

**ANNUAL REPORT**  
**COOPERATIVE WATER RESOURCE**  
**MANAGEMENT AGREEMENT**  
**CALENDAR YEAR 2013**



**MAY 2014**

**PREPARED BY**  
**SANTA MARGARITA RIVER WATERSHED WATERMASTER**

*UNITED STATES OF AMERICA*  
*v.*  
*FALLBROOK PUBLIC UTILITY DISTRICT, ET AL.*

**CIVIL NO. 51-cv-1247-GPC-RBB**



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May 12, 2014

Honorable Gonzalo P. Curiel  
United States District Court  
Southern District of California  
221 West Broadway, Suite 2190  
San Diego, CA 92101

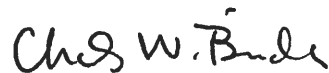
Re: *U.S.A. v. Fallbrook Public Utility District, et al.*, Civil No. 51-cv-1247-GPC-RBB  
Final Annual CWRMA Report for Calendar Year 2013

Dear Judge Curiel:

In accordance with Section 13 of the Cooperative Annual Water Resource Management Agreement (CWRMA), approved by the Court on August 20, 2002, the Watermaster has prepared the Annual CWRMA Report for Calendar Year 2013. The report was prepared in consultation with the CWRMA Technical Advisory Committee and has been approved by the signatory parties to the CWRMA. Accordingly, please find the enclosed hard copy and CD containing the PDF files for the final Annual CWRMA Report for Calendar Year 2013. Please make arrangements for posting the PDF files on the electronic docket.

If you have any questions please do not hesitate to call. Thank you.

Sincerely,



Charles W. Binder, P.E.  
Watermaster

CWB:aen  
Enclosures  
cc (w/o Encls.): Honorable Ruben B. Brooks  
cc (w/ Hard Copy of Encl.): Distribution List

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SANTA MARGARITA RIVER WATERSHED

Honorable Gonzalo P. Curiel  
Re: Final Annual CWRMA Report for Calendar Year 2013  
May 12, 2014  
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Major Water Purveyors  
CWRMA Location Map

Bound at back of report  
Bound at back of report

## **1. Introduction**

### **1.1 Background**

On August 20, 2002, the Cooperative Water Resource Management Agreement (CWRMA) between the United States, on behalf of Marine Corps Base Camp Pendleton (Camp Pendleton), and Rancho California Water District (District) was approved by the United States District Court in *United States of America v. Fallbrook Public Utility District, et al.* (Civil No. 51-cv-1247-GPC-RBB) (*Fallbrook Case*). The Court Order (Docket Nos. 4867 and 4869) incorporated CWRMA into the Judgment as adjudicated in the *Fallbrook Case*. The purpose of CWRMA is to allow Camp Pendleton and the District to effectively manage water resources consistent with prior rights and entitlements while avoiding potential conflicts. These prior rights and entitlements are derived from the *Fallbrook Case* that incorporates the stipulated judgment in *Rancho Santa Margarita v. Vail*, San Diego Superior Court Action No. 42850 (1940 Judgment). The parties agreed and the Court ordered that, to the extent the provisions of CWRMA are inconsistent with the 1940 Judgment, the provisions of CWRMA shall control for so long as CWRMA is being complied with and in effect.

The CWRMA includes provisions for guaranteed flows for the Santa Margarita River near Temecula (USGS Gaging Station No. 11044000) commonly referred to as the Gorge. Other provisions include monitoring and operation of the groundwater resources upstream of the Gorge, and monitoring of operations under CWRMA to assess impacts on water supply, water quality, and riparian habitat within Camp Pendleton. The CWRMA is administered by the Santa Margarita River Watershed Watermaster (Watermaster) appointed by the Court in the *Fallbrook Case*, in consultation with a Technical Advisory Committee (TAC). The Major Water Purveyors map at the end of this report shows the watershed boundary, major streams and reservoirs, boundaries for the major water purveyors, and other geographical features of interest. The CWRMA Location Map also included at the end of this report provides an enlargement of the primary area pertaining to CWRMA and displays key gages, groundwater monitoring wells, selected groundwater production wells, and other features for implementation of CWRMA.

### **1.2 Purpose of Report**

Section 13 of CWRMA specifies the Watermaster shall prepare an annual report regarding the performance under the various provisions of CWRMA for filing in the *Fallbrook Case*. Prior Annual Watermaster Reports served as the annual report specified under CWRMA for submission to the Court. Beginning in Calendar Year 2011, a separate annual report has been prepared and submitted to the Court to meet the requirements of CWRMA. The Annual Watermaster Report continues to include a section dedicated to CWRMA, focusing on the accounting and operations related to Make-up Water releases and flow requirements for the

Santa Margarita River at the Gorge. The Annual CWRMA Report is prepared by the Watermaster in consultation with the TAC and incorporates materials prepared by Camp Pendleton, the District, and the United States Geological Survey (USGS).

### **1.3 Activities for Calendar Year 2013**

#### **1.3.1 Ongoing Activities**

Several ongoing activities are conducted in accordance with CWRMA and such activities are described and reported in subsequent sections of the Annual CWRMA Report. Ongoing activities include conducting quarterly TAC meetings, determination of hydrologic year type, operation and accounting for Make-up Water and flow requirements at the Gorge, monitoring under the programs specified in Sections 5(g) and 7(d) of CWRMA, water quality monitoring, and actions related to the CWRMA Groundwater Model.

The TAC is chaired by the Watermaster and includes representatives of Camp Pendleton, the District, and the USGS. Quarterly TAC meetings are conducted with agenda items related to implementation of CWRMA. Minutes and other meeting materials are maintained in the Watermaster files. During 2013, regularly scheduled quarterly TAC meetings were conducted on January 15, April 16, July 16, and October 15. Additionally, a technical subgroup of the TAC conducted various workshops throughout the year in the ongoing effort to update the CWRMA Groundwater Model.

#### **1.3.2 Other Activities**

Other activities related to CWRMA are also described and reported in subsequent sections of the Annual CWRMA Report. These other activities for 2013 include implementation of the State of California groundwater elevation monitoring program and review of the proposed WR-34 Hydroelectric Power Generation Project.

## **2. Flow Requirements and Accounts**

### **2.1 Make-up Water**

Section 5 of CWRMA includes provisions for the District to guarantee specific flows at the Gorge. These guaranteed flows, or flow requirements, are determined based on agreed-upon methodologies and vary on a monthly basis depending upon hydrologic conditions. At a minimum, the District guarantees that flows, based on a 10-day running average, shall at no time be less than 3.0 cubic feet per second (cfs).

In order to meet the flow requirements, the District provides Make-up Water in accordance with Section 6 of CWRMA. The Make-up Water can be supplied from various sources; however, the District relies on two primary sources, both discharging into the river at the same location immediately upstream from the USGS gaging station at the Gorge. The first primary source of Make-up Water is raw water from Metropolitan Water District (MWD) Aqueduct No. 5 discharged at Outlet WR-34. The second primary source of Make-up Water is from the District's treated water distribution system through a potable connection to the pipeline for Outlet WR-34. In prior years, Make-up Water was also discharged from the treated water distribution system to Murrieta Creek from two system discharge meters collectively referred to as the System River Meter. The two system discharge meters are located on opposite sides of Murrieta Creek immediately downstream of the USGS gaging station for Murrieta Creek at Temecula, which is located approximately 2,000 feet upstream of the confluence of Temecula Creek and Murrieta Creek. The System River Meter is operable as a secondary source of Make-up Water if needed. Outlet WR-34 and the USGS gaging station at the Gorge are shown on the CWRMA Location Map.

## **2.2 Accounting Procedures**

The methods of accounting for the operations under CWRMA are specified in Sections 5 and 6 of CWRMA. Specific accounting procedures have evolved since the first year of operation under CWRMA in 2003. On April 21, 2006, Camp Pendleton and the District signed an accounting agreement to memorialize methods used for years 2003, 2004, and 2005, and also to agree upon specific procedures and definitions. The accounting definitions agreed to by Camp Pendleton and the District are shown on Table 1.

A flow tracking spreadsheet has been developed through a joint effort by staff and consultants for Camp Pendleton and the District. The spreadsheet is used on a daily basis by the District to manage make-up releases and track the various accounts. The spreadsheet is updated at the end of each calendar year through a joint exchange of information to reach agreement concerning the annual operations and accounting. A copy of the final spreadsheet is provided to the Watermaster for use in preparing the Annual Watermaster Report and the Annual CWRMA Report.

## **2.3 Hydrologic Condition**

The flow requirements and make-up releases for any particular calendar year are determined based on the hydrologic condition for the preceding October through April period. The methodology for determining the hydrologic condition is specified in Section 5 of CWRMA. A calculated hydrologic index is used to classify the hydrologic condition as one of the following hydrologic year types: Critically Dry, Below Normal, Above Normal, and Very Wet. The hydrologic year type is determined by the TAC on May 1<sup>st</sup> of each year. The Minimum

**Table 1**  
**Definition of Terms**  
**Cooperative Water Resource Management Agreement**

**Minimum Daily Flow Requirement** “The *Minimum Daily Flow Requirement* for each winter period shall be 11.5 cfs, less any credit unused in a previous year, and less any credit established by the May 1<sup>st</sup> accounting of the prior year” [§5(b)]. “The *Minimum Daily Flow Requirement* is ... calculated on a 10-day running average” [§5(b)]. The winter period *Minimum Daily Flow Requirements* may be further reduced by the accrual of CAP Credits “when the District is required under this Section to provide *Make-Up Water* in any calendar year in excess of 4,000 acre-feet” [§5(e)]. For the non-winter period, the “*Minimum Daily Flow Requirements* (are) based upon the particular hydrologic condition established on May 1st for the prior October-April period” [§5(c)].

**Actual Flow Requirement** “On May 1<sup>st</sup> ..., the hydrologic condition for the immediately preceding October-April period shall be determined. Such condition, and the *Daily Flow Requirements* set forth in this Section 5(b), shall be used to determine the *Actual Flow Requirement* for the prior winter period, and whether this requirement was exceeded” [§5(b)]. “Camp Pendleton may acquire rights to such groundwater above the Gorge by foregoing its right to *Make-Up Water* from the District; or to the extent that the District’s *Actual Flow Maintenance Requirements* are less than the flows in the table in Section 5” [§17]. The *Actual Flow Requirement* is equal to the *Minimum Daily Flow Requirement* during the non-winter period (once the Hydrologic Condition is known) because no credits are applied in the non-winter period.

**Make-Up Water** “The District shall provide whatever *Make-Up Water* is needed to meet this (the *Minimum Daily Flow*) requirement” [§5(b)]. “The District shall not be required to provide more than the equivalent of 11.5 cfs *Make-Up Water* for any month”. [§5(d)] “The District guarantees that flows, based upon the 10-day running average, shall at no time be less than 3.0 cfs” [§5(f)]. “Make-Up Water ... (is) required ... at the Gorge in order to comply with the requirements of Section 5” [§6].

**Climatic Credits** are those credits earned by the District on Below Normal and Critically Dry years, when the *Minimum Daily Flow Requirement* for the winter period is found to be greater than the *Actual Flow Requirement* determined on May 1<sup>st</sup>. “In providing *Minimum Daily Flows* ... if the District has provided *Make-Up Water* in excess of its *Actual Requirement*, the District shall be entitled to a credit for such excess. The quantity of the excess flow shall be converted to a cfs equivalent, and applied during the following winter periods to reduce the 11.5 cfs requirement” [§5(b)].

**CAP Credits** are those credits earned by the District when Make-Up water is in excess of 4,000 acre-feet per year. “When the District is required under this Section to provide *Make-Up Water* in any calendar year in excess of 4,000 acre-feet, measured at the Gorge, it shall be entitled to a credit for the excess, taking into account transmission losses, to be applied during the following two winter periods” [§5(e)].

**Camp Pendleton Groundwater Bank Credits** are those credits earned by Camp Pendleton when the District’s *Actual Flow Maintenance Requirements* are less than the flows in the table in Section 5. “Camp Pendleton may acquire rights to such groundwater above the Gorge by foregoing its right to *Make-Up Water* from the District; or to the extent that the District’s *Actual Flow Maintenance Requirements* are less than the flows in the table in Section 5” [§17]. “Camp Pendleton’s rights to such groundwater in storage shall not exceed 5,000 acre-feet at any one time; and ... the District’s obligation to deliver stored groundwater shall not exceed 2,200 acre-feet per year over any required makeup obligation which the District may have, and in no event at a rate in excess of 11.5 cfs” [§17].

**Credits** earned by the District serve to reduce the *Minimum Daily Flow Requirement* during the winter period. *Credits* are applied in the following order (1) Climatic Credits from 2 or more years prior, (2) Climatic Credits earned in the previous year, (3) CAP Credits earned from the previous year, and finally (4) CAP Credits from 2 years prior. “In all years following the first winter period, the same procedure shall be followed, provided that the *Minimum Daily Flow Requirement* for each winter period shall be 11.5 cfs, less any *credit* unused in a previous year, and less any *credit* established by the May 1<sup>st</sup> accounting of the prior year” [§5(a)].



Daily Flow Requirements at the Gorge, calculated on a 10-day running average, are specified for each month based on the hydrologic year type. The Minimum Daily Flow Requirements specified under Section 5 of CWRMA are shown on Table 2.

The hydrologic condition for 2013 was determined in accordance with CWRMA procedures as reported in the May 1, 2013 memorandum prepared by Stetson Engineers, Inc. (consultant to Camp Pendleton), provided in Appendix A. The Temecula Creek near Aguanga streamflow gage (USGS Gaging Station No. 11042400) and the Wildomar precipitation gage (Riverside County Flood Control and Water Conservation District Precipitation Station No. 246) are the key sources of data used for the determination and are shown on the CWRMA Location Map.

The determination for 2013 resulted in the classification of the hydrologic condition as a Critically Dry hydrologic year and thus the Minimum Daily Flow Requirements for 2013 are shown in Table 2 under the column heading for Critically Dry hydrologic year. The determinations of the Hydrologic Conditions for the years 2003 through 2013 are summarized on Table 3.

#### **2.4 Annual Accounting for 2013 CWRMA Operations**

The annual accounting for CWRMA operations is prepared through a joint effort by Camp Pendleton and the District. The flow tracking spreadsheet maintained on a daily basis by the District is provided to Camp Pendleton for review and use in preparing the annual accounting. The version of the spreadsheet used for the 2013 Annual CWRMA Report is Version No. 4.4, updated March 18, 2014.

The annual accounting for the 2013 CWRMA operations is documented in the February 19, 2014 memorandum prepared by Stetson Engineers, Inc., as provided in Appendix B-1. The memorandum provides a description of the operations during 2013, including tables showing the daily flows at the Gorge, Minimum Daily Flow Requirements, Make-up Water releases, and account balances.

Upon agreement by Camp Pendleton and the District, CWRMA includes provisions for the parties to alter normal operations to modify the Minimum Daily Flow Requirements at the Gorge. Examples of modifying the Minimum Daily Flow Requirements include instances when the parties are conducting sampling for downstream monitoring programs or requests to avoid accumulation of CAP Credits. Such modifications of CWRMA operations are accomplished through communications between, and approval by, the parties. In 2013, the parties reached agreement to modify normal operations to account for excess releases by the District resulting from revision of the winter-time flow requirement. This modification is described in Appendix B-1. The e-mail communications between the parties to reach agreement on the modification are provided in Appendix B-2.

**Table 2**  
**Section 5 Minimum Daily Flow Requirements**  
**Cooperative Water Resource Management Agreement**

	Critically Dry	Below Normal	Above Normal	Very Wet
Month	cfs	cfs	cfs	cfs
Jan - April	4.5	8.0	17.8 *	24.1 *
May	3.8	5.7	11.7 *	15.7 *
June	3.3	4.9	9.4	12.2 *
July	3.0	4.3	7.8	9.7
August	3.0	4.4	7.6	9.2
September	3.0	4.1	7.4	9.4
October	3.0	3.9	7.7	10.1
November	3.0	4.5	8.8	11.5
December	3.3	5.3	10.4	13.5 *

\* Section 5(d) of CWRMA specifies the District shall not be required to provide more than the equivalent of 11.5 cfs Make-Up Water for any month.

**Table 3**  
**Hydrologic Conditions for Operations under CWRMA**  
**(2003 to Present)**

<b>Calendar Year</b>	<b>Hydrologic Condition</b>
2003	Above Normal
2004	Critically Dry
2005	Very Wet
2006	Below Normal
2007	Critically Dry
2008	Above Normal
2009	Above Normal
2010	Very Wet
2011	Very Wet
2012	Critically Dry
2013	Critically Dry

One item of note concerns the USGS measured flows at the Gorge that are used for the daily determinations by the District for discharging Make-up Water. Two columns of daily discharges for streamflow at the Gorge are shown in the tables in Appendix B-1: the USGS official discharge and the USGS website discharge. Camp Pendleton and the District have agreed that the discharges shown on the website are accessed daily by the District for making daily decisions regarding the quantities of Make-up Water required and those discharges are used to compute the 10-day running average. The website discharge is considered to be provisional subject to subsequent changes by the USGS for designation as approved for official publication. Changes to the provisional data may result in either lower or higher values for the official discharge depending upon any specific adjustments. Such adjustments may be due to periodic measurements at the gage resulting in a shift to the rating curve or other changes to the data to account for equipment malfunctions and other irregularities.

It is also noted the daily tables provided in Appendix B-1 show the Minimum Daily Flow Requirement for each month as determined by the hydrologic condition and any adjustments agreed upon by the parties. The winter period includes the months January through April, and in accordance with Section 5(e) of CWRMA, the Minimum Daily Flow Requirement “... shall be 11.5 cfs less any credit unused in a previous year, and less any credit established by the May 1<sup>st</sup> accounting of the prior year.” The Minimum Daily Flow Requirement for the 2013 winter period was determined to be 5.6 cfs (11.5 – 5.9), as documented in the annual accounting for the 2012 CWRMA operations (February 8, 2013 memorandum prepared by Stetson Engineers, Inc.).

A summary of the annual accounting for the 2013 CWRMA operations is shown on Table 4. During Calendar Year 2013, the total releases by the District to meet CWRMA flow requirements were 2,561.7 acre feet. The releases were comprised entirely of raw water from Outlet WR-34. For Calendar Year 2013, there were no releases to meet CWRMA flow requirements from the potable connection at Outlet WR-34.

The number of days each month when the 10-day running average was less than the required flow is summarized on Table 4. It is noted the number of days when the 10-day running average is less than the required flow is determined based upon the provisional website discharge, as agreed upon by the parties. For Calendar Year 2013, there were no days when the 10-day running average was less than the required flow under normal CWRMA operations.

The Minimum Daily Flow Requirement for the 2014 winter period is determined as part of the annual accounting for the 2013 CWRMA operations. As described on Page 1, Appendix B-1, the Minimum Daily Flow Requirement at the Gorge during the 2014 winter period is determined to be 9.8 cfs (11.5 – 1.7).

**Table 4**  
**Monthly Summary of Required Flows, Discharges, Credits, and Accounts**  
**Cooperative Water Resource Management Agreement**

**2013 Calendar Year - Critically Dry Year**

Month	USGS Official Discharge AF		USGS Website Daily Discharge AF	Minimum Flow Maintenance Requirement cfs /1, 2	Section 5 Flows cfs /3	No. of Days 10-Day Running Average is Less Than Required Flow	Discharge from WR-34 AF/4	Climatic Credits Earned AF /5		Camp Pendleton Groundwater Account /6	
	AF	AF						AF	/5	Input AF	Cumulative Balance AF
January	395.3	395.3	395.3	6.5/5.3	4.5	0	291.9	116.0	93.0	5,000.0	
February	427.0	427.8	427.8	5.3	4.5	0	215.0	63.4	84.0	5,000.0	
March	857.3	857.3	857.3	5.6	4.5	0	266.6	96.6	93.0	5,000.0	
April	333.6	333.6	333.6	5.6	4.5	0	310.1	130.1	90.0	5,000.0	
May	246.3	234.2	234.2	3.8	3.8	0	220.7	0.0	0.0	5,000.0	
June	197.0	197.4	197.4	3.3	3.3	0	186.3	0.0	0.0	5,000.0	
July	174.1	186.0	186.0	3.0	3.0	0	167.7	0.0	0.0	5,000.0	
August	182.5	185.1	185.1	3.0	3.0	0	184.9	0.0	0.0	5,000.0	
September	179.3	179.3	179.3	3.0	3.0	0	185.5	0.0	0.0	5,000.0	
October	185.5	185.9	185.9	3.0	3.0	0	161.3	0.0	0.0	5,000.0	
November	179.3	179.3	179.3	3.0	3.0	0	170.5	0.0	0.0	5,000.0	
December	201.7	203.3	203.3	3.3	3.3	0	201.2	0.0	0.0	5,000.0	
<b>TOTAL</b>	<b>3,558.9</b>	<b>3,564.5</b>	<b>3,564.5</b>			<b>0</b>	<b>2,561.7</b>	<b>406.1</b>	<b>360.0</b>	<b>FULL</b>	

- 1 - Required flows for January through April are equal to 11.5 cfs, less 5.9 cfs of credits (1,248 AF of Climatic Credit earned in 2012 and 148 AF CAP Credit carried over from 2011).
- 2 - In December 2012, the preliminary winter-time flow requirement for 2013 was calculated as 6.5 cfs; in January 2013, the final winter-time requirement was computed as 5.6 cfs. To make up for excess releases made by the District between January 1-17, 2013, the winter-time flow requirement was reduced from 5.6 cfs to 5.3 cfs for January 18 through February 28.
- 3 - The table in Section 5 of the CWRMA sets forth guaranteed monthly flows at the Gorge once the Hydrologic Condition for the calendar year is established.
- 4 - CAP Credits equal WR-34 discharge in excess of 4,000 AF. No CAP Credits earned in 2013.
- 5 - Climatic Credits equal the WR-34 discharges less actual Flow Requirements, which is the flow indicated in Section 5 of the CWRMA less applicable credits but not less than 3.0 cfs.
- 6 - Camp Pendleton's rights to groundwater equal the flow indicated in Section 5 of the CWRMA less the Actual Flow Maintenance Requirement, which cannot be less than 3.0 cfs. Input to groundwater account shown but cumulative balance did not increase due to account balance maximum of 5,000 AF.

## **2.5 Climatic Credits**

Section 5(d) of CWRMA includes a provision for comparing the winter period Minimum Daily Flow Requirements with the Actual Flow Requirements based on the Hydrologic Conditions determined on May 1<sup>st</sup>. For Below Normal and Critically Dry years, if the Minimum Daily Flow Requirement is determined to be greater than the Actual Flow Requirements, the District is entitled to a Climatic Credit for such excess.

Beginning in January of each year, the District provides Make-up Water to meet the Minimum Daily Flow Requirement of 11.5 cfs (less any applied credits) during the winter period January through April, based upon the 10-day running average. On May 1<sup>st</sup>, if the hydrologic determination results in a year type of Below Normal or Critically Dry, the Actual Flow Requirement, in retrospect, would be less than 11.5 cfs, as shown in Table 2. The District would be entitled to Climatic Credits for any excess releases in those year types. In Above Normal and Very Wet years, the winter period flow requirements are equal to 11.5 cfs and thus Climatic Credits cannot be earned.

The Climatic Credits are determined on a volumetric basis as the accumulation of the difference of the daily Outlet WR-34 Make-up Water discharge, less the Actual Daily Flow Requirement, less any applied credits from the prior year. Climatic Credits earned in a particular year are converted to a cfs equivalent and applied during the following winter periods to reduce the 11.5 cfs requirement in accordance with the order of applying credits shown on Table 1.

As shown on Table 4, Climatic Credits were earned by the District in 2013 in the amount of 406.1 acre feet. A summary of the Climatic Credits earned and applied for the period 2003 to present is included in Appendix B-1.

## **2.6 CAP Credits**

CAP Credits are credits earned by the District when Make-up Water is in excess of 4,000 acre feet per year as specified in Section 5(e) of CWRMA. Any CAP Credits earned in a particular year are applied during the following two winter periods to reduce the 11.5 cfs requirement. As described in Appendix B-1, the District did not earn any CAP Credits in 2013. A summary of the CAP Credits earned and applied for the period 2003 to present is included in Appendix B-1.

## **2.7 Camp Pendleton Groundwater Bank**

Section 17 of CWRMA provides for emergency supplies for Camp Pendleton, including the establishment of rights to the use of groundwater in the basin upstream of the Gorge. Such

rights are established by Camp Pendleton foregoing its rights to Make-up Water, or to the extent that the District's Actual Flow Requirements are less than the flows specified on Table 2. The cumulative balance in the Camp Pendleton Groundwater Bank may not exceed 5,000 acre feet.

Table 4 shows the input or accrual to the Camp Pendleton Groundwater Bank in 2013 as 360.0 acre feet earned through determining the difference between actual and required flow requirements. The groundwater input is shown on Table 4 but is not credited to the account due to the account balance maximum of 5,000 acre feet.

A summary of the Camp Pendleton Groundwater Bank credits earned and used for the period 2003 to present is included in Appendix B-1. The maximum account balance of 5,000 acre feet was reached in 2005, and has been maintained since that time. Camp Pendleton has not used any water from the Camp Pendleton Groundwater Bank to date.

### **3. Section 5(g) Monitoring Program**

Section 5(g) of CWRMA provides for a program to assess the impacts of CWRMA operations on water supply, water quality and riparian habitat within Camp Pendleton. During 2007-08, Camp Pendleton initiated the Section 5(g) program named as the Lower Santa Margarita River Watershed Monitoring Program (Program) to evaluate whether the increased flows under CWRMA impacted threatened and endangered species, riparian and wetland habitats, or water quality downstream. The Program will also support other water quality monitoring and watershed management activities in the Santa Margarita River Watershed. A copy of the Statement of Work for the Lower Santa Margarita River Watershed Monitoring Program was previously published in the 2007 and 2008 Annual Watermaster Reports. The monitoring was funded for a two-year period and the final report, *Hydrological and Biological Support to Lower Santa Margarita River Watershed Monitoring Program Water Years 2008-2009*, was published on February 21, 2010, by the United States Bureau of Reclamation, Southern California Office, under a cooperative agreement with Camp Pendleton.

### **4. Section 7(d) Monitoring Program**

Section 7(d) of CWRMA provides for a program to assess safe yield operations of the District for pumping groundwater from the basin upstream of the Gorge through the use of a multi-level groundwater monitoring network and periodic updates of the CWRMA Groundwater Model. In September 2006, the USGS, under contract with Camp Pendleton and the District, constructed a multi-level monitoring well for the Murrieta-Temecula Groundwater Basin in accordance with Section 7(d) of CWRMA. The USGS monitoring program for the Pala Park Groundwater Monitoring Well (TMPP) is included in the ongoing Watermaster budget beginning in year 2007-08. The Pala Park Groundwater Monitoring

Well is located near the confluence of Pechanga and Temecula creeks as shown on the CWRMA Location Map and was completed to a total depth of 1,499 feet. Six piezometers were installed for continuous water level recording in the saturated zone for the lower five screened intervals and a temperature probe for the upper-most screened interval to detect moisture in the unsaturated zone. In 2009, water level recording equipment was added for the upper-most piezometer. The piezometric head for the six piezometers for the Pala Park Groundwater Monitoring Well for the period December 27, 2006 through December 31, 2013, is shown on Figure 1.

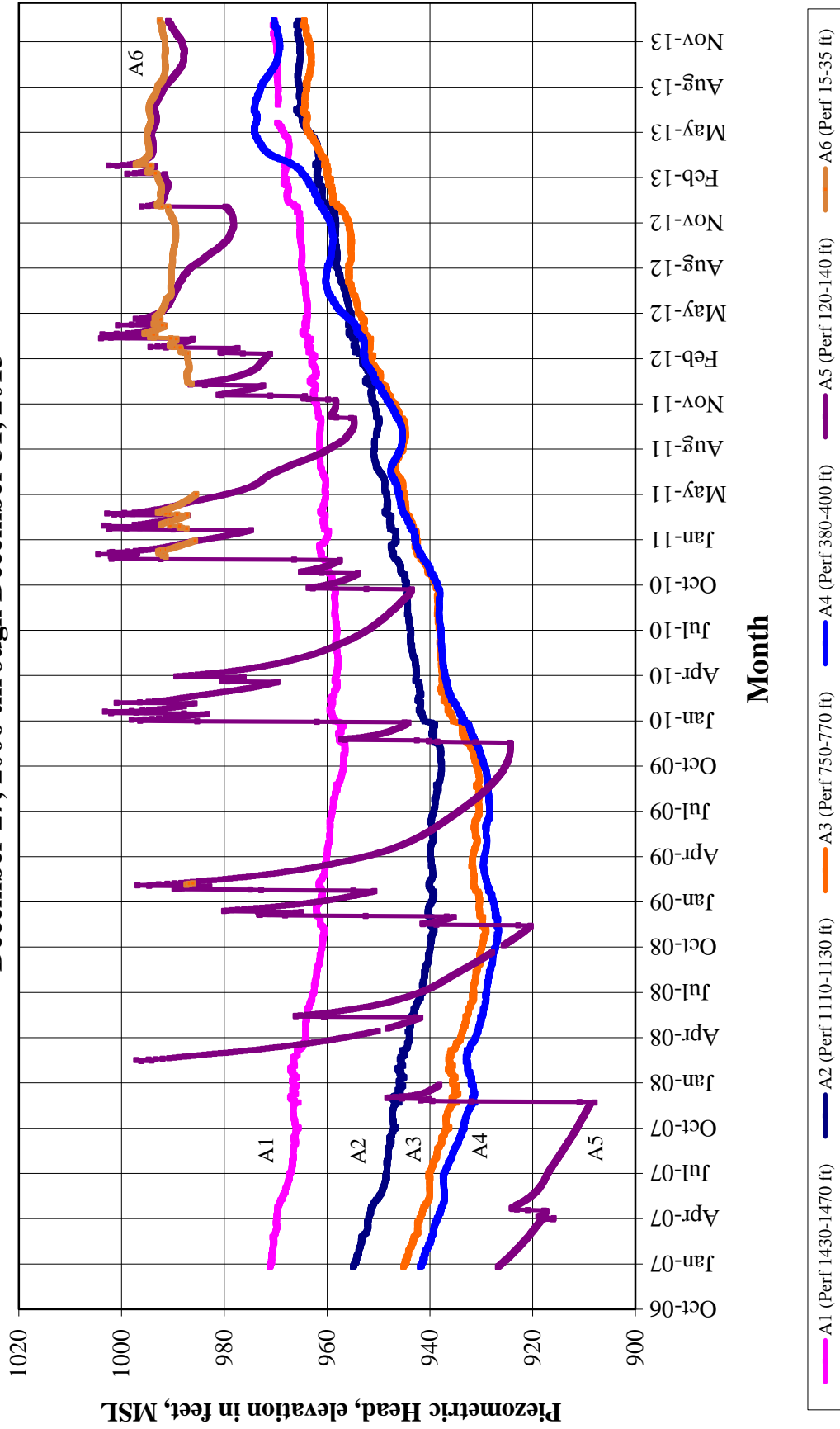
In 2009, the groundwater monitoring program was expanded to include the Wolf Valley Groundwater Monitoring Well (TMWV) that was previously constructed under a cooperative agreement between the USGS and the Pechanga Band of Luiseño Mission Indians. The Wolf Valley Groundwater Monitoring Well is located off the Pechanga Indian Reservation as shown on the CWRMA Location Map. Two piezometers are installed at the Wolf Valley Groundwater Monitoring Well. The groundwater level monitoring for the Wolf Valley Groundwater Monitoring Well was previously funded by the Pechanga Band, but is now included in the ongoing Watermaster budget beginning in year 2009-10. The piezometric head for the two piezometers for the Wolf Valley Groundwater Monitoring Well for the period March 5, 1990 through December 31, 2013, is shown on Figure 2.

In 2013, two additional groundwater monitoring wells were constructed by the USGS under contract with the District. The groundwater level monitoring for these additional wells will also be included in the ongoing Watermaster budget. The two additional wells are shown on the CWRMA Location Map as the Temecula Creek Groundwater Monitoring Well (TMTC) and the VDC Recharge Basin Groundwater Monitoring Well (TMVC). The Temecula Creek Groundwater Monitoring Well was drilled in April 2013, to a depth of 1,720 feet, and was completed with five piezometers. The VDC Recharge Basin Groundwater Monitoring Well was drilled in August 2013, to a depth of 1,033 feet, and was completed with six piezometers. Groundwater level data and laboratory results from water quality sampling are pending and will be presented in future annual CWRMA reports.

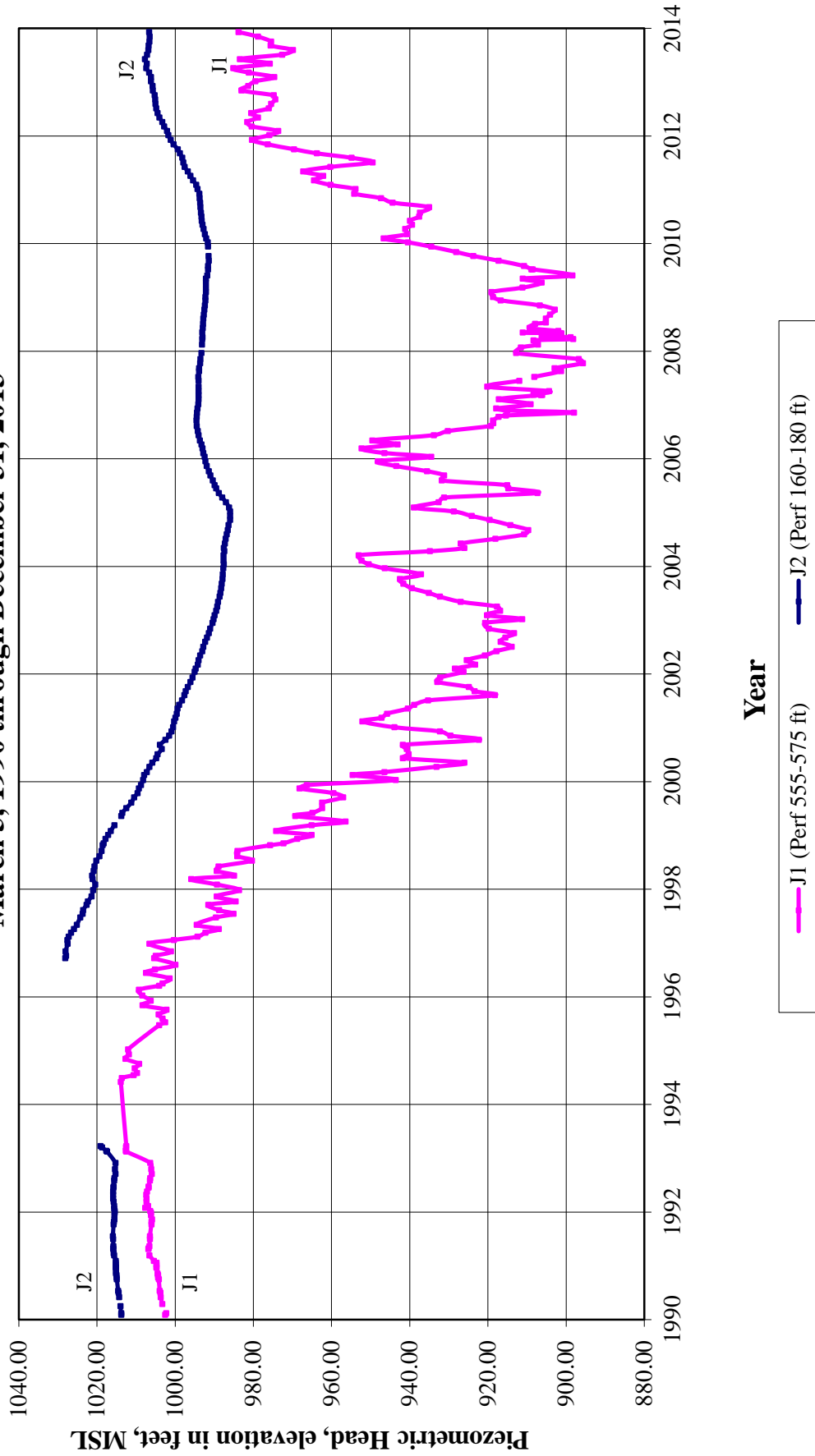
Information concerning the construction of the Pala Park, Wolf Valley, Temecula Creek, and VDC Recharge Basin groundwater monitoring wells, groundwater levels, and water quality data can be found at the following website: <http://ca.water.usgs.gov/temecula/>. Information obtained from the website, and supplemental information for the Pala Park Groundwater Monitoring Well, are provided in Appendix C-1. The information for the Wolf Valley Groundwater Monitoring Well is provided in Appendix C-2. Information for the Temecula Creek and VDC Recharge Basin monitoring wells will be provided in appendices in future annual CWRMA reports.



**Figure 1**  
**Piezometric Head for Multiple Depth Monitoring Well**  
**Pala Park Well (8S/2W-19A1-6)**  
**December 27, 2006 through December 31, 2013**



**Figure 2**  
**Piezometric Head for Multiple Depth Monitoring Well**  
**Wolf Valley Well (8S/2W-20J1-2)**  
**March 5, 1990 through December 31, 2013**



## **5. Water Quality**

### **5.1 Gorge**

Section 10 of CWRMA specifies that the Watermaster shall monitor water quality at the Gorge. The Watermaster budget includes funding for the USGS to continuously monitor four water quality parameters at the Santa Margarita River near Temecula gaging station: dissolved oxygen, pH, specific conductance, and temperature. The annual water quality data are reported in the Annual Watermaster Report and data for the period of record can be accessed at the website: [http://waterdata.usgs.gov/ca/nwis/uv/?site\\_no=11044000&agency\\_cd=USGS&](http://waterdata.usgs.gov/ca/nwis/uv/?site_no=11044000&agency_cd=USGS&)

### **5.2 Monitoring Wells**

Groundwater quality data are collected as part of the Section 7(d) Monitoring Program. Data are collected by the USGS with funding through the Watermaster budget. The data can also be accessed at the following website: <http://ca.water.usgs.gov/temecula/>.

Water quality data collected to date for the Pala Park Groundwater Monitoring Well (TMPP) are included in Appendix C-1. Water quality data have been collected in one or more of the piezometers on an annual basis since 2006. Analyses and piezometers included in the particular annual regimen vary to maximize utility of the annual funding levels. Also included in Appendix C-1 are tri-linear and stable isotope diagrams produced by the USGS.

Water quality data for the Wolf Valley Groundwater Monitoring Well (TMWV) are included in Appendix C-2. The water quality data include samples collected in 1990 and 1993, under the prior cooperative agreement between the USGS and the Pechanga Band. Data for 2009 and 2010 were collected with funding as part of the Watermaster budget. Tri-linear and stable isotope diagrams produced by the USGS are included in Appendix C-2.

