<a href="mailto:dokita@scwa2.com">dokita@scwa2.com</a> <a href="mailto:tpate@scwa2.com">tpate@scwa2.com</a>
Gerald (Gary) Cullen	City of Suisun City Dept. of Public Works 701 Civic Center Blvd. Suisun City, CA 94585	707-421-7346	707-429-3758	<a href="mailto:gcullen@suisun.com">gcullen@suisun.com</a>
Dale Pfeiffer Dave Tompkins	City of Vacaville Dept. of Public Works 650 Merchant St. Vacaville, CA 95688	707-449-5171 707-469-6412	707-449-5377 707-449-6480	<a href="mailto:dpfeiffer@ci.vacaville.ca.us">dpfeiffer@ci.vacaville.ca.us</a> <a href="mailto:dtompkins@ci.vacaville.ca.us">dtompkins@ci.vacaville.ca.us</a>
John Currey	Dixon Resource Conservation District 1170 N. Lincoln St. #110 Dixon, CA 95620	707-678-1655	707-678-5001	



REGULAR MEETING OF  
THE BOARD OF TRUSTEES OF RECLAMATION DISTRICT NO. 2068

July 14, 2005

The Board of Trustees of Reclamation District No. 2068 met in regular session, Thursday, July 14, 2005, at the District office at Yolano at the hour of 2:00 p.m. Cliff DeTar, Richard Emigh, Ross Rasmussen and John Pitto were present. Also present was the Secretary T. M. Hardesty, Ron Smith and Nevada Smith. Everett Whiting was absent

The meeting was called to order by President DeTar.

It was moved by Emigh, seconded by Rasmussen and carried unanimously to approve the agenda with the addition of a discussion of drainage issues in the bypass area downstream of the X drain extension.

It was moved by Pitto, seconded by Emigh and carried to approve the minutes of the June 9, 2005, meeting.

It was moved by Rasmussen, seconded by Pitto and carried to approve the following expenses.

ACWA Services Corp.	2,905.89	Airgas	69.54
AT&T	76.56	Atteberry/Searle	655.00
Briggs, MFG.	966.38	Central Auto Parts	294.08
Cingular Wireless	29.38	Clark Pest Control	71.00
Clifford DeTar	100.00	Consolidated Electrical Dist.	10.36
CSK Auto, Inc.	59.02	Davis Ace	55.73
Dept. of General Services	250.00	Dixon Hardware & Lumber	99.52
Dixon Power Equipment	76.12	Dixon Truck & Tractor	8.80
Downey Brand LLP	199.00	Eva Hernandez	110.00
Inland Business Systems	39.65	John A. Pitto	100.00
Kirkpatrick & Associates	179.99	MBK Engineers	719.00
MSC Industrial Supply Co.	46.65	Office Max	323.23
PG&E	50,468.04	Putnam Investments	2,740.20
Ramos Oil Co.	3,135.56	Reclamation District No. 2068	33,266.53
Richard Emigh	100.00	Ron DuPratt Ford	21.69
Ross Rasmussen	100.00	Sacramento Valley Ford Truck	164.04
SBC/MCI	80.74	Solex	67.41
Stamp Fulfillment Services	210.85	State Board of Equalization	8.64
W.A. Westgate Co., Inc.	84.13	W.W. Grainger, Inc.	598.32
Wellco Mfg., Inc.	148.08	West Yost & Associates	14,681.32
Wilkinson International	134.30	Equipment Testing Co.	325.00

No public comment was received.

It was moved by Rasmussen, seconded by Pitto and carried to adopt the attached Resolution 2005-06 authorizing participation in the 2005-06 Delta Levee Subventions Program.

It was moved by Rasmussen, seconded by Emigh and carried to adopt Resolution 2005-07, Notice of Categorical Exemption.

***It was moved by Emigh, seconded by Rasmussen and carried to adopt the Solano Agencies Integrated Regional Water Management Plan with respect to those projects and planning efforts within the jurisdiction and authority of the District. (emphasis added)***

It was moved by Pitto, seconded by Emigh and carried to approve an encroachment permit, 20050701, for SBC Communications for the installation of wiring and equipment along Hackman Road, including G lateral and Pump 14.

Mr. Ron Smith reviewed a high water problem at the Tule Canal with water originating both in and outside the District. Mr. Smith requested the opportunity to redirect drainage water through other ditches on and or adjacent to Capitol Oil properties to avoid the limited drainage capacity currently installed at the Tule Canal outfall. The Board agreed that it would consider a permit to allow Mr. Smith to redirect drainage water to the Tule Canal.

The manager asked the Board to consider the purchase of a grader for use in District maintenance. The Board directed the manager to evaluate a purchase and report back to the Board.

The next regular meeting of the Board of Trustees will be August 11, 2005, at 2:00 p.m.

There being no further business the meeting was adjourned.



Secretary

NOTICE OF INTENT TO ADOPT  
A GROUNDWATER MANAGEMENT PLAN

Reclamation District No. 2068 will hold a public hearing November 10, 2005, to review a draft Groundwater Management Plan (GMP) to manage groundwater within the District.

The GMP outlines a set of actions to protect crucial and future water supply needs. The overall goal of the GMP is to ensure a viable groundwater resource for beneficial uses. To achieve this goal the GMP sets forth four management objectives and five primary plan components that identify the specific actions to implement the plan. Among the components is a monitoring plan established for the area which will be of benefit in tracking the overall health of the underlying basin.

The public is invited to attend and provide comments at the Board hearing on November 10, 2005, which will begin at 2:30 p.m. at 7178 Yolano Road, Dixon, CA. Please contact Mike Hardesty at 707 678-5412 if you would like to obtain a copy of the GMP or more information on Reclamation District No. 2068 board meetings.

Antoinette Hall  
3160 Dow Dr.  
San Jose, CA 95136-1011

Atlantic Richfield Company  
P.O. Box 869205  
Plano, TX 75086

Bettencourt & Rose c/o Steven T.  
Rose  
9297 E. Mesa Avenue  
Clovis, CA 93619-9035