### **5.3 Source Water**

In 2010, 2011, and 2012, the water quality monitoring program also included collecting data for the two sources of supply for recharge at the head of Pauba Valley: (1) imported supplies for recharge at the District's groundwater recharge facilities, and (2) native supplies from Temecula Creek as sampled at Vail Lake. Funding from the Watermaster budget was used to collect and analyze the data.

The District operates groundwater recharge facilities at the head of Pauba Valley for the recharge of imported and native water supplies. Water quality data for the District's Upper VDC Recharge Basin Pond No. 5 are provided in Appendix D-1. The water quality data include a sample collected in 2007, as part of a cooperative effort between the USGS and the

District. Data for 2010 through 2012 were collected with funding through the Watermaster budget. It is interesting to note the percentage of State Water Project (SWP) water in the imported supplies compared to the percentage of Colorado River water. The percentage of SWP water for the 2007, 2010, 2011, and 2012 samples is estimated as 28, 19, 63, and 51 percent, respectively. Several parameters, including hardness, calcium, sodium, and chloride, show a marked difference in 2011 and 2012, compared to samples collected in 2007 and 2010.

In 2009, the District initiated a water quality sampling program at Vail Lake in part to characterize the water quality for recharge from native supplies at the head of Pauba Valley. It is of interest to characterize the Vail Lake native water prior to the planned future storage of imported supplies in Vail Lake. The water quality sampling locations for Vail Lake and water quality data collected at Vail Lake Station No. 3 for the period September 22, 2009 through June 22, 2013 (program suspended for remainder of 2013) are provided in Appendix D-2. Samples are collected at two depths with sample numbering reflecting the sample depths: 3 Vail 1M denotes sampling Station No. 3 at a depth of one meter below water surface and 3 Vail 1MAB denotes sampling Station No. 3 at a depth of one meter above the bottom of the lake. In 2011, water quality sampling from Station No. 3 was added to the program funded by the Watermaster in order to obtain sample analyses comparable to sampling programs for the VDC Recharge Basin Pond No. 5 and the Pala Park and Wolf Valley groundwater monitoring wells. The water quality data collected in 2011 and 2012 by the USGS under the Watermaster program are also shown in Appendix D-2.

Combined tri-linear and stable isotope diagrams for VDC Pond No. 5 and Vail Lake are repeated in both Appendices D-1 and D-2 with the parameters showing clear differences between the two sources of supply.

#### **5.4 RCWD Production Wells**

In 2012, the water quality monitoring program also included collecting data from selected groundwater production wells operated by the District within Pauba Valley as shown on the CWRMA Location Map. These wells were selected to compliment the water quality data for the monitoring wells and the two sources of supply for recharge at the head of Pauba Valley as described in the preceding section. Previously, groundwater production wells operated by the District were included in the Groundwater Ambient Monitoring and Assessment (GAMA) program implemented by the California State Water Resources Control Board.

Water quality data for the selected production wells are included in Appendix E. Data reported for 2004 and 2007 were collected as part of the GAMA program. Data reported for 2012 were collected with funding from the Watermaster budget. Tri-linear and stable isotope

diagrams produced by the USGS are included in Appendix E. The stable isotope diagrams are segregated by wells considered to be completed in the Pauba Aquifer and the Temecula Aquifer.

In 2013, the TAC and Watermaster Steering Committee approved using funding from the Watermaster budget to analyze archived, age-dating samples that were collected during 2012. The samples from two RCWD production wells, Well Nos. 109 and 234, will be analyzed for tritium and carbon isotopes. Laboratory results from the analysis are pending and will be presented in future annual CWRMA reports.

### **5.5 MWD Aqueduct No. 5 Discharge at Outlet WR-34**

In 2012, the District's water quality sampling program was expanded to include sampling at the MWD Aqueduct No. 5 Discharge at Outlet WR-34. The water quality data for Outlet WR-34 for the period May 30, 2012 through December 12, 2013, are included in Appendix F. The data include inorganic, organic, and physical parameters comparable to the data collected at Vail Lake and the RCWD Production Wells.

In addition, the District is monitoring the presence or absence of Quagga mussels at a location in the Santa Margarita River approximately 100 feet downstream of the discharge point for Outlet WR-34. The monitoring utilizes coupon sampling equipment and protocol established under the Rancho California Water District Dreissena Mussel Response and Control Action Plan approved by the California Department of Fish and Wildlife. To date, there have been no Quagga mussels detected in the Santa Margarita River.

## **6. CWRMA Groundwater Model**

Section 7 of CWRMA provides for the District to operate the groundwater basin upstream of the Gorge on a safe-yield basis. As indicated above, Section 7(d) of CWRMA specifies that the District and Camp Pendleton will develop and utilize a monitoring program and the CWRMA Groundwater Model to assess safe-yield operations. The CWRMA Groundwater Model was developed by the TAC as part of the negotiations between the District and Camp Pendleton that resulted in the final CWRMA and is jointly owned by the two parties. The CWRMA Groundwater Model was developed over the period 1995 through early 2003, with the final model documentation report prepared on January 31, 2003. The computer code used for the CWRMA Groundwater Model is MODFLOW, which is a three-dimensional finite difference groundwater flow model developed and maintained by the USGS. The CWRMA Groundwater Model extends throughout the Murrieta-Temecula Groundwater Basin, which is the groundwater basin upstream of the Gorge and is defined in pertinent interlocutory judgments and exhibits as adjudicated in the *Fallbrook Case*.

The CWRMA Groundwater Model is used for assessing safe-yield operations pursuant to Section 7(d) and is also used by the District on an ongoing basis as a management tool to assess groundwater pumping impacts and to set annual pumping amounts for managing the groundwater basin. Section 7(d) of CWRMA specifies that the CWRMA Groundwater Model shall be updated periodically, and in no event less frequently than every five years. Accordingly, in 2007, Camp Pendleton and the District initiated an effort to update the CWRMA Groundwater Model. Work on updating the groundwater model continued during 2013. The update will incorporate data collected from the Pala Park Groundwater Monitoring Well and other wells in the Murrieta-Temecula Groundwater Basin as well as take advantage of recent software and computing advancements.

## **7. Other Items Related to CWRMA**

Other items of note for 2013 related to CWRMA include: (1) implementation of the State of California groundwater elevation monitoring program for the groundwater basin upstream of the Gorge, and (2) the proposed WR-34 Hydroelectric Power Generation Facility. These items are included in the Annual CWRMA Report for informational purposes.

### **7.1 CASGEM Program**

On November 6, 2009, the Governor for the State of California approved Senate Bill SBX7 6-Groundwater Elevation Monitoring (SBX7 6). SBX7 6 provides for a statewide program of reporting groundwater elevation data for groundwater basins and is implemented by the California Department of Water Resources (DWR). The program is referred to as the California Statewide Groundwater Elevation Monitoring (CASGEM) Program. The Bill defines “basins” or “sub-basins” to mean a groundwater basin or sub-basin identified and defined in DWR Bulletin No. 118. Three such basins are identified in Bulletin No. 118 for the Santa Margarita River Watershed including Basin No. 9-5 (Temecula Valley) located in the Murrieta-Temecula Groundwater Basin. Basin No. 9-5 generally corresponds to the groundwater basin upstream of the Gorge as specified in CWRMA and the Murrieta-Temecula Groundwater Basin as defined in the *Fallbrook Case*.

SBX7 6 establishes a procedure for a Monitoring Entity to coordinate the monitoring activities for a basin and on September 24, 2012, DWR notified the District that Rancho California Water District is designated as the Monitoring Entity for Basin No. 9-5. The District developed the CASGEM monitoring plan for Basin No. 9-5 in consultation with the TAC. Additional information for the CASGEM program, the approved monitoring plan, and groundwater monitoring data posted for Basin No. 9-5 can be found at the following website: <http://www.water.ca.gov/groundwater/casgem/>.

## **7.2 Proposed WR-34 Hydroelectric Power Generation Facility**

On January 6, 2011, the District published a Federal Energy Regulatory Commission (FERC) Initial Consultation Package for the proposed WR-34 Hydroelectric Power Generation Facility. The proposed facility involves installation of power generation equipment at the existing Outlet WR-34 and modification of the hourly Make-up Water releases. The 10-day running average and volumetric flow requirements under CWRMA would not be changed. Since publication of the FERC Initial Consultation Package, the District has conducted public meetings with stakeholders and consulted with Camp Pendleton through TAC meetings and other meetings to evaluate potential impacts of the proposed facility and to alleviate concerns expressed by Camp Pendleton and the Watermaster regarding impacts on CWRMA operations.

The District conducted a flow test in cooperation with Camp Pendleton to test simulated pulsed flow conditions, varying the release rate from zero to 13 cfs over a 14-day period from August 24 through September 6, 2011. Upon completion of the flow test, the District distributed to the TAC, the comprehensive January 2012 Technical Report incorporating the materials included in the FERC Initial Consultation Package, pre-design evaluations, and results from the flow test conducted in 2011.

Upon review of the Technical Report, the District and Camp Pendleton agreed to conduct additional flow tests during 2012. From August 6 through 19, 2012, and from November 19 through December 12, 2012, the District conducted flow tests in which the instantaneous release rate at Outlet WR-34 varied from zero to 13 cfs throughout the day. However, the average daily release rate remained at 3.0 cfs.

In 2013, the District continued stakeholder and TAC consultations to proceed with the environmental review and planning for the proposed facility. On January 9, 2013, the District distributed for TAC review the screen check draft of the Initial Study & Draft Mitigated Negative Declaration (IS/DMND) for the WR-34 Hydroelectric Power Generation Facility. On April 19, 2013, the District noticed and distributed the IS/MND for environmental review and comments under the California Environmental Quality Act process. Comments received by the District from the National Marine Fisheries Service and California Trout raised questions and concerns that potentially impact the viability of the proposed project. The District deferred adoption of the IS/DMND and placed the project on hold pending whether such concerns can be addressed to maintain project viability.

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**ANNUAL REPORT**

**COOPERATIVE WATER RESOURCE  
MANAGEMENT AGREEMENT**

**CALENDAR YEAR 2013**

**APPENDIX A**

**HYDROLOGIC CONDITION DETERMINATION**





# FINAL TECHNICAL MEMORANDUM 050113.0

2171 E. Francisco Blvd., Suite K • San Rafael, California • 94901  
TEL: (415) 457-0701 FAX: (415) 457-1638 e-mail: mollyp@stetsonengineers.com

TO: CWRMA Technical Advisory Committee      DATE: May 1, 2013  
FROM: Stetson Engineers      JOB NO: 2408-1003  
RE: Hydrologic Conditions in the Santa Margarita River Watershed for the 2013 Calendar Year

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## INTRODUCTION

This technical memorandum outlines the process of calculating the hydrologic index (HI) that describes the current hydrologic condition in the Santa Margarita River watershed and subsequently establishes the required flows at the Gorge. Appendix C of the Cooperative Water Resource Management Agreement (CWRMA) was followed in order to determine the Section 5 flow requirements for the period January 1, 2013 through December 31, 2013.

## DATA SOURCES

Two sets of observed data are necessary to calculate the HI. The first set includes October through April monthly precipitation from the Wildomar Precipitation Station (Station #246). This information is available through the Riverside County Flood Control and Water Conservation District, courtesy of:

Mr. Robert Laag  
ph. # (951) 955-1232,  
email: relaag@rcflood.org

Table 1 shows rainfall at the Wildomar Station for October 2012 through April 2013. Riverside County Flood Control and Water Conservation District provided data for October 1, 2012 through April 15, 2013. Review of nearby stations for April 16 through April 30, 2013 revealed that there was zero recorded rainfall during this period.

The second set of observed data used for the calculation of the HI is the streamflow at Temecula Creek near Aguanga. The pertinent period of record from October 2012 through April 2013, as recorded by USGS gage # 11042400, is shown in Table 2. The raw data are available through the USGS database as average daily streamflow in cubic feet per second (cfs) and are classified as provisional. To perform the HI calculation, streamflow was converted to acre-feet by multiplying the daily values by a conversion factor of 1.983 acre-feet/cfs/day.

**TABLE 1. MONTHLY PRECIPITATION AT WILDOMAR [INCHES]**

<b>Month</b>	<b>Precipitation (in)</b>
Oct-12	0.92
Nov-12	0.50
Dec-12	3.03
Jan-13	1.13
Feb-13	0.75
Mar-13	1.13
Apr-13	0.03
Water Year Total	7.49

Source: Riverside County Flood Control and Water Conservation District (April 16, 2013); April value reflects estimate of zero rainfall for April 16-30, 2013.

**TABLE 2. DAILY STREAMFLOW AT TEMECULA CREEK NEAR AGUANGA [ACRE-FEET/DAY]**

<b>Day</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	
1	0.5	1.2	3.0	5.4	5.2	5.2	4.0	
2	0.5	1.3	3.2	5.0	5.0	5.2	4.0	
3	0.5	1.3	3.2	4.8	5.0	5.4	3.8	
4	0.6	1.2	3.2	4.8	5.0	5.4	3.4	
5	0.7	1.1	3.0	4.8	5.0	5.4	3.4	
6	0.8	1.3	3.2	4.8	5.0	5.4	3.4	
7	0.8	1.3	3.0	5.0	5.0	5.4	3.4	
8	0.9	1.5	3.0	5.0	5.8	11.1	3.4	
9	0.9	1.8	3.0	4.8	6.4	10.9	3.2	
10	1.0	1.8	3.0	4.8	5.6	9.7	3.0	
11	1.2	1.7	3.0	4.8	5.4	7.9	2.8	
12	1.4	1.7	3.2	4.8	5.2	6.9	2.8	
13	1.3	1.6	4.6	4.8	5.2	6.4	2.8	
14	1.1	1.6	7.5	4.6	5.2	6.0	3.0	
15	1.0	1.6	6.4	4.6	5.0	5.6	3.8	
16	0.9	1.7	6.2	4.6	5.0	5.4	3.8	
17	0.9	1.8	5.4	4.6	5.0	5.4	3.8	
18	0.9	1.9	5.6	4.6	5.0	5.2	3.4	
19	1.1	1.9	6.2	4.4	5.4	5.4	3.0	
20	1.3	1.9	5.4	4.2	8.1	5.2	2.8	
21	1.6	1.9	4.8	4.2	6.4	5.2	2.6	
22	1.6	1.9	4.6	4.2	6.0	5.2	2.4	
23	1.5	1.9	4.6	4.2	5.8	5.0	1.6	
24	1.4	1.8	4.6	4.4	5.8	4.8	2.6	
25	1.4	1.9	4.6	6.2	5.6	4.8	2.8	
26	1.1	1.9	4.6	8.1	5.6	4.6	2.0	
27	1.1	1.9	5.0	6.4	5.4	4.6	1.8	
28	1.0	2.0	4.8	5.8	5.4	4.4	1.6	
29	1.0	2.0	5.0	5.6		4.2	1.4	
30	1.1	2.6	5.8	5.4		4.0	1.2	
31	1.1		6.2	5.2		3.8		
								<b>TOTAL</b>
<b>Total</b>	<b>32.2</b>	<b>50.7</b>	<b>137.9</b>	<b>153.7</b>	<b>152.4</b>	<b>178.2</b>	<b>86.3</b>	<b>791.3</b>
<b>Mean</b>	1.0	1.7	4.4	5.0	5.4	5.7	2.9	<b>3.7</b>
<b>Maximum</b>	1.6	2.6	7.5	8.1	8.1	11.1	4.0	<b>11.1</b>
<b>Minimum</b>	0.5	1.1	3.0	4.2	5.0	3.8	1.2	<b>0.5</b>

Source: USGS Station #11042400 (<http://waterdata.usgs.gov/nwis/dv>). Data downloaded 5/1/2013. All data are provisional.

## DATA ANALYSIS/PROCEDURE

The HI is defined as the sum of October through April natural streamflow at Murrieta, natural streamflow at Vail Lake, and natural streamflow from the Pauba and Wolf Valleys. Depending on the results of the HI, the hydrologic condition in the Santa Margarita River watershed may be categorized as Critically Dry, Below Normal, Above Normal, or Very Wet.

The natural streamflow at Murrieta is calculated using the rainfall/runoff relationship between precipitation at the Wildomar station and natural streamflow at Murrieta, as determined by the Hydrologic Simulation Program Fortran (HSPF) model. The polynomial relationship is described in equation (1), where Y is the average monthly natural streamflow at Murrieta in cfs

per day, and X is the monthly precipitation in inches at Wildomar. The natural streamflow at Murrieta is converted to volume, in acre-feet, by multiplying the average monthly streamflow by the number of days per month to get the monthly volume of streamflow, then summing the monthly volumes.

$$\begin{aligned}
 Y &= 9.068 - 34.798 * X + 11.339 * X^2 && \text{(Where } X \geq 2.79 \text{ inches)} && (1) \\
 Y &= 0 && \text{(Where } X < 2.79 \text{ inches)}
 \end{aligned}$$

The natural streamflow at Vail Lake is a function of the observed streamflow from USGS Gage # 11042400, Temecula Creek at Aguanga. Equation (2) describes the relationship, where S is the monthly observed stream flow at Aguanga from October through April, in acre-feet, and V is the monthly natural October through April stream flow at Vail Lake, also in units of acre-feet.

$$V = 1.38 * S \tag{2}$$

Equation (3) describes the estimated contributions from Pauba and Wolf Valleys, where V is the October through April stream flow at Vail Lake (equation (2)), and Z is the Pauba and Wolf Valley October through April contribution in units of acre-feet.

$$Z = 0.5 * V \tag{3}$$

The HI is the sum of the results of Equations (1), (2), and (3):  $HI = Y + V + Z$ .

## RESULTS

The results of the calculations of the hydrologic index for the 2013 calendar year are summarized in Table 3. According to Figure C-1 in the CWRMA, Critically Dry hydrologic conditions are defined as years in which the HI is less than 3,230 acre-feet. The HI for the 2013 calendar year is 2,113 acre-feet, which falls into the Critically Dry hydrologic category.

The guaranteed flows that must be maintained at the Gorge are established based on the general hydrologic condition of the Santa Margarita River Basin and stipulated in Section 5 of the CWRMA. Guaranteed flows are defined as two-thirds of the median natural flows during the period of record (1931-1996), to be maintained by RCWD at the Gorge. The use of the median value of streamflow eliminates the impact of large storm flows from the requirements at the Gorge. The Actual Flow requirements at the Gorge for 2013 for a Critically Dry year are listed in Table 4.

**TABLE 3. HYDROLOGIC INDEX CALCULATIONS  
CALENDAR YEAR 2013**

	[1]	[2]	[3]	[4]	[5]	[6]
Water Year 2013	Precipitation at Wildomar [inch]	Natural Flow at Murrieta [Acre-Feet]	Observed Flow at Aguanga [Acre-Feet]	Calculated Flow at Vail Lake [Acre-Feet]	Estimated Contributions from Pauba and Wolf Valleys [Acre-Feet]	Hydrologic Index [Acre-Feet]
October	0.92	0.0	32.2	44.5	22.2	66.7
November	0.50	0.0	50.7	69.9	35.0	104.9
December	3.03	475.4	137.9	190.2	95.1	760.8
January	1.13	0.0	153.7	212.1	106.1	318.2
February	0.75	0.0	152.3	210.2	105.1	315.3
March	1.13	0.0	178.1	245.8	122.9	368.7
April	0.03	0.0	86.2	119.0	59.5	178.5
<b>Totals</b>	<b>7.49</b>	<b>475.4</b>	<b>791.1</b>	<b>1,091.8</b>	<b>545.9</b>	<b>2,113.1</b>

- Notes: [1] Precipitation at Wildomar Station #246 from Riverside County Flood Control and Water Conservation District (April 16, 2013).
- [2] If Monthly Precipitation at Wildomar is less than 2.79 inches, the Natural Streamflow at Murrieta is 0 Acre-Feet  
Otherwise, Natural Streamflow at Murrieta [Acre-Feet] is =  $(9.068 - 34.798 * [1] + 11.339 * [1]^2) * (86400/43560) * 31$
- [3] The sum of provisional daily values from USGS Station #11042400 Temecula Creek near Aguanga
- [4] Flow at Vail Lake Estimated to be  $1.38 * [3]$
- [5] Contributions from Pauba and Wolf Valley Estimated to be 50% of Vail Lake Inflow, calculated as  $0.5 * [4]$
- [6]  $[2] + [4] + [5] = HI$  HI Determination  
 $HI \leq 3,230$  ~ Critically Dry  
 $HI \leq 14,510$  ~ Below Normal  
 $HI \leq 47,810$  ~ Above Normal  
 $HI > 47,810$  ~ Very Wet

**TABLE 4. ACTUAL FLOW REQUIREMENT AT THE GORGE FOR CALENDAR YEAR 2013**

**Critically Dry Hydrologic Year**

Month	2/3 Natural Flow at the Gorge <sup>[1]</sup> [cfs]	Actual Flow Requirement at the Gorge [cfs]
Jan-Apr	4.5	4.5
May	3.8	3.8
June	3.3	3.3
July	3.0	3.0
August	3.0	3.0
September	3.0	3.0
October	3.0	3.0
November	3.0	3.0
December	3.3	3.3

<sup>[1]</sup> 2/3 Natural flow at the Gorge is based on the median flow during Critically Dry conditions from 1931 through 1996.

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**ANNUAL REPORT**  
**COOPERATIVE WATER RESOURCE**  
**MANAGEMENT AGREEMENT**  
**CALENDAR YEAR 2013**

**APPENDIX B-1**  
**FEBRUARY 19, 2014 MEMORANDUM FROM**  
**STETSON ENGINEERS, INC.**





## FINAL MEMORANDUM 012014.1

2171 E. Francisco Blvd., Suite K • San Rafael, California • 94901  
TEL: (415) 457-0701 FAX: (415) 457-1638 e-mail: mollyp@stetsonengineers.com

TO: CWRMA Technical Advisory Committee      DATE: February 19, 2014  
FROM: Stetson Engineers      JOB NO: 2408-1003  
RE: Summary of Climatic, CAP, and Groundwater Bank Credits as of December 31, 2013

The purpose of this memorandum is to provide an update to flows and credits stipulated under the Cooperative Water Resource Management Agreement (CWRMA) as of December 31, 2013. Mr. Craig Elitharp of Rancho California Water District (District) provided Stetson Engineers with an updated "Tracking Model" on January 3, 2014, complete with all flows augmented by the District through calendar year 2013. Table 1 summarizes the 2003 through 2013 Hydrologic Conditions, Climatic Credits, CAP Credits, and Groundwater Bank Credits either earned or used by the two parties.

Through December 31, 2013, the District had accumulated 406 AF of Climatic Credit and 0 AF of CAP Credit. The equivalent winter-time flow rate of the credits, based on the 120-day winter period, is 1.7 cfs of Climatic Credit and 0 cfs of CAP Credit. The CWRMA provides for the determination of the next winter's flow requirement and the application of credits in the section that states:

"In all years following the first winter period... the Minimum Daily Flow Requirement for each winter period shall be 11.5 cfs, less any credit unused in a previous year, and less any credit established by the May 1<sup>st</sup> accounting of the prior year" [§5(e)].

Applying the Climatic Credit of 1.7 cfs, the Minimum Daily Flow Requirement at the Gorge during the 2014 winter period is determined to be 9.8 cfs. Consistent with previous years, the Minimum Daily Flow Requirement may be adjusted in the future to account for any necessary operational changes that are agreed to by both parties.

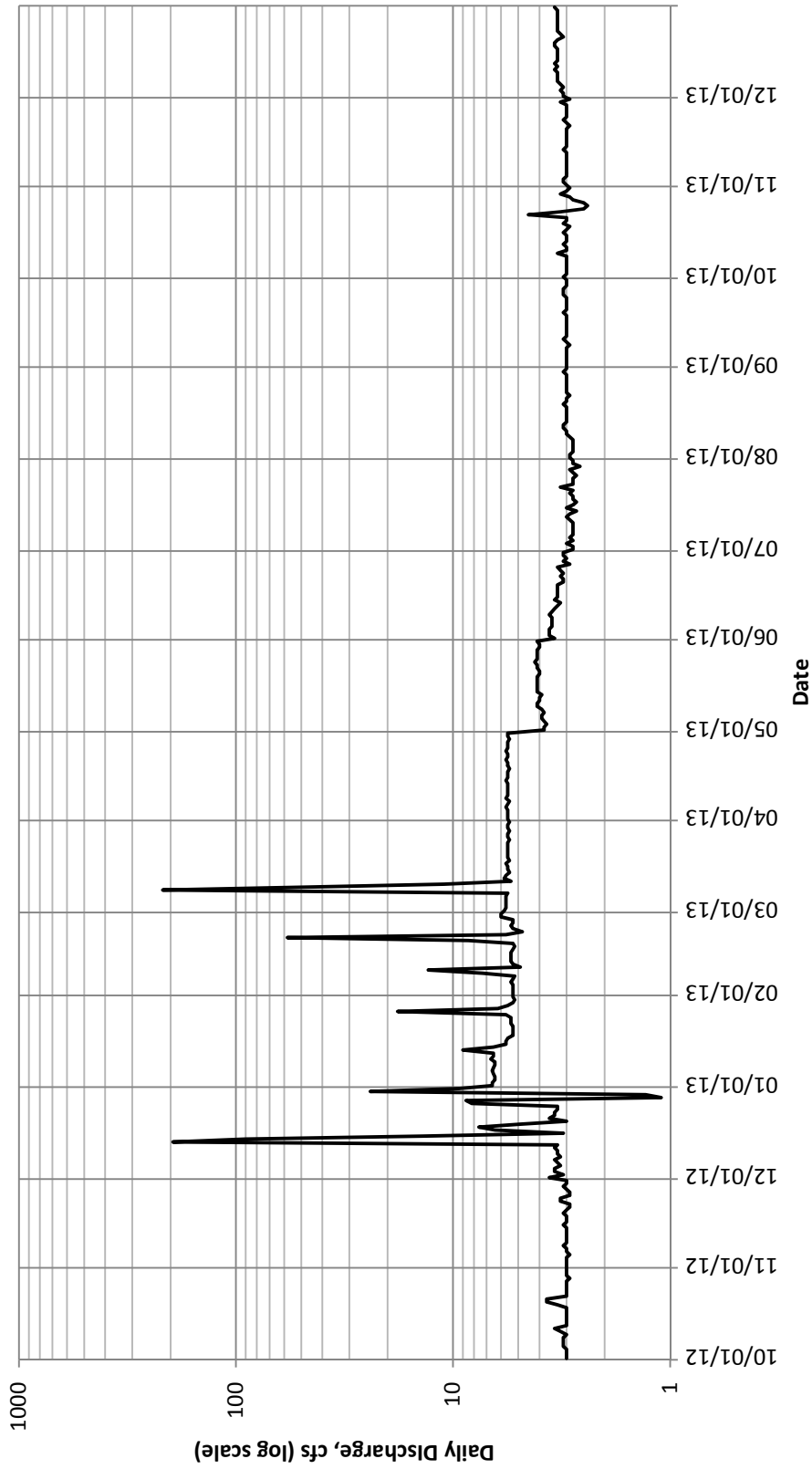
The total releases by the District to meet the Actual Flow Requirement in 2013 were 2,562 AF. In the May 1, 2013 memorandum from Stetson to the Technical Advisory Committee, the Hydrologic Condition for 2013 was determined to be Critically Dry. Camp Pendleton earned 360 AF of Groundwater Bank Credit due to maximum flow requirements stipulated in the CWRMA. The streamflow measured at the Gorge was 3,577 AF during the 2013 calendar year. During this period, total releases by the District accounted for 72% of the total flow measured at the Gorge during the Critically Dry Hydrologic Conditions of 2013. Figure 1 is a hydrograph of the daily flow measured by the USGS at the Gorge (Station 11044000).

**TABLE 1. SUMMARY OF CLIMATIC, CAP, AND GROUNDWATER BANK CREDITS  
THROUGH DECEMBER 31, 2013**

Credit	Calendar Year													
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014		
Hydrologic Condition	Above Normal	Critically Dry	Very Wet	Below Normal	Critically Dry	Above Normal	Above Normal	Very Wet	Very Wet	Critically Dry	Critically Dry	TBD		
Previous Year's Climatic Credit (AF)	0	0	678	0	477	1,212	0	0	0	0	1,248	406		
Climatic Credit Used (AF)	0	0	678	0	477	1,212	0	0	0	0	1,248	406		
Climatic Credit Earned (AF)	0	678	0	477	1,212	0	0	0	0	1,248	406	n/a		
Climatic Credits Remaining (AF)	0	678	0	477	1,212	0	0	0	0	1,248	406	n/a		
Previous Year's CAP Credit (AF)	0	1,485	483	397	206	0	432	1,011	397	296	148	0		
CAP Credit Used (AF)	0	1,002	483	191	206	0	216	614	397	148	148	0		
CAP Credit Earned (AF)	1,485	0	397	0	0	432	795	0	296	0	0	n/a		
CAP Credits Remaining (AF)	1,485	483	397	206	0	432	1,011	397	296	148	0	n/a		
Previous Year's														
Groundwater Bank Credit (AF)	0	2,096	2,456	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000		
Groundwater Bank Credit Used (AF)	0	0	0	0	0	0	0	0	0	0	0	n/a		
Groundwater Bank Credit Earned (AF)	2,096	360	2,544	0	0	2,087	3,092	5,372	5,275	148	360	n/a		
Groundwater Bank Credit Remaining (AF)	2,096	2,456	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	n/a		
Minimum Required Winter Flow at the Gorge <sup>1</sup> (cfs)	11.5	8.4/7.1	6.6	10.7	8.6	6.4	10.6	8.9	9.8	10.9	5.6	9.8		

<sup>1</sup> Required flow converted to a cfs equivalent for a winter period of 120 days. In 2004, from January 1-22, 50% CAP Credit was applied and for the remainder of the winter period 70% of CAP Credit was applied.

**Figure 1**  
**Daily Discharge at the Gorge**  
**USGS Gage 11044000 - Santa Margarita River near Temecula**  
**October 2012 - December 2013**



Notes:  
 Values shown are official values approved for publication by the USGS.  
 CWRMA releases were made to meet flow requirements as measured using the provisional USGS daily website discharge; subsequent rating shifts or adjustments at the gage may increase or decrease the published values when compared to the provisional ones. Daily published and provisional values are given in the Annual Watermaster Report Appendix E.

## **2013 WINTER-TIME FLOW REQUIREMENT**

In December 2012, the Minimum Daily Flow Requirement for 2013 was determined on a preliminary basis to be 6.5 cfs. Starting on January 1, 2013, the District made releases to meet this flow requirement.

In mid-January 2013, a full review of accounting for 2012 was completed. The 2013 Minimum Daily Flow Requirement was computed by subtracting the 2012 Climatic Credit of 1,248 AF and the 2011 Carry-over CAP Credit of 148 AF. The total credit of 1,396 AF is equivalent to a winter-time flow rate of 5.9 cfs<sup>1</sup>. After subtracting 5.9 cfs from 11.5 cfs, the 2013 Minimum Daily Flow Requirement was determined to be 5.6 cfs. Because this flow rate was less than the preliminary requirement of 6.5 cfs, the District made excess releases for 17 days from January 1 - 17, 2013.

To make up for these excess releases, the District and Camp Pendleton agreed to reduce the flow requirement for the remainder of January and for all of February. For January 18 through February 28, the winter-time flow requirement was reduced to 5.3 cfs. This reduction balanced the excess releases made from January 1 - 17. Releases made by the District from January 1 - Feb 28 represent the required volume of releases had the flow requirement of 5.6 cfs been applied throughout the period. In the calculation of Climatic Credit, groundwater bank input, and flow violation days, neither party was penalized for the change in Minimum Daily Flow Requirement; the accounting represents credits and inputs that would have been calculated with a constant Minimum Daily Flow Requirement of 5.6 cfs.

## **CREDITS, FOREGONE WATER, AND RELEASE SOURCES**

Due to Critically Dry Hydrologic Conditions, the District earned Climatic Credit in 2013. Because total releases were less than 4,000 AF in 2013, the District did not earn any new CAP Credit. Camp Pendleton earned input to the Groundwater Bank in 2013, but the balance did not increase since the bank was at its maximum value of 5,000 AF at the beginning of the year.

If Camp Pendleton's Groundwater Bank had not already been at the maximum allowable storage volume, 306 AF would have been credited to the Groundwater Bank due to the District's Actual Flow Maintenance Requirements being less than the flows in the Section 5 table (See CWRMA Art. 17).

In 2013, all releases made by the District were through the MWD raw water source at WR-34.

## **OPERATIONS**

Based on review of the release data, recorded flow at the Gorge, and the Minimum Daily Flow Requirement, 26 AF of excess water was released. Previously termed operational inefficiency, any excess represents a quantity of water released at the Gorge

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<sup>1</sup> In Table 2 of this memo, the Climatic and CAP Credits applied for 2013 are shown as cfs-equivalent flow rates in Columns 5 and 6, respectively. Due to rounding, the values shown (5.2 cfs, 0.6 cfs) do not add up to 5.9 cfs. However, the correct credit for 2013 is 5.9 cfs, based on a total credit of 1,396 AF applied to the winter-time period.

greater than required under CWRMA. In previous years, the operational inefficiency has been as high as 220 AF. The excess release of 26 AF in 2013 was less than in most years.

There were no days during 2013 when the Section 5 Flow Requirement was not met. There have been zero flow violation days for the past five years, compared to up to 14 days in prior years.

## **SUMMARY**

Table 2 quantifies the monthly flow releases at the Gorge, credits earned, and credits applied from 2003 through 2013. The District released 2,562 AF of water in 2012 to meet the winter-time Minimum Daily Flow Requirement and the non-winter actual flow requirement for Critically Dry Hydrologic Conditions. Both monthly and daily summaries of CWRMA accounting of flows and credits are given in the attached tables intended for use in the Annual Watermaster Report (Table 11.1 and Appendix E).

For calendar year 2013, the accounting practices in the “Tracking Model” were updated such that rounding was applied to daily values instead of monthly summations. The purpose of this modification was to ensure consistency between values presented in Table 1 and Table 2 and those shown in the Annual Watermaster Report Table 11.1 and Appendix E. The result of this modification is that monthly summations of daily values are based on daily values that have been rounded to the nearest 0.1 AF.

In 2013, Camp Pendleton maintained the maximum amount of water available in its Groundwater Bank; the District accumulated Climatic Credit, but not CAP Credit. Based on Climatic Credit earned in 2013, the 2014 winter-time flow requirement was determined to be 9.8 cfs. The Hydrologic Condition for 2014 will be established on May 1, 2014 following this winter’s rainfall events. The hydrologic determination and the amount of water released will establish the Minimum Daily Flow Requirements for May through December and credits earned.

**Table 2.  
Monthly Credit Accounting**

(1) Month	(2) Hydrologic Index [type]	(3) Table 5 Flow Requirement [cfs]	(4) Section 5 Flow Requirement [cfs]	(5) Climatic Credit Applied [cfs]	(6) CAP Credit Applied [cfs]	(7) Augmentation at WR-34 [AF]	(8) Climatic Credit Earned [AF]	(9) CAP Credit Earned [AF]	(10) Operations Data [AF]	(11) Section 5 Flow Violation [# of days]	(12) Groundwater Bank Input [AF]	(13) Foregone Make-Up Water [AF]	(14) Emergency Flows [AF]
Winter 2003	AN	17.8	11.5	-	-	2,005.4	0.0		240	0	1,499.5	0.0	0.0
May-03	AN	11.7	11.5			564.8			53	0	12.3	0.0	0.0
Jun-03	AN	9.4	9.4			513.4			34	1	0.0	0.0	0.0
Jul-03	AN	7.8	7.8			498.7			53	0	0.0	0.0	0.0
Aug-03	AN	7.6	7.6			485.0			6	0	0.0	0.0	0.0
Sep-03	AN	7.4	7.4			454.9			25	0	0.0	0.0	0.0
Oct-03	AN	7.7	7.7			465.6			24	0	15.1	15.1	0.0
Nov-03	AN	8.8	8.8			226.2			10	1	255.9	255.9	0.0
Dec-03	AN	10.4	10.4			270.6			-2	0	313.6	313.6	0.0
<b>Calendar Year 2003</b>						<b>5,484.5</b>	<b>0.0</b>	<b>1,484.5</b>	<b>443</b>	<b>2</b>	<b>2,096.3</b>	<b>584.5</b>	<b>0.0</b>
Winter 2004	CD	4.5	7.3	0.0	4.2	1,299.4	677.7		32	11	360.0	0.0	0.0
May-04	CD	3.8	3.8			205.6			2	0	0.0	0.0	0.0
Jun-04	CD	3.3	3.3			154.5			6	1	0.0	0.0	0.0
Jul-04	CD	3.0	3.0			166.7			4	0	0.0	0.0	0.0
Aug-04	CD	3.0	3.0			184.0			1	0	0.0	0.0	0.0
Sep-04	CD	3.0	3.0			177.4			1	0	0.0	0.0	0.0
Oct-04	CD	3.0	3.0			111.2			10	0	0.0	0.0	0.0
Nov-04	CD	3.0	3.0			103.0			4	0	0.0	0.0	0.0
Dec-04	CD	3.3	3.3			122.8			6	0	0.0	0.0	0.0
<b>Calendar Year 2004</b>						<b>2,524.6</b>	<b>677.7</b>	<b>0.0</b>	<b>66</b>	<b>12</b>	<b>360.0</b>	<b>0.0</b>	<b>0.0</b>
Winter 2005	VW	24.1	6.62	2.8	2.0	24.0	0.0		-23	5	2,543.7	0.0	0.0
May-05	VW	15.7	11.50			583.8			-1	1	0.0	0.0	0.0
Jun-05	VW	12.2	11.50			666.8			34	1	0.0	0.0	0.0
Jul-05	VW	9.7	9.70			601.9			55	0	0.0	0.0	0.0
Aug-05	VW	9.2	9.20			554.6			6	0	0.0	0.0	0.0
Sep-05	VW	9.4	9.40			543.4			5	0	0.0	0.0	0.0
Oct-05	VW	10.1	10.10			550.7			26	0	0.0	0.0	0.0
Nov-05	VW	11.5	11.50			509.5			-10	3	0.0	111.1	0.0
Dec-05	VW	13.5	11.50			362.2			2	0	0.0	381.2	0.0
<b>Calendar Year 2005</b>						<b>4,396.9</b>	<b>0.0</b>	<b>396.9</b>	<b>94</b>	<b>10</b>	<b>2,543.7</b>	<b>492.3</b>	<b>0.0</b>



**Table 2. (continued)  
Monthly Credit Accounting**

(1) Month	(2) Hydrologic Index [type]	(3) Table 5 Flow Requirement [cfs]	(4) Section 5 Flow Requirement [cfs]	(5) Climatic Credit Applied [cfs]	(6) CAP Credit Applied [cfs]	(7) Augmentation at WR-34 [AF]	(8) Climatic Credit Earned [AF]	(9) CAP Credit Earned [AF]	(10) Operations Data [AF]	(11) Section 5 Flow Violation [# of days]	(12) Groundwater Bank Input [AF]	(13) Foregone Make-Up Water [AF]	(14) Emergency Flows [AF]
Winter 2006	BN	8.0	10.7	0.0	0.8	1,990.9	476.5		180	18	0.0	0.0	0.0
May-06	BN	5.7	5.7			320.6			7	0	0.0	0.0	0.0
Jun-06	BN	4.9	4.9			274.9			2	0	0.0	0.0	0.0
Jul-06	BN	4.3	4.3			260.5			2	0	0.0	0.0	0.0
Aug-06	BN	4.4	4.4			256.0			6	0	0.0	0.0	0.0
Sep-06	BN	4.1	4.1			241.1			1	0	0.0	0.0	0.0
Oct-06	BN	3.9	3.9			232.7			5	0	0.0	0.0	0.0
Nov-06	BN	4.5	4.5			235.5			3	1	0.0	0.0	0.0
Dec-06	BN	5.3	5.3			185.0			15	0	0.0	111.1	0.0
<b>Calendar Year 2006</b>						<b>3,997.2</b>	<b>476.5</b>	<b>0.0</b>	<b>220</b>	<b>19</b>	<b>0.0</b>	<b>111.1</b>	<b>0.0</b>
Winter 2007	CD	4.5	8.6	2.0	0.9	1,882.9	1,212.3		-8	24	0.0	0.0	0.0
May-07	CD	3.8	3.8			249.0			2	0	0.0	0.0	0.0
Jun-07	CD	3.3	3.3			159.4			2	0	0.0	0.0	0.0
Jul-07	CD	3.0	3.0			218.6			2	0	0.0	0.0	0.0
Aug-07	CD	3.0	3.0			208.5			2	0	0.0	0.0	0.0
Sep-07	CD	3.0	3.0			203.6			1	0	0.0	0.0	0.0
Oct-07	CD	3.0	3.0			207.5			1	0	0.0	0.0	0.0
Nov-07	CD	3.0	3.0			196.4			4	0	0.0	0.0	0.0
Dec-07	CD	3.3	3.3			153.8			6	0	0.0	0.0	0.0
<b>Calendar Year 2007</b>						<b>3,479.7</b>	<b>1,212.3</b>	<b>0.0</b>	<b>11</b>	<b>24</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
Winter 2008	AN	17.8	6.4	5.1	0.0	999.0	0.0		55	0	1,512.0	0.0	0.0
May-08	AN	11.7	11.5			494.2			-93	0	12.3	0.0	0.0
Jun-08	AN	9.4	9.4			532.4			14	0	0.0	0.0	0.0
Jul-08	AN	7.8	7.8			473.6			15	0	0.0	0.0	0.0
Aug-08	AN	7.6	7.6			480.2			12	0	0.0	0.0	0.0
Sep-08	AN	7.4	7.4			456.5			8	0	0.0	0.0	0.0
Oct-08	AN	7.7	7.7			481.3			6	1	0.0	0.0	0.0
Nov-08	AN	8.8	8.8			407.4			1	1	126.0	126.0	0.0
Dec-08	AN	10.4	10.4			107.0			10	0	436.6	436.6	0.0
<b>Calendar Year 2008</b>						<b>4,431.7</b>	<b>0.0</b>	<b>431.7</b>	<b>28</b>	<b>2</b>	<b>2,087.4</b>	<b>563.1</b>	<b>0.0</b>

**Table 2. (continued)  
Monthly Credit Accounting**

(1) Month	(2) Hydrologic Index [type]	(3) Table 5 Flow Requirement [cfs]	(4) Section 5 Flow Requirement [cfs]	(5) Climatic Credit Applied [cfs]	(6) CAP Credit Applied [cfs]	(7) Augmentation at WR-34 [AF]	(8) Climatic Credit Earned [AF]	(9) CAP Credit Earned [AF]	(10) Operations Data [AF]	(11) Section 5 Flow Violation [# of days]	(12) Groundwater Bank Input [AF]	(13) Foregone Make-Up Water [AF]	(14) Emergency Flows [AF]
Winter 2009	AN	17.8	10.6	0.0	0.9	2,145.5	0.0		51	0	1,499.5	0.0	0.0
May-09	AN	11.7	11.5			227.8			17	0	12.3	0.0	0.0
Jun-09	AN	9.4	9.4			709.1			2	0	0.0	0.0	0.0
Jul-09	AN	7.8	7.8			746.0			1	0	0.0	0.0	0.0
Aug-09	AN	7.6	7.6			254.0			7	0	248.1	248.1	0.0
Sep-09	AN	7.4	7.4			186.7			0	0	261.8	261.8	0.0
Oct-09	AN	7.7	7.7			202.6			0	0	289.0	289.0	0.0
Nov-09	AN	8.8	8.8			189.3			0	0	345.1	345.1	0.0
Dec-09	AN	10.4	10.4			133.7			1	0	436.6	436.6	0.0
<b>Calendar Year 2009</b>						<b>4,794.6</b>	<b>0.0</b>	<b>794.6</b>	<b>79</b>	<b>0</b>	<b>3,092.4</b>	<b>1,580.6</b>	<b>0.0</b>
Winter 2010	VW	24.1	8.9	0.0	2.6	1,201.9	0.0		-59	0	2,999.0	0.0	0.0
May-10	VW	15.7	11.5			417.0			20	0	258.2	0.0	0.0
Jun-10	VW	12.2	11.5			667.9			2	0	41.7	0.0	0.0
Jul-10	VW	9.7	9.7			488.7			7	0	160.7	160.7	0.0
Aug-10	VW	9.2	9.2			290.3			0	0	295.1	295.1	0.0
Sep-10	VW	9.4	9.4			278.7			0	0	315.4	315.4	0.0
Oct-10	VW	10.1	10.1			243.0			4	0	381.2	381.2	0.0
Nov-10	VW	11.5	11.5			195.7			-53	0	416.5	416.5	0.0
Dec-10	VW	13.5	11.5			191.0			4	0	504.2	504.2	0.0
<b>Calendar Year 2010</b>						<b>3,974.2</b>	<b>0.0</b>	<b>0.0</b>	<b>-73</b>	<b>0</b>	<b>5,372.0</b>	<b>2,073.1</b>	<b>0.0</b>
Winter 2011	VW	24.1	9.8	0.0	1.7	1,115.9	0.0		26	0	2,999.0	0.0	0.0
May-11	VW	15.7	11.5			652.1			1	0	258.2	0.0	0.0
Jun-11	VW	12.2	11.5			688.4			0	0	41.7	0.0	0.0
Jul-11	VW	9.7	9.7			607.5			22	0	64.3	64.3	0.0
Aug-11	VW	9.2	9.2			277.9			6	0	295.0	295.1	0.0
Sep-11	VW	9.4	9.4			318.8			25	0	315.4	315.4	0.0
Oct-11	VW	10.1	10.1			243.6			12	0	381.2	381.2	0.0
Nov-11	VW	11.5	11.5			142.3			-42	0	416.5	416.5	0.0
Dec-11	VW	13.5	11.5			249.1			7	0	504.2	504.2	0.0
<b>Calendar Year 2011</b>						<b>4,295.6</b>	<b>0.0</b>	<b>295.6</b>	<b>57</b>	<b>0</b>	<b>5,275.5</b>	<b>1,976.0</b>	<b>0.0</b>

**Table 2. (continued)  
Monthly Credit Accounting**

(1) Month	(2) Hydrologic Index [type]	(3) Table 5 Flow Requirement [cfs]	(4) Section 5 Flow Requirement [cfs]	(5) Climatic Credit Applied [cfs]	(6) CAP Credit Applied [cfs]	(7) Augmentation at WR-34 [AF]	(8) Climatic Credit Earned [AF]	(9) CAP Credit Earned [AF]	(10) Operations Data [AF]	(11) Section 5 Flow Violation [# of days]	(12) Groundwater Bank Input [AF]	(13) Foregone Make-Up Water [AF]	(14) Emergency Flows [AF]
Winter 2012	CD	4.5	10.9	0.0	0.6	1,848.0	1,247.8		115	0	147.8	0.0	0.0
May-12	CD	3.8	3.8			285.2			2	0	0.0	0.0	0.0
Jun-12	CD	3.3	3.3			314.4			0	0	0.0	0.0	0.0
Jul-12	CD	3.0	3.0			178.0			6	0	0.0	0.0	0.0
Aug-12	CD	3.0	3.0			179.1			1	0	0.0	0.0	0.0
Sep-12	CD	3.0	3.0			180.6			0	0	0.0	0.0	0.0
Oct-12	CD	3.0	3.0			178.1			5	0	0.0	0.0	0.0
Nov-12	CD	3.0	3.0			163.6			1	0	0.0	0.0	0.0
Dec-12	CD	3.3	3.3			107.3			-2	0	0.0	0.0	0.0
<b>Calendar Year 2012</b>						<b>3,434.3</b>	<b>1,247.8</b>	<b>0.0</b>	<b>128</b>	<b>0</b>	<b>147.8</b>	<b>0.0</b>	<b>0.0</b>
Winter 2013	CD	4.5	5.6	5.2	0.6	1,083.6	406.1		20.4	0	360.0	0.0	0.0
May-13	CD	3.8	3.8			220.7			0.6	0	0.0	0.0	0.0
Jun-13	CD	3.3	3.3			186.3			1.0	0	0.0	0.0	0.0
Jul-13	CD	3.0	3.0			167.7			1.6	0	0.0	0.0	0.0
Aug-13	CD	3.0	3.0			184.9			0.6	0	0.0	0.0	0.0
Sep-13	CD	3.0	3.0			185.5			0.8	0	0.0	0.0	0.0
Oct-13	CD	3.0	3.0			161.3			0.1	0	0.0	0.0	0.0
Nov-13	CD	3.0	3.0			170.5			0.8	0	0.0	0.0	0.0
Dec-13	CD	3.3	3.3			201.2			0.4	0	0.0	0.0	0.0
<b>Calendar Year 2013</b>						<b>2,561.7</b>	<b>406.1</b>	<b>0.0</b>	<b>26.3</b>	<b>0</b>	<b>360.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Total Groundwater Bank =</b>												<b>5,000</b>	
<b>Initial Conditions for Winter 2014</b>	<b>TBD</b>	<b>TBD</b>	<b>9.8</b>		<b>-</b>	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>	<b>5,000</b>	<b>TBD</b>	<b>TBD</b>

## Table 2. (continued) Monthly Credit Accounting LEGEND

Column	Description
(1) Month	Winter period (Jan-April), Non-Winter period (May-Dec)
(2) Hydrologic Index	Hydrologic Index as determined on May 1st: CD (Critically Dry), BN (Below Normal), AN (Above Normal), VW (Very Wet)
(3) Table 5 Flow Requirement	Table 5 Flow Requirement for the winter and non-winter period determined after May 1st
(4) Section 5 Flow Requirement	Section 5 Flow Requirement (or Minimum Flow Requirement) for the winter period before May 1st <i>Winter Section 5 Flow Requirement</i> = 11.5 - Climatic Credit Applied - CAP Credit Applied <i>Non-Winter Section 5 Flow Requirement</i> = the minimum of 11.5 and the Table 5 Flow Requirement
(5) Climatic Credit Applied	The 2013 Minimum Daily Flow Requirement was computed based on credits equal to 1,396 AF. The total credit of 1,396 AF was converted to an equivalent winter-time flow rate in cfs (5.9 cfs), which was then subtracted from 11.5 cfs for a Minimum Daily Flow Requirement of 5.6 cfs. In the Calendar Year 2013 section of this table, the cfs-equivalent flow rates for Climatic Credit (5.2 cfs, Column 5) and CAP Credit (0.6 cfs, Column 6) do not add up to 5.9 cfs due to rounding.
(6) CAP Credit Applied	Sum of the daily Climatic Credits Applied in the winter of the calendar year.
(7) Augmentation at WR-34	Sum of the daily CAP Credits Applied in the winter of the calendar year. Augmentation at WR-34 by the District. Note that Augmentation is never greater than the daily WEB flows at Gorge.
(8) Climatic Credit Earned	Sum of the daily Climatic Credits earned in the winter of a BN or CD year, as calculated after May 1st.
(9) CAP Credit Earned	CAP Credit earned on years when > 4,000 AF of Augmentation, as calculated at the end of the year.
(10) Operations Data	Operations Data is a measure of operational efficiency calculated as the sum of all daily shortages and daily excess.
(11) Section 5 Flow Violation	Section 5 flow violation is the number of days when the 10-day running average is less than the Minimum Flow Requirement.
(12) Groundwater Bank	Groundwater Bank = 2/3 Natural Flow at Gorge (Section 5 Table) – Actual Flow Requirement as determined on May 1st – emergency flow deliveries requested by Camp Pendleton. The Actual Flow Requirement reveals the flow that the District would have released during the winter period if the Hydrologic Index was known at the beginning of the year.
(13) Foregone Make-Up Water	Camp Pendleton may acquire rights to groundwater above the Gorge by foregoing its right to Make-up Water from the District. Camp Pendleton took action on October 23, 2003 to reduce the impact of the CAP Credit by requesting the District to reduce flow Augmentation at the Gorge from AN to BN conditions. Camp Pendleton took action on November 23, 2005 to reduce the impact of the CAP Credit by requesting the District to reduce flow Augmentation at the Gorge from VW to BN conditions. Camp Pendleton took action on December 4, 2006 to reduce the impact of the CAP Credit by requesting the District to reduce flow Augmentation at the Gorge from BN to CD conditions. Camp Pendleton took action on November 20, 2008 to reduce the impact of the CAP Credit by requesting the District to reduce flow Augmentation at the Gorge from AN to CD conditions. Camp Pendleton took action on August 1, 2009 to reduce the impact of the CAP Credit by requesting the District to reduce flow Augmentation at the Gorge from AN to CD conditions. Camp Pendleton took action on July 16, 2010 to reduce the impact of the CAP Credit by requesting the District to reduce flow Augmentation at the Gorge from VW to BN conditions. Camp Pendleton took action on July 25, 2011 to reduce the impact of the CAP Credit by requesting the District to reduce flow Augmentation at the Gorge from VW to BN conditions.
(14) Emergency Flows	Emergency flows may be called upon by the Commanding General of Camp Pendleton when there is a water supply emergency.

## **ATTACHMENTS FOR ANNUAL WATERMASTER REPORT**

### **TABLE 11.1**

**SANTA MARGARITA RIVER WATERSHED: MONTHLY SUMMARY OF REQUIRED FLOWS,  
DISCHARGES, CREDITS AND ACCOUNTS**

### **APPENDIX E**

**SANTA MARGARITA RIVER WATERSHED: COOPERATIVE WATER RESOURCE MANAGEMENT  
AGREEMENT REQUIRED FLOWS AND ACCOUNTS SANTA MARGARITA RIVER NEAR TEMECULA  
(JANUARY - DECEMBER 2013)**

TABLE 11.1

SANTA MARGARITA RIVER WATERSHED  
**MONTHLY SUMMARY OF REQUIRED FLOWS,  
DISCHARGES, CREDITS AND ACCOUNTS**  
**COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT**

**2013 CALENDAR YEAR - CRITICALLY DRY YEAR**

Month	USGS Official Discharge AF	USGS Website Daily Discharge AF	Minimum Flow Maintenance Requirement cfs /1, 2	Section 5 Flows cfs /3	No. of Days 10-day Running Average is Less than Required Flow	Discharge from WR-34 AF /4	Climatic Credits Earned AF /5	Camp Pendleton Groundwater Bank /6	
								Input AF	Cumulative Balance AF
Jan	395.3	395.3	6.5/5.3	4.5	0	291.9	116.0	93.0	5,000.0
Feb	427.0	427.8	5.3	4.5	0	215.0	63.4	84.0	5,000.0
Mar	857.3	857.3	5.6	4.5	0	266.6	96.6	93.0	5,000.0
Apr	333.6	333.6	5.6	4.5	0	310.1	130.1	90.0	5,000.0
May	246.3	234.2	3.8	3.8	0	220.7	0.0	0.0	5,000.0
Jun	197.0	197.4	3.3	3.3	0	186.3	0.0	0.0	5,000.0
Jul	174.1	186.0	3.0	3.0	0	167.7	0.0	0.0	5,000.0
Aug	182.5	185.1	3.0	3.0	0	184.9	0.0	0.0	5,000.0
Sep	179.3	179.3	3.0	3.0	0	185.5	0.0	0.0	5,000.0
Oct	185.5	185.9	3.0	3.0	0	161.3	0.0	0.0	5,000.0
Nov	179.3	179.3	3.0	3.0	0	170.5	0.0	0.0	5,000.0
Dec	201.7	203.3	3.3	3.3	0	201.2	0.0	0.0	5,000.0
<b>CALENDAR YEAR TOTAL</b>	<b>3,558.9</b>	<b>3,564.5</b>			<b>0</b>	<b>2,561.7</b>	<b>406.1</b>	<b>360.0</b>	<b>FULL</b>

- 1 - Required flows for January through April are equal to 11.5 cfs less 5.9 cfs of credits (1,248 AF of Climatic Credit earned in 2012 and 148 AF CAP Credit carried over from 2011).
- 2 - In December 2012, the preliminary winter-time flow requirement for 2013 was calculated as 6.5 cfs; in January 2013, the final winter-time requirement was computed as 5.6 cfs. To make up for excess releases made by the District between January 1-17, 2013, the winter-time flow requirement was reduced from 5.6 cfs to 5.3 cfs for January 18 - February 28.
- 3 - The Table in Section 5 of the CWRMA sets forth guaranteed monthly flows at the Gorge once the Hydrologic Condition for the calendar year is established
- 4 - CAP Credits equal the WR-34 discharge in excess of 4,000 AF. No CAP Credits earned in 2013.
- 5 - Climatic Credits equal the WR-34 discharges less actual Flow Requirements, which is the flow indicated in Section 5 of the CWRMA less applicable credits but not less than 3.0 cfs.
- 6 - Camp Pendleton's rights to groundwater equal the flow indicated in Section 5 of the CWRMA less the Actual Flow Maintenance Requirement, which cannot be less than 3.0 cfs. Input to the groundwater bank shown but cumulative balance did not increase due to account balance maximum of 5,000 AF.

APPENDIX E

SANTA MARGARITA RIVER WATERSHED  
 COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT REQUIRED FLOWS AND ACCOUNTS  
 SANTA MARGARITA RIVER NEAR TEMECULA

JANUARY 2013 - CRITICALLY DRY YEAR

Day	CAMP PENDLETON GROUNDWATER BANK											
	USGS Official Discharge	USGS Daily Website Discharge	10-Day Running Average of Website Discharge	Minimum Flow Maintenance Requirement /1, 2	Running Average Less Required Flow	WR-34 Make-Up Discharge	Climatic Credit Earned /3	Input /4	Input	Output	Output	Cumulative Balance
	cfs	cfs	cfs	cfs	cfs	cfs	cfs	AF	AF	cfs	AF	AF
1	6.6	6.6				4.4	1.4	8.8	3.0	0.0	0.0	5,000.0
2	6.6	6.6				5.7	2.7	11.3	3.0	0.0	0.0	5,000.0
3	6.4	6.4				5.5	2.5	11.0	1.5	3.0	0.0	5,000.0
4	6.4	6.4				5.5	2.5	11.0	1.5	3.0	0.0	5,000.0
5	6.5	6.5				5.7	2.7	11.3	1.5	3.0	0.0	5,000.0
6	6.6	6.6				5.8	2.8	11.5	1.5	3.0	0.0	5,000.0
7	6.5	6.5				5.5	2.5	11.0	1.5	3.0	0.0	5,000.0
8	6.4	6.4				5.5	2.5	11.0	1.5	3.0	0.0	5,000.0
9	6.4	6.4				5.6	2.6	11.2	1.5	3.0	0.0	5,000.0
10	6.7	6.7				5.8	2.8	11.5	1.5	3.0	0.0	5,000.0
11	6.5	6.5	6.5		0.0	5.7	2.7	11.4	1.5	3.0	0.0	5,000.0
12	6.5	6.5	6.5		0.0	5.7	2.7	11.3	1.5	3.0	0.0	5,000.0
13	9.0	9.0	6.8		0.3	5.8	2.8	11.5	1.5	3.0	0.0	5,000.0
14	6.5	6.5	6.8		0.3	5.6	2.6	11.1	1.5	3.0	0.0	5,000.0
15	5.7	5.7	6.7		0.2	5.1	2.1	10.1	1.5	3.0	0.0	5,000.0
16	5.7	5.7	6.6		0.1	5.0	2.0	10.0	1.5	3.0	0.0	5,000.0
17	5.6	5.6	6.5		0.0	4.9	1.9	9.8	1.5	3.0	0.0	5,000.0
18	5.3	5.3	6.4		1.1	4.7	1.7	9.4	1.5	3.0	0.0	5,000.0
19	5.3	5.3	6.3		1.0	4.7	1.7	9.3	1.5	3.0	0.0	5,000.0
20	5.3	5.3	6.1		0.8	4.7	1.7	9.3	1.5	3.0	0.0	5,000.0
21	5.3	5.3	6.0		0.7	4.7	1.7	9.4	1.5	3.0	0.0	5,000.0
22	5.4	5.4	5.9		0.6	4.8	1.8	9.5	1.5	3.0	0.0	5,000.0
23	5.4	5.4	5.6		0.3	4.7	1.7	9.4	1.5	3.0	0.0	5,000.0
24	5.4	5.4	5.4		0.3	4.6	1.6	9.2	1.5	3.0	0.0	5,000.0
25	5.7	5.7	5.4		0.1	4.4	1.4	8.7	1.5	3.0	0.0	5,000.0
26	18.0	18.0	6.7		1.4	1.3	0.0	2.5	1.5	3.0	0.0	5,000.0
27	6.2	6.2	6.7		1.4	0.0	0.0	0.0	1.5	3.0	0.0	5,000.0
28	5.6	5.6	6.8		1.5	2.7	0.0	5.4	1.5	3.0	0.0	5,000.0
29	5.3	5.3	6.8		1.5	4.0	1.0	7.9	1.5	3.0	0.0	5,000.0
30	5.2	5.2	6.8		1.5	4.2	1.2	8.4	1.5	3.0	0.0	5,000.0
31	5.3	5.3	6.8		1.5	4.4	1.4	8.7	1.5	3.0	0.0	5,000.0
<b>TOTAL SFD</b>	199.3	199.3	134.1	119.7	14.4	146.7	58.7	291.9	46.5	0.0	0.0	5,000.0
<b>TOTAL AF</b>	395.3	395.3	266.0	237.4	28.6		116.0		93.0		0.0	5,000.0

1 - Required flows for January through April are equal to 11.5 cfs less 5.9 cfs of credits (1,248 AF of Climatic Credit earned in 2012 and 148 AF CAP Credit carried over from 2011).  
 2 - In December 2012, the preliminary winter-time flow requirement for 2013 was calculated as 6.5 cfs; in January 2013, the final winter-time requirement was computed at 5.6 cfs. To make up for excess releases made by the District between January 1-17, 2013, the winter-time flow requirement was reduced from 5.6 cfs to 5.3 cfs for Jan 18 - Feb 28.  
 3 - Climatic Credits equal the WR-34 discharge less the Actual Flow Maintenance Requirement which is the flow indicated in Section 5 of the CWRMA less applicable credits, but not less than 3.0 cfs.  
 4 - Art. 17 - Camp Pendleton rights to groundwater equal the flow indicated in Section 5 of the CWRMA minus the Actual Flow Maintenance Requirement which cannot be less than 3.0 cfs. Input to groundwater bank shown but cumulative balance did not increase due to account balance maximum of 5,000 AF.

APPENDIX E

SANTA MARGARITA RIVER WATERSHED  
 COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT REQUIRED FLOWS AND ACCOUNTS  
 SANTA MARGARITA RIVER NEAR TEMECULA

FEBRUARY 2013 - CRITICALLY DRY YEAR

Day	USGS Official Discharge		USGS Daily Website Discharge		10-Day Running Average of Website Discharge		Minimum Flow Maintenance Requirement		Running Average Flow Less Required		WR-34 Make-Up Discharge		Climatic Credit Earned		Input /4		Input Output		Output		Cumulative Balance	
	cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs
1	5.3	5.3	5.3	6.7	5.3	1.4	4.5	9.0	1.5	3.0	3.0	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
2	5.3	5.3	5.3	6.7	5.3	1.4	4.5	9.0	1.5	3.0	3.0	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
3	5.3	5.3	5.3	6.7	5.3	1.4	4.5	8.9	1.5	2.9	2.9	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
4	5.3	5.3	5.3	6.7	5.3	1.4	4.6	9.1	1.6	3.1	3.1	1.6	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
5	5.4	5.4	5.4	5.4	5.3	0.1	4.6	9.2	1.6	3.2	3.2	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
6	5.3	5.3	5.3	5.3	5.3	0.0	4.5	9.0	1.5	3.0	3.0	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
7	5.2	5.2	5.2	5.3	5.3	0.0	4.5	8.9	1.5	2.9	2.9	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
8	7.3	7.3	7.3	5.5	5.3	0.2	2.9	5.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
9	13.0	13.0	13.0	6.3	5.3	1.0	1.3	2.6	0.0	0.0	0.0	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
10	4.9	4.9	4.9	6.2	5.3	0.9	1.9	3.7	0.0	0.0	0.0	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
11	5.3	5.3	5.3	6.2	5.3	0.9	3.8	7.6	0.8	1.6	1.6	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
12	5.4	5.4	5.4	6.2	5.3	0.9	4.1	8.1	1.1	2.1	2.1	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
13	5.4	5.4	5.4	6.3	5.3	1.0	4.2	8.3	1.2	2.3	2.3	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
14	5.4	5.4	5.4	6.3	5.3	1.0	4.3	8.5	1.3	2.5	2.5	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
15	5.4	5.4	5.4	6.3	5.3	1.0	4.3	8.5	1.3	2.5	2.5	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
16	5.3	5.3	5.3	6.3	5.3	1.0	4.3	8.5	1.3	2.5	2.5	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
17	5.2	5.2	5.2	6.3	5.3	1.0	4.4	8.7	1.4	2.7	2.7	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
18	5.3	5.3	5.3	6.1	5.3	0.8	4.5	8.9	1.5	2.9	2.9	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
19	8.5	8.5	8.5	5.6	5.3	0.3	4.5	9.0	1.5	3.0	3.0	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
20	58.0	58.0	58.0	10.9	5.3	5.6	1.2	2.3	0.0	0.0	0.0	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
21	5.7	5.7	5.7	11.0	5.3	5.7	0.0	0.0	0.0	0.0	0.0	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
22	4.8	4.8	4.8	10.9	5.3	5.6	2.7	5.3	0.0	0.0	0.0	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
23	5.3	5.3	5.3	10.9	5.3	5.6	4.2	8.4	1.2	2.4	2.4	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
24	5.4	5.4	5.4	10.9	5.3	5.6	4.5	8.9	1.5	2.9	2.9	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
25	5.3	5.3	5.3	10.9	5.3	5.6	4.5	8.9	1.5	2.9	2.9	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
26	5.3	5.3	5.3	10.9	5.3	5.6	4.5	9.0	1.5	3.0	3.0	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
27	6.0	6.0	6.0	11.0	5.3	5.7	5.3	10.5	2.3	4.5	4.5	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
28	6.0	6.0	6.0	11.1	5.3	5.8	5.3	10.5	2.3	4.5	4.5	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
<b>TOTAL SFD</b>	215.3	215.7	215.7	214.9	148.4	66.5	108.4	215.0	32.4	63.4	63.4	42.0	84.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
<b>TOTAL AF</b>	427.0	427.8	427.8	426.2	294.3	131.9	108.4	215.0	32.4	63.4	63.4	42.0	84.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0

1 - Required flows for January through April are equal to 11.5 cfs less 5.9 cfs of credits (1,248 AF of Climatic Credit earned in 2012 and 148 AF CAP Credit carried over from 2011).  
 2 - In December 2012, the preliminary winter-time flow requirement for 2013 was calculated as 6.5 cfs; in January 2013, the final winter-time requirement was computed at 5.6 cfs. To make up for excess releases made by the District between January 1-17, 2013, the winter-time flow requirement was reduced from 5.6 cfs to 5.3 cfs for Jan 18 - Feb 28.  
 3 - Climatic Credits equal the WR-34 discharge less the Actual Flow Maintenance Requirement which is the flow indicated in Section 5 of the CWRMA less applicable credits, but not less than 3.0 cfs.  
 4 - Art. 17 - Camp Pendleton rights to groundwater equal the flow indicated in Section 5 of the CWRMA minus the Actual Flow Maintenance Requirement which cannot be less than 3.0 cfs. Input to groundwater bank shown but cumulative balance did not increase due to account balance maximum of 5,000 AF.



APPENDIX E

SANTA MARGARITA RIVER WATERSHED  
 COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT REQUIRED FLOWS AND ACCOUNTS  
 SANTA MARGARITA RIVER NEAR TEMECULA

MARCH 2013 - CRITICALLY DRY YEAR

CAMP PENDLETON  
 GROUNDWATER BANK

Day	USGS Official	USGS Daily	10-Day Running	Minimum Flow	Running Average	WR-34 Make-Up	Climatic Credit Earned	Input /3	Input	Output	Output	Cumulative
	Discharge	Website	Average of	Maintenance	Less Required	Discharge	/2	cfs	AF	cfs	AF	Balance
	cfs	cfs	Website	Requirement/1	Flow	cfs	cfs		AF		AF	AF
1	5.8	5.8	10.8	5.6	5.2	5.1	2.1	1.5	3.0	0.0	0.0	5,000.0
2	5.7	5.7	5.6	5.6	0.0	5.0	2.0	1.5	3.0	0.0	0.0	5,000.0
3	5.7	5.7	5.6	5.6	0.0	5.0	2.0	1.5	3.0	0.0	0.0	5,000.0
4	5.7	5.7	5.6	5.6	0.0	4.9	1.9	1.5	3.0	0.0	0.0	5,000.0
5	5.7	5.7	5.7	5.6	0.1	4.9	1.9	1.5	3.0	0.0	0.0	5,000.0
6	5.7	5.7	5.7	5.6	0.1	4.9	1.9	1.5	3.0	0.0	0.0	5,000.0
7	5.6	5.6	5.7	5.6	0.1	4.8	1.8	1.5	3.0	0.0	0.0	5,000.0
8	217.0	217.0	26.9	5.6	21.3	1.5	0.0	1.5	3.0	0.0	0.0	5,000.0
9	47.0	47.0	31.0	5.6	25.4	0.0	0.0	1.5	3.0	0.0	0.0	5,000.0
10	11.0	11.0	31.5	5.6	25.9	0.0	0.0	1.5	3.0	0.0	0.0	5,000.0
11	5.4	5.4	31.5	5.6	25.9	2.6	0.0	1.5	3.0	0.0	0.0	5,000.0
12	5.8	5.8	31.5	5.6	25.9	4.2	1.2	1.5	3.0	0.0	0.0	5,000.0
13	5.7	5.7	31.5	5.6	25.9	4.5	1.5	1.5	3.0	0.0	0.0	5,000.0
14	5.5	5.5	31.4	5.6	25.8	4.6	1.6	1.5	3.0	0.0	0.0	5,000.0
15	5.6	5.6	31.4	5.6	25.8	4.7	1.7	1.5	3.0	0.0	0.0	5,000.0
16	5.6	5.6	31.4	5.6	25.8	4.8	1.8	1.5	3.0	0.0	0.0	5,000.0
17	5.7	5.7	31.4	5.6	25.8	4.8	1.8	1.5	3.0	0.0	0.0	5,000.0
18	5.5	5.5	10.3	5.6	4.7	4.7	1.7	1.5	3.0	0.0	0.0	5,000.0
19	5.6	5.6	6.1	5.6	0.5	4.8	1.8	1.5	3.0	0.0	0.0	5,000.0
20	5.6	5.6	5.6	5.6	0.0	4.8	1.8	1.5	3.0	0.0	0.0	5,000.0
21	5.6	5.6	5.6	5.6	0.0	4.8	1.8	1.5	3.0	0.0	0.0	5,000.0
22	5.6	5.6	5.6	5.6	0.0	4.8	1.8	1.5	3.0	0.0	0.0	5,000.0
23	5.6	5.6	5.6	5.6	0.0	4.8	1.8	1.5	3.0	0.0	0.0	5,000.0
24	5.6	5.6	5.6	5.6	0.0	4.8	1.8	1.5	3.0	0.0	0.0	5,000.0
25	5.5	5.5	5.6	5.6	0.0	4.8	1.8	1.5	3.0	0.0	0.0	5,000.0
26	5.6	5.6	5.6	5.6	0.0	4.8	1.8	1.5	3.0	0.0	0.0	5,000.0
27	5.6	5.6	5.6	5.6	0.0	4.9	1.9	1.5	3.0	0.0	0.0	5,000.0
28	5.5	5.5	5.6	5.6	0.0	4.9	1.9	1.5	3.0	0.0	0.0	5,000.0
29	5.6	5.6	5.6	5.6	0.0	5.0	2.0	1.5	3.0	0.0	0.0	5,000.0
30	5.6	5.6	5.6	5.6	0.0	5.0	2.0	1.5	3.0	0.0	0.0	5,000.0
31	5.5	5.5	5.6	5.6	0.0	5.0	2.0	1.5	3.0	0.0	0.0	5,000.0
<b>TOTAL SFD</b>	432.2	432.2	437.8	173.6	264.2	134.3	49.2	46.5	93.0	0.0	0.0	5,000.0
<b>TOTAL AF</b>	857.3	857.3	868.4	344.3	524.0	266.6	96.6					

1 - Required flows for January through April are equal to 11.5 cfs less 5.9 cfs of credits (1,248 AF of Climatic Credit earned in 2012 and 148 AF CAP Credit carried over from 2011).  
 2 - Climatic Credits equal the WR-34 discharge less the Actual Flow Maintenance Requirement which is the flow indicated in Section 5 of the CWRMA less applicable credits, but not less than 3.0 cfs.  
 3 - Art. 17 - Camp Pendleton rights to groundwater equal the flow indicated in Section 5 of the CWRMA minus the Actual Flow Maintenance Requirement which cannot be less than 3.0 cfs. Input to groundwater bank shown but cumulative balance did not increase due to account balance maximum of 5,000 AF.

APPENDIX E

SANTA MARGARITA RIVER WATERSHED  
 COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT REQUIRED FLOWS AND ACCOUNTS  
 SANTA MARGARITA RIVER NEAR TEMECULA

APRIL 2013 - CRITICALLY DRY YEAR

CAMP PENDLETON  
 GROUNDWATER BANK

Day	USGS Official	USGS Daily	10-Day Running	Minimum Flow	Running Average	WR-34 Make-Up	Climatic Credit Earned	Input /3	Input	Output	Output	Cumulative
	Discharge	Website	Average of	Maintenance	Less Required	Discharge	/2	cfs	AF	cfs	AF	Balance
	cfs	cfs	Website	Requirement/1	Flow	cfs	cfs		AF	cfs	AF	AF
1	5.6	5.6	5.6	5.6	0.0	5.1	2.1	1.5	3.0	0.0	0.0	5,000.0
2	5.6	5.6	5.6	5.6	0.0	5.1	2.1	1.5	3.0	0.0	0.0	5,000.0
3	5.6	5.6	5.6	5.6	0.0	5.1	2.1	1.5	3.0	0.0	0.0	5,000.0
4	5.6	5.6	5.6	5.6	0.0	5.1	2.1	1.5	3.0	0.0	0.0	5,000.0
5	5.7	5.7	5.6	5.6	0.0	5.2	2.2	1.5	3.0	0.0	0.0	5,000.0
6	5.6	5.6	5.6	5.6	0.0	5.1	2.1	1.5	3.0	0.0	0.0	5,000.0
7	5.5	5.5	5.6	5.6	0.0	5.1	2.1	1.5	3.0	0.0	0.0	5,000.0
8	5.7	5.7	5.6	5.6	0.0	5.2	2.2	1.5	3.0	0.0	0.0	5,000.0
9	5.6	5.6	5.6	5.6	0.0	5.1	2.1	1.5	3.0	0.0	0.0	5,000.0
10	5.6	5.6	5.6	5.6	0.0	5.2	2.2	1.5	3.0	0.0	0.0	5,000.0
11	5.6	5.6	5.6	5.6	0.0	5.2	2.2	1.5	3.0	0.0	0.0	5,000.0
12	5.6	5.6	5.6	5.6	0.0	5.2	2.2	1.5	3.0	0.0	0.0	5,000.0
13	5.6	5.6	5.6	5.6	0.0	5.2	2.2	1.5	3.0	0.0	0.0	5,000.0
14	5.7	5.7	5.6	5.6	0.0	5.2	2.2	1.5	3.0	0.0	0.0	5,000.0
15	5.6	5.6	5.6	5.6	0.0	5.1	2.1	1.5	3.0	0.0	0.0	5,000.0
16	5.6	5.6	5.6	5.6	0.0	5.1	2.1	1.5	3.0	0.0	0.0	5,000.0
17	5.6	5.6	5.6	5.6	0.0	5.2	2.2	1.5	3.0	0.0	0.0	5,000.0
18	5.5	5.5	5.6	5.6	0.0	5.2	2.2	1.5	3.0	0.0	0.0	5,000.0
19	5.6	5.6	5.6	5.6	0.0	5.3	2.3	1.5	3.0	0.0	0.0	5,000.0
20	5.6	5.6	5.6	5.6	0.0	5.4	2.4	1.5	3.0	0.0	0.0	5,000.0
21	5.7	5.7	5.6	5.6	0.0	5.4	2.4	1.5	3.0	0.0	0.0	5,000.0
22	5.6	5.6	5.6	5.6	0.0	5.3	2.3	1.5	3.0	0.0	0.0	5,000.0
23	5.6	5.6	5.6	5.6	0.0	5.3	2.3	1.5	3.0	0.0	0.0	5,000.0
24	5.7	5.7	5.6	5.6	0.0	5.3	2.3	1.5	3.0	0.0	0.0	5,000.0
25	5.6	5.6	5.6	5.6	0.0	5.2	2.2	1.5	3.0	0.0	0.0	5,000.0
26	5.6	5.6	5.6	5.6	0.0	5.2	2.2	1.5	3.0	0.0	0.0	5,000.0
27	5.6	5.6	5.6	5.6	0.0	5.2	2.2	1.5	3.0	0.0	0.0	5,000.0
28	5.5	5.5	5.6	5.6	0.0	5.2	2.2	1.5	3.0	0.0	0.0	5,000.0
29	5.6	5.6	5.6	5.6	0.0	5.2	2.2	1.5	3.0	0.0	0.0	5,000.0
30	5.6	5.6	5.6	5.6	0.0	5.2	2.2	1.5	3.0	0.0	0.0	5,000.0
<b>TOTAL SFD</b>	168.2	168.2	168.0	168.0	0.0	155.9	65.9	45.0	90.0	0.0	0.0	5,000.0
<b>TOTAL AF</b>	333.6	333.6	333.2	333.2	0.0	310.1	130.1					

1 - Required flows for January through April are equal to 11.5 cfs less 5.9 cfs of credits (1,248 AF of Climatic Credit earned in 2012 and 148 AF CAP Credit carried over from 2011).  
 2 - Climatic Credits equal the WR-34 discharge less the Actual Flow Maintenance Requirement which is the flow indicated in Section 5 of the CWRMA less applicable credits, but not less than 3.0 cfs.  
 3 - Art. 17 - Camp Pendleton rights to groundwater equal the flow indicated in Section 5 of the CWRMA minus the Actual Flow Maintenance Requirement which cannot be less than 3.0 cfs. Input to groundwater account bank but cumulative balance did not increase due to account balance maximum of 5,000 AF.