Bruce Lillis  
6600 Casa Tassajara Rd.  
Pleasanton, CA 94588

Chenhsuan Shih  
8077 Hyde Road  
Dixon, CA 95620-9666

Clifford DeTar  
1245 Hillview Dr.  
Dixon, CA 95620-3224

Dale & Beate Crossley  
8324 King Road  
Dixon, CA 95620

Donald L. Smith  
2 Loma Vista Pl.  
Woodland, CA 95695-5208

Donald M. Miller  
P.O. Box 457  
Davis, CA 95617-0457

Eduardo Alcontin  
1301 Grand St.  
Alameda, CA 94501-2504

Emigh Ltd.  
P.O. Box 788  
Rio Vista, CA 94571-0788

Everett Whiting  
7373 Levee Road  
Dixon, CA 95620-9667

Frank Pitto  
P.O. Box 1197  
Dixon, CA 95620-1197

Gene Robben  
6455 Robben Rd.  
Dixon, CA 95620-9658

Gerald Johnson  
8329 Midway Road  
Dixon, CA 95620-9405

Gordon Rasmussen  
6000 Highland Road  
Pleasanton, CA 94588-9580

James Coelho  
1344 Tolteca Ct.  
Fremont, CA 94539-6679

James Egan  
44164 Country Club Dr.  
Dixon, CA 95618

James Jones  
P.O. Box 1383  
Davis, CA 95617-1383

James Wright  
7397 Levee Rd.  
Dixon, CA 95620

Jean Irissarry  
P.O. Box 984  
Dixon, CA 95620-0984

Jeff Ancheta Fortes  
4262 Deer Valley Rd.  
Rescue, CA 95672

Jerry Kaneko  
556 Reed Dr.  
Davis, CA 95616-1807

John & Mary Wheat  
15781 Arnold Dr  
Sonoma, CA 95476-3205

John Gojkovich  
7030 Bulkley Rd.  
Dixon, CA 95620-9626

John Santana  
2149 Waverley  
Palo Alto, CA 94301

John W. Vaughn et al  
400 Harbor Light Rd.  
Alameda, CA 94501-5933

Joseph Sequeira  
4895 Old Adobe Rd.  
Petaluma, CA 94954

Josephine Pitto  
287 Canyon Dr.  
Daly City, CA 94014-1444

Jovia Farms  
8320 King Road  
Dixon, CA 95620

Kay Weddle  
6541 24th St.  
Rio Linda, CA 95673-3803

Klotz Family LLC  
49219 Clarksburg Rd  
Clarksburg, CA 95612-5025

Macero Duck Club  
3000 Dorlaine Ct.  
Sacramento, CA 95821-3903

Marybeth Bontadelli  
123 Cypress Pt Ct  
Aptos, CA 95003

Michael & Allison Simes  
P.O. Box 456  
Davis, CA 95617

Mill Iron D Ranch Corp  
7788 Trefoil Rd  
Dixon, CA 95620

Normal S & Manjit K. Dhillon  
4812 N. Laguna  
Sacramento, CA 95829

Nucrop Inc.  
2 Loma Vista Pl.  
Woodland, CA 95695-5208

Park Avenue Turf  
P.O. Box 2198  
Sebastopol, CA 95473

Pat McMurray  
44017 County Road 17  
Woodland, CA 95776

Raymond & Leonora M. Reis  
7320 Hackman Rd.  
Dixon, CA 95620

Reclamation Dist. 2068  
7178 Yolano Road  
Dixon, CA 95620

Richard Emigh  
P.O. Box 788  
Rio Vista, CA 94571-0788

Robert Currey  
P.O. Box 225  
Dixon, CA 95620-0225

Ross Rasmussen  
7900 Sikes Road  
Dixon, CA 95620

Ruth Ankenbruck  
8119 King Road  
Dixon, CA 95620

Sally Bowlsbey  
44222 Greenview Dr.  
El Macero, CA 95618

Schoenwald-Pearson Ranch  
11301 Gold Country Blvd.  
Gold River, CA 95670-3054

Selby Marks  
1107 Beverly Dr.  
Antioch, CA 94509-1829

Serge J. & Penny R. Florent  
8356 Midway Road  
Dixon, CA 95620

Solano County  
Fairfield, CA 94533

Stephen & Joan Jones  
7927 Midway Road  
Dixon, CA 95620

Thomas Melton  
7365 Levee Road  
Dixon, CA 95620-9621

Timm Hill Ranch  
P.O. Box 1000  
Dixon, CA 95620-1000

Union Pacific Railroad Co  
1400 Douglas, Stop 1640  
Omaha, NE 68179-1640

Weger Interest Ltd.  
8310 Hwy 29  
Lakeport, CA 95453-9405

Wildlands, Inc.  
3855 Atherton Rd.  
Rocklin, CA 95765-3715

Suzanne Butterfield  
Solano Irrigation District  
508 Elmira Road  
Vacaville, CA 95687

Rick Wood  
City of Fairfield  
Dept. of Public Works  
1000 Webster Street  
Fairfield, CA 94533-4883

Mark Akaba  
City of Vallejo  
Dept. of Public Works  
555 Santa Clara Street  
Vallejo, CA 94590

Chris Tomasik  
City of Benicia  
Dept. of Public Works  
250 East "L" Street  
Benicia, CA 94510

City of Dixon  
600 East "A" Street  
Dixon, CA 95620

Don Holdener  
Maine Prairie Water District  
P.O. Box 73  
Dixon, CA 95620

Felix Ajayi  
City of Rio Vista  
P.O. Box 745  
Rio Vista, CA 94571

Paul Wiese  
Solano County  
625 Texas Street  
Suite 5500  
Fairfield, CA 94533-6341