APPENDIX E

SANTA MARGARITA RIVER WATERSHED  
 COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT REQUIRED FLOWS AND ACCOUNTS  
 SANTA MARGARITA RIVER NEAR TEMECULA

MAY 2013 - CRITICALLY DRY YEAR

CAMP PENDLETON  
 GROUNDWATER BANK

Day	USGS Official	USGS Daily	10-Day Running	Minimum Flow	Running Average	WR-34 Make-Up	Climatic Credit Earned	Input	Output	Output	Output	Cumulative
	Discharge	Website	Average of	Maintenance	Less Required	Discharge	/2	cfs	cfs	cfs	AF	Balance
	cfs	cfs	Website	Requirement/1	Flow	AF	cfs	AF	AF	AF	AF	AF
1	3.8	3.8				3.4	0.0	0.0	0.0	0.0	0.0	5,000.0
2	3.8	3.8				3.4	0.0	0.0	0.0	0.0	0.0	5,000.0
3	3.7	3.7				3.5	0.0	0.0	0.0	0.0	0.0	5,000.0
4	3.8	3.8				3.6	0.0	0.0	0.0	0.0	0.0	5,000.0
5	3.9	3.9				3.5	0.0	0.0	0.0	0.0	0.0	5,000.0
6	3.9	3.9				3.2	0.0	0.0	0.0	0.0	0.0	5,000.0
7	3.8	3.6				3.1	0.0	0.0	0.0	0.0	0.0	5,000.0
8	3.9	3.7				3.4	0.0	0.0	0.0	0.0	0.0	5,000.0
9	4.1	3.9				3.7	0.0	0.0	0.0	0.0	0.0	5,000.0
10	4.1	3.8				3.6	0.0	0.0	0.0	0.0	0.0	5,000.0
11	4.0	3.8		3.8	0.0	3.6	0.0	0.0	0.0	0.0	0.0	5,000.0
12	4.0	3.8		3.8	0.0	3.5	0.0	0.0	0.0	0.0	0.0	5,000.0
13	3.9	3.7		3.8	0.0	3.7	0.0	0.0	0.0	0.0	0.0	5,000.0
14	4.1	3.9		3.8	0.0	3.8	0.0	0.0	0.0	0.0	0.0	5,000.0
15	4.1	3.8		3.8	0.0	3.7	0.0	0.0	0.0	0.0	0.0	5,000.0
16	4.1	3.8		3.8	0.0	3.7	0.0	0.0	0.0	0.0	0.0	5,000.0
17	4.1	3.8		3.8	0.0	3.7	0.0	0.0	0.0	0.0	0.0	5,000.0
18	4.1	3.8		3.8	0.0	3.7	0.0	0.0	0.0	0.0	0.0	5,000.0
19	4.1	3.9		3.8	0.0	3.7	0.0	0.0	0.0	0.0	0.0	5,000.0
20	4.0	3.8		3.8	0.0	3.6	0.0	0.0	0.0	0.0	0.0	5,000.0
21	4.0	3.8		3.8	0.0	3.6	0.0	0.0	0.0	0.0	0.0	5,000.0
22	4.1	3.8		3.8	0.0	3.6	0.0	0.0	0.0	0.0	0.0	5,000.0
23	4.1	3.9		3.8	0.0	3.7	0.0	0.0	0.0	0.0	0.0	5,000.0
24	4.2	3.9		3.8	0.0	3.7	0.0	0.0	0.0	0.0	0.0	5,000.0
25	4.1	3.8		3.8	0.0	3.7	0.0	0.0	0.0	0.0	0.0	5,000.0
26	4.1	3.8		3.8	0.0	3.7	0.0	0.0	0.0	0.0	0.0	5,000.0
27	4.1	3.8		3.8	0.0	3.7	0.0	0.0	0.0	0.0	0.0	5,000.0
28	4.1	3.9		3.8	0.0	3.7	0.0	0.0	0.0	0.0	0.0	5,000.0
29	4.0	3.8		3.8	0.0	3.6	0.0	0.0	0.0	0.0	0.0	5,000.0
30	4.0	3.7		3.8	0.0	3.6	0.0	0.0	0.0	0.0	0.0	5,000.0
31	4.1	3.9		3.8	0.0	3.6	0.0	0.0	0.0	0.0	0.0	5,000.0
TOTAL SFD	124.2	118.1	79.8	79.8	0.0	111.3	0.0	0.0	0.0	0.0	0.0	5,000.0
TOTAL AF	246.3	234.2	158.3	158.3	0.0	220.7	0.0	0.0	0.0	0.0	0.0	5,000.0

1 - Minimum Flow Maintenance Requirement equals the Section 5 flow for a Critically Dry year.  
 2 - Climatic Credits not applicable in May through December.

APPENDIX E

SANTA MARGARITA RIVER WATERSHED  
 COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT REQUIRED FLOWS AND ACCOUNTS  
 SANTA MARGARITA RIVER NEAR TEMECULA

JUNE 2013 - CRITICALLY DRY YEAR

CAMP PENDLETON  
 GROUNDWATER BANK

Day	USGS Official	USGS Daily	10-Day Running	Minimum Flow	Running Average	WR-34 Make-Up	Climatic Credit Earned	Input	Output	Output	Input	Output	Cumulative
	Discharge	Website	Average of	Maintenance	Less Required	Discharge	/2	cfs	cfs	cfs	AF	AF	Balance
	cfs	cfs	Website	Requirement/1	Flow	cfs	cfs						AF
1	3.4	3.2				3.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
2	3.6	3.4				3.3	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
3	3.6	3.3				3.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
4	3.6	3.4				3.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
5	3.5	3.3				3.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
6	3.5	3.3				3.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
7	3.5	3.3				3.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
8	3.5	3.3				3.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
9	3.6	3.4				3.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
10	3.5	3.3				3.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
11	3.4	3.4			0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
12	3.3	3.3			0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
13	3.2	3.2			0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
14	3.4	3.4			0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
15	3.3	3.3			0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
16	3.3	3.3			0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
17	3.3	3.3			0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
18	3.3	3.3			0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
19	3.3	3.3			0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
20	3.1	3.3			0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
21	3.1	3.3			0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
22	3.2	3.4			0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
23	3.1	3.3			0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
24	3.2	3.4			0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
25	3.3	3.3			0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
26	2.9	3.1			0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
27	3.1	3.3			0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
28	3.0	3.3			0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
29	3.1	3.3			0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
30	3.1	3.3			0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
<b>TOTAL SFD</b>	99.3	99.5	66.0	66.0	0.0	93.8	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
<b>TOTAL AF</b>	197.0	197.4	130.9	130.9	0.0	186.3	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0

1 - Minimum Flow Maintenance Requirement equals the Section 5 flow for a Critically Dry year.  
 2 - Climatic Credits not applicable in May through December.

APPENDIX E

SANTA MARGARITA RIVER WATERSHED  
 COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT REQUIRED FLOWS AND ACCOUNTS  
 SANTA MARGARITA RIVER NEAR TEMECULA

JULY 2013 - CRITICALLY DRY YEAR

CAMP PENDLETON  
 GROUNDWATER BANK

Day	USGS Official	USGS Daily	10-Day Running	Minimum Flow	Running Average	WR-34 Make-Up	Climatic Credit Earned	Input	Output	Output	Input	Output	Cumulative
	Discharge	Website	Average of	Maintenance	Less Required	Discharge	/2	cfs	cfs	cfs	AF	AF	Balance
	cfs	cfs	Website	Requirement/1	Flow	AF	cfs						AF
1	2.8	3.0				2.8	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
2	2.8	3.0				2.8	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
3	3.0	3.1				2.8	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
4	2.8	3.0				2.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
5	2.9	3.1				2.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
6	2.8	3.0				2.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
7	2.8	3.0				2.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
8	2.8	3.0				2.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
9	2.8	3.0				2.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
10	2.8	2.9				2.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
11	2.9	3.1			0.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
12	3.0	3.2		3.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
13	2.9	3.1		3.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
14	2.7	2.9		3.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
15	3.0	3.2		3.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
16	2.8	3.0		3.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
17	2.7	2.9		3.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
18	2.8	3.0		3.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
19	2.8	3.0		3.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
20	2.9	3.1		3.0	0.1	2.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
21	2.8	3.0		3.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
22	3.2	3.4		3.0	0.1	2.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
23	2.8	3.0		3.0	0.1	2.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
24	2.8	3.0		3.0	0.1	2.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
25	2.8	3.0		3.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
26	2.7	2.9		3.0	0.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
27	2.8	3.0		3.0	0.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
28	2.9	3.1		3.0	0.1	2.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
29	2.6	2.8		3.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
30	2.8	3.0		3.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
31	2.8	3.0		3.0	0.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
TOTAL SFD	87.8	93.8		63.0	0.5	84.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
TOTAL AF	174.1	186.0		125.0	1.0	167.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0

1 - Minimum Flow Maintenance Requirement equals the Section 5 flow for a Critically Dry year.  
 2 - Climatic Credits not applicable in May through December.

APPENDIX E

SANTA MARGARITA RIVER WATERSHED  
 COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT REQUIRED FLOWS AND ACCOUNTS  
 SANTA MARGARITA RIVER NEAR TEMECULA

AUGUST 2013 - CRITICALLY DRY YEAR

CAMP PENDLETON  
 GROUNDWATER BANK

Day	USGS Official	USGS Daily	10-Day Running	Minimum Flow	Running Average	WR-34 Make-Up	Climatic Credit Earned	Input	Output	Output	Output	Cumulative
	Discharge	Website	Average of	Maintenance	Less Required	Discharge	/2	cfs	cfs	cfs	AF	Balance
	cfs	cfs	Website	Requirement/1	Flow	AF	cfs	AF	AF	AF	AF	AF
1	2.9	3.1	3.1			2.8	0.0	0.0	0.0	0.0	0.0	5,000.0
2	2.9	3.1	3.1			2.7	0.0	0.0	0.0	0.0	0.0	5,000.0
3	2.8	3.0	2.6			2.6	0.0	0.0	0.0	0.0	0.0	5,000.0
4	2.8	3.0	2.7			2.7	0.0	0.0	0.0	0.0	0.0	5,000.0
5	2.8	3.0	2.7			2.7	0.0	0.0	0.0	0.0	0.0	5,000.0
6	2.8	3.0	2.7			2.7	0.0	0.0	0.0	0.0	0.0	5,000.0
7	2.8	2.9	2.7			2.7	0.0	0.0	0.0	0.0	0.0	5,000.0
8	2.9	2.9	2.9			2.9	0.0	0.0	0.0	0.0	0.0	5,000.0
9	3.0	3.0	3.0			3.0	0.0	0.0	0.0	0.0	0.0	5,000.0
10	3.0	3.0	3.0			3.0	0.0	0.0	0.0	0.0	0.0	5,000.0
11	3.1	3.1	3.1	3.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	5,000.0
12	3.1	3.1	2.9	3.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0	5,000.0
13	3.0	3.0	3.0	3.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	5,000.0
14	3.0	3.0	3.0	3.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	5,000.0
15	3.0	3.0	3.0	3.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	5,000.0
16	3.0	3.0	3.0	3.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	5,000.0
17	3.0	3.0	3.0	3.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	5,000.0
18	3.1	3.1	3.0	3.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	5,000.0
19	3.0	3.0	3.0	3.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	5,000.0
20	3.0	3.0	3.0	3.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	5,000.0
21	3.0	3.0	3.0	3.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	5,000.0
22	2.9	2.9	3.0	3.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	5,000.0
23	3.0	3.0	3.0	3.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	5,000.0
24	3.0	3.0	3.0	3.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	5,000.0
25	3.0	3.0	3.0	3.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	5,000.0
26	3.0	3.0	3.0	3.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	5,000.0
27	3.0	3.0	3.0	3.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	5,000.0
28	3.0	3.0	3.0	3.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	5,000.0
29	3.0	3.0	3.0	3.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	5,000.0
30	3.1	3.1	3.0	3.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	5,000.0
31	3.0	3.0	3.0	3.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	5,000.0
<b>TOTAL SFD</b>	92.0	93.3	63.0	63.0	0.0	93.0	0.0	0.0	0.0	0.0	0.0	5,000.0
<b>TOTAL AF</b>	182.5	185.1	125.0	125.0	0.0	184.9	0.0	0.0	0.0	0.0	0.0	5,000.0

1 - Minimum Flow Maintenance Requirement equals the Section 5 flow for a Critically Dry year.  
 2 - Climatic Credits not applicable in May through December.

APPENDIX E

SANTA MARGARITA RIVER WATERSHED  
 COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT REQUIRED FLOWS AND ACCOUNTS  
 SANTA MARGARITA RIVER NEAR TEMECULA

SEPTEMBER 2013 - CRITICALLY DRY YEAR

CAMP PENDLETON  
 GROUNDWATER BANK

Day	USGS Official		USGS Daily		10-Day Running		Minimum Flow		Running Average		WR-34 Make-Up		Climatic Credit Earned		Input		Output		Cumulative Balance	
	Discharge	Discharge	Website	Discharge	Average of	Website Discharge	Maintenance	Requirement/1	Flow	Less Required	Discharge	AF	cfs	/2	AF	cfs	AF	cfs		AF
1	3.0		3.0	3.0							3.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0	
2	3.0		3.0	3.0							3.1	6.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0	
3	3.0		3.0	3.0							3.2	6.3	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0	
4	3.0		3.0	3.0							3.2	6.4	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0	
5	3.0		3.0	3.0							3.2	6.4	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0	
6	3.0		3.0	3.0							3.3	6.5	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0	
7	3.0		3.0	3.0							3.3	6.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0	
8	2.9		3.0	2.9							3.3	6.5	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0	
9	3.0		3.0	3.0							3.3	6.5	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0	
10	3.1		3.1	3.1							3.3	6.5	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0	
11	3.0		3.0	3.0		3.0	3.0	0.0	0.0		3.2	6.3	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0	
12	3.0		3.0	3.0		3.0	3.0	0.0	0.0		3.1	6.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0	
13	3.0		3.0	3.0		3.0	3.0	0.0	0.0		3.1	6.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0	
14	3.0		3.0	3.0		3.0	3.0	0.0	0.0		3.2	6.3	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0	
15	3.0		3.0	3.0		3.0	3.0	0.0	0.0		3.2	6.3	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0	
16	3.0		3.0	3.0		3.0	3.0	0.0	0.0		3.2	6.4	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0	
17	3.0		3.0	3.0		3.0	3.0	0.0	0.0		3.2	6.4	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0	
18	3.0		3.0	3.0		3.0	3.0	0.0	0.0		3.2	6.3	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0	
19	3.1		3.1	3.1		3.0	3.0	0.0	0.0		3.2	6.3	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0	
20	3.0		3.0	3.0		3.0	3.0	0.0	0.0		3.1	6.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0	
21	3.0		3.0	3.0		3.0	3.0	0.0	0.0		3.1	6.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0	
22	3.0		3.0	3.0		3.0	3.0	0.0	0.0		3.1	6.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0	
23	3.0		3.0	3.0		3.0	3.0	0.0	0.0		3.2	6.4	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0	
24	3.0		3.0	3.0		3.0	3.0	0.0	0.0		3.2	6.3	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0	
25	3.1		3.1	3.1		3.0	3.0	0.0	0.0		3.1	6.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0	
26	3.1		3.1	3.1		3.0	3.0	0.0	0.0		2.9	5.8	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0	
27	3.1		3.1	3.1		3.0	3.0	0.0	0.0		2.6	5.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0	
28	3.0		3.0	3.0		3.0	3.0	0.0	0.0		2.9	5.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0	
29	3.0		3.0	3.0		3.0	3.0	0.0	0.0		2.7	5.3	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0	
30	3.0		3.0	3.0		3.0	3.0	0.0	0.0		2.8	5.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0	
<b>TOTAL SFD</b>	90.4		90.4	90.4		60.0	60.0	0.0	0.0		93.5	185.5	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0	
<b>TOTAL AF</b>	179.3		179.3	179.3		119.0	119.0	0.0	0.0											

1 - Minimum Flow Maintenance Requirement equals the Section 5 flow for a Critically Dry year.  
 2 - Climatic Credits not applicable in May through December.

APPENDIX E

SANTA MARGARITA RIVER WATERSHED  
 COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT REQUIRED FLOWS AND ACCOUNTS  
 SANTA MARGARITA RIVER NEAR TEMECULA

OCTOBER 2013 - CRITICALLY DRY YEAR

CAMP PENDLETON  
 GROUNDWATER BANK

Day	USGS Official	USGS Daily	10-Day Running	Minimum Flow	Running Average	WR-34 Make-Up	Climatic Credit Earned	Input	Output	Output	Input	Output	Cumulative
	Discharge	Website	Average of	Maintenance	Less Required	Discharge	/2	cfs	cfs	cfs	cfs	cfs	Balance
	cfs	cfs	Website	Requirement/1	Flow	AF	cfs	AF	AF	AF	AF	AF	AF
1	3.1	3.1				3.0	0.0	5.9	0.0	0.0	0.0	0.0	5,000.0
2	3.0	3.0				2.8	0.0	5.5	0.0	0.0	0.0	0.0	5,000.0
3	3.0	3.0				2.8	0.0	5.5	0.0	0.0	0.0	0.0	5,000.0
4	3.0	3.0				2.8	0.0	5.6	0.0	0.0	0.0	0.0	5,000.0
5	3.0	3.0				2.9	0.0	5.7	0.0	0.0	0.0	0.0	5,000.0
6	3.0	3.0				2.9	0.0	5.8	0.0	0.0	0.0	0.0	5,000.0
7	3.0	3.0				2.9	0.0	5.8	0.0	0.0	0.0	0.0	5,000.0
8	3.0	3.0				3.0	0.0	5.9	0.0	0.0	0.0	0.0	5,000.0
9	3.3	3.3				2.8	0.0	5.5	0.0	0.0	0.0	0.0	5,000.0
10	3.0	3.0				2.6	0.0	5.2	0.0	0.0	0.0	0.0	5,000.0
11	3.0	3.0		3.0	0.0	2.8	0.0	5.6	0.0	0.0	0.0	0.0	5,000.0
12	3.1	3.1		3.0	0.0	2.8	0.0	5.6	0.0	0.0	0.0	0.0	5,000.0
13	3.0	3.0		3.0	0.0	2.8	0.0	5.5	0.0	0.0	0.0	0.0	5,000.0
14	3.0	3.0		3.0	0.0	2.8	0.0	5.6	0.0	0.0	0.0	0.0	5,000.0
15	3.0	3.0		3.0	0.0	2.9	0.0	5.8	0.0	0.0	0.0	0.0	5,000.0
16	3.1	3.1		3.0	0.1	2.9	0.0	5.7	0.0	0.0	0.0	0.0	5,000.0
17	3.0	3.0		3.0	0.0	2.9	0.0	5.7	0.0	0.0	0.0	0.0	5,000.0
18	2.9	2.9		3.0	0.0	2.8	0.0	5.6	0.0	0.0	0.0	0.0	5,000.0
19	3.1	3.1		3.0	0.0	2.7	0.0	5.4	0.0	0.0	0.0	0.0	5,000.0
20	3.0	3.0		3.0	0.0	2.5	0.0	5.0	0.0	0.0	0.0	0.0	5,000.0
21	3.0	3.0		3.0	0.0	2.5	0.0	5.0	0.0	0.0	0.0	0.0	5,000.0
22	4.5	4.6		3.0	0.2	1.2	0.0	2.4	0.0	0.0	0.0	0.0	5,000.0
23	3.2	3.3		3.0	0.2	0.1	0.0	0.1	0.0	0.0	0.0	0.0	5,000.0
24	2.5	2.5		3.0	0.2	2.4	0.0	4.8	0.0	0.0	0.0	0.0	5,000.0
25	2.4	2.4		3.0	0.1	2.3	0.0	4.6	0.0	0.0	0.0	0.0	5,000.0
26	2.5	2.5		3.0	0.0	2.5	0.0	4.9	0.0	0.0	0.0	0.0	5,000.0
27	2.8	2.8		3.0	0.0	2.7	0.0	5.4	0.0	0.0	0.0	0.0	5,000.0
28	2.9	2.9		3.0	0.0	2.8	0.0	5.6	0.0	0.0	0.0	0.0	5,000.0
29	3.2	3.2		3.0	0.0	2.8	0.0	5.6	0.0	0.0	0.0	0.0	5,000.0
30	3.0	3.0		3.0	0.0	2.7	0.0	5.4	0.0	0.0	0.0	0.0	5,000.0
31	2.9	2.9		3.0	0.0	2.8	0.0	5.6	0.0	0.0	0.0	0.0	5,000.0
TOTAL SFD	93.5	93.7	63.9	63.0	0.9	81.2	0.0	161.3	0.0	0.0	0.0	0.0	5,000.0
TOTAL AF	185.5	185.9	126.7	125.0	1.8								

1 - Minimum Flow Maintenance Requirement equals the Section 5 flow for a Critically Dry year.  
 2 - Climatic Credits not applicable in May through December.



APPENDIX E

SANTA MARGARITA RIVER WATERSHED  
 COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT REQUIRED FLOWS AND ACCOUNTS  
 SANTA MARGARITA RIVER NEAR TEMECULA

NOVEMBER 2013 - CRITICALLY DRY YEAR

CAMP PENDLETON  
 GROUNDWATER BANK

Day	USGS Official	USGS Daily	10-Day Running	Minimum Flow	Running Average	WR-34 Make-Up	Climatic Credit Earned	Input	Output	Output	Output	Cumulative
	Discharge	Website	Average of	Maintenance	Less Required	Discharge	/2	cfs	cfs	cfs	AF	Balance
	cfs	cfs	Website	Requirement/1	Flow	AF	cfs	AF	AF	AF	AF	AF
1	3.0	3.0				2.9	0.0	0.0	0.0	0.0	0.0	5,000.0
2	3.1	3.1				3.0	0.0	0.0	0.0	0.0	0.0	5,000.0
3	3.1	3.1				2.9	0.0	0.0	0.0	0.0	0.0	5,000.0
4	3.0	3.0				2.8	0.0	0.0	0.0	0.0	0.0	5,000.0
5	3.0	3.0				2.9	0.0	0.0	0.0	0.0	0.0	5,000.0
6	3.0	3.0				2.9	0.0	0.0	0.0	0.0	0.0	5,000.0
7	3.0	3.0				3.0	0.0	0.0	0.0	0.0	0.0	5,000.0
8	3.0	3.0				2.9	0.0	0.0	0.0	0.0	0.0	5,000.0
9	3.0	3.0				3.0	0.0	0.0	0.0	0.0	0.0	5,000.0
10	3.0	3.0				3.0	0.0	0.0	0.0	0.0	0.0	5,000.0
11	3.0	3.0		3.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	5,000.0
12	3.0	3.0		3.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0	5,000.0
13	3.1	3.1		3.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	5,000.0
14	3.0	3.0		3.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	5,000.0
15	3.0	3.0		3.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	5,000.0
16	3.0	3.0		3.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0	5,000.0
17	3.0	3.0		3.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0	5,000.0
18	3.0	3.0		3.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0	5,000.0
19	3.0	3.0		3.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0	5,000.0
20	3.0	3.0		3.0	0.0	2.8	0.0	0.0	0.0	0.0	0.0	5,000.0
21	2.9	2.9		3.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	5,000.0
22	3.0	3.0		3.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	5,000.0
23	3.1	3.1		3.0	0.0	2.8	0.0	0.0	0.0	0.0	0.0	5,000.0
24	3.0	3.0		3.0	0.0	2.8	0.0	0.0	0.0	0.0	0.0	5,000.0
25	3.0	3.0		3.0	0.0	2.8	0.0	0.0	0.0	0.0	0.0	5,000.0
26	3.0	3.0		3.0	0.0	2.8	0.0	0.0	0.0	0.0	0.0	5,000.0
27	3.0	3.0		3.0	0.0	2.8	0.0	0.0	0.0	0.0	0.0	5,000.0
28	3.0	3.0		3.0	0.0	2.8	0.0	0.0	0.0	0.0	0.0	5,000.0
29	3.2	3.2		3.0	0.0	2.8	0.0	0.0	0.0	0.0	0.0	5,000.0
30	2.9	2.9		3.0	0.0	2.8	0.0	0.0	0.0	0.0	0.0	5,000.0
<b>TOTAL SFD</b>	90.4	90.4	60.0	60.0	0.0	85.7	0.0	0.0	0.0	0.0	0.0	5,000.0
<b>TOTAL AF</b>	179.3	179.3	119.0	119.0	0.0	170.5	0.0	0.0	0.0	0.0	0.0	5,000.0

1 - Minimum Flow Maintenance Requirement equals the Section 5 flow for a Critically Dry year.  
 2 - Climatic Credits not applicable in May through December.

APPENDIX E

SANTA MARGARITA RIVER WATERSHED  
 COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT REQUIRED FLOWS AND ACCOUNTS  
 SANTA MARGARITA RIVER NEAR TEMECULA

DECEMBER 2013 - CRITICALLY DRY YEAR

CAMP PENDLETON  
 GROUNDWATER BANK

Day	USGS Official	USGS Daily	10-Day Running	Minimum Flow	Running Average	WR-34 Make-Up	Climatic Credit Earned	Input	Output	Output	Output	Cumulative
	Discharge	Website	Average of	Maintenance	Less Required	Discharge	/2	cfs	cfs	cfs	AF	Balance
	cfs	cfs	Website	Requirement/1	Flow	AF	cfs	AF	AF	AF	AF	AF
1	3.1	3.3				3.2	0.0	0.0	0.0	0.0	0.0	5,000.0
2	3.1	3.3				3.2	0.0	0.0	0.0	0.0	0.0	5,000.0
3	3.2	3.4				3.3	0.0	0.0	0.0	0.0	0.0	5,000.0
4	3.1	3.3				3.2	0.0	0.0	0.0	0.0	0.0	5,000.0
5	3.2	3.2				3.3	0.0	0.0	0.0	0.0	0.0	5,000.0
6	3.3	3.3				3.4	0.0	0.0	0.0	0.0	0.0	5,000.0
7	3.3	3.3				3.4	0.0	0.0	0.0	0.0	0.0	5,000.0
8	3.3	3.3				3.3	0.0	0.0	0.0	0.0	0.0	5,000.0
9	3.3	3.3				3.3	0.0	0.0	0.0	0.0	0.0	5,000.0
10	3.4	3.4				3.4	0.0	0.0	0.0	0.0	0.0	5,000.0
11	3.3	3.3		3.3	0.0	3.4	0.0	0.0	0.0	0.0	0.0	5,000.0
12	3.4	3.3		3.3	0.0	3.4	0.0	0.0	0.0	0.0	0.0	5,000.0
13	3.3	3.3		3.3	0.0	3.4	0.0	0.0	0.0	0.0	0.0	5,000.0
14	3.3	3.3		3.3	0.0	3.4	0.0	0.0	0.0	0.0	0.0	5,000.0
15	3.3	3.3		3.3	0.0	3.4	0.0	0.0	0.0	0.0	0.0	5,000.0
16	3.3	3.3		3.3	0.0	3.4	0.0	0.0	0.0	0.0	0.0	5,000.0
17	3.3	3.3		3.3	0.0	3.5	0.0	0.0	0.0	0.0	0.0	5,000.0
18	3.4	3.4		3.3	0.0	3.4	0.0	0.0	0.0	0.0	0.0	5,000.0
19	3.4	3.4		3.3	0.0	3.2	0.0	0.0	0.0	0.0	0.0	5,000.0
20	3.3	3.3		3.3	0.0	3.1	0.0	0.0	0.0	0.0	0.0	5,000.0
21	3.1	3.1		3.3	0.0	1.8	0.0	0.0	0.0	0.0	0.0	5,000.0
22	3.2	3.2		3.3	0.0	2.7	0.0	0.0	0.0	0.0	0.0	5,000.0
23	3.3	3.3		3.3	0.0	3.2	0.0	0.0	0.0	0.0	0.0	5,000.0
24	3.3	3.3		3.3	0.0	3.3	0.0	0.0	0.0	0.0	0.0	5,000.0
25	3.3	3.3		3.3	0.0	3.3	0.0	0.0	0.0	0.0	0.0	5,000.0
26	3.3	3.3		3.3	0.0	3.4	0.0	0.0	0.0	0.0	0.0	5,000.0
27	3.3	3.3		3.3	0.0	3.4	0.0	0.0	0.0	0.0	0.0	5,000.0
28	3.3	3.3		3.3	0.0	3.4	0.0	0.0	0.0	0.0	0.0	5,000.0
29	3.3	3.3		3.3	0.0	3.4	0.0	0.0	0.0	0.0	0.0	5,000.0
30	3.3	3.3		3.3	0.0	3.4	0.0	0.0	0.0	0.0	0.0	5,000.0
31	3.4	3.4		3.3	0.0	3.5	0.0	0.0	0.0	0.0	0.0	5,000.0
<b>TOTAL SFD</b>	101.7	102.5	69.3	69.3	0.0	101.4	0.0	0.0	0.0	0.0	0.0	5,000.0
<b>TOTAL AF</b>	201.7	203.3	137.5	137.5	0.0	201.2	0.0	0.0	0.0	0.0	0.0	5,000.0

1 - Minimum Flow Maintenance Requirement equals the Section 5 flow for a Critically Dry year.  
 2 - Climatic Credits not applicable in May through December.

**ANNUAL REPORT**

**COOPERATIVE WATER RESOURCE  
MANAGEMENT AGREEMENT**

**CALENDAR YEAR 2013**

**APPENDIX B-2**

**2013 REQUESTED MODIFICATIONS FOR  
REQUIRED MINIMUM DAILY FLOWS**



## Charles W. Binder

---

**From:** Molly Palmer <mollyp@stetsonengineers.com>  
**Sent:** Tuesday, January 21, 2014 11:51 AM  
**To:** Charles W. Binder  
**Cc:** Alisa Nichols  
**Subject:** FW: January 2013 CWRMA flow requirement

Chuck:

This is the first of two emails providing you with the correspondence from Dec 2012/Jan 2013 related to the winter-time flow requirement. The emails below discussed the preliminary flow determination in December 2012.

-Molly

---

**From:** Craig Elitharp [<mailto:elitharpc@ranchowater.com>]  
**Sent:** Tuesday, December 18, 2012 12:04 PM  
**To:** Molly Palmer  
**Subject:** RE: January 2013 CWRMA flow requirement

Thanks Molly.

---

**From:** Molly Palmer [<mailto:mollyp@stetsonengineers.com>]  
**Sent:** Tuesday, December 18, 2012 11:25 AM  
**To:** Craig Elitharp  
**Cc:** Steve Reich; Bartu CIV Daniel P ([daniel.bartu@usmc.mil](mailto:daniel.bartu@usmc.mil))  
**Subject:** RE: January 2013 CWRMA flow requirement

Hi Craig:

Yes, I agree the winter flow is 6.5 cfs (total credit of 5.0 cfs, from 148 AF of CAP earned in 2011 plus 1037 AF of climatic credit earned in 2012).

We'll be looking to get our annual summary memo out in the second half of January (earlier this year Chuck confirmed that the USGS will publish their finalized flows at the Gorge by 1/15).

Hope you have a great holiday as well.

-Molly

---

**From:** Craig Elitharp [<mailto:elitharpc@ranchowater.com>]  
**Sent:** Tuesday, December 18, 2012 8:30 AM  
**To:** Molly Palmer  
**Cc:** Steve Reich; Bartu CIV Daniel P ([daniel.bartu@usmc.mil](mailto:daniel.bartu@usmc.mil))  
**Subject:** January 2013 CWRMA flow requirement

Hi Molly,

I've attached the current version of the accounting spreadsheet updated with daily data through yesterday. Could you please verify that the January, 2013 daily flow requirement is 6.5 cfs as shown on the 2013 worksheet? Thanks and have a great holiday. Same to you, Steve and Dan! Take care,

Craig

## Charles W. Binder

---

**From:** Molly Palmer <mollyp@stetsonengineers.com>  
**Sent:** Tuesday, January 21, 2014 11:51 AM  
**To:** Charles W. Binder  
**Cc:** Alisa Nichols  
**Subject:** FW: Revised flow requirement

Chuck:

This is the second of two emails covering correspondence related to CWRMA in Dec 2012/Jan 2013. Below are emails between me and Craig from January 2013 discussing the revised winter-time flow rate and agreement to modify the winter-time flow requirement January 18-February 28.

-Molly

---

**From:** Craig Elitharp [<mailto:elitharpc@ranchowater.com>]  
**Sent:** Thursday, January 17, 2013 12:09 PM  
**To:** Molly Palmer  
**Subject:** RE: Revised flow requirement

That works Molly, if you can reflect that modification in the spreadsheet. We will start with 5.3 cfs tomorrow and go through the end of February. Thanks.

Craig

---

**From:** Molly Palmer [<mailto:mollyp@stetsonengineers.com>]  
**Sent:** Thursday, January 17, 2013 12:01 PM  
**To:** Craig Elitharp  
**Subject:** RE: Revised flow requirement

Hi Craig:

I suggest you reduce the flows now through the end of February to make up the difference. If you start tomorrow, that's 42 days to reduce by 25 ac-ft, or a reduction of .3 cfs. So, that would be a release rate of 5.3 cfs through Feb 28. Would that work for you?

-Molly

---

**From:** Craig Elitharp [<mailto:elitharpc@ranchowater.com>]  
**Sent:** Tuesday, January 15, 2013 9:31 AM  
**To:** Molly Palmer  
**Subject:** RE: Revised flow requirement

Molly,

It looks like we purchased about 25 acre feet more than required by having the requirement change from 6.5 to 5.6 cfs, for the period January 1 through January 14, 2013. I'm open to suggestions on a way to credit this.

Craig

---

**From:** Molly Palmer [<mailto:mollyp@stetsonengineers.com>]  
**Sent:** Monday, January 14, 2013 4:12 PM  
**To:** Craig Elitharp  
**Subject:** Revised flow requirement

Hi Craig:

Just a head's up that the winter-time flow requirement is actually lower than I originally calculated. I forgot about the April 2012 flow modification. The winter-time water that was postponed (later released in May and June) should have counted toward your Climatic Credit. So, the revised climatic credit is 1,248 ac-ft, plus the carry-over CAP credit of 148 ac-ft, giving a winter-time flow req't of 5.6 cfs.

Apologies for not catching this sooner. Let me know how much excess you've already released – we can work it out somehow to balance the water this winter.

I'm still preparing all of the detailed tables for the memo; Steve will be at the meeting tomorrow with some summary tables, and we'll have the memo out later this week.

Thanks,  
Molly

Molly Palmer, P.E.  
Water Resources Engineer  
Stetson Engineers Inc.  
2171 E. Francisco Blvd, Suite K, San Rafael CA 94901  
Phone: 415 457 0701 Fax: 415 457 1638



**ANNUAL REPORT**

**COOPERATIVE WATER RESOURCE  
MANAGEMENT AGREEMENT**

**CALENDAR YEAR 2013**

**APPENDIX C-1**

**PALA PARK GROUNDWATER MONITORING WELL**



## Site Description

### Pala Park Groundwater Monitoring Well (8S/2W-19A1-6)

**LOCATION:** Latitude 33° 28' 19.67", longitude 117° 07' 06.86" (NAD83) in Riverside County, California. Wells are located off Temecula Lane just south of Pala Community Park in Temecula, California.

**SITE INFORMATION:** Land-surface altitude is 1017 feet above mean sea level (NGVD29) from 24000 scale topographic map.

**WATER-LEVEL RECORD:** The period of record for intermittent and daily water-level measurements is listed below.

State well number	USGS station number	Intermittent water-level	Daily water-level
8S/2W-19A1	332819117070601	09/30/2006 to present	12/27/2006 to present
8S/2W-19A2	332819117070602	09/30/2006 to present	12/27/2006 to present
8S/2W-19A3	332819117070603	09/30/2006 to present	12/27/2006 to present
8S/2W-19A4	332819117070604	09/30/2006 to present	12/27/2006 to present
8S/2W-19A5	332819117070605	09/30/2006 to present	12/27/2006 to present
8S/2W-19A6	332819117070606	12/1/2008 to present	2/19/2009 to present

**TOPOGRAPHIC MAP:** USGS Pechanga, California, 7.5 minute series.

**WELL SUMMARY INFORMATION:**

State well number	USGS station number	Hole depth (ft)	Perforation depth (ft)	Casing size and type	Date drilled
8S/2W-19A1	332819117070601	1499	1430-1470	3" PVC	9/30/06
8S/2W-19A2	332819117070602	1499	1110-1130	2" PVC	9/30/06
8S/2W-19A3	332819117070603	1499	750-770	2" PVC	9/30/06
8S/2W-19A4	332819117070604	1499	380-400	2" PVC	9/30/06
8S/2W-19A5	332819117070605	1499	120-140	2" PVC	9/30/06
8S/2W-19A6	332819117070606	1499	15-35	2" PVC	9/30/06

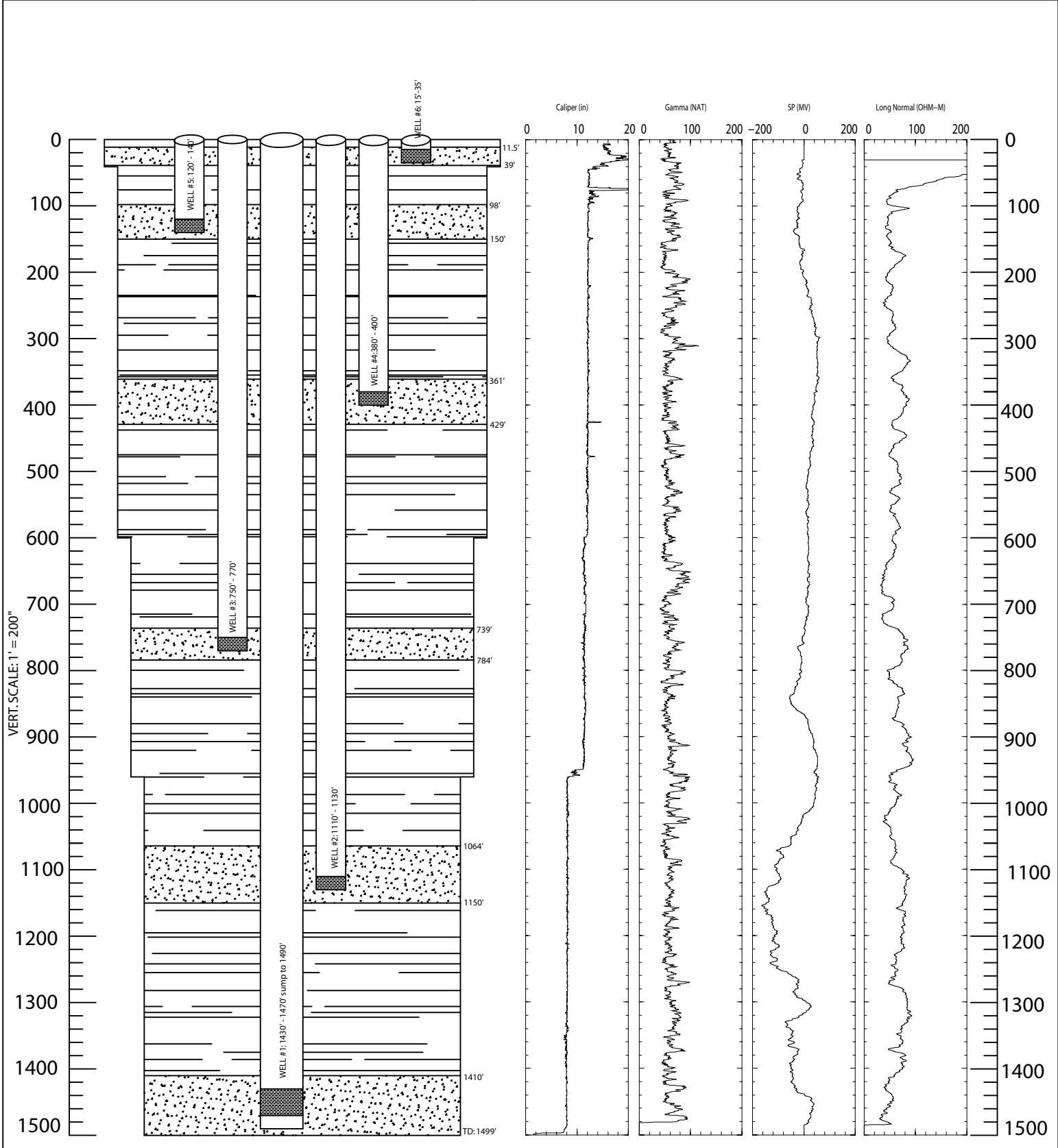
**ROAD LOG:** Key intersection is the intersection of CA-79 and Interstate Highway 15. Directions given are from Interstate Highway 15 North.

Mileage	Description
0.0	From I-15 North take the CA-79 South exit onto a local road toward Temecula / Indio.
0.3	Turn right on CA-79 South.
1.0	Turn right on Pechanga Parkway.
1.7	Turn left on Muirfield Dr.
1.9	Turn right on Canterfield Dr.
1.9	Turn right on Temecula Ln. Vault is located at end of Temecula Ln in a dirt/gravel lot adjacent to the parking lot for Pala Park. Vault is accessible from parking lot.

**ADDITIONAL INFORMATION:**

Additional information for Pala Park Groundwater Monitoring Well can be found in Santa Margarita River Watershed 2007 Annual Watermaster Report including geophysical logs; core, shaker, and sieve lithological logs; and well completion reports. Information can also be found at the following web site: <http://ca.water.usgs.gov/temecula/>.

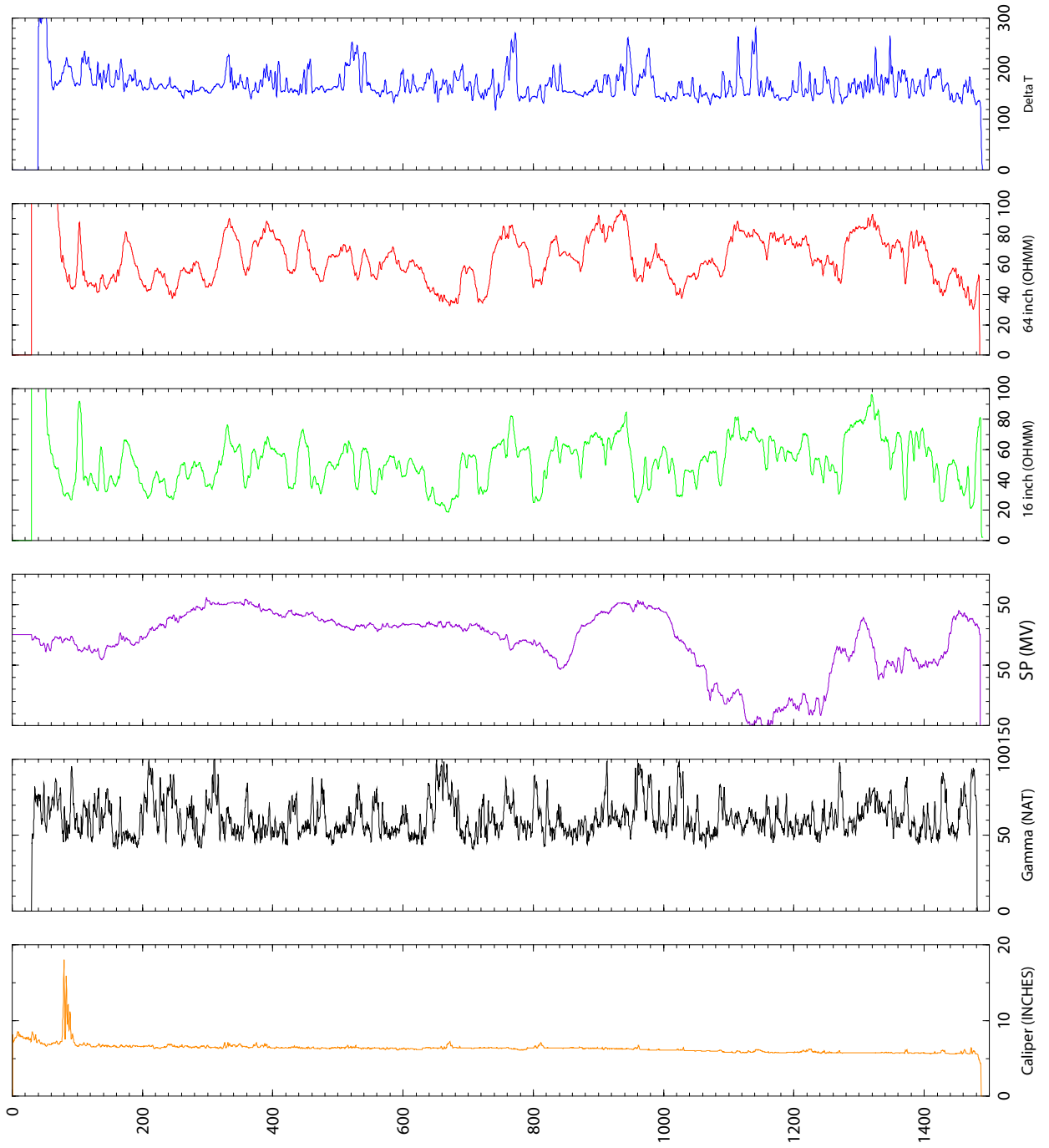
SITE I.D.: 3328191170706 01-06	COMPLETION DATE: 9/30/06
STATION NAME: 08S/02W-19A 01-06	TOTAL DEPTH: 1499'
USGS SITE: TMPP- Temecula Pala Park	WELL FINISH: VAULT
OWNER: Rancho California Water Agency	



DRILL TYPE: HYDRAULIC MUD ROTARY	DRILLER: USGS WESTERN REGION CREW
CASING TYPE: SCHD.80 PVC 20' SEC.	SCREEN TYPE: SCHD.80 1.5"x0.02"SLOTS
GROUT: PUREGOLD GROUT @ 30% SOLIDS	SAND: RMC LONESTAR #3
BOREHOLE DIA: 15":0'-41'; 12.25":41'-600'; 10.5":600'-960'; 8.5":960'-1499'	

# TMPP

## Pacific Surveys Logs



**End-of Month Piezometric Head for Multiple Depth Monitoring Well  
Pala Park Well (8S/2W-19A1-6)  
(elevation in feet, MSL)**

**October 2006 through December 2013**

<b>Month</b>	<b>Well A1</b>	<b>Well A2</b>	<b>Well A3</b>	<b>Well A4</b>	<b>Well A5</b>	<b>Well A6</b>
Oct 06	---	---	---	---	---	---
Nov	---	---	---	---	---	---
Dec	970.97	954.73	944.95	941.54	926.31	---
Jan 07	970.65	953.83	944.07	940.76	923.21	---
Feb	970.44	953.11	942.93	939.65	920.77	---
Mar	969.80	952.02	942.11	938.73	918.47	---
Apr	969.60	951.37	941.13	937.61	923.65	---
May	968.13	949.31	940.04	937.16	919.28	---
Jun	967.32	948.40	940.02	937.29	917.41	---
Jul	966.80	948.38	939.25	936.23	915.60	---
Aug	966.44	947.88	938.13	934.93	913.66	---
Sep	966.15	947.37	937.16	933.84	911.87	---
Oct	966.47	947.27	936.82	932.97	910.16	---
Nov	965.56	945.91	934.77	931.17	907.93	---
Dec	966.19	945.53	934.87	931.51	938.87	---
Jan 08	966.58	945.57	935.68	932.18	---	---
Feb	966.64	945.74	936.34	932.92	990.70	---
Mar	964.54	944.35	934.79	931.71	963.22	---
Apr	964.15	943.91	933.45	930.56	948.24	---
May	963.78	943.12	932.52	929.58	960.88	---
Jun	962.96	942.00	931.55	929.03	945.64	---
Jul	962.35	941.37	931.37	928.83	938.27	---
Aug	961.88	940.86	930.74	928.18	933.20	---
Sep	961.24	940.12	930.21	927.64	928.37	---
Oct	960.73	939.62	929.45	926.74	923.70	---
Nov	961.37	940.01	929.91	926.84	941.33	---
Dec	962.17	940.36	930.44	927.41	976.14	---
Jan 09	960.88	939.14	930.34	928.01	953.31	---
Feb	961.24	939.84	931.38	929.02	982.94	---
Mar	960.34	939.64	931.76	929.53	960.46	---
Apr	959.98	939.92	931.39	929.10	948.52	---
May	959.61	939.56	931.25	929.11	941.61	---
Jun	959.46	939.83	931.20	928.82	937.06	---
Jul	958.83	938.98	930.43	928.39	932.94	---
Aug	958.24	938.57	930.50	928.68	929.33	---
Sep	957.20	937.87	930.43	928.81	926.62	---
Oct	956.70	937.76	931.13	929.61	924.85	---
Nov	956.46	938.03	932.03	930.61	924.30	---
Dec	957.20	939.13	933.39	931.84	947.91	---
Jan 10	958.88	941.38	935.64	933.74	988.09	---
Feb	959.06	941.92	936.75	935.29	1000.96	---
Mar	958.15	941.99	937.70	936.54	974.72	---
Apr	958.07	942.58	937.54	937.13	982.19	---
May	957.89	943.06	937.98	937.57	965.27	---
Jun	958.32	943.72	938.07	937.78	957.29	---
Jul	958.14	943.80	938.11	937.88	951.58	---
Aug	958.44	944.26	938.41	938.15	947.87	---
Sep	958.55	944.51	938.57	938.20	944.92	---
Oct	958.78	944.58	938.85	938.61	959.01	---
Nov	959.82	945.68	940.45	939.87	962.25	---
Dec	961.07	947.03	942.25	941.81	1000.33	992.80

**End-of Month Piezometric Head for Multiple Depth Monitoring Well  
Pala Park Well (8S/2W-19A1-6)  
(elevation in feet, MSL)**

**October 2006 through December 2013**

<b>Month</b>	<b>Well A1</b>	<b>Well A2</b>	<b>Well A3</b>	<b>Well A4</b>	<b>Well A5</b>	<b>Well A6</b>
Jan 11	960.24	946.80	942.98	943.00	982.92	---
Feb	960.57	947.70	943.43	943.80	997.48	992.32
Mar	961.08	948.46	944.63	945.31	993.72	991.58
Apr	960.30	948.43	945.04	946.06	980.66	985.83
May	960.25	948.79	945.50	946.83	972.68	---
Jun	961.35	950.50	946.84	947.46	967.27	---
Jul	961.39	950.89	945.38	945.85	960.20	---
Aug	961.48	950.50	944.67	945.31	956.01	---
Sep	961.12	949.81	944.98	945.92	954.76	---
Oct	961.99	950.64	946.68	947.52	958.32	---
Nov	962.64	951.42	948.38	949.39	976.96	---
Dec	962.32	951.69	949.53	950.96	977.41	987.31
Jan 12	963.05	953.19	951.57	952.65	972.49	986.99
Feb	963.34	954.42	951.59	952.64	994.39	989.85
Mar	964.74	955.76	952.96	954.18	996.28	994.64
Apr	964.02	955.42	953.29	956.08	994.94	993.44
May	963.84	955.93	954.19	958.65	990.64	991.42
Jun	964.24	956.71	955.24	960.01	989.16	990.46
Jul	964.83	957.83	955.89	960.11	987.29	990.23
Aug	964.84	958.00	955.24	959.30	983.71	990.10
Sep	965.12	958.42	955.40	958.93	979.99	989.59
Oct	965.29	958.41	955.77	959.13	978.25	989.44
Nov	965.33	958.46	956.62	960.19	978.66	990.56
Dec	967.61	960.91	958.75	961.87	991.75	992.30
Jan 13	968.46	962.11	959.77	963.53	990.99	992.48
Feb	968.05	961.79	960.03	965.30	994.33	994.54
Mar	967.57	961.78	961.27	971.19	994.14	994.62
Apr	967.64	962.47	962.67	973.54	993.99	994.97
May	969.29	964.57	964.16	974.02	993.52	994.45
Jun	969.56	966.00	964.77	974.30	993.55	994.69
Jul	969.50	965.40	964.24	973.43	992.49	993.46
Aug	969.67	965.74	963.94	972.11	990.47	991.97
Sep	969.71	965.49	963.20	970.17	988.27	991.50
Oct	969.82	965.38	963.34	969.31	987.68	991.37
Nov	970.28	965.64	963.94	969.47	989.03	991.83
Dec	970.23	965.58	964.46	970.38	990.91	992.58

Notes:

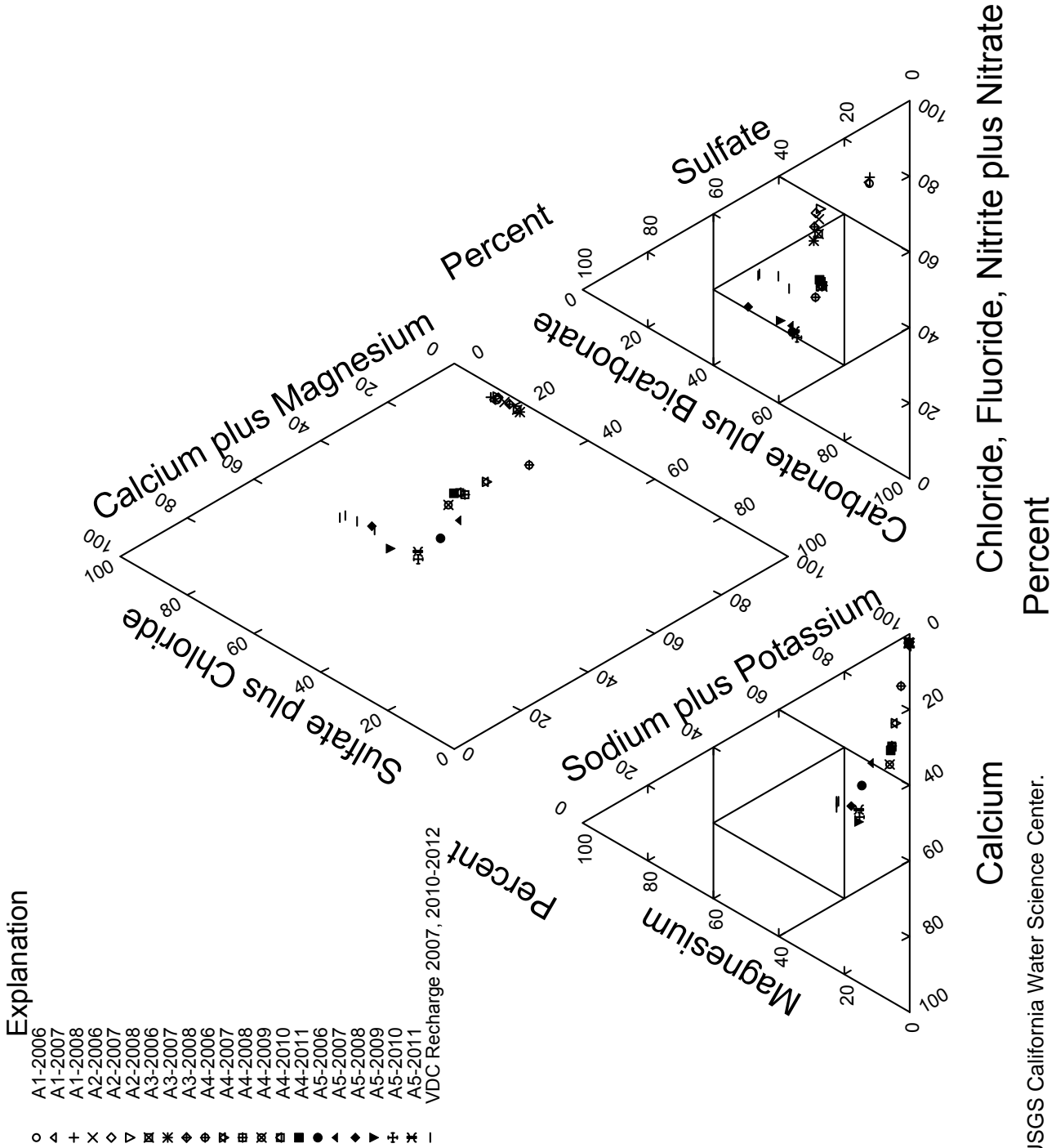
- (1) Data reported as 12:00 PM reading for period December 2006 through September 2010.
- (2) Data reported as daily median value for period October 2010 to present.

Source: USGS California Water Science Center.



# Tri-Linear Diagram

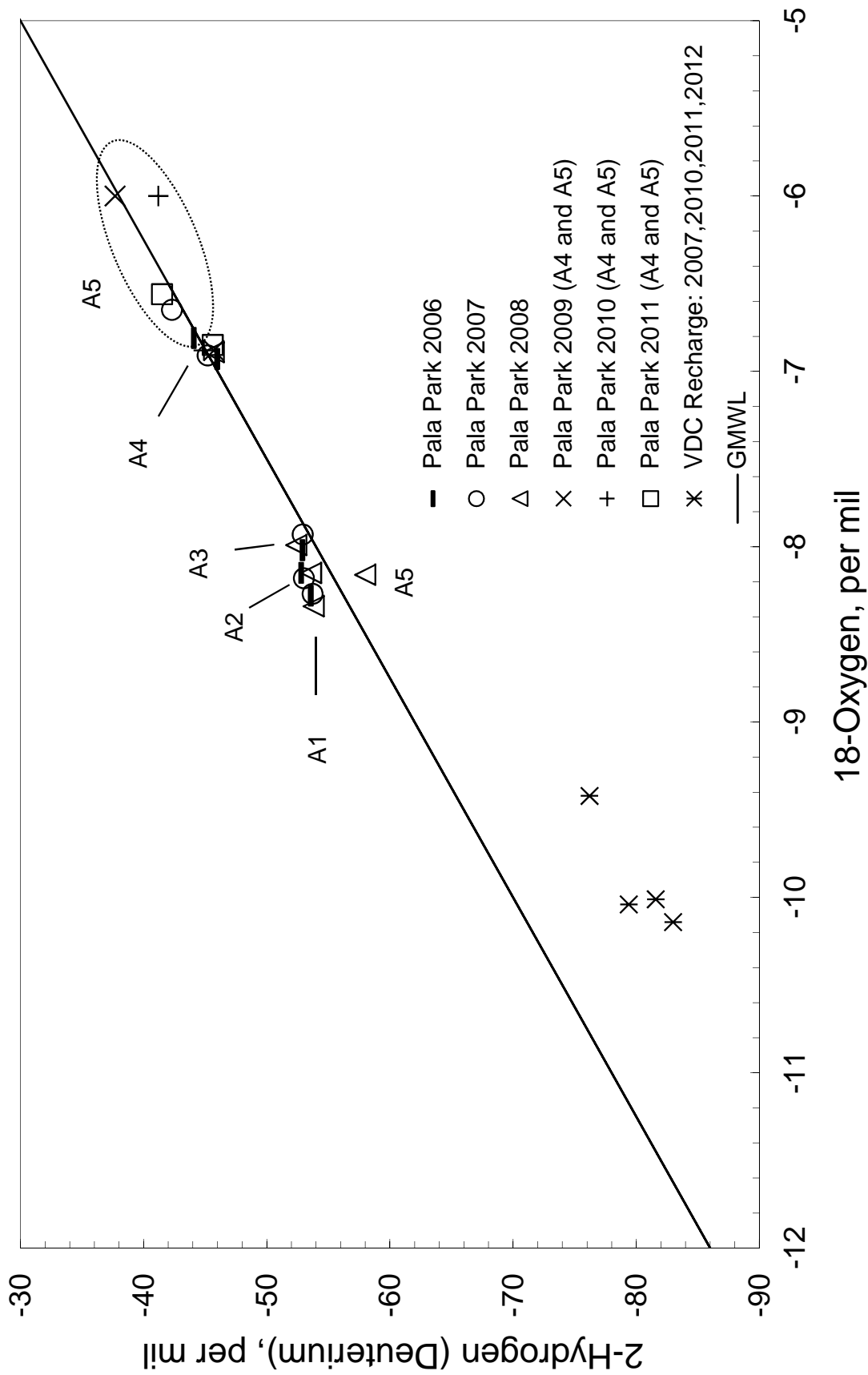
## Pala Park Well (8S/2W-19A1-6)



Source: USGS California Water Science Center.

# Stable Isotope Diagram

## Pala Park Monitoring Wells



Source: USGS California Water Science Center.

**Water Quality Data for Multiple Depth Monitoring Well  
Pala Park Well (8S/2W-19A1-6)  
November 2006**

Code	Parameter	MCL	Well A1 11/8/2006	Well A2 11/2/2006	Well A3 11/1/2006	Well A4 11/6/2006	Well A5 11/8/2006
3	Sampling date						
10	Sampling depth, feet		22.3	20.5	21.4	22.9	20.8
28	Agency analyzing sample, code		80020	80020	80020	80020	80020
59	Flow rate, instantaneous, gallons per minute						
95	Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius		665	821	750	831	687
191	Hydrogen ion, water, unfiltered, calculated, milligrams per liter		M	M	M	M	0.00002
300	Dissolved oxygen, water, unfiltered, milligrams per liter		0.40	0.29	0.30	0.53	6.2
400	pH, water, unfiltered, field, standard units		9.4	9.7	9.4	8.6	7.8
403	pH, water, unfiltered, laboratory, standard units		9.5	9.7	9.4	8.6	8
602	Total nitrogen, water, filtered, milligrams per liter				0.14 E	0.14 E	2.7
607	Organic nitrogen, water, filtered, milligrams per liter			0.08	0.04 E	0.05 E	
608	Ammonia, water, filtered, milligrams per liter as nitrogen		0.028	0.041	0.046	0.041	< 0.020
613	Nitrite, water, filtered, milligrams per liter as nitrogen	1 (a)		0.010	0.011	0.008	0.004
618	Nitrate, water, filtered, milligrams per liter as nitrogen			0.04 E	0.04 E	0.04 E	2.59
623	Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen			0.12	0.09 E	0.09 E	0.13
631	Nitrate plus nitrite, water, filtered, milligrams per liter as nitrogen			< 0.06	0.05 E	0.05 E	2.60
660	Orthophosphate, water, filtered, milligrams per liter			2.41	3.33	1.88	0.741
666	Phosphorus, water, filtered, milligrams per liter			1.02	1.32	0.67	0.33
671	Orthophosphate, water, filtered, milligrams per liter as phosphorus			0.785	1.08	0.614	0.242
900	Hardness, water, milligrams per liter as calcium carbonate		8	9	8	57	160
904	Noncarb hardness, water filtered field, milligrams per liter as calcium carbonate		3.14	3.32	2.62	18.7	44.9
915	Calcium, water, filtered, milligrams per liter		0.106	0.058	0.288	2.45	12.1
925	Magnesium, water, filtered, milligrams per liter		127	152	138	145	81.4
930	Sodium, water, filtered, milligrams per liter		19	23	22	8.4	2.8
931	Sodium adsorption ratio, water, number		97	97	97	84	52
932	Sodium fraction of cations, water, percent in equivalents of major cations		0.62	0.96	1.26	2.39	2.10
935	Potassium, water, filtered, milligrams per liter		138	131	112	87.1	40.1
940	Chloride, water, filtered, milligrams per liter	600	34.1	95.3	84.7	102	110
945	Sulfate, water, filtered, milligrams per liter	600	4.56	4.18	1.09	0.38	4.10
950	Fluoride, water, filtered, milligrams per liter	2 (b)	17.3	19.0	14.6	17.2	28.3
955	Silica, water, filtered, milligrams per liter						
1000	Arsenic, water, filtered, micrograms per liter	10 (c)	25.7	20.4	17.1	6.0	2.4
1005	Barium, water, filtered, micrograms per liter	1000 (d)	2.9	2.6	2.3	10.4	31.9
1010	Beryllium, micrograms per liter	4 (e)					
1020	Boron, water, filtered, micrograms per liter		128	138	97	120	150
1025	Cadmium, micrograms per liter	5 (f)					
1030	Chromium, micrograms per liter	50 (g)					
1035	Cobalt, micrograms per liter						
1040	Copper, micrograms per liter	1000 (h)					
1046	Iron, water, filtered, micrograms per liter	300	< 6	3 E	3 E	< 6	< 6
1049	Lead, micrograms per liter						
1056	Manganese, water, filtered, micrograms per liter	50	0.5 E	0.7	1.6	7.6	1.7
1057	Thallium, micrograms per liter	2 (i)					
1060	Molybdenum, micrograms per liter						
1065	Nickel, micrograms per liter	100 (j)					
1075	Silver, micrograms per liter	100 (k)					
1080	Strontium, water, filtered, micrograms per liter		23.0	16.8	17.8	161	202
1085	Vanadium, micrograms per liter						
1090	Zinc, micrograms per liter	5000 (l)					
1095	Antimony, micrograms per liter	6 (m)					
1106	Aluminum, water, filtered, micrograms per liter	1000 (n)	95.3	127	82.4	54.3	4.1
1130	Lithium, water, filtered, micrograms per liter		4	5	4	7	6
1145	Selenium, micrograms per liter						
4022	Terbutylazine, water, filtered, recoverable, micrograms per liter	50 (o)				< 0.01	< 0.01

**Water Quality Data for Multiple Depth Monitoring Well  
Pala Park Well (8S/2W-19A1-6)  
November 2006**

Code	Parameter	MCL	Well A1 11/8/2006	Well A2 11/2/2006	Well A3 11/1/2006	Well A4 11/6/2006	Well A5 11/8/2006
	Sampling date						
4025	Hexazinone, water, filtered, recoverable, micrograms per liter					< 0.026	< 0.026
4029	Bromacil, water, filtered, recoverable, micrograms per liter					< 0.006	0.036
4035	Simazine, water, filtered, recoverable, micrograms per liter					< 0.006	< 0.006
4036	Prometryn, water, filtered, recoverable, micrograms per liter					< 0.01	< 0.01
4037	Prometon, water, filtered, recoverable, micrograms per liter					< 0.014	< 0.014
4040	2-Chloro-4-isopropylamino-6-amino-s-triazine, water, filtered, recoverable, micrograms per liter					< 0.006	< 0.006
4095	Fonofos, water, filtered, recoverable, micrograms per liter					0.58	11.14
7000	Tritium, water, unfiltered, picocuries per liter		-0.19	0.35	0.45		
22703	Uranium, natural, micrograms per liter						
29801	Alkalinity, water, filtered, fixed endpoint (pH 4.5) titration, laboratory, milligrams per liter as calcium carbonate		50	65	74	165	168
30217	Dibromomethane, water, unfiltered, recoverable, micrograms per liter					< 0.04	< 0.04
32101	Bromodichloromethane, water, unfiltered, recoverable, micrograms per liter					< 0.04	< 0.04
32102	Tetrachloromethane, water, unfiltered, recoverable, micrograms per liter	0.5				< 0.08	< 0.08
32103	1,2-Dichloroethane, water, unfiltered, recoverable, micrograms per liter					< 0.1	< 0.1
32104	Tribromomethane, water, unfiltered, recoverable, micrograms per liter					< 0.08	< 0.08
32105	Dibromochloromethane, water, unfiltered, recoverable, micrograms per liter					< 0.1	< 0.1
32106	Trichloromethane, water, unfiltered, recoverable, micrograms per liter					< 0.04	0.03 E
34010	Toluene, water, unfiltered, recoverable, micrograms per liter	150				< 0.02	< 0.02
34030	Benzene, water, unfiltered, recoverable, micrograms per liter	1				< 0.02	< 0.02
34215	Acrylonitrile, water, unfiltered, recoverable, micrograms per liter					< 0.4	< 0.4
34221	Anthracene, water, filtered, recoverable, micrograms per liter						
34248	Benz[a]pyrene, water, filtered, recoverable, micrograms per liter	0.2 (p)					
34288	Tribromomethane, water, filtered, recoverable, micrograms per liter						
34301	Chlorobenzene, water, unfiltered, recoverable, micrograms per liter	70				< 0.02	< 0.02
34311	Chloroethane, water, unfiltered, recoverable, micrograms per liter					< 0.1	< 0.1
34371	Ethylbenzene, water, unfiltered, recoverable, micrograms per liter	300				< 0.02	< 0.02
34377	Fluoranthene, water, filtered, recoverable, micrograms per liter						
34396	Hexachloroethane, water, unfiltered, recoverable, micrograms per liter					< 0.1	< 0.1
34409	Isophorone, water, filtered, recoverable, micrograms per liter					< 0.1	< 0.1
34413	Bromomethane, water, unfiltered, recoverable, micrograms per liter					< 0.4	< 0.4
34418	Chloromethane, water, unfiltered, recoverable, micrograms per liter					< 0.1	< 0.1
34423	Dichloromethane, water, unfiltered, recoverable, micrograms per liter	5				< 0.04	< 0.04
34443	Naphthalene, water, filtered, recoverable, micrograms per liter						
34462	Phenanthrene, water, filtered, recoverable, micrograms per liter						
34466	Phenol, water, filtered, recoverable, micrograms per liter						
34470	Pyrene, water, filtered, recoverable, micrograms per liter						
34475	Tetrachloroethene, water, unfiltered, recoverable, micrograms per liter	5				< 0.04	< 0.04
34476	Tetrachloroethane, water, filtered, recoverable, micrograms per liter						
34488	Trichlorofluoromethane, water, unfiltered, recoverable, micrograms per liter	150				< 0.08	< 0.08
34496	1,1-Dichloroethane, water, unfiltered, recoverable, micrograms per liter	5				< 0.06	< 0.06
34501	1,1-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	6				< 0.02	< 0.02
34506	1,1,1-Trichloroethane, water, unfiltered, recoverable, micrograms per liter	200				< 0.04	< 0.04
34511	1,1,2-Trichloroethane, water, unfiltered, recoverable, micrograms per liter	5				< 0.04	< 0.04
34516	1,1,2,2-Tetrachloroethane, water, unfiltered, recoverable, micrograms per liter	1				< 0.10	< 0.10
34536	1,2-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter	600				< 0.04	< 0.04
34541	1,2-Dichloropropane, water, unfiltered, recoverable, micrograms per liter	5				< 0.02	< 0.02
34546	trans-1,2-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	10				< 0.02	< 0.02
34551	1,2,4-Trichlorobenzene, water, unfiltered, recoverable, micrograms per liter	5				< 0.1	< 0.1
34566	1,3-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter	5				< 0.04	< 0.04
34571	1,4-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter					< 0.04	< 0.04
34572	1,4-Dichlorobenzene, water, filtered, recoverable, micrograms per liter						
34668	Dichlorodifluoromethane, water, unfiltered, recoverable, micrograms per liter					< 0.14	< 0.14
34696	Naphthalene, water, unfiltered, recoverable, micrograms per liter					< 0.4	< 0.4
34699	trans-1,3-Dichloropropene, water, unfiltered, recoverable, micrograms per liter	0.5				< 0.1	< 0.1

**Water Quality Data for Multiple Depth Monitoring Well  
Pala Park Well (8S/2W-19A1-6)  
November 2006**

Code	Parameter	MCL	Well A1 11/8/2006	Well A2 11/2/2006	Well A3 11/1/2006	Well A4 11/6/2006	Well A5 11/8/2006
	Sampling date						
34704	cis-1,3-Dichloropropene, water, unfiltered, recoverable, micrograms per liter	0.5				< 0.06	< 0.06
38454	Dicofophos, water, filtered, recoverable, micrograms per liter					< 0.08	< 0.08
38775	Dichlorvos, water, filtered, recoverable, micrograms per liter					< 0.01	< 0.01
38933	Chlorpyrifos, water, filtered, recoverable, micrograms per liter					< 0.005	< 0.005
39086	Alkalinity, water, filtered, incremental titration, field, milligrams per liter as calcium carbonate			61			
39175	Vinyl chloride, water, unfiltered, recoverable, micrograms per liter	0.5				< 0.1	< 0.1
39180	Trichloroethene, water, unfiltered, recoverable, micrograms per liter	5				< 0.02	< 0.02
39381	Dieldrin, water, filtered, recoverable, micrograms per liter					< 0.009	< 0.009
39415	Metolachlor, water, filtered, recoverable, micrograms per liter					< 0.010	< 0.010
39532	Malathion, water, filtered, recoverable, micrograms per liter					< 0.016	< 0.016
39572	Diazinon, water, filtered, recoverable, micrograms per liter					< 0.005	< 0.005
39632	Atrazine, water, filtered, recoverable, micrograms per liter					< 0.007	< 0.007
39702	Hexachlorobutadiene, water, unfiltered, recoverable, micrograms per liter					< 0.1	< 0.1
46342	Alachlor, water, filtered, recoverable, micrograms per liter					< 0.005	< 0.005
49260	Acetochlor, water, filtered, recoverable, micrograms per liter					< 0.006	< 0.006
49295	1-Naphthol, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter			17.27		< 0.09	< 0.09
49933	C-14, water, filtered, percent modern			13.56		63.16	
49934	C-14, counting error, water, filtered, percent modern						
49991	Methyl acrylate, water, unfiltered, recoverable, micrograms per liter					< 0.4	< 0.4
49999	1,2,3,4-Tetramethylbenzene, water, unfiltered, recoverable, micrograms per liter					< 0.1	< 0.1
50000	1,2,3,5-Tetramethylbenzene, water, unfiltered, recoverable, micrograms per liter					< 0.1	< 0.1
50002	Bromoethene, water, unfiltered, recoverable, micrograms per liter					< 0.1	< 0.1
50004	tert-Butyl ethyl ether, water, unfiltered, recoverable, micrograms per liter					< 0.04	< 0.04
50005	Methyl tert-pentyl ether, water, unfiltered, recoverable, micrograms per liter					< 0.04	< 0.04
50305	Caffeine, water, filtered, recoverable, micrograms per liter						
50359	Metolaxyl, water, filtered, recoverable, micrograms per liter						
61209	Perchlorate, water, unfiltered, recoverable, micrograms per liter	6					
61585	Cyfluthrin, water, filtered, recoverable, micrograms per liter					< 0.053	< 0.053
61586	Cypermethrin, water, filtered, recoverable, micrograms per liter					< 0.046	< 0.046
61591	Fenamiphos, water, filtered, recoverable, micrograms per liter					< 0.03	< 0.03
61593	Iprodione, water, filtered, recoverable, micrograms per liter					< 0.026	< 0.026
61594	Isofenphos, water, filtered, recoverable, micrograms per liter					< 0.011	< 0.011
61596	Metolaxyl, water, filtered, recoverable, micrograms per liter					< 0.007	< 0.007
61598	Methidathion, water, filtered, recoverable, micrograms per liter					< 0.009	< 0.009
61599	Myclobutanil, water, filtered, recoverable, micrograms per liter					< 0.033	< 0.033
61601	Phosmet, water, filtered, recoverable, micrograms per liter					< 0.008	< 0.008
61610	Tribuphos, water, filtered, recoverable, micrograms per liter					< 0.035	< 0.035
61618	2-Chloro-2,6-diethylacetanilide, water, filtered, recoverable, micrograms per liter					< 0.006	< 0.006
61620	2-Ethyl-6-methylamine, water, filtered, recoverable, micrograms per liter					< 0.01	< 0.01
61625	3,4-Dichloroaniline, water, filtered, recoverable, micrograms per liter					< 0.004	< 0.004
61633	4-Chloro-2-methylphenol, water, filtered, recoverable, micrograms per liter					< 0.005	< 0.005
61635	Azinphos-methyl oxygen analog, water, filtered, recoverable, micrograms per liter					< 0.04	< 0.04
61636	Chlorpyrifos oxygen analog, water, filtered, recoverable, micrograms per liter					< 0.06	< 0.06
61644	Ethion monooxon, water, filtered, recoverable, micrograms per liter					< 0.02	< 0.02
61645	Fenamiphos sulfone, water, filtered, recoverable, micrograms per liter					< 0.053	< 0.053
61646	Fenamiphos sulfoxide, water, filtered, recoverable, micrograms per liter					< 0.04	< 0.04
61652	Malaoxon, water, filtered, recoverable, micrograms per liter					< 0.039	< 0.039
61664	Methyl paraoxon, water, filtered, recoverable, micrograms per liter					< 0.02	< 0.02
61666	Phorate oxygen analog, water, filtered, recoverable, micrograms per liter					< 0.03	< 0.03
61668	Phosmet oxygen analog, water, filtered, recoverable, micrograms per liter					< 0.05	< 0.05
61674	Terbufos oxygen analog sulfone, water, filtered, recoverable, micrograms per liter					< 0.04	< 0.04
61705	Diethoxyoctylphenol, water, filtered, recoverable, micrograms per liter						
61706	Monoethoxyoctylphenol, water, filtered, recoverable, micrograms per liter						
62005	Cotinine, water, filtered, recoverable, micrograms per liter						

**Water Quality Data for Multiple Depth Monitoring Well  
Pala Park Well (8S/2W-19A1-6)  
November 2006**

Code	Parameter	MCL	Well A1 11/8/2006	Well A2 11/2/2006	Well A3 11/1/2006	Well A4 11/6/2006	Well A5 11/8/2006
	Sampling date						
62054	1-Methylnaphthalene, water, filtered, recoverable, micrograms per liter						
62055	2-Dimethylnaphthalene, water, filtered, recoverable, micrograms per liter						
62056	2-Methylnaphthalene, water, filtered, recoverable, micrograms per liter						
62057	3-beta-Coprostanol, water, filtered, recoverable, micrograms per liter						
62058	3-Methyl-1H-indole, water, filtered, recoverable, micrograms per liter						
62059	3-tert-Butyl-4-hydroxyanisole, water, filtered, recoverable, micrograms per liter						
62060	4-Cumylphenol, water, filtered, recoverable, micrograms per liter						
62061	4-Octylphenol, water, filtered, recoverable, micrograms per liter						
62062	4-tert-Octylphenol, water, filtered, recoverable, micrograms per liter						
62063	5-Methyl-1H-benzotriazole, water, filtered, recoverable, micrograms per liter						
62064	Acetophenone, water, filtered, recoverable, micrograms per liter						
62065	Acetyl hexamethyl tetrahydro naphthalene, water, filtered, recoverable, micrograms per liter						
62066	9,10-Anthraquinone, water, filtered, recoverable, micrograms per liter						
62067	Benzophenone, water, filtered, recoverable, micrograms per liter						
62068	beta-Sitosterol, water, filtered, recoverable, micrograms per liter						
62070	Camphor, water, filtered, recoverable, micrograms per liter						
62071	Carbazole, water, filtered, recoverable, micrograms per liter						
62072	Cholesterol, water, filtered, recoverable, micrograms per liter						
62073	D-Limonene, water, filtered, recoverable, micrograms per liter						
62075	Hexahydrohexamethyl cyclopentabenzopyran, water, filtered, recoverable, micrograms per liter						
62076	Indole, water, filtered, recoverable, micrograms per liter						
62077	Isoborneol, water, filtered, recoverable, micrograms per liter						
62078	Isopropylbenzene, water, filtered, recoverable, micrograms per liter						
62079	Isouquinoline, water, filtered, recoverable, micrograms per liter						
62080	Menthol, water, filtered, recoverable, micrograms per liter						
62081	Methyl salicylate, water, filtered, recoverable, micrograms per liter						
62082	DEET, water, filtered, recoverable, micrograms per liter						
62083	Diethoxynonylphenol, water, filtered, recoverable, micrograms per liter						
62084	p-Cresol, water, filtered, recoverable, micrograms per liter						
62085	4-Nonylphenol, water, filtered, recoverable, micrograms per liter						
62086	beta-Stigmasterol, water, filtered, recoverable, micrograms per liter						
62087	Tris(2-chloroethyl) phosphate, water, filtered, recoverable, micrograms per liter						
62088	Tris(dichloroisopropyl) phosphate, water, filtered, recoverable, micrograms per liter						
62089	Tributyl phosphate, water, filtered, recoverable, micrograms per liter						
62090	Tricosan, water, filtered, recoverable, micrograms per liter						
62091	Triethyl citrate, water, filtered, recoverable, micrograms per liter						
62092	Triphenyl phosphate, water, filtered, recoverable, micrograms per liter						
62093	Tris(2-butoxyethyl) phosphate, water, filtered, recoverable, micrograms per liter						
62166	Fipronil, water, filtered, recoverable, micrograms per liter						
62167	Fipronil sulfide, water, filtered, recoverable, micrograms per liter						
62168	Fipronil sulfone, water, filtered, recoverable, micrograms per liter						
62169	Desulfinylfipronil, water, filtered, recoverable, micrograms per liter						
62170	Desulfinylfipronil amide, water, filtered, recoverable, micrograms per liter						
62854	Total nitrogen, (NH3+NO2+NO3+Organic), filtered, milligrams per liter						
63790	Perchlorate, water, filtered, recoverable, micrograms per liter						
70300	Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter		360	473	416	493	433
70301	Residue, water, filtered, sum of constituents, milligrams per liter		356 E	446 E	404 E	477 E	433
70303	Residue, water, filtered, tons per acre-foot		0.04	0.05	0.06	0.05	
71846	Ammonia, water, filtered, milligrams per liter as NH4						
71851	Nitrate, water, filtered, milligrams per liter				0.184 E	0.174 E	11.5
71856	Nitrite, water, filtered, milligrams per liter				0.032	0.025	0.012
71865	Iodide, water, filtered, milligrams per liter		0.310	0.517	0.390	0.025	0.003
71870	Bromide, water, filtered, milligrams per liter		0.31	0.42	0.37	0.28	0.06
72019	Depth to water level, feet below land surface		46.61	60.97	70.00	73.36	83.74

Source: USGS California Water Science Center.