David Okita  
Solano County Water Agency  
PO Box 349  
Elmira, CA 95625-0349

Gerald Cullen  
City of Suisun City  
Department of Public Works  
701 Civic Center Boulevard  
Suisun City, CA 94585

Dave Tompkins  
City of Vacaville  
Dept. of Public Works  
650 Merchant Street  
Vacaville, CA 95688

Sid England  
Planning & Budget Office  
University of California  
312 Mrak Hall  
Davis, CA 95616

John Foster  
Northern Solano County Association of Realtors  
3690 Hilborn Road  
Fairfield, CA 94533

Richard Luthy  
Fairfield-Suisun Sewer District (707) 429-8930  
1010 Chadbourne Road  
Fairfield, CA 94585

PETER ALBERS  
HERITAGE DAIRY  
7755 MIDWAY ROAD  
DIXON CA 95620

GLADYS ATKINSON  
7450 BULKLEY ROAD  
DIXON CA 95620

BULKLEY RANCHES  
815 MARVIN WAY  
DIXON CA 95620

KATHERINE COLLINS  
7901 BULKLEY ROAD  
DIXON CA 95620

PULTE HOME CORPORATION  
6210 STONERIDGE MALL RD., 5<sup>TH</sup> FLOOR  
PLEASANTON, CA 94588

**PROOF OF PUBLICATION**  
(2015.5 C.C.P.)

STATE OF CALIFORNIA,  
COUNTY OF SOLANO, ss.

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of the DIXON TRIBUNE, a newspaper of general circulation, printed and published weekly in the City of Dixon, County of Solano, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Solano, State of California, under the date of April 21, 1952, Case Number 26694; that the notice, of which the annexed is a printed copy (set in type not smaller than non-parallel), has been published in each regular and entire issue of said newspaper and not in any supplement

thereof on the following dates, to-wit: .....

*December 2 + 7*

all in the year *2005*

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Dixon, California, this *7<sup>th</sup>* .....

day of *December 2005* .....

*Jammy Crawford*  
(Signature)

(This space is for the County Clerk's Filing Stamp)

Proof of Publication of

*Notice of Intent to adopt  
a groundwater management Plan*

**NOTICE OF INTENT TO  
ADOPT A GROUNDWATER  
MANAGEMENT PLAN**

Reclamation District, No. 2068, Board of Trustees will consider the adoption of a Groundwater Management Plan (GMP) December 8, 2005, to manage groundwater within the District.

The GMP outlines a set of actions to protect crucial and future water supply needs. The overall goal of the GMP is to ensure a viable groundwater resource for beneficial uses. To achieve this goal the GMP sets forth four management objectives and five primary plan components that identify the specific actions to implement the plan. Among the components is a monitoring plan established for the area which will be of benefit in tracking the overall health of the underlying basin.

The public is invited to attend and provide comments

at the Board meeting on December 8, 2005, which will begin at 2:30 p.m. at 7178 Yolano Road, Dixon, CA. Please contact Mike Hardesty at 707-678-5412 if you would like to obtain a copy of the GMP or more information on Reclamation District No. 2068 board meetings.

Dated: November 30, 2005

RECLAMATION DISTRICT  
NO. 2068  
BY T.M. Hardesty  
Secretary  
dc2,7

# **APPENDIX C**

---

## **Water Use Efficiency Information**



IRRIGATION

DRAINAGE

# RECLAMATION DISTRICT NO. 2068

May 1, 2002

District Water Users:

You will notice a new look to the field detail of your monthly water bill. Beginning this year a graphical comparison of your water use is plotted against your crop specific evapotranspiration (ET) and an ET adjusted for cultural practices. The numerical values are tabulated below the graph.

The components of the new graph are shown in the example below.