**Water Quality Data for Multiple Depth Monitoring Well  
Pala Park Well (8S/2W-19A1-6)  
November 2006**

Code	Parameter	MCL	Well A1 11/8/2006	Well A2 11/2/2006	Well A3 11/1/2006	Well A4 11/6/2006	Well A5 11/8/2006
	Sampling date						
73547	trans-1,4-Dichloro-2-butene, water, unfiltered, recoverable, micrograms per liter					< 0.6	< 0.6
73570	Ethyl methacrylate, water, unfiltered, recoverable, micrograms per liter					< 0.1	< 0.1
75985	Tritium 2-sigma combined uncertainty, water, unfiltered, picocuries per liter						0.70
76002	Rn-222, 2-sigma combined uncertainty, water, unfiltered, picocuries per liter		0.58	0.58	0.58	0.58	0.70
77041	Carbon disulfide, water, unfiltered, micrograms per liter						< 0.06
77093	cis-1,2-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	6				< 0.02	< 0.02
77103	n-Butyl methyl ketone, water, unfiltered, recoverable, micrograms per liter					< 0.4	< 0.4
77128	Styrene, water, unfiltered, recoverable, micrograms per liter	100				< 0.04	< 0.04
77135	o-Xylene, water, unfiltered, recoverable, micrograms per liter					< 0.04	< 0.04
77168	1,1-Dichloropropene, water, unfiltered, recoverable, micrograms per liter					< 0.04	< 0.04
77170	2,2-Dichloropropane, water, unfiltered, recoverable, micrograms per liter					< 0.04	< 0.04
77173	1,3-Dichloropropane, water, unfiltered, recoverable, micrograms per liter					< 0.06	< 0.06
77220	2-Ethyltoluene, water, unfiltered, recoverable, micrograms per liter					< 0.1	< 0.1
77221	1,2,3-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter					< 0.04	< 0.04
77222	1,2,4-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter					< 0.1	< 0.1
77223	Isopropylbenzene, water, unfiltered, recoverable, micrograms per liter					< 0.04	< 0.04
77224	n-Propylbenzene, water, unfiltered, recoverable, micrograms per liter					< 0.04	< 0.04
77226	1,3,5-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter					< 0.04	< 0.04
77275	2-Chlorotoluene, water, unfiltered, recoverable, micrograms per liter					< 0.04	< 0.04
77277	4-Chlorotoluene, water, unfiltered, recoverable, micrograms per liter					< 0.04	< 0.04
77297	Bromochloromethane, water, unfiltered, recoverable, micrograms per liter					< 0.06	< 0.06
77342	n-Butylbenzene, water, unfiltered, recoverable, micrograms per liter					< 0.1	< 0.1
77350	sec-Butylbenzene, water, unfiltered, recoverable, micrograms per liter					< 0.04	< 0.04
77353	tert-Butylbenzene, water, unfiltered, recoverable, micrograms per liter					< 0.08	< 0.08
77356	4-Isopropyltoluene, water, unfiltered, recoverable, micrograms per liter					< 0.08	< 0.08
77424	Iodomethane, water, unfiltered, recoverable, micrograms per liter					< 0.40	< 0.40
77443	1,2,3-Trichloropropane, water, unfiltered, recoverable, micrograms per liter					< 0.12	< 0.12
77562	1,1,1,2-Tetrachloroethane, water, unfiltered, recoverable, micrograms per liter					< 0.04	< 0.04
77613	1,2,3-Trichlorobenzene, water, unfiltered, recoverable, micrograms per liter					< 0.1	< 0.1
77651	1,2-Dibromoethane, water, unfiltered, recoverable, micrograms per liter	0.05				< 0.04	< 0.04
77652	1,1,1,2-Trichloro-1,2,2-trifluoroethane, water, unfiltered, recoverable, micrograms per liter					< 0.04	< 0.04
78032	Methyl tert-butyl ether, water, unfiltered, recoverable, micrograms per liter					< 0.04	< 0.04
78109	3-Chloropropene, water, unfiltered, recoverable, micrograms per liter					< 0.1	< 0.1
78133	Isobutyl methyl ketone, water, unfiltered, recoverable, micrograms per liter					< 0.08	< 0.08
81552	Acetone, water, unfiltered, recoverable, micrograms per liter					< 0.2	< 0.2
81555	Bromobenzene, water, unfiltered, recoverable, micrograms per liter					< 6	< 6
81576	Diethyl ether, water, unfiltered, recoverable, micrograms per liter					< 0.02	< 0.02
81577	Diisopropyl ether, water, unfiltered, recoverable, micrograms per liter					< 0.1	< 0.1
81593	Methyl acrylonitrile, water, unfiltered, recoverable, micrograms per liter					< 0.06	< 0.06
81595	Ethyl methyl ketone, water, unfiltered, recoverable, micrograms per liter					< 0.4	< 0.4
81597	Methyl methacrylate, water, unfiltered, recoverable, micrograms per liter					< 1.6	< 1.6
81607	Tetrahydrofuran, water, unfiltered, recoverable, micrograms per liter					< 0.2	< 0.2
82081	C-13/C-12 ratio, water, unfiltered, per mil					< 1	< 1
82082	Deuterium/Protium ratio, water, unfiltered, per mil					-16.29	-16.37
82085	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil					-52.80	-52.90
82303	Rn-222, water, unfiltered, picocuries per liter		-8.28	-8.15	-8.02	-6.93	-6.81
82346	Ethion, water, filtered, recoverable, micrograms per liter					< 0.016	< 0.016
82625	1,2-Dibromo-3-chloropropane, water, unfiltered, recoverable, micrograms per liter					< 0.5	< 0.5
82630	Metribuzin, water, filtered, recoverable, micrograms per liter					< 0.012	< 0.012
82660	2,6-Diethylaniline, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					< 0.006	< 0.006
82661	Trifluralin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					< 0.009	< 0.009
82662	Dimethoate, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					< 0.006	< 0.006
82664	Phorate, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					< 0.02	< 0.02
82667	Methyl parathion, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					< 0.008	< 0.008

**Water Quality Data for Multiple Depth Monitoring Well  
Pala Park Well (8S/2W-19A1-6)  
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Code	Parameter	MCL	Well A1 11/8/2006	Well A2 11/2/2006	Well A3 11/1/2006	Well A4 11/6/2006	Well A5 11/8/2006
	Sampling date						
82670	Turbidiron, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					< 0.02	< 0.02
82673	Benfluralin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					< 0.01	< 0.01
82675	Terbufos, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					< 0.01	< 0.01
82676	Propylzamide, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					< 0.004	< 0.004
82680	Carbaryl, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					< 0.06	< 0.06
82682	DCPA, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					< 0.003	< 0.003
82683	Pendimethalin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					< 0.02	< 0.02
82686	Azinphos-methyl, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					< 0.08	< 0.08
82687	cis-Permethrin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					< 0.01	< 0.01
85795	m-Xylene plus p-xylene, water, unfiltered, recoverable, micrograms per liter					< 0.08	< 0.08
90095	Specific conductance, water, unfiltered, laboratory, microsiemens per centimeter at 25 degrees Celsius		647	820	727	810	674
90851	Triholomethanes, water, unfiltered, calcd, micrograms per liter						M
99583	Bisphenol A-d3, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery						
99584	Caffeine-13C, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery						
99585	Decafluorobiphenyl, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery						
99586	Fluoranthene-d10, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery						
99832	1,2-Dichloroethane-d4, surrogate, Schedule 2090, water, unfiltered, percent recovery					126	136
99833	Toluene-d8, surrogate, Schedule 2090, water, unfiltered, percent recovery					89.8	92.5
99834	1-Bromo-4-fluorobenzene, surrogate, VOC schedules, water, unfiltered, percent recovery					62.5	62.3
99994	Diazinon-d10, surrogate, Schedule 2003, water, filtered, percent recovery					120	119
99995	alpha-HCH-d6, surrogate, Schedule 2003, water, filtered, percent recovery					93.5	99.1

Notes: U.S. EPA STORET numbers for MCLs correspond to the same as the USGS NWIS data parameter number except as follows:

- (a) MCL shown for U.S. EPA STORET No. 620.
- (b) MCL shown for U.S. EPA STORET No. 951.
- (c) MCL shown for U.S. EPA STORET No. 1002.
- (d) MCL shown for U.S. EPA STORET No. 1007.
- (e) MCL shown for U.S. EPA STORET No. 1012.
- (f) MCL shown for U.S. EPA STORET No. 1027.
- (g) MCL shown for U.S. EPA STORET No. 1034.
- (h) MCL shown for U.S. EPA STORET No. 1042.
- (i) MCL shown for U.S. EPA STORET No. 1059.
- (j) MCL shown for U.S. EPA STORET No. 1067.
- (k) MCL shown for U.S. EPA STORET No. 1077.
- (l) MCL shown for U.S. EPA STORET No. 1092.
- (m) MCL shown for U.S. EPA STORET No. 1097.
- (n) MCL shown for U.S. EPA STORET No. 1105.
- (o) MCL shown for U.S. EPA STORET No. 1147.
- (p) MCL shown for U.S. EPA STORET No. 34247.
- (q) MCL shown for U.S. EPA STORET No. 71850.

Code--Data parameter number used in USGS National Water Information System (NWIS).

E--Estimated.

M--Presence verified but not quantified.

MCL--Maximum Contaminant Level reported by California DHS (May 25, 2007 Database) for U.S. EPA STORET number.

V--Biased results from contamination.



**Water Quality Data for Multiple Depth Monitoring Well  
Pala Park Well (8S/2W-19A1-6)  
September 2007**

Code	Parameter	MCL	Well A1 9/27/2007	Well A2 9/20/2007	Well A3 9/25/2007	Well A4 9/25/2007	Well A5 9/20/2007
3	Sampling date						
10	Sampling depth, feet		25.5	21.0	21.1	21.1	21.0
28	Temperature, water, degrees Celsius		80020	80020	80020	80020	80020
59	Agency analyzing sample, code						
95	Flow rate, instantaneous, gallons per minute		653	789	786	686	685
191	Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius		M	M	M	0.00001	0.00001
300	Hydrogen ion, water, unfiltered, calculated, milligrams per liter		< 0.2	< 0.2	0.1	0.1	5.7
400	Dissolved oxygen, water, unfiltered, milligrams per liter		9.5	9.4	9.1	8.3	7.9
403	pH, water, unfiltered, field, standard units		9.6	9.4	9.2	8.3	7.9
602	Total nitrogen, water, filtered, milligrams per liter						
607	Organic nitrogen, water, filtered, milligrams per liter						
608	Ammonia, water, filtered, milligrams per liter as nitrogen		0.026	0.021	0.051	0.031	< 0.020
613	Nitrite, water, filtered, milligrams per liter as nitrogen	1 (a)	< 0.002	< 0.002	< 0.002	< 0.002	0.002
618	Nitrate, water, filtered, milligrams per liter as nitrogen						2.12
623	Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen						
631	Nitrate plus nitrite, water, filtered, milligrams per liter as nitrogen		< 0.06	< 0.06	< 0.06	< 0.06	2.12
660	Orthophosphate, water, filtered, milligrams per liter		0.066	1.41	6.03	1.02	3.07
666	Phosphorus, water, filtered, milligrams per liter						
671	Orthophosphate, water, filtered, milligrams per liter as phosphorus		0.021	0.459	1.97	0.332	1.00
900	Hardness, water, milligrams per liter as calcium carbonate		10	8	10	89	130
904	Noncarb hardness, water filtered field, milligrams per liter as calcium carbonate		3.87	2.87	3.64	29.5	38.0
915	Calcium, water, filtered, milligrams per liter		0.029	0.078	0.337	3.56	9.29
925	Magnesium, water, filtered, milligrams per liter		132	151	169	116	90.7
930	Sodium, water, filtered, milligrams per liter		18	24	23	5.3	3.4
931	Sodium adsorption ratio, water, number		97	97	97	73	59
932	Sodium fraction of cations, water, percent in equivalents of major cations		0.33	0.76	1.39	2.32	2.58
935	Potassium, water, filtered, milligrams per liter		133	131	121	80.8	44.1
940	Chloride, water, filtered, milligrams per liter	600	33.3	95.2	101	79.9	108
945	Sulfate, water, filtered, milligrams per liter	600	4.42	3.44	0.92	0.28	0.31
950	Fluoride, water, filtered, milligrams per liter	2 (b)	18.2	17.6	14.8	17.7	24.3
955	Silica, water, filtered, milligrams per liter	10 (c)	31.3	18.7	13.1	4.5	4.0
1000	Arsenic, water, filtered, micrograms per liter	1000 (d)	4	3	3	14	22
1005	Barium, water, filtered, micrograms per liter	4 (e)	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
1010	Beryllium, micrograms per liter		102	158	147	153	143
1020	Boron, water, filtered, micrograms per liter		0.35	0.49	0.31	0.03 E	0.02 E
1025	Cadmium, micrograms per liter	5 (f)	0.09 E	0.31	0.2	0.21	1.10
1030	Chromium, micrograms per liter	50 (g)	< 0.04	< 0.04	0.04 E	0.03 E	0.08
1035	Cobalt, micrograms per liter		< 0.4	0.22 E	0.70	0.87	1.70
1040	Copper, micrograms per liter	1000 (h)	3 E	< 6	10	4 E	< 6
1046	Iron, water, filtered, micrograms per liter		< 0.12	< 0.12	0.08 E	< 0.12	< 0.12
1049	Lead, micrograms per liter		0.4	0.9	2.8	12.4	0.7
1056	Manganese, water, filtered, micrograms per liter	50	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
1057	Thallium, micrograms per liter	2 (i)	208	251	208	11.5	6.8
1060	Molybdenum, micrograms per liter		0.07	0.19	0.46	0.26	0.73
1065	Nickel, micrograms per liter	100 (j)	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1075	Silver, micrograms per liter	100 (k)	28.1	17.3	20.3	257	201
1080	Strontium, water, filtered, micrograms per liter		78.6	32.2	7.3	21.5	21.5
1085	Vanadium, micrograms per liter		< 0.6	0.70	0.70	1.0	2.8
1090	Zinc, micrograms per liter	5000 (l)	0.06 E	0.11	0.17	0.04 E	0.07
1095	Antimony, micrograms per liter	6 (m)	43.1	100	139	27.0	3.3
1106	Aluminum, water, filtered, micrograms per liter	1000 (n)	2.0	4.0	2.7	6.8	5.1
1130	Lithium, water, filtered, micrograms per liter		< 0.08	0.08	0.09	0.05 E	7.5
1145	Selenium, micrograms per liter						
4022	Terbutylazine, water, filtered, recoverable, micrograms per liter	50 (o)					

Source: USGS California Water Science Center.

**Water Quality Data for Multiple Depth Monitoring Well  
Pala Park Well (8S/2W-19A1-6)  
September 2007**

Code	Parameter	MCL	Well A1 9/27/2007	Well A2 9/20/2007	Well A3 9/25/2007	Well A4 9/25/2007	Well A5 9/20/2007
	Sampling date						
4025	Hexazinone, water, filtered, recoverable, micrograms per liter						
4029	Bromacil, water, filtered, recoverable, micrograms per liter						
4035	Simazine, water, filtered, recoverable, micrograms per liter						
4036	Prometryn, water, filtered, recoverable, micrograms per liter						
4037	Prometon, water, filtered, recoverable, micrograms per liter						
4040	2-Chloro-4-isopropylamino-6-amino-s-triazine, water, filtered, recoverable, micrograms per liter						
4095	Fonofos, water, filtered, recoverable, micrograms per liter						
7000	Tritium, water, unfiltered, picocuries per liter		0.6	0.3	-0.6	0.3	8.3
22703	Uranium, natural, micrograms per liter		0.06	0.13	0.43	2.17	2.16
29801	Alkalinity, water, filtered, fixed endpoint (pH 4.5) titration, laboratory, milligrams per liter as calcium carbonate		46	58	92	132	158
30217	Dibromomethane, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
32101	Bromodichloromethane, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
32102	Tetrachloromethane, water, unfiltered, recoverable, micrograms per liter	0.5	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
32103	1,2-Dichloroethane, water, unfiltered, recoverable, micrograms per liter		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
32104	Tribromomethane, water, unfiltered, recoverable, micrograms per liter		< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
32105	Dibromochloromethane, water, unfiltered, recoverable, micrograms per liter		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
32106	Trichloromethane, water, unfiltered, recoverable, micrograms per liter		< 0.02	< 0.04	< 0.04	< 0.04	0.04 V
34010	Toluene, water, unfiltered, recoverable, micrograms per liter	150	< 0.02	0.02 V	0.04 E	< 0.02	< 0.02
34030	Benzene, water, unfiltered, recoverable, micrograms per liter	1	< 0.02	0.03 E	0.02 E	< 0.02	< 0.02
34215	Acrylonitrile, water, unfiltered, recoverable, micrograms per liter		< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
34221	Anthracene, water, filtered, recoverable, micrograms per liter						
34248	Benz[a]pyrene, water, filtered, recoverable, micrograms per liter	0.2 (p)					
34288	Tribromomethane, water, filtered, recoverable, micrograms per liter						
34301	Chlorobenzene, water, unfiltered, recoverable, micrograms per liter	70	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
34311	Chloroethane, water, unfiltered, recoverable, micrograms per liter		< 0.1	< 0.1	0.1 E	< 0.1	< 0.1
34371	Ethylbenzene, water, unfiltered, recoverable, micrograms per liter	300	< 0.04	< 0.02	< 0.02	< 0.02	< 0.02
34377	Fluoranthene, water, filtered, recoverable, micrograms per liter						
34396	Hexachloroethane, water, unfiltered, recoverable, micrograms per liter		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
34409	Isophorone, water, filtered, recoverable, micrograms per liter						
34413	Bromomethane, water, unfiltered, recoverable, micrograms per liter		< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
34418	Chloromethane, water, unfiltered, recoverable, micrograms per liter		< 0.1	< 0.1	0.6 E	< 0.1	< 0.1
34423	Dichloromethane, water, unfiltered, recoverable, micrograms per liter		< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
34443	Naphthalene, water, filtered, recoverable, micrograms per liter	5	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
34462	Phenanthrene, water, filtered, recoverable, micrograms per liter						
34466	Phenol, water, filtered, recoverable, micrograms per liter						
34470	Pyrene, water, filtered, recoverable, micrograms per liter						
34475	Tetrachloroethene, water, unfiltered, recoverable, micrograms per liter	5	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
34476	Tetrachloroethane, water, filtered, recoverable, micrograms per liter						
34488	Trichlorofluoromethane, water, unfiltered, recoverable, micrograms per liter	150	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
34496	1,1-Dichloroethane, water, unfiltered, recoverable, micrograms per liter	5	< 0.04	< 0.06	< 0.06	< 0.06	< 0.06
34501	1,1-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	6	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
34506	1,1,1-Trichloroethane, water, unfiltered, recoverable, micrograms per liter	200	< 0.02	< 0.04	< 0.04	< 0.04	< 0.04
34511	1,1,2-Trichloroethane, water, unfiltered, recoverable, micrograms per liter	5	< 0.06	< 0.04	< 0.04	< 0.04	< 0.04
34516	1,1,2,2-Tetrachloroethane, water, unfiltered, recoverable, micrograms per liter	1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
34536	1,2-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter	600	< 0.02	< 0.04	< 0.04	< 0.04	< 0.04
34541	1,2-Dichloropropane, water, unfiltered, recoverable, micrograms per liter	5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
34546	trans-1,2-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	10	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
34551	1,2,4-Trichlorobenzene, water, unfiltered, recoverable, micrograms per liter	5	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
34566	1,3-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
34571	1,4-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter		< 0.02	< 0.04	< 0.04	< 0.04	< 0.04
34572	1,4-Dichlorobenzene, water, filtered, recoverable, micrograms per liter	5	< 0.02	< 0.04	< 0.04	< 0.04	< 0.04
34668	Dichlorodifluoromethane, water, unfiltered, recoverable, micrograms per liter		< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
34696	Naphthalene, water, unfiltered, recoverable, micrograms per liter		< 0.2	< 0.4	< 0.4	< 0.4	< 0.4
34699	trans-1,3-Dichloropropene, water, unfiltered, recoverable, micrograms per liter	0.5	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1

**Water Quality Data for Multiple Depth Monitoring Well  
Pala Park Well (8S/2W-19A1-6)  
September 2007**

Code	Parameter	MCL	Well A1 9/27/2007	Well A2 9/20/2007	Well A3 9/25/2007	Well A4 9/25/2007	Well A5 9/20/2007
	Sampling date						
34704	cis-1,3-Dichloropropene, water, unfiltered, recoverable, micrograms per liter	0.5	< 0.10	< 0.06	< 0.06	< 0.06	< 0.06
38454	Dicofophos, water, filtered, recoverable, micrograms per liter						
38775	Dichlorvos, water, filtered, recoverable, micrograms per liter						
38933	Chlorpyrifos, water, filtered, recoverable, micrograms per liter						
39086	Alkalinity, water, filtered, incremental titration, field, milligrams per liter as calcium carbonate						
39175	Vinyl chloride, water, unfiltered, recoverable, micrograms per liter	0.5	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
39180	Trichloroethene, water, unfiltered, recoverable, micrograms per liter	5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
39381	Dieldrin, water, filtered, recoverable, micrograms per liter						
39415	Metolachlor, water, filtered, recoverable, micrograms per liter						
39532	Malathion, water, filtered, recoverable, micrograms per liter						
39572	Diazinon, water, filtered, recoverable, micrograms per liter						
39632	Atrazine, water, filtered, recoverable, micrograms per liter						
39702	Hexachlorobutadiene, water, unfiltered, recoverable, micrograms per liter						
46342	Alachlor, water, filtered, recoverable, micrograms per liter		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
49260	Acetochlor, water, filtered, recoverable, micrograms per liter						
49295	1-Naphthol, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
49933	C-14, water, filtered, percent modern		3.44		17.52	67.68	88.09
49934	C-14, counting error, water, filtered, percent modern		0.12		0.22	0.31	0.37
49991	Methyl acrylate, water, unfiltered, recoverable, micrograms per liter		< 0.6	< 0.4	< 0.4	< 0.4	< 0.4
49999	1,2,3,4-Tetramethylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
50000	1,2,3,5-Tetramethylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
50002	Bromoethene, water, unfiltered, recoverable, micrograms per liter		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
50004	tert-Butyl ethyl ether, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
50005	Methyl tert-pentyl ether, water, unfiltered, recoverable, micrograms per liter		< 0.06	< 0.04	< 0.04	< 0.04	< 0.04
50305	Caffeine, water, filtered, recoverable, micrograms per liter						
50359	Metolaxyl, water, filtered, recoverable, micrograms per liter						
61209	Perchlorate, water, unfiltered, recoverable, micrograms per liter	6	< 0.5	< 0.5	< 1	< 1	< 0.5
61585	Cyfluthrin, water, filtered, recoverable, micrograms per liter						
61586	Cypermethrin, water, filtered, recoverable, micrograms per liter						
61591	Fenamiphos, water, filtered, recoverable, micrograms per liter						
61593	Iprodione, water, filtered, recoverable, micrograms per liter						
61594	Isofenphos, water, filtered, recoverable, micrograms per liter						
61596	Metolaxyl, water, filtered, recoverable, micrograms per liter						
61598	Methidathion, water, filtered, recoverable, micrograms per liter						
61599	Myclobutanil, water, filtered, recoverable, micrograms per liter						
61601	Phosmet, water, filtered, recoverable, micrograms per liter						
61610	Tribuphos, water, filtered, recoverable, micrograms per liter						
61618	2-Chloro-2,6-diethylacetanilide, water, filtered, recoverable, micrograms per liter						
61620	2-Ethyl-6-methylamine, water, filtered, recoverable, micrograms per liter						
61625	3,4-Dichloroaniline, water, filtered, recoverable, micrograms per liter						
61633	4-Chloro-2-methylphenol, water, filtered, recoverable, micrograms per liter						
61635	Azinphos-methyl oxygen analog, water, filtered, recoverable, micrograms per liter						
61636	Chlorpyrifos oxygen analog, water, filtered, recoverable, micrograms per liter						
61644	Ethion monooxon, water, filtered, recoverable, micrograms per liter						
61645	Fenamiphos sulfone, water, filtered, recoverable, micrograms per liter						
61646	Fenamiphos sulfoxide, water, filtered, recoverable, micrograms per liter						
61652	Malaaxon, water, filtered, recoverable, micrograms per liter						
61664	Methyl paraoxon, water, filtered, recoverable, micrograms per liter						
61666	Phorate oxygen analog, water, filtered, recoverable, micrograms per liter						
61668	Phosmet oxygen analog, water, filtered, recoverable, micrograms per liter						
61674	Terbufos oxygen analog sulfone, water, filtered, recoverable, micrograms per liter						
61705	Diethoxyoctylphenol, water, filtered, recoverable, micrograms per liter						
61706	Monoethoxyoctylphenol, water, filtered, recoverable, micrograms per liter						
62005	Cotinine, water, filtered, recoverable, micrograms per liter						

**Water Quality Data for Multiple Depth Monitoring Well  
Pala Park Well (8S/2W-19A1-6)  
September 2007**

Code	Parameter	MCL	Well A1 9/27/2007	Well A2 9/20/2007	Well A3 9/25/2007	Well A4 9/25/2007	Well A5 9/20/2007
	Sampling date						
62054	1-Methylnaphthalene, water, filtered, recoverable, micrograms per liter						
62055	2,6-Dimethylnaphthalene, water, filtered, recoverable, micrograms per liter						
62056	2-Methylnaphthalene, water, filtered, recoverable, micrograms per liter						
62057	3-beta-Coprostanol, water, filtered, recoverable, micrograms per liter						
62058	3-Methyl-1H-Indole, water, filtered, recoverable, micrograms per liter						
62059	3-tert-Butyl-4-hydroxyanisole, water, filtered, recoverable, micrograms per liter						
62060	4-Cumylphenol, water, filtered, recoverable, micrograms per liter						
62061	4-Octylphenol, water, filtered, recoverable, micrograms per liter						
62062	4-tert-Octylphenol, water, filtered, recoverable, micrograms per liter						
62063	5-Methyl-1H-benzotriazole, water, filtered, recoverable, micrograms per liter						
62064	Acetophenone, water, filtered, recoverable, micrograms per liter						
62065	Acetyl hexamethyl tetrahydro naphthalene, water, filtered, recoverable, micrograms per liter						
62066	9,10-Anthraquinone, water, filtered, recoverable, micrograms per liter						
62067	Benzophenone, water, filtered, recoverable, micrograms per liter						
62068	beta-Sitosterol, water, filtered, recoverable, micrograms per liter						
62070	Camphor, water, filtered, recoverable, micrograms per liter						
62071	Carbazole, water, filtered, recoverable, micrograms per liter						
62072	Cholesterol, water, filtered, recoverable, micrograms per liter						
62073	D-Limonene, water, filtered, recoverable, micrograms per liter						
62075	Hexahydrohexamethyl cyclopentabenzopyran, water, filtered, recoverable, micrograms per liter						
62076	Indole, water, filtered, recoverable, micrograms per liter						
62077	Isoborneol, water, filtered, recoverable, micrograms per liter						
62078	Isopropylbenzene, water, filtered, recoverable, micrograms per liter						
62079	Isouquinoline, water, filtered, recoverable, micrograms per liter						
62080	Menthol, water, filtered, recoverable, micrograms per liter						
62081	Methyl salicylate, water, filtered, recoverable, micrograms per liter						
62082	DEET, water, filtered, recoverable, micrograms per liter						
62083	Diethoxynonylphenol, water, filtered, recoverable, micrograms per liter						
62084	p-Cresol, water, filtered, recoverable, micrograms per liter						
62085	4-Nonylphenol, water, filtered, recoverable, micrograms per liter						
62086	beta-Stigmasterol, water, filtered, recoverable, micrograms per liter						
62087	Tris(2-chloroethyl) phosphate, water, filtered, recoverable, micrograms per liter						
62088	Tris(dichloroisopropyl) phosphate, water, filtered, recoverable, micrograms per liter						
62089	Tributyl phosphate, water, filtered, recoverable, micrograms per liter						
62090	Triclosan, water, filtered, recoverable, micrograms per liter						
62091	Triethyl citrate, water, filtered, recoverable, micrograms per liter						
62092	Triphenyl phosphate, water, filtered, recoverable, micrograms per liter						
62093	Tris(2-butoxyethyl) phosphate, water, filtered, recoverable, micrograms per liter						
62166	Fipronil, water, filtered, recoverable, micrograms per liter						
62167	Fipronil sulfide, water, filtered, recoverable, micrograms per liter						
62168	Fipronil sulfone, water, filtered, recoverable, micrograms per liter						
62169	Desulfenylfipronil amide, water, filtered, recoverable, micrograms per liter						
62854	Total nitrogen, (NH3+NO2+NO3+Organic), filtered, milligrams per liter		0.04 E	0.06	0.11	0.04 E	2.21
63790	Perchlorate, water, filtered, recoverable, micrograms per liter		< 0.1	0.7	0.26	< 0.1	0.23
70300	Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter		358	460	471	397	429
70301	Residue, water, filtered, sum of constituents, milligrams per liter		354 E	439 E	475 E	410 E	425 E
70303	Residue, water, filtered, tons per acre-foot						
71846	Ammonia, water, filtered, milligrams per liter as NH4		0.03	0.03	0.07	0.04	
71851	Nitrate, water, filtered, milligrams per liter						9.37
71856	Nitrite, water, filtered, milligrams per liter						0.008
71865	Iodide, water, filtered, milligrams per liter						
71870	Bromide, water, filtered, milligrams per liter						
72019	Depth to water level, feet below land surface		0.31	0.40	0.36	0.26	0.12

Source: USGS California Water Science Center.

**Water Quality Data for Multiple Depth Monitoring Well  
Pala Park Well (8S/2W-19A1-6)  
September 2007**

Code	Parameter	MCL	Well A1 9/27/2007	Well A2 9/20/2007	Well A3 9/25/2007	Well A4 9/25/2007	Well A5 9/20/2007
	Sampling date						
73547	trans-1,4-Dichloro-2-butene, water, unfiltered, recoverable, micrograms per liter		< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
73570	Ethyl methacrylate, water, unfiltered, recoverable, micrograms per liter		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
75985	Tritium 2-sigma combined uncertainty, water, unfiltered, picocuries per liter		1.0	1.0	1.0	1.0	1.0
76002	Rn-222, 2-sigma combined uncertainty, water, unfiltered, picocuries per liter		20	21	18	19	21
77041	Carbon disulfide, water, unfiltered, micrograms per liter	6	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
77093	cis-1,2-Dichloroethene, water, unfiltered, recoverable, micrograms per liter		< 0.6	< 0.4	< 0.4	< 0.4	< 0.4
77103	n-Butyl methyl ketone, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
77128	Styrene, water, unfiltered, recoverable, micrograms per liter	100	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
77135	o-Xylene, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
77168	1,1-Dichloropropene, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
77170	2,2-Dichloropropane, water, unfiltered, recoverable, micrograms per liter		< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
77173	1,3-Dichloropropane, water, unfiltered, recoverable, micrograms per liter		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
77220	2-Ethyltoluene, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
77221	1,2,3-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
77222	1,2,4-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.04	0.02 E	0.02 E	< 0.04	0.03 E
77223	Isopropylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
77224	n-Propylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
77226	1,3,5-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
77275	2-Chlorotoluene, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
77277	4-Chlorotoluene, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
77297	Bromochloromethane, water, unfiltered, recoverable, micrograms per liter		< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
77342	n-Butylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
77350	sec-Butylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
77353	tert-Butylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.06	< 0.08	< 0.08	< 0.08	< 0.08
77356	4-Isopropyltoluene, water, unfiltered, recoverable, micrograms per liter		< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
77424	Iodomethane, water, unfiltered, recoverable, micrograms per liter		< 0.40	< 0.40	< 0.40	< 0.40	< 0.40
77443	1,2,3-Trichloropropane, water, unfiltered, recoverable, micrograms per liter		< 0.12	< 0.12	< 0.12	< 0.12	< 0.12
77562	1,1,1,2-Tetrachloroethane, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
77613	1,2,3-Trichlorobenzene, water, unfiltered, recoverable, micrograms per liter		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
77651	1,2-Dibromoethane, water, unfiltered, recoverable, micrograms per liter	0.05	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
78032	Methyl tert-butyl ether, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
78109	3-Chloropropene, water, unfiltered, recoverable, micrograms per liter		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
78133	Isobutyl methyl ketone, water, unfiltered, recoverable, micrograms per liter		< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
81552	Acetone, water, unfiltered, recoverable, micrograms per liter		< 0.4	< 0.2	< 0.2	< 0.2	< 0.2
81555	Bromobenzene, water, unfiltered, recoverable, micrograms per liter		< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
81576	Diethyl ether, water, unfiltered, recoverable, micrograms per liter		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
81577	Diisopropyl ether, water, unfiltered, recoverable, micrograms per liter		< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
81593	Methyl acrylonitrile, water, unfiltered, recoverable, micrograms per liter		< 0.2	< 0.4	< 0.4	< 0.4	< 0.4
81595	Ethyl methyl ketone, water, unfiltered, recoverable, micrograms per liter		< 1.6	< 1.6	< 1.6	< 1.6	< 1.6
81597	Methyl methacrylate, water, unfiltered, recoverable, micrograms per liter		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
81607	Tetrahydrofuran, water, unfiltered, recoverable, micrograms per liter		< 1	< 1	< 1	< 1	< 1
82081	C-13/C-12 ratio, water, unfiltered, per mil		-19.11		-14.90	-14.87	-15.57
82082	Deuterium/Protium ratio, water, unfiltered, per mil		-53.70	-53.00	-52.90	-45.20	-42.30
82085	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil		-8.27	-8.18	-7.93	-6.91	-6.65
82303	Rn-222, water, unfiltered, picocuries per liter		320	270	200	210	280
82346	Ethion, water, filtered, recoverable, micrograms per liter		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
82625	1,2-Dibromo-3-chloropropane, water, unfiltered, recoverable, micrograms per liter						
82630	Metribuzin, water, filtered, recoverable, micrograms per liter						
82660	2,6-Diethylaniline, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82661	Trifluralin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82662	Dimethoate, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82664	Phorate, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82667	Methyl parathion, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						

**Water Quality Data for Multiple Depth Monitoring Well  
Pala Park Well (8S/2W-19A1-6)  
September 2007**

Code	Parameter	MCL	Well A1 9/27/2007	Well A2 9/20/2007	Well A3 9/25/2007	Well A4 9/25/2007	Well A5 9/20/2007
	Sampling date						
82670	Turbidiron, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82673	Benfluralin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82675	Terbufos, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82676	Propyzamide, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82680	Carbaryl, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82682	DCPA, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82683	Pendimethalin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82686	Azinphos-methyl, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82687	cis-Permethrin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
85795	m-Xylene plus p-xylene, water, unfiltered, recoverable, micrograms per liter		< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
90095	Specific conductance, water, unfiltered, laboratory, microsiemens per centimeter at 25 degrees Celsius		667	794	805	694	686
90851	Triholomehtanes, water, unfiltered, calcd, micrograms per liter						M
99583	Bisphenol A-d3, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery						
99584	Caffeine-13C, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery						
99585	Decafluorobiphenyl, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery						
99586	Fluoranthene-d10, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery						
99832	1,2-Dichloroethane-d4, surrogate, Schedule 2090, water, unfiltered, percent recovery		127	130	134	133	131
99833	Toluene-d8, surrogate, Schedule 2090, water, unfiltered, percent recovery		93.6	95.0	96.8	97.6	93.6
99834	1-Bromo-4-fluorobenzene, surrogate, VOC schedules, water, unfiltered, percent recovery		71.0	72.1	73.4	73.9	73.8
99994	Diazinon-d10, surrogate, Schedule 2003, water, filtered, percent recovery						
99995	alpha-HCH-d6, surrogate, Schedule 2003, water, filtered, percent recovery						

Notes: U.S. EPA STORET numbers for MCLs correspond to the same as the USGS NWIS data parameter number except as follows:

- (a) MCL shown for U.S. EPA STORET No. 620.
- (b) MCL shown for U.S. EPA STORET No. 951.
- (c) MCL shown for U.S. EPA STORET No. 1002.
- (d) MCL shown for U.S. EPA STORET No. 1007.
- (e) MCL shown for U.S. EPA STORET No. 1012.
- (f) MCL shown for U.S. EPA STORET No. 1027.
- (g) MCL shown for U.S. EPA STORET No. 1034.
- (h) MCL shown for U.S. EPA STORET No. 1042.
- (i) MCL shown for U.S. EPA STORET No. 1059.
- (j) MCL shown for U.S. EPA STORET No. 1067.
- (k) MCL shown for U.S. EPA STORET No. 1077.
- (l) MCL shown for U.S. EPA STORET No. 1092.
- (m) MCL shown for U.S. EPA STORET No. 1097.
- (n) MCL shown for U.S. EPA STORET No. 1105.
- (o) MCL shown for U.S. EPA STORET No. 1147.
- (p) MCL shown for U.S. EPA STORET No. 34247.
- (q) MCL shown for U.S. EPA STORET No. 71850.

Code--Data parameter number used in USGS National Water Information System (NWIS).

E--Estimated.

M--Presence verified but not quantified.

MCL--Maximum Contaminant Level reported by California DHS (May 25, 2007 Database) for U.S. EPA STORET number.

V--Biased results from contamination.

**Water Quality Data for Multiple Depth Monitoring Well  
Pala Park Well (8S/2W-19A1-6)  
April 2008**

Code	Parameter	MCL	Well A1 4/22/2008	Well A2 4/23/2008	Well A3 4/23/2008	Well A4 4/23/2008	Well A5 4/23/2008
3	Sampling date						
10	Sampling depth, feet						
28	Temperature, water, degrees Celsius		22.4	24.9	24.4	22.5	20.1
59	Agency analyzing sample, code		80020	80020	80020	80020	80020
95	Flow rate, instantaneous, gallons per minute						
95	Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius		656	772	756	670	642
191	Hydrogen ion, water, unfiltered, calculated, milligrams per liter		M	M	M	0.00001	0.00003 E
300	Dissolved oxygen, water, unfiltered, milligrams per liter						
400	pH, water, unfiltered, field, standard units		9.2	9.3	9.3	8.1	7.6
403	pH, water, unfiltered, laboratory, standard units		9.6	9.5	9.3	8.2	7.7
602	Total nitrogen, water, filtered, milligrams per liter						2.5 E
607	Organic nitrogen, water, filtered, milligrams per liter				0.05 E		
608	Ammonia, water, filtered, milligrams per liter as nitrogen		0.027	0.029	0.045	0.023	< 0.020
613	Nitrite, water, filtered, milligrams per liter as nitrogen	1 (a)	< 0.002	< 0.002	0.002 E	< 0.002	< 0.002
618	Nitrate, water, filtered, milligrams per liter as nitrogen						
623	Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen		< 0.14	< 0.14	0.09 E	< 0.14	0.08 E
631	Nitrate plus nitrite, water, filtered, milligrams per liter as nitrogen		< 0.04	< 0.04	< 0.04	< 0.04	2.41
660	Orthophosphate, water, filtered, milligrams per liter		0.044	0.771	1.78	1.29	0.533
666	Phosphorus, water, filtered, milligrams per liter		< 0.04	0.24	0.56	0.41	0.17
671	Orthophosphate, water, filtered, milligrams per liter as phosphorus		0.014	0.251	0.579	0.420	0.174
900	Hardness, water, milligrams per liter as calcium carbonate		9 E	7	7	100	160
904	Noncarb hardness, water filtered field, milligrams per liter as calcium carbonate						61
915	Calcium, water, filtered, milligrams per liter		3.48	2.60	2.58	33.0	44.2
925	Magnesium, water, filtered, milligrams per liter		0.014 E	0.079	0.180	4.13	13.1
930	Sodium, water, filtered, milligrams per liter		119	144	141	94.0	61.8
931	Sodium adsorption ratio, water, number		18 E	24	23	4.1	2.1
932	Sodium fraction of cations, water, percent in equivalents of major cations		97 E	98	97	67	45
935	Potassium, water, filtered, milligrams per liter		0.33	0.72	0.99	2.17	1.99
940	Chloride, water, filtered, milligrams per liter	600	140	130	118	79.8	36.9
945	Sulfate, water, filtered, milligrams per liter	600	33.3	86.5	90.5	76.4	141
950	Fluoride, water, filtered, milligrams per liter	2 (b)	4.62	3.39	0.94	0.29	0.39
955	Silica, water, filtered, milligrams per liter		19.3	18.4	14.1	18.1	28.6
1000	Arsenic, water, filtered, micrograms per liter	10 (c)	31.2	19.3	13.1	4.7	1.1
1005	Barium, water, filtered, micrograms per liter	1000 (d)	4.7	4.0	2.3	14.9	40.8
1010	Beryllium, micrograms per liter	4 (e)					
1020	Boron, water, filtered, micrograms per liter		125	130	91	98	120
1025	Cadmium, micrograms per liter	5 (f)					
1030	Chromium, micrograms per liter	50 (g)					
1035	Cobalt, micrograms per liter						
1040	Copper, micrograms per liter	1000 (h)					
1046	Iron, water, filtered, micrograms per liter	300	< 8	9	< 8	5 E	< 8
1049	Lead, micrograms per liter						
1056	Manganese, water, filtered, micrograms per liter	50	0.4	1.5	1.0	16.4	0.5
1057	Thallium, micrograms per liter	2 (i)					
1060	Molybdenum, micrograms per liter						
1065	Nickel, micrograms per liter	100 (j)					
1075	Silver, micrograms per liter	100 (k)					
1080	Strontium, water, filtered, micrograms per liter		27.3	18.1	19.4	299	226
1085	Vanadium, micrograms per liter						
1090	Zinc, micrograms per liter	5000 (l)					
1095	Antimony, micrograms per liter	6 (m)					
1106	Aluminum, water, filtered, micrograms per liter	1000 (n)	35.6	115	87.8	10.8	1.4 E
1130	Lithium, water, filtered, micrograms per liter		5	5	4	8	6
1145	Selenium, micrograms per liter						
4022	Terbutylazine, water, filtered, recoverable, micrograms per liter	50 (o)					

**Water Quality Data for Multiple Depth Monitoring Well  
Pala Park Well (8S/2W-19A1-6)  
April 2008**

Code	Parameter	MCL	Well A1 4/22/2008	Well A2 4/23/2008	Well A3 4/23/2008	Well A4 4/23/2008	Well A5 4/23/2008
	Sampling date						
4025	Hexazinone, water, filtered, recoverable, micrograms per liter						
4029	Bromacil, water, filtered, recoverable, micrograms per liter					< 0.4	< 0.4
4035	Simazine, water, filtered, recoverable, micrograms per liter						
4036	Prometryn, water, filtered, recoverable, micrograms per liter						
4037	Prometon, water, filtered, recoverable, micrograms per liter					< 0.2	< 0.2
4040	2-Chloro-4-isopropylamino-6-amino-s-triazine, water, filtered, recoverable, micrograms per liter						
4095	Fonofos, water, filtered, recoverable, micrograms per liter						
7000	Tritium, water, unfiltered, picocuries per liter		-0.35	-0.13	0.32	0.26	10.78
22703	Uranium, natural, micrograms per liter						
29801	Alkalinity, water, filtered, fixed endpoint (pH 4.5) titration, laboratory, milligrams per liter as calcium carbonate		46	56	68	129	108
30217	Dibromomethane, water, unfiltered, recoverable, micrograms per liter					< 0.04	< 0.04
32101	Bromodichloromethane, water, unfiltered, recoverable, micrograms per liter					< 0.04	< 0.04
32102	Tetrachloromethane, water, unfiltered, recoverable, micrograms per liter	0.5				< 0.08	< 0.08
32103	1,2-Dichloroethane, water, unfiltered, recoverable, micrograms per liter					< 0.1	< 0.1
32104	Tribromomethane, water, unfiltered, recoverable, micrograms per liter					< 0.08	< 0.08
32105	Dibromochloromethane, water, unfiltered, recoverable, micrograms per liter					< 0.1	< 0.1
32106	Trichloromethane, water, unfiltered, recoverable, micrograms per liter					< 0.02	0.04 E
34010	Toluene, water, unfiltered, recoverable, micrograms per liter	150				< 0.02	< 0.02
34030	Benzene, water, unfiltered, recoverable, micrograms per liter	1				< 0.02	< 0.02
34215	Acrylonitrile, water, unfiltered, recoverable, micrograms per liter					< 0.4	< 0.4
34221	Anthracene, water, filtered, recoverable, micrograms per liter					< 0.1	< 0.1
34248	Benz[a]pyrene, water, filtered, recoverable, micrograms per liter	0.2 (p)				< 0.1	< 0.1
34288	Tribromomethane, water, filtered, recoverable, micrograms per liter	70				< 0.1	< 0.1
34301	Chlorobenzene, water, unfiltered, recoverable, micrograms per liter					< 0.1	< 0.1
34311	Chloroethane, water, unfiltered, recoverable, micrograms per liter					< 0.1	< 0.1
34371	Ethylbenzene, water, unfiltered, recoverable, micrograms per liter	300				< 0.04	< 0.04
34377	Fluoranthene, water, filtered, recoverable, micrograms per liter					< 0.1	< 0.1
34396	Hexachloroethane, water, unfiltered, recoverable, micrograms per liter					< 0.1	< 0.1
34409	Isophorone, water, filtered, recoverable, micrograms per liter					M	M
34413	Bromomethane, water, unfiltered, recoverable, micrograms per liter					< 0.4	< 0.4
34418	Chloromethane, water, unfiltered, recoverable, micrograms per liter					< 0.1	< 0.1
34423	Dichloromethane, water, unfiltered, recoverable, micrograms per liter					< 0.04	< 0.04
34443	Naphthalene, water, filtered, recoverable, micrograms per liter	5				< 0.1	< 0.1
34462	Phenanthrene, water, filtered, recoverable, micrograms per liter					< 0.1	< 0.1
34466	Phenol, water, filtered, recoverable, micrograms per liter					< 0.2	< 0.2
34470	Pyrene, water, filtered, recoverable, micrograms per liter					< 0.1	< 0.1
34475	Tetrachloroethene, water, unfiltered, recoverable, micrograms per liter	5				< 0.04	< 0.04
34476	Tetrachloroethane, water, filtered, recoverable, micrograms per liter					< 0.1	< 0.1
34488	Trichlorofluoromethane, water, unfiltered, recoverable, micrograms per liter	150				< 0.08	< 0.08
34496	1,1-Dichloroethane, water, unfiltered, recoverable, micrograms per liter	5				< 0.04	< 0.04
34501	1,1-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	6				< 0.02	< 0.02
34506	1,1,1-Trichloroethane, water, unfiltered, recoverable, micrograms per liter	200				< 0.02	< 0.02
34511	1,1,2-Trichloroethane, water, unfiltered, recoverable, micrograms per liter	5				< 0.06	< 0.06
34516	1,1,2,2-Tetrachloroethane, water, unfiltered, recoverable, micrograms per liter	1				< 0.10	< 0.10
34536	1,2-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter	600				< 0.02	< 0.02
34541	1,2-Dichloropropane, water, unfiltered, recoverable, micrograms per liter	5				< 0.02	< 0.02
34546	trans-1,2-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	10				< 0.02	< 0.02
34551	1,2,4-Trichlorobenzene, water, unfiltered, recoverable, micrograms per liter	5				< 0.1	< 0.1
34566	1,3-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter					< 0.04	< 0.04
34571	1,4-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter	5				< 0.02	< 0.02
34572	1,4-Dichlorobenzene, water, filtered, recoverable, micrograms per liter					< 0.1	< 0.1
34668	Dichlorodifluoromethane, water, unfiltered, recoverable, micrograms per liter					< 0.14	< 0.14
34696	Naphthalene, water, unfiltered, recoverable, micrograms per liter					< 0.2	< 0.2
34699	trans-1,3-Dichloropropene, water, unfiltered, recoverable, micrograms per liter	0.5				< 0.10	< 0.10

Source: USGS California Water Science Center.



**Water Quality Data for Multiple Depth Monitoring Well  
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April 2008**

Code	Parameter	MCL	Well A1 4/22/2008	Well A2 4/23/2008	Well A3 4/23/2008	Well A4 4/23/2008	Well A5 4/23/2008
	Sampling date						
34704	cis-1,3-Dichloropropene, water, unfiltered, recoverable, micrograms per liter	0.5				< 0.10	< 0.10
38454	Dicofolpos, water, filtered, recoverable, micrograms per liter						
38775	Dichlorvos, water, filtered, recoverable, micrograms per liter						
38933	Chlorpyrifos, water, filtered, recoverable, micrograms per liter					< 0.1	< 0.1
39086	Alkalinity, water, filtered, incremental titration, field, milligrams per liter as calcium carbonate		43	52	68	122	104
39175	Vinyl chloride, water, unfiltered, recoverable, micrograms per liter	0.5				< 0.1	< 0.1
39180	Trichloroethene, water, unfiltered, recoverable, micrograms per liter	5				< 0.02	< 0.02
39381	Dieldrin, water, filtered, recoverable, micrograms per liter						
39415	Metolachlor, water, filtered, recoverable, micrograms per liter					< 0.1	< 0.1
39532	Malathion, water, filtered, recoverable, micrograms per liter						
39572	Diazinon, water, filtered, recoverable, micrograms per liter					< 0.1	< 0.1
39632	Atrazine, water, filtered, recoverable, micrograms per liter						
39702	Hexachlorobutadiene, water, unfiltered, recoverable, micrograms per liter						
46342	Alachlor, water, filtered, recoverable, micrograms per liter					< 0.1	< 0.1
49260	Acetochlor, water, filtered, recoverable, micrograms per liter						
49295	1-Naphthol, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter		2.91	14.29		69.32	88.12
49933	C-14, water, filtered, percent modern		0.11	0.21		0.35	0.41
49934	C-14, counting error, water, filtered, percent modern						
49991	Methyl acrylate, water, unfiltered, recoverable, micrograms per liter					< 0.6	< 0.6
49999	1,2,3,4-Tetramethylbenzene, water, unfiltered, recoverable, micrograms per liter					< 0.1	< 0.1
50000	1,2,3,5-Tetramethylbenzene, water, unfiltered, recoverable, micrograms per liter					< 0.1	< 0.1
50002	Bromoethene, water, unfiltered, recoverable, micrograms per liter					< 0.1	< 0.1
50004	tert-Butyl ethyl ether, water, unfiltered, recoverable, micrograms per liter					< 0.04	< 0.04
50005	Methyl tert-pentyl ether, water, unfiltered, recoverable, micrograms per liter					< 0.06	< 0.06
50305	Caffeine, water, filtered, recoverable, micrograms per liter					< 0.1	< 0.1
50359	Metolaxyl, water, filtered, recoverable, micrograms per liter					< 0.1	< 0.1
61209	Perchlorate, water, unfiltered, recoverable, micrograms per liter	6					
61585	Cyfluthrin, water, filtered, recoverable, micrograms per liter						
61586	Cypermethrin, water, filtered, recoverable, micrograms per liter						
61591	Fenamiphos, water, filtered, recoverable, micrograms per liter						
61593	Iprodione, water, filtered, recoverable, micrograms per liter						
61594	Isofenphos, water, filtered, recoverable, micrograms per liter						
61596	Metolaxyl, water, filtered, recoverable, micrograms per liter						
61598	Methidathion, water, filtered, recoverable, micrograms per liter						
61599	Myclobutanil, water, filtered, recoverable, micrograms per liter						
61601	Phosmet, water, filtered, recoverable, micrograms per liter						
61610	Tribuphos, water, filtered, recoverable, micrograms per liter						
61618	2-Chloro-2',6'-diethylacetanilide, water, filtered, recoverable, micrograms per liter						
61620	2-Ethyl-6-methylamine, water, filtered, recoverable, micrograms per liter						
61625	3,4-Dichloroaniline, water, filtered, recoverable, micrograms per liter						
61633	4-Chloro-2-methylphenol, water, filtered, recoverable, micrograms per liter						
61635	Azinphos-methyl oxygen analog, water, filtered, recoverable, micrograms per liter						
61636	Chlorpyrifos oxygen analog, water, filtered, recoverable, micrograms per liter						
61644	Ethion monooxon, water, filtered, recoverable, micrograms per liter						
61645	Fenamiphos sulfone, water, filtered, recoverable, micrograms per liter						
61646	Fenamiphos sulfoxide, water, filtered, recoverable, micrograms per liter						
61652	Malaoxon, water, filtered, recoverable, micrograms per liter						
61664	Methyl paraoxon, water, filtered, recoverable, micrograms per liter						
61666	Phorate oxygen analog, water, filtered, recoverable, micrograms per liter						
61668	Phosmet oxygen analog, water, filtered, recoverable, micrograms per liter						
61674	Terbufos oxygen analog sulfone, water, filtered, recoverable, micrograms per liter						
61705	Diethoxyxyphenol, water, filtered, recoverable, micrograms per liter					< 1	< 1
61706	Monoethoxyxyphenol, water, filtered, recoverable, micrograms per liter					< 1	< 1
62005	Cotinine, water, filtered, recoverable, micrograms per liter					< 0.400	< 0.400

**Water Quality Data for Multiple Depth Monitoring Well  
Pala Park Well (8S/2W-19A1-6)  
April 2008**

Code	Parameter	MCL	Well A1 4/22/2008	Well A2 4/23/2008	Well A3 4/23/2008	Well A4 4/23/2008	Well A5 4/23/2008
	Sampling date						
62054	1-Methylnaphthalene, water, filtered, recoverable, micrograms per liter					< 0.1	< 0.1
62055	2,6-Dimethylnaphthalene, water, filtered, recoverable, micrograms per liter					< 0.1	< 0.1
62056	2-Methylnaphthalene, water, filtered, recoverable, micrograms per liter					< 0.1	< 0.1
62057	3-beta-Coprostanol, water, filtered, recoverable, micrograms per liter					< 0.1	< 0.1
62058	3-Methyl-1H-Indole, water, filtered, recoverable, micrograms per liter					< 0.08	< 0.08
62059	3-tert-Butyl-4-hydroxyanisole, water, filtered, recoverable, micrograms per liter					< 0.6	< 0.6
62060	4-Cumylphenol, water, filtered, recoverable, micrograms per liter					< 0.1	< 0.1
62061	4-Octylphenol, water, filtered, recoverable, micrograms per liter					< 0.16	< 0.16
62062	4-tert-Octylphenol, water, filtered, recoverable, micrograms per liter					< 1	< 1
62063	5-Methyl-1H-benzotriazole, water, filtered, recoverable, micrograms per liter					< 0.08	< 0.08
62064	Acetophenone, water, filtered, recoverable, micrograms per liter					< 0.4	< 0.4
62065	Acetyl hexamethyl tetrahydro naphthalene, water, filtered, recoverable, micrograms per liter						
62066	9,10-Anthraquinone, water, filtered, recoverable, micrograms per liter					< 0.2	< 0.2
62067	Benzophenone, water, filtered, recoverable, micrograms per liter					< 0.1	< 0.1
62068	beta-Sitosterol, water, filtered, recoverable, micrograms per liter					< 2	< 2
62070	Camphor, water, filtered, recoverable, micrograms per liter					< 0.1	< 0.1
62071	Carbazole, water, filtered, recoverable, micrograms per liter					< 0.1	< 0.1
62072	Cholesterol, water, filtered, recoverable, micrograms per liter					< 1	< 1
62073	D-Limonene, water, filtered, recoverable, micrograms per liter					< 0.04	< 0.04
62075	Hexahydrohexamethyl cyclopentabenzopyran, water, filtered, recoverable, micrograms per liter					< 0.5	< 0.5
62076	Indole, water, filtered, recoverable, micrograms per liter					< 0.1	< 0.1
62077	Isoborneol, water, filtered, recoverable, micrograms per liter					< 0.1	< 0.1
62078	Isopropylbenzene, water, filtered, recoverable, micrograms per liter					< 0.1	< 0.1
62079	Isoquinoline, water, filtered, recoverable, micrograms per liter					< 0.2	< 0.2
62080	Menthol, water, filtered, recoverable, micrograms per liter					< 0.2	< 0.2
62081	Methyl salicylate, water, filtered, recoverable, micrograms per liter					< 0.1	< 0.1
62082	DEET, water, filtered, recoverable, micrograms per liter					< 0.1	< 0.1
62083	Diethoxynonylphenol, water, filtered, recoverable, micrograms per liter					< 5	< 5
62084	p-Cresol, water, filtered, recoverable, micrograms per liter					< 0.18	< 0.18
62085	4-Nonylphenol, water, filtered, recoverable, micrograms per liter					< 1	< 1
62086	beta-Stigmasterol, water, filtered, recoverable, micrograms per liter					< 1	< 1
62087	Tris(2-chloroethyl) phosphate, water, filtered, recoverable, micrograms per liter					< 0.1	< 0.1
62088	Tris(dichloroisopropyl) phosphate, water, filtered, recoverable, micrograms per liter					< 0.1	< 0.1
62089	Tributyl phosphate, water, filtered, recoverable, micrograms per liter					< 0.2	< 0.2
62090	Triclosan, water, filtered, recoverable, micrograms per liter					< 0.2	< 0.2
62091	Triethyl citrate, water, filtered, recoverable, micrograms per liter					< 0.2	< 0.2
62092	Triphenyl phosphate, water, filtered, recoverable, micrograms per liter					< 0.1	< 0.1
62093	Tris(2-butoxyethyl) phosphate, water, filtered, recoverable, micrograms per liter					< 0.4	< 0.4
62166	Fipronil, water, filtered, recoverable, micrograms per liter						
62167	Fipronil sulfide, water, filtered, recoverable, micrograms per liter						
62168	Fipronil sulfone, water, filtered, recoverable, micrograms per liter						
62169	Desulfenylfipronil amide, water, filtered, recoverable, micrograms per liter						
62170	Desulfenylfipronil, water, filtered, recoverable, micrograms per liter						
62854	Total nitrogen, (NH3+NO2+NO3+Organic), filtered, milligrams per liter						
63790	Perchlorate, water, filtered, recoverable, micrograms per liter						
70300	Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter		356	437	430	407	429
70301	Residue, water, filtered, sum of constituents, milligrams per liter		347 E	419	412 E	383 E	402 E
70303	Residue, water, filtered, tons per acre-foot						
71846	Ammonia, water, filtered, milligrams per liter as NH4		0.04	0.04	0.06	0.03	
71851	Nitrate, water, filtered, milligrams per liter				0.006 E		
71856	Nitrite, water, filtered, milligrams per liter				0.489	0.025	0.005
71865	Iodide, water, filtered, milligrams per liter				0.38	0.27	0.06
71870	Bromide, water, filtered, milligrams per liter				83.30	86.32	66.09
72019	Depth to water level, feet below land surface		53.42	72.96			

**Water Quality Data for Multiple Depth Monitoring Well  
Pala Park Well (8S/2W-19A1-6)  
April 2008**

Code	Parameter	MCL	Well A1 4/22/2008	Well A2 4/23/2008	Well A3 4/23/2008	Well A4 4/23/2008	Well A5 4/23/2008
	Sampling date						
73547	trans-1,4-Dichloro-2-butene, water, unfiltered, recoverable, micrograms per liter					< 0.6	< 0.6
73570	Ethyl methacrylate, water, unfiltered, recoverable, micrograms per liter					< 0.1	< 0.1
75985	Tritium 2-sigma combined uncertainty, water, unfiltered, picocuries per liter					0.58	0.64
76002	Rn-222, 2-sigma combined uncertainty, water, unfiltered, picocuries per liter						
77041	Carbon disulfide, water, unfiltered, micrograms per liter						
77093	cis-1,2-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	6					
77103	n-Butyl methyl ketone, water, unfiltered, recoverable, micrograms per liter					< 0.06	< 0.06
77128	Styrene, water, unfiltered, recoverable, micrograms per liter	100				< 0.02	< 0.02
77135	o-Xylene, water, unfiltered, recoverable, micrograms per liter					< 0.6	< 0.6
77168	1,1-Dichloropropene, water, unfiltered, recoverable, micrograms per liter					< 0.04	< 0.04
77170	2,2-Dichloropropane, water, unfiltered, recoverable, micrograms per liter					< 0.04	< 0.04
77173	1,3-Dichloropropane, water, unfiltered, recoverable, micrograms per liter					< 0.06	< 0.06
77220	2-Ethyltoluene, water, unfiltered, recoverable, micrograms per liter					< 0.1	< 0.1
77221	1,2,3-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter					< 0.04	< 0.04
77222	1,2,4-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter					< 0.1	< 0.1
77223	Isopropylbenzene, water, unfiltered, recoverable, micrograms per liter					< 0.04	< 0.04
77224	n-Propylbenzene, water, unfiltered, recoverable, micrograms per liter					< 0.04	< 0.04
77226	1,3,5-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter					< 0.04	< 0.04
77275	2-Chlorotoluene, water, unfiltered, recoverable, micrograms per liter					< 0.04	< 0.04
77277	4-Chlorotoluene, water, unfiltered, recoverable, micrograms per liter					< 0.04	< 0.04
77297	Bromochloromethane, water, unfiltered, recoverable, micrograms per liter					< 0.06	< 0.06
77342	n-Butylbenzene, water, unfiltered, recoverable, micrograms per liter					< 0.1	< 0.1
77350	sec-Butylbenzene, water, unfiltered, recoverable, micrograms per liter					< 0.04	< 0.04
77353	tert-Butylbenzene, water, unfiltered, recoverable, micrograms per liter					< 0.06	< 0.06
77356	4-Isopropyltoluene, water, unfiltered, recoverable, micrograms per liter					< 0.08	< 0.08
77424	Iodomethane, water, unfiltered, recoverable, micrograms per liter					< 0.4	< 0.4
77443	1,2,3-Trichloropropane, water, unfiltered, recoverable, micrograms per liter					< 0.12	< 0.12
77562	1,1,1,2-Tetrachloroethane, water, unfiltered, recoverable, micrograms per liter					< 0.04	< 0.04
77613	1,2,3-Trichlorobenzene, water, unfiltered, recoverable, micrograms per liter					< 0.1	< 0.1
77651	1,2-Dibromoethane, water, unfiltered, recoverable, micrograms per liter	0.05				< 0.04	< 0.04
77652	1,1,1,2-Trichloro-1,2,2-trifluoroethane, water, unfiltered, recoverable, micrograms per liter					< 0.04	< 0.04
78032	Methyl tert-butyl ether, water, unfiltered, recoverable, micrograms per liter					< 0.1	< 0.1
78109	3-Chloropropene, water, unfiltered, recoverable, micrograms per liter					< 0.08	< 0.08
78133	Isobutyl methyl ketone, water, unfiltered, recoverable, micrograms per liter					< 0.4	< 0.4
81552	Acetone, water, unfiltered, recoverable, micrograms per liter					< 4	< 4
81555	Bromobenzene, water, unfiltered, recoverable, micrograms per liter					< 0.02	< 0.02
81576	Diethyl ether, water, unfiltered, recoverable, micrograms per liter					< 0.1	< 0.1
81577	Diisopropyl ether, water, unfiltered, recoverable, micrograms per liter					< 0.06	< 0.06
81593	Methyl acrylonitrile, water, unfiltered, recoverable, micrograms per liter					< 0.2	< 0.2
81595	Ethyl methyl ketone, water, unfiltered, recoverable, micrograms per liter					< 1.6	< 1.6
81597	Methyl methacrylate, water, unfiltered, recoverable, micrograms per liter					< 0.2	< 0.2
81607	Tetrahydrofuran, water, unfiltered, recoverable, micrograms per liter					< 1	< 1
82081	C-13/C-12 ratio, water, unfiltered, per mil		-19.70	-16.90		-14.89	-16.88
82082	Deuterium/Protium ratio, water, unfiltered, per mil		-53.80	-53.60		-45.70	-58.00
82085	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil		-8.34	-8.15		-6.89	-8.16
82303	Rn-222, water, unfiltered, picocuries per liter						
82346	Ethion, water, filtered, recoverable, micrograms per liter						
82625	1,2-Dibromo-3-chloropropane, water, unfiltered, recoverable, micrograms per liter					< 0.5	< 0.5
82630	Metribuzin, water, filtered, recoverable, micrograms per liter						
82660	2,6-Diethylaniline, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82661	Trifluralin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82662	Dimethoate, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82664	Phorate, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82667	Methyl parathion, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						

**Water Quality Data for Multiple Depth Monitoring Well  
Pala Park Well (8S/2W-19A1-6)  
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Code	Parameter	MCL	Well A1 4/22/2008	Well A2 4/23/2008	Well A3 4/23/2008	Well A4 4/23/2008	Well A5 4/23/2008
	Sampling date						
82670	Turbidity, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82673	Benfluralin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82675	Terbufos, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82676	Propyzamide, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82680	Carbaryl, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82682	DCPA, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						< 1
82683	Pendimethalin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82686	Azinphos-methyl, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82687	cis-Permethrin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
85795	m-Xylene plus p-xylene, water, unfiltered, recoverable, micrograms per liter						
90095	Specific conductance, water, unfiltered, laboratory, microsiemens per centimeter at 25 degrees Celsius		645	757	732	< 0.08	< 0.08
90851	Triholomethanes, water, unfiltered, calcd, micrograms per liter					668	631
99583	Bisphenol A-d3, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery						M
99584	Caffeine-13C, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery						
99585	Decafluorobiphenyl, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery						
99586	Fluoranthene-d10, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery						
99832	1,2-Dichloroethane-d4, surrogate, Schedule 2090, water, unfiltered, percent recovery					129	130
99833	Toluene-d8, surrogate, Schedule 2090, water, unfiltered, percent recovery					90.9	91.5
99834	1-Bromo-4-fluorobenzene, surrogate, VOC schedules, water, unfiltered, percent recovery					78.9	75.6
99994	Diazinon-d10, surrogate, Schedule 2003, water, filtered, percent recovery						
99995	alpha-HCH-d6, surrogate, Schedule 2003, water, filtered, percent recovery						

Notes: U.S. EPA STORET numbers for MCLs correspond to the same as the USGS NWIS data parameter number except as follows:

- (a) MCL shown for U.S. EPA STORET No. 620.
- (b) MCL shown for U.S. EPA STORET No. 951.
- (c) MCL shown for U.S. EPA STORET No. 1002.
- (d) MCL shown for U.S. EPA STORET No. 1007.
- (e) MCL shown for U.S. EPA STORET No. 1012.
- (f) MCL shown for U.S. EPA STORET No. 1027.
- (g) MCL shown for U.S. EPA STORET No. 1034.
- (h) MCL shown for U.S. EPA STORET No. 1042.
- (i) MCL shown for U.S. EPA STORET No. 1059.
- (j) MCL shown for U.S. EPA STORET No. 1067.
- (k) MCL shown for U.S. EPA STORET No. 1077.
- (l) MCL shown for U.S. EPA STORET No. 1092.
- (m) MCL shown for U.S. EPA STORET No. 1097.
- (n) MCL shown for U.S. EPA STORET No. 1105.
- (o) MCL shown for U.S. EPA STORET No. 1147.
- (p) MCL shown for U.S. EPA STORET No. 34247.
- (q) MCL shown for U.S. EPA STORET No. 71850.

Code--Data parameter number used in USGS National Water Information System (NWIS).

E--Estimated.

M--Presence verified but not quantified.

MCL--Maximum Contaminant Level reported by California DHS (May 25, 2007 Database) for U.S. EPA STORET number.

V--Biased results from contamination.

**Water Quality Data for Multiple Depth Monitoring Well  
Pala Park Well (8S/2W-19A1-6)  
August 2009**

Code	Parameter	MCL	Well A1	Well A2	Well A3	Well A4 8/4/2009	Well A5 8/4/2009
3	Sampling date						
	Sampling depth, feet						
10	Temperature, water, degrees Celsius					20.8	19
28	Agency analyzing sample, code					80020	80020
59	Flow rate, instantaneous, gallons per minute						
95	Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius						
191	Hydrogen ion, water, unfiltered, calculated, milligrams per liter					660	601
300	Dissolved oxygen, water, unfiltered, milligrams per liter					0.00001	0.00002
400	pH, water, unfiltered, field, standard units					8.1	7.7
403	pH, water, unfiltered, laboratory, standard units					8.2	7.7
453	Bicarbonate, water, filtered, incremental titration, field, milligrams per liter					151	148
602	Total nitrogen, water, filtered, milligrams per liter						2.9 E
607	Organic nitrogen, water, filtered, milligrams per liter						0.07 E
608	Ammonia, water, filtered, milligrams per liter as nitrogen					0.024	0.01 E
613	Nitrite, water, filtered, milligrams per liter as nitrogen	1 (a)				< 0.002	< 0.002
618	Nitrate, water, filtered, milligrams per liter as nitrogen						
623	Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen					< 0.1	0.08 E
631	Nitrate plus nitrite, water, filtered, milligrams per liter as nitrogen					< 0.04	2.86
660	Orthophosphate, water, filtered, milligrams per liter					1.28	0.870
666	Phosphorus, water, filtered, milligrams per liter					0.41	0.29
671	Orthophosphate, water, filtered, milligrams per liter as phosphorus					0.419	0.284
900	Hardness, water, milligrams per liter as calcium carbonate					110	170
904	Noncarb hardness, water filtered field, milligrams per liter as calcium carbonate						44
905	Noncarb hardness, water filtered lab, milligrams per liter as calcium carbonate						38
915	Calcium, water, filtered, milligrams per liter					38.4	48.3
925	Magnesium, water, filtered, milligrams per liter					4.54	10.8
930	Sodium, water, filtered, milligrams per liter					86.2	55.0
931	Sodium adsorption ratio, water, number					3.5	1.9
932	Sodium fraction of cations, water, percent in equivalents of major cations					62	42
935	Potassium, water, filtered, milligrams per liter					1.98	1.86
940	Chloride, water, filtered, milligrams per liter	600				78.5	35.1
945	Sulfate, water, filtered, milligrams per liter	600				76.3	103
950	Fluoride, water, filtered, milligrams per liter	2 (b)				0.23	0.21
955	Silica, water, filtered, milligrams per liter					18.5	26.6
1000	Arsenic, water, filtered, micrograms per liter	10 (c)				4.7	1.4
1005	Barium, water, filtered, micrograms per liter	1000 (d)				21.0	49.7
1010	Beryllium, micrograms per liter	4 (e)					
1020	Boron, water, filtered, micrograms per liter					105	128
1025	Cadmium, micrograms per liter	5 (f)					
1030	Chromium, micrograms per liter	50 (g)					
1035	Cobalt, micrograms per liter						
1040	Copper, micrograms per liter	1000 (h)					
1046	Iron, water, filtered, micrograms per liter	300				5	< 4
1049	Lead, micrograms per liter						
1056	Manganese, water, filtered, micrograms per liter	50					
1057	Thallium, micrograms per liter	2 (i)				20.3	< 0.2
1060	Molybdenum, micrograms per liter						
1065	Nickel, micrograms per liter	100 (j)					
1075	Silver, micrograms per liter	100 (k)					
1080	Strontium, water, filtered, micrograms per liter					343	257
1085	Vanadium, micrograms per liter	5000 (l)					
1090	Zinc, micrograms per liter	6 (m)					
1095	Antimony, micrograms per liter						
1106	Aluminum, water, filtered, micrograms per liter	1000 (n)				6.6	< 4
1130	Lithium, water, filtered, micrograms per liter					7	7

Source: USGS California Water Science Center.

**Water Quality Data for Multiple Depth Monitoring Well  
Pala Park Well (8S/2W-19A1-6)  
August 2009**

Code	Parameter	MCL	Well A1	Well A2	Well A3	Well A4	Well A5
	Sampling date						
1145	Selenium, micrograms per liter	50 (o)				8/4/2009	8/4/2009
4022	Terbuthylazine, water, filtered, recoverable, micrograms per liter						
4025	Hexazinone, water, filtered, recoverable, micrograms per liter						
4029	Bromacil, water, filtered, recoverable, micrograms per liter						
4035	Simazine, water, filtered, recoverable, micrograms per liter						
4036	Prometryn, water, filtered, recoverable, micrograms per liter						
4037	Prometon, water, filtered, recoverable, micrograms per liter						
4040	2-Chloro-4-isopropylamino-6-amino-s-triazine, water, filtered, recoverable, micrograms per liter						
4095	Fonofos, water, filtered, recoverable, micrograms per liter						
7000	Tritium, water, unfiltered, picocuries per liter						
22703	Uranium, natural, micrograms per liter					129	127
29801	Alkalinity, water, filtered, fixed endpoint (pH 4.5) titration, laboratory, milligrams per liter as calcium carbonate						
30217	Dibromomethane, water, unfiltered, recoverable, micrograms per liter						
32101	Bromodichloromethane, water, unfiltered, recoverable, micrograms per liter						
32102	Tetrachloromethane, water, unfiltered, recoverable, micrograms per liter	0.5					
32103	1,2-Dichloroethane, water, unfiltered, recoverable, micrograms per liter						
32104	Tribromomethane, water, unfiltered, recoverable, micrograms per liter						
32105	Dibromochloromethane, water, unfiltered, recoverable, micrograms per liter						
32106	Trichloromethane, water, unfiltered, recoverable, micrograms per liter						
34010	Toluene, water, unfiltered, recoverable, micrograms per liter	150					
34030	Benzene, water, unfiltered, recoverable, micrograms per liter	1					
34215	Acrylonitrile, water, unfiltered, recoverable, micrograms per liter						
34221	Anthracene, water, filtered, recoverable, micrograms per liter						
34248	Benzo[a]pyrene, water, filtered, recoverable, micrograms per liter	0.2 (p)					
34288	Tribromomethane, water, filtered, recoverable, micrograms per liter						
34301	Chlorobenzene, water, unfiltered, recoverable, micrograms per liter	70					
34311	Chloroethane, water, unfiltered, recoverable, micrograms per liter						
34371	Ethylbenzene, water, unfiltered, recoverable, micrograms per liter	300					
34377	Fluoranthene, water, filtered, recoverable, micrograms per liter						
34396	Hexachloroethane, water, unfiltered, recoverable, micrograms per liter						
34409	Isophorone, water, filtered, recoverable, micrograms per liter						
34413	Bromomethane, water, unfiltered, recoverable, micrograms per liter						
34418	Chloromethane, water, unfiltered, recoverable, micrograms per liter						
34423	Dichloromethane, water, unfiltered, recoverable, micrograms per liter	5					
34462	Phenanthrene, water, filtered, recoverable, micrograms per liter						
34466	Phenol, water, filtered, recoverable, micrograms per liter						
34470	Pyrene, water, filtered, recoverable, micrograms per liter						
34475	Tetrachloroethene, water, unfiltered, recoverable, micrograms per liter	5					
34476	Tetrachloroethane, water, filtered, recoverable, micrograms per liter						
34488	Trichlorofluoromethane, water, unfiltered, recoverable, micrograms per liter	150					
34496	1,1-Dichloroethane, water, unfiltered, recoverable, micrograms per liter	5					
34501	1,1-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	6					
34506	1,1,1-Trichloroethane, water, unfiltered, recoverable, micrograms per liter	200					
34511	1,1,2-Trichloroethane, water, unfiltered, recoverable, micrograms per liter	5					
34516	1,1,2,2-Tetrachloroethane, water, unfiltered, recoverable, micrograms per liter	1					
34536	1,2-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter	600					
34541	1,2-Dichloropropane, water, unfiltered, recoverable, micrograms per liter	5					
34546	trans-1,2-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	10					
34551	1,2,4-Trichlorobenzene, water, unfiltered, recoverable, micrograms per liter	5					
34566	1,3-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter						
34571	1,4-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter	5					
34572	1,4-Dichlorobenzene, water, filtered, recoverable, micrograms per liter						
34668	Dichlorodifluoromethane, water, unfiltered, recoverable, micrograms per liter						

**Water Quality Data for Multiple Depth Monitoring Well  
Pala Park Well (8S/2W-19A1-6)  
August 2009**

Code	Parameter	MCL	Well A1	Well A2	Well A3	Well A4	Well A5
	Sampling date						8/4/2009
34696	Naphthalene, water, unfiltered, recoverable, micrograms per liter						
34699	trans-1,3-Dichloropropene, water, unfiltered, recoverable, micrograms per liter						
34704	cis-1,3-Dichloropropene, water, unfiltered, recoverable, micrograms per liter	0.5					
38454	Dicropofos, water, filtered, recoverable, micrograms per liter	0.5					
38775	Dichlorvos, water, filtered, recoverable, micrograms per liter						
38933	Chlorpyrifos, water, filtered, recoverable, micrograms per liter						
39086	Alkalinity, water, filtered, incremental titration, field, milligrams per liter as calcium carbonate						124
39175	Vinyl chloride, water, unfiltered, recoverable, micrograms per liter	0.5					
39180	Trichloroethene, water, unfiltered, recoverable, micrograms per liter	5					
39381	Dieldrin, water, filtered, recoverable, micrograms per liter						
39415	Metolachlor, water, filtered, recoverable, micrograms per liter						
39532	Malathion, water, filtered, recoverable, micrograms per liter						
39572	Diazinon, water, filtered, recoverable, micrograms per liter						
39632	Atrazine, water, filtered, recoverable, micrograms per liter						
39702	Hexachlorobutadiene, water, unfiltered, recoverable, micrograms per liter						
46342	Alachlor, water, filtered, recoverable, micrograms per liter						
49260	Acetochlor, water, filtered, recoverable, micrograms per liter						
49295	1-Naphthol, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
49933	C-14, water, filtered, percent modern						
49934	C-14, counting error, water, filtered, percent modern						
49991	Methyl acrylate, water, unfiltered, recoverable, micrograms per liter						
49999	1,2,3,4-Tetramethylbenzene, water, unfiltered, recoverable, micrograms per liter						
50000	1,2,3,5-Tetramethylbenzene, water, unfiltered, recoverable, micrograms per liter						
50002	Bromoethene, water, unfiltered, recoverable, micrograms per liter						
50004	tert-Butyl ethyl ether, water, unfiltered, recoverable, micrograms per liter						
50005	Methyl tert-pentyl ether, water, unfiltered, recoverable, micrograms per liter						
50305	Caffeine, water, filtered, recoverable, micrograms per liter						
50359	Metaxyl, water, filtered, recoverable, micrograms per liter						
61209	Perchlorate, water, unfiltered, recoverable, micrograms per liter						
61585	Cyfluthrin, water, filtered, recoverable, micrograms per liter	6					
61586	Cypermethrin, water, filtered, recoverable, micrograms per liter						
61591	Fenamiphos, water, filtered, recoverable, micrograms per liter						
61593	Iprodione, water, filtered, recoverable, micrograms per liter						
61594	Isodfenphos, water, filtered, recoverable, micrograms per liter						
61596	Metaxyl, water, filtered, recoverable, micrograms per liter						
61598	Methidathion, water, filtered, recoverable, micrograms per liter						
61599	Myclobutani, water, filtered, recoverable, micrograms per liter						
61601	Phosmet, water, filtered, recoverable, micrograms per liter						
61610	Tribuphos, water, filtered, recoverable, micrograms per liter						
61618	2-Chloro-2',6'-diethylacetanilide, water, filtered, recoverable, micrograms per liter						
61620	2-Ethyl-6-methylaniline, water, filtered, recoverable, micrograms per liter						
61625	3,4-Dichloroaniline, water, filtered, recoverable, micrograms per liter						
61633	4-Chloro-2-methylphenol, water, filtered, recoverable, micrograms per liter						
61635	Azinphos-methyl oxygen analog, water, filtered, recoverable, micrograms per liter						
61636	Chlorpyrifos oxygen analog, water, filtered, recoverable, micrograms per liter						
61644	Ethion monoxon, water, filtered, recoverable, micrograms per liter						
61645	Fenamiphos sulfone, water, filtered, recoverable, micrograms per liter						
61646	Fenamiphos sulfoxide, water, filtered, recoverable, micrograms per liter						
61652	Malaoxon, water, filtered, recoverable, micrograms per liter						
61664	Methyl paraoxon, water, filtered, recoverable, micrograms per liter						
61666	Phorate oxygen analog, water, filtered, recoverable, micrograms per liter						
61668	Phosmet oxygen analog, water, filtered, recoverable, micrograms per liter						
61674	Terbufos oxygen analog sulfone, water, filtered, recoverable, micrograms per liter						
61705	Diethoxyxytyphenol, water, filtered, recoverable, micrograms per liter						

**Water Quality Data for Multiple Depth Monitoring Well  
Pala Park Well (8S/2W-19A1-6)  
August 2009**

Code	Parameter	MCL	Well A1	Well A2	Well A3	Well A4	Well A5
	Sampling date					8/4/2009	8/4/2009
61706	Monothoxyocylphenol, water, filtered, recoverable, micrograms per liter						
62005	Cotinine, water, filtered, recoverable, micrograms per liter						
62054	1-Methylnaphthalene, water, filtered, recoverable, micrograms per liter						
62055	2,6-Dimethylnaphthalene, water, filtered, recoverable, micrograms per liter						
62056	2-Methylnaphthalene, water, filtered, recoverable, micrograms per liter						
62057	3-beta-Coprostanol, water, filtered, recoverable, micrograms per liter						
62058	3-Methyl-1H-indole, water, filtered, recoverable, micrograms per liter						
62059	3-tert-Butyl-4-hydroxyanisole, water, filtered, recoverable, micrograms per liter						
62060	4-Cumylphenol, water, filtered, recoverable, micrograms per liter						
62061	4-Ocylphenol, water, filtered, recoverable, micrograms per liter						
62062	4-tert-Octylphenol, water, filtered, recoverable, micrograms per liter						
62063	5-Methyl-1H-benzotriazole, water, filtered, recoverable, micrograms per liter						
62064	Acetophenone, water, filtered, recoverable, micrograms per liter						
62065	Acetyl hexamethyl tetrahydro naphthalene, water, filtered, recoverable, micrograms per liter						
62066	9,10-Anthraquinone, water, filtered, recoverable, micrograms per liter						
62067	Benzophenone, water, filtered, recoverable, micrograms per liter						
62068	beta-Sitosterol, water, filtered, recoverable, micrograms per liter						
62070	Camphor, water, filtered, recoverable, micrograms per liter						
62071	Carbazole, water, filtered, recoverable, micrograms per liter						
62072	Cholesterol, water, filtered, recoverable, micrograms per liter						
62073	D-Limonene, water, filtered, recoverable, micrograms per liter						
62075	Hexahydrohexamethyl cyclopentabenzopyran, water, filtered, recoverable, micrograms per liter						
62076	Indole, water, filtered, recoverable, micrograms per liter						
62077	Isoborneol, water, filtered, recoverable, micrograms per liter						
62078	Isopropylbenzene, water, filtered, recoverable, micrograms per liter						
62079	Isoquinoline, water, filtered, recoverable, micrograms per liter						
62080	Menthol, water, filtered, recoverable, micrograms per liter						
62081	Methyl salicylate, water, filtered, recoverable, micrograms per liter						
62082	DEET, water, filtered, recoverable, micrograms per liter						
62083	Diethoxyonylphenol, water, filtered, recoverable, micrograms per liter						
62084	p-Cresol, water, filtered, recoverable, micrograms per liter						
62085	4-Nonylphenol, water, filtered, recoverable, micrograms per liter						
62086	beta-Stigmastanol, water, filtered, recoverable, micrograms per liter						
62087	Tris(2-chloroethyl) phosphate, water, filtered, recoverable, micrograms per liter						
62088	Tris(dichloroisopropyl) phosphate, water, filtered, recoverable, micrograms per liter						
62089	Tributyl phosphate, water, filtered, recoverable, micrograms per liter						
62090	Triclosan, water, filtered, recoverable, micrograms per liter						
62091	Triethyl citrate, water, filtered, recoverable, micrograms per liter						
62092	Triphenyl phosphate, water, filtered, recoverable, micrograms per liter						
62093	Tris(2-butoxyethyl) phosphate, water, filtered, recoverable, micrograms per liter						
62166	Fipronil, water, filtered, recoverable, micrograms per liter						
62167	Fipronil sulfide, water, filtered, recoverable, micrograms per liter						
62168	Fipronil sulfone, water, filtered, recoverable, micrograms per liter						
62169	Desulfinyflipronil amide, water, filtered, recoverable, micrograms per liter						
62170	Desulfinyflipronil, water, filtered, recoverable, micrograms per liter						
62854	Total nitrogen, (NH3+NO2+NO3+Organic), filtered, milligrams per liter	6					
63790	Perchlorate, water, filtered, recoverable, micrograms per liter	1500					
70300	Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter					389	396
70301	Residue, water, filtered, sum of constituents, milligrams per liter					381	368 E
70303	Residue, water, filtered, tons per acre-foot					0.03	0.01 E
71846	Ammonia, water, filtered, milligrams per liter as NH4						
71851	Nitrate, water, filtered, milligrams per liter	45 (G)					
71856	Nitrite, water, filtered, milligrams per liter						
71865	Iodide, water, filtered, milligrams per liter					0.035	0.004



**Water Quality Data for Multiple Depth Monitoring Well  
Pala Park Well (8S/2W-19A1-6)  
August 2009**

Code	Parameter	MCL	Well A1	Well A2	Well A3	Well A4	Well A5
	Sampling date						
71870	Bromide, water, filtered, milligrams per liter					0.27	0.06
72019	Depth to water level, feet below land surface						
73547	trans-1,4-Dichloro-2-butene, water, unfiltered, recoverable, micrograms per liter						
73570	Ethyl methacrylate, water, unfiltered, recoverable, micrograms per liter						
75985	Tritium 2-sigma combined uncertainty, water, unfiltered, picocuries per liter						
76002	Rn-222, 2-sigma combined uncertainty, water, unfiltered, picocuries per liter						
77041	Carbon disulfide, water, unfiltered, micrograms per liter						
77093	cis-1,2-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	6					
77103	n-Butyl methyl ketone, water, unfiltered, recoverable, micrograms per liter						
77128	Styrene, water, unfiltered, recoverable, micrograms per liter	100					
77135	o-Xylene, water, unfiltered, recoverable, micrograms per liter						
77168	1,1-Dichloropropene, water, unfiltered, recoverable, micrograms per liter						
77170	2,2-Dichloropropane, water, unfiltered, recoverable, micrograms per liter						
77173	1,3-Dichloropropane, water, unfiltered, recoverable, micrograms per liter						
77220	2-Ethyltoluene, water, unfiltered, recoverable, micrograms per liter						
77221	1,2,3-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter						
77222	1,2,4-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter						
77223	Isopropylbenzene, water, unfiltered, recoverable, micrograms per liter						
77224	n-Propylbenzene, water, unfiltered, recoverable, micrograms per liter						
77226	1,3,5-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter						
77275	2-Chlorotoluene, water, unfiltered, recoverable, micrograms per liter						
77277	4-Chlorotoluene, water, unfiltered, recoverable, micrograms per liter						
77297	Bromochloromethane, water, unfiltered, recoverable, micrograms per liter						
77342	n-Butylbenzene, water, unfiltered, recoverable, micrograms per liter						
77350	sec-Butylbenzene, water, unfiltered, recoverable, micrograms per liter						
77353	tert-Butylbenzene, water, unfiltered, recoverable, micrograms per liter						
77356	4-Isopropyltoluene, water, unfiltered, recoverable, micrograms per liter						
77423	Iodomethane, water, unfiltered, recoverable, micrograms per liter						
77443	1,2,3-Trichloropropane, water, unfiltered, recoverable, micrograms per liter						
77562	1,1,1,2-Tetrachloroethane, water, unfiltered, recoverable, micrograms per liter						
77613	1,2,3-Trichlorobenzene, water, unfiltered, recoverable, micrograms per liter	0.05					
77651	1,2-Dibromoethane, water, unfiltered, recoverable, micrograms per liter						
77652	1,1,1,2-Trichloro-1,2,2-trifluoroethane, water, unfiltered, recoverable, micrograms per liter						
78032	Methyl tert-butyl ether, water, unfiltered, recoverable, micrograms per liter						
78109	3-Chloropropene, water, unfiltered, recoverable, micrograms per liter						
78133	Isobutyl methyl ketone, water, unfiltered, recoverable, micrograms per liter						
81552	Acetone, water, unfiltered, recoverable, micrograms per liter						
81555	Bromobenzene, water, unfiltered, recoverable, micrograms per liter						
81576	Diethyl ether, water, unfiltered, recoverable, micrograms per liter						
81577	Diisopropyl ether, water, unfiltered, recoverable, micrograms per liter						
81593	Methyl acrylonitrile, water, unfiltered, recoverable, micrograms per liter						
81595	Ethyl methyl ketone, water, unfiltered, recoverable, micrograms per liter						
81597	Methyl methacrylate, water, unfiltered, recoverable, micrograms per liter						
81607	Tetrahydrofuran, water, unfiltered, recoverable, micrograms per liter						
82081	C-13/C-12 ratio, water, unfiltered, per mil						
82082	Deuterium/Protium ratio, water, unfiltered, per mil					-45.30	-37.70
82085	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil					-6.88	-6.00
82303	Rn-222, water, unfiltered, picocuries per liter						
82346	Ethion, water, filtered, recoverable, micrograms per liter						
82625	1,2-Dibromo-3-chloropropane, water, unfiltered, recoverable, micrograms per liter						
82630	Metribuzin, water, filtered, recoverable, micrograms per liter						
82660	2,6-Diethylamine, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82661	Trifluralin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82662	Dimethoate, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						

Source: USGS California Water Science Center.

**Water Quality Data for Multiple Depth Monitoring Well  
Pala Park Well (8S/2W-19A1-6)  
August 2009**

Code	Parameter	MCL	Well A1	Well A2	Well A3	Well A4	Well A5
	Sampling date						8/4/2009
82664	Phorate, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82667	Methyl parathion, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82670	Tebuthiuron, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82673	Benfluralin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82675	Terbufos, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82676	Propyzamide, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82680	Carbaryl, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82682	DCPA, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82683	Pendimethalin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82686	Azinphos-methyl, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82687	cis-Permethrin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
85795	m-Xylene plus p-xylene, water, unfiltered, recoverable, micrograms per liter						
90095	Specific conductance, water, unfiltered, laboratory, microsiemens per centimeter at 25 degrees Celsius					676	611
90851	Triholmethanes, water, unfiltered, calcd, micrograms per liter						
99583	Bisphenol A-d3, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery						
99584	Caifeine-13C, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery						
99585	Decafluorobiphenyl, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery						
99586	Fluoranthene-d10, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery						
99832	1,2-Dichloroethane-d4, surrogate, Schedule 2090, water, unfiltered, percent recovery						
99833	Toluene-d8, surrogate, Schedule 2090, water, unfiltered, percent recovery						
99834	1-Bromo-4-fluorobenzene, surrogate, VOC schedules, water, unfiltered, percent recovery						
99994	Diazinon-d10, surrogate, Schedule 2003, water, filtered, percent recovery						
99995	alpha-HCH-d6, surrogate, Schedule 2003, water, filtered, percent recovery						

Notes: U.S. EPA STORET numbers for MCLs correspond to the same as the USGS NWIS data parameter number except as follows:

- (a) MCL shown for U.S. EPA STORET No. 620.
- (b) MCL shown for U.S. EPASTORET No. 951.
- (c) MCL shown for U.S. EPA STORET No. 1002.
- (d) MCL shown for U.S. EPA STORET No. 1007.
- (e) MCL shown for U.S. EPA STORET No. 1012.
- (f) MCL shown for U.S. EPA STORET No. 1027.
- (g) MCL shown for U.S. EPA STORET No. 1034.
- (h) MCL shown for U.S. EPA STORET No. 1042.
- (i) MCL shown for U.S. EPA STORET No. 1059.
- (j) MCL shown for U.S. EPA STORET No. 1067.
- (k) MCL shown for U.S. EPASTORET No. 1077.
- (l) MCL shown for U.S. EPA STORET No. 1092.
- (m) MCL shown for U.S. EPA STORET No. 1097.
- (n) MCL shown for U.S. EPA STORET No. 1105.
- (o) MCL shown for U.S. EPA STORET No. 1147.
- (p) MCL shown for U.S. EPA STORET No. 34247.
- (q) MCL shown for U.S. EPA STORET No. 71850.

Code--Data parameter number used in USGS National Water Information System (NWIS).

E--Estimated.

M--Presence verified but not quantified.

MCL--Maximum Contaminant Level reported by California DHS (May 25, 2007 Database) for U.S. EPA STORET number.

V--Biased results from contamination.

**Water Quality Data for Multiple Depth Monitoring Well  
Pala Park Well (8S/2W-19A1-6)  
July 2010**

Code	Parameter	MCL	Well A1	Well A2	Well A3	Well A4 7/26/2010	Well A5 7/26/2010
	Sampling date						
3	Sampling depth, feet						
10	Temperature, water, degrees Celsius					22.5	19.5
28	Agency analyzing sample, code					80020	80020
59	Flow rate, instantaneous, gallons per minute						
95	Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius					670	720
191	Hydrogen ion, water, unfiltered, calculated, milligrams per liter					0.00001	0.00003
300	Dissolved oxygen, water, unfiltered, milligrams per liter						
400	pH, water, unfiltered, field, standard units					8.0	7.6
403	pH, water, unfiltered, laboratory, standard units					8.2	7.6
405	Carbon dioxide, water, unfiltered, milligrams per liter					2.2	9.1
453	Bicarbonate, water, filtered, incremental titration, field, milligrams per liter					149	224
602	Total nitrogen, water, filtered, milligrams per liter					< 0.14	3.8 E
607	Organic nitrogen, water, filtered, milligrams per liter					< 0.08	< 0.09
608	Ammonia, water, filtered, milligrams per liter as nitrogen					0.025	< 0.020
613	Nitrite, water, filtered, milligrams per liter as nitrogen	1 (a)				0.001 E	0.001 E
618	Nitrate, water, filtered, milligrams per liter as nitrogen					< 0.039	3.66 E
623	Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen					< 0.10	0.09 E
631	Nitrate plus nitrite, water, filtered, milligrams per liter as nitrogen					< 0.04	3.66
660	Orthophosphate, water, filtered, milligrams per liter					1.10	4.36
666	Phosphorus, water, filtered, milligrams per liter					0.35	1.40
671	Orthophosphate, water, filtered, milligrams per liter as phosphorus					0.359	1.42
900	Hardness, water, milligrams per liter as calcium carbonate					104	211
904	Noncarb hardness, water filtered field, milligrams per liter as calcium carbonate						27
905	Noncarb hardness, water filtered lab, milligrams per liter as calcium carbonate						22
915	Calcium, water, filtered, milligrams per liter					34.5	61.4
925	Magnesium, water, filtered, milligrams per liter					4.18	14.0
930	Sodium, water, filtered, milligrams per liter					96.8	74.3
931	Sodium adsorption ratio, water, number					4.14	2.23
932	Sodium fraction of cations, water, percent in equivalents of major cations					67	43
935	Potassium, water, filtered, milligrams per liter					2.03	2.34
940	Chloride, water, filtered, milligrams per liter	600				83.9	39.5
945	Sulfate, water, filtered, milligrams per liter	600				79.9	114
950	Fluoride, water, filtered, milligrams per liter	2 (b)				0.26	0.12
955	Silica, water, filtered, milligrams per liter					16.9	28.4
1000	Arsenic, water, filtered, micrograms per liter	10 (c)				4.6	2.8
1005	Barium, water, filtered, micrograms per liter	1000 (d)				19.4	54.0
1010	Beryllium, micrograms per liter	4 (e)					
1020	Boron, water, filtered, micrograms per liter					106	145
1025	Cadmium, micrograms per liter	5 (f)					
1030	Chromium, micrograms per liter	50 (g)					
1035	Cobalt, micrograms per liter						
1040	Copper, micrograms per liter	1000 (h)					
1046	Iron, water, filtered, micrograms per liter	300				6 E	< 6
1049	Lead, micrograms per liter						
1056	Manganese, water, filtered, micrograms per liter	50				20.0	< 0.2
1057	Thallium, micrograms per liter	2 (i)					
1060	Molybdenum, micrograms per liter						
1065	Nickel, micrograms per liter	100 (j)					
1075	Silver, micrograms per liter	100 (k)					
1080	Strontium, water, filtered, micrograms per liter					309	344
1085	Vanadium, micrograms per liter						
1090	Zinc, micrograms per liter	5000 (l)					
1095	Antimony, micrograms per liter	6 (m)					
1106	Aluminum, water, filtered, micrograms per liter	1000 (n)				12.5	2.4

Source: USGS California Water Science Center.

**Water Quality Data for Multiple Depth Monitoring Well  
Pala Park Well (8S/2W-19A1-6)  
July 2010**

Code	Parameter	MCL	Well A1	Well A2	Well A3	Well A4	Well A5
	Sampling date						
1130	Lithium, water, filtered, micrograms per liter					7/26/2010	7/26/2010
1145	Selenium, micrograms per liter	50 (o)				7	7
4022	Terbutylazine, water, filtered, recoverable, micrograms per liter						
4025	Hexazinone, water, filtered, recoverable, micrograms per liter						
4029	Bromacil, water, filtered, recoverable, micrograms per liter						
4035	Simazine, water, filtered, recoverable, micrograms per liter						
4036	Prometryn, water, filtered, recoverable, micrograms per liter						
4037	Prometon, water, filtered, recoverable, micrograms per liter						
4040	2-Chloro-4-isopropylamino-6-amino-s-triazine, water, filtered, recoverable, micrograms per liter						
4095	Fonofos, water, filtered, recoverable, micrograms per liter						
7000	Tritium, water, unfiltered, picocuries per liter						
22703	Uranium, natural, micrograms per liter						
29801	Alkalinity, water, filtered, fixed endpoint (pH 4.5) titration, laboratory, milligrams per liter as calcium carbonate					128	190
30217	Dibromomethane, water, unfiltered, recoverable, micrograms per liter						
32101	Bromodichloromethane, water, unfiltered, recoverable, micrograms per liter						
32102	Tetrachloromethane, water, unfiltered, recoverable, micrograms per liter	0.5					
32103	1,2-Dichloroethane, water, unfiltered, recoverable, micrograms per liter						
32104	Tribromomethane, water, unfiltered, recoverable, micrograms per liter						
32105	Dibromochloromethane, water, unfiltered, recoverable, micrograms per liter						
32106	Trichloromethane, water, unfiltered, recoverable, micrograms per liter						
34010	Toluene, water, unfiltered, recoverable, micrograms per liter	150					
34030	Benzene, water, unfiltered, recoverable, micrograms per liter	1					
34215	Acrylonitrile, water, unfiltered, recoverable, micrograms per liter						
34221	Anthracene, water, filtered, recoverable, micrograms per liter						
34248	Benzol(a)pyrene, water, filtered, recoverable, micrograms per liter	0.2 (p)					
34288	Tribromomethane, water, filtered, recoverable, micrograms per liter						
34301	Chlorobenzene, water, unfiltered, recoverable, micrograms per liter	70					
34311	Chloroethane, water, unfiltered, recoverable, micrograms per liter						
34371	Ethylbenzene, water, unfiltered, recoverable, micrograms per liter	300					
34377	Fluoranthene, water, filtered, recoverable, micrograms per liter						
34396	Hexachloroethane, water, unfiltered, recoverable, micrograms per liter						
34409	Isophorone, water, filtered, recoverable, micrograms per liter						
34413	Bromomethane, water, unfiltered, recoverable, micrograms per liter						
34418	Chloromethane, water, unfiltered, recoverable, micrograms per liter						
34423	Dichloromethane, water, unfiltered, recoverable, micrograms per liter	5					
34443	Naphthalene, water, filtered, recoverable, micrograms per liter						
34462	Phenanthrene, water, filtered, recoverable, micrograms per liter						
34466	Phenol, water, filtered, recoverable, micrograms per liter						
34470	Pyrene, water, filtered, recoverable, micrograms per liter						
34475	Tetrachloroethene, water, unfiltered, recoverable, micrograms per liter	5					
34476	Tetrachloroethene, water, filtered, recoverable, micrograms per liter						
34488	Trichlorofluoromethane, water, unfiltered, recoverable, micrograms per liter	150					
34496	1,1-Dichloroethane, water, unfiltered, recoverable, micrograms per liter	5					
34501	1,1-Dichloroethane, water, unfiltered, recoverable, micrograms per liter	6					
34506	1,1,1-Trichloroethane, water, unfiltered, recoverable, micrograms per liter	200					
34511	1,1,2-Trichloroethane, water, unfiltered, recoverable, micrograms per liter	5					
34516	1,1,2,2-Tetrachloroethane, water, unfiltered, recoverable, micrograms per liter	1					
34536	1,2-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter	600					
34541	1,2-Dichloropropane, water, unfiltered, recoverable, micrograms per liter	5					
34546	trans-1,2-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	10					
34551	1,2,4-Trichlorobenzene, water, unfiltered, recoverable, micrograms per liter	5					
34566	1,3-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter						
34571	1,4-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter	5					
34572	1,4-Dichlorobenzene, water, filtered, recoverable, micrograms per liter						

**Water Quality Data for Multiple Depth Monitoring Well  
Pala Park Well (8S/2W-19A1-6)  
July 2010**

Code	Parameter	MCL	Well A1	Well A2	Well A3	Well A4	Well A5
	Sampling date						
34668	Dichlorodifluoromethane, water, unfiltered, recoverable, micrograms per liter					7/26/2010	7/26/2010
34696	Naphthalene, water, unfiltered, recoverable, micrograms per liter						
34699	trans-1,3-Dichloropropene, water, unfiltered, recoverable, micrograms per liter	0.5					
34704	cis-1,3-Dichloropropene, water, unfiltered, recoverable, micrograms per liter	0.5					
38454	Dicroporphos, water, filtered, recoverable, micrograms per liter						
38775	Dichlorvos, water, filtered, recoverable, micrograms per liter						
38933	Chlorpyrifos, water, filtered, recoverable, micrograms per liter						
39086	Alkalinity, water, filtered, incremental titration, field, milligrams per liter as calcium carbonate					124	185
39175	Vinyl chloride, water, unfiltered, recoverable, micrograms per liter	0.5					
39180	Trichloroethene, water, unfiltered, recoverable, micrograms per liter	5					
39381	Dieldrin, water, filtered, recoverable, micrograms per liter						
39415	Metolachlor, water, filtered, recoverable, micrograms per liter						
39532	Malathion, water, filtered, recoverable, micrograms per liter						
39572	Diazinon, water, filtered, recoverable, micrograms per liter						
39632	Atrazine, water, filtered, recoverable, micrograms per liter						
39702	Hexachlorobutadiene, water, unfiltered, recoverable, micrograms per liter						
46342	Alachlor, water, filtered, recoverable, micrograms per liter						
49260	Acetochlor, water, filtered, recoverable, micrograms per liter						
49295	1-Naphthol, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
49333	C-14, water, filtered, percent modern						
49334	C-14, counting error, water, filtered, percent modern						
49991	Methyl acrylate, water, unfiltered, recoverable, micrograms per liter						
49999	1,2,3,4-Tetramethylbenzene, water, unfiltered, recoverable, micrograms per liter						
50000	1,2,3,5-Tetramethylbenzene, water, unfiltered, recoverable, micrograms per liter						
50002	Bromoethene, water, unfiltered, recoverable, micrograms per liter						
50004	tert-Butyl ethyl ether, water, unfiltered, recoverable, micrograms per liter						
50005	Methyl tert-pentyl ether, water, unfiltered, recoverable, micrograms per liter						
50305	Caffeine, water, filtered, recoverable, micrograms per liter						
50359	Metolaxyl, water, filtered, recoverable, micrograms per liter						
61209	Perchlorate, water, unfiltered, recoverable, micrograms per liter	6					
61585	Cyfluthrin, water, filtered, recoverable, micrograms per liter						
61586	Cypermethrin, water, filtered, recoverable, micrograms per liter						
61591	Fenamiphos, water, filtered, recoverable, micrograms per liter						
61593	Iprodione, water, filtered, recoverable, micrograms per liter						
61594	Isofenphos, water, filtered, recoverable, micrograms per liter						
61596	Metolaxyl, water, filtered, recoverable, micrograms per liter						
61598	Methidathion, water, filtered, recoverable, micrograms per liter						
61599	Myclobutanil, water, filtered, recoverable, micrograms per liter						
61601	Phosmet, water, filtered, recoverable, micrograms per liter						
61610	Tribuphos, water, filtered, recoverable, micrograms per liter						
61618	2-Chloro-2,6-diethylacetanilide, water, filtered, recoverable, micrograms per liter						
61620	2-Ethyl-6-methylaniline, water, filtered, recoverable, micrograms per liter						
61625	3,4-Dichloroaniline, water, filtered, recoverable, micrograms per liter						
61633	4-Chloro-2-methylphenol, water, filtered, recoverable, micrograms per liter						
61635	Azinphos-methyl oxygen analog, water, filtered, recoverable, micrograms per liter						
61636	Chlorpyrifos oxygen analog, water, filtered, recoverable, micrograms per liter						
61644	Ethion monoxon, water, filtered, recoverable, micrograms per liter						
61645	Fenamiphos sulfone, water, filtered, recoverable, micrograms per liter						
61646	Fenamiphos sulfoxide, water, filtered, recoverable, micrograms per liter						
61652	Malaoxon, water, filtered, recoverable, micrograms per liter						
61664	Methyl paraoxon, water, filtered, recoverable, micrograms per liter						
61666	Phorate oxygen analog, water, filtered, recoverable, micrograms per liter						
61668	Phosmet oxygen analog, water, filtered, recoverable, micrograms per liter						
61674	Terbufos oxygen analog sulfone, water, filtered, recoverable, micrograms per liter						

**Water Quality Data for Multiple Depth Monitoring Well  
Pala Park Well (8S/2W-19A1-6)  
July 2010**

Code	Parameter	MCL	Well A1	Well A2	Well A3	Well A4	Well A5
	Sampling date						7/26/2010
61705	Diethoxyacetylphenol, water, filtered, recoverable, micrograms per liter						
61706	Monooxyacetylphenol, water, filtered, recoverable, micrograms per liter						
62005	Cotinine, water, filtered, recoverable, micrograms per liter						
62054	1-Methylnaphthalene, water, filtered, recoverable, micrograms per liter						
62055	2,6-Dimethylnaphthalene, water, filtered, recoverable, micrograms per liter						
62056	2-Methylnaphthalene, water, filtered, recoverable, micrograms per liter						
62057	3-beta-Coprostanol, water, filtered, recoverable, micrograms per liter						
62058	3-Methyl-1H-indole, water, filtered, recoverable, micrograms per liter						
62059	3-tert-Butyl-4-hydroxyanisole, water, filtered, recoverable, micrograms per liter						
62060	4-Cumylphenol, water, filtered, recoverable, micrograms per liter						
62061	4-Octylphenol, water, filtered, recoverable, micrograms per liter						
62062	4-tert-Octylphenol, water, filtered, recoverable, micrograms per liter						
62063	5-Methyl-1H-benzotriazole, water, filtered, recoverable, micrograms per liter						
62064	Acetophenone, water, filtered, recoverable, micrograms per liter						
62065	Acetyl hexamethyl tetrahydro naphthalene, water, filtered, recoverable, micrograms per liter						
62066	9-10-Anthraquinone, water, filtered, recoverable, micrograms per liter						
62067	Benzophenone, water, filtered, recoverable, micrograms per liter						
62068	beta-Stosterol, water, filtered, recoverable, micrograms per liter						
62070	Camphor, water, filtered, recoverable, micrograms per liter						
62071	Carbazole, water, filtered, recoverable, micrograms per liter						
62072	Cholesterol, water, filtered, recoverable, micrograms per liter						
62073	D-Limonene, water, filtered, recoverable, micrograms per liter						
62075	Hexahydrohexamethyl cyclopentabenzopyran, water, filtered, recoverable, micrograms per liter						
62076	Indole, water, filtered, recoverable, micrograms per liter						
62077	Isoborneol, water, filtered, recoverable, micrograms per liter						
62078	Isopropylbenzene, water, filtered, recoverable, micrograms per liter						
62079	Isoquinoline, water, filtered, recoverable, micrograms per liter						
62080	Menthol, water, filtered, recoverable, micrograms per liter						
62081	Methyl salicylate, water, filtered, recoverable, micrograms per liter						
62082	DEET, water, filtered, recoverable, micrograms per liter						
62083	Diethoxymonylphenol, water, filtered, recoverable, micrograms per liter						
62084	p-Cresol, water, filtered, recoverable, micrograms per liter						
62085	4-Nonylphenol, water, filtered, recoverable, micrograms per liter						
62086	beta-Stigmastanol, water, filtered, recoverable, micrograms per liter						
62087	Tris(2-chloroethyl) phosphate, water, filtered, recoverable, micrograms per liter						
62088	Tris(dichloroisopropyl) phosphate, water, filtered, recoverable, micrograms per liter						
62089	Tributyl phosphate, water, filtered, recoverable, micrograms per liter						
62090	Triclosan, water, filtered, recoverable, micrograms per liter						
62091	Triethyl citrate, water, filtered, recoverable, micrograms per liter						
62092	Triphenyl phosphate, water, filtered, recoverable, micrograms per liter						
62093	Tris(2-butoxyethyl) phosphate, water, filtered, recoverable, micrograms per liter						
62166	Fipronil, water, filtered, recoverable, micrograms per liter						
62167	Fipronil sulfide, water, filtered, recoverable, micrograms per liter						
62168	Fipronil sulfone, water, filtered, recoverable, micrograms per liter						
62169	Desulfinylfipronil amide, water, filtered, recoverable, micrograms per liter						
62170	Desulfinylfipronil, water, filtered, recoverable, micrograms per liter						
62854	Total nitrogen, (NH3+NO2+NO3+Organic), filtered, milligrams per liter						
63790	Perchlorate, water, filtered, recoverable, micrograms per liter	6					
70300	Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter	1500					379
70301	Residue, water, filtered, sum of constituents, milligrams per liter						465
70303	Residue, water, filtered, tons per acre-foot						395 E
71846	Ammonia, water, filtered, milligrams per liter as NH4						0.032
71851	Nitrate, water, filtered, milligrams per liter						< 0.173
71856	Nitrite, water, filtered, milligrams per liter	45 (g)					0.003 E

Source: USGS California Water Science Center.

**Water Quality Data for Multiple Depth Monitoring Well  
Pala Park Well (8S/2W-19A1-6)  
July 2010**

Code	Parameter	MCL	Well A1	Well A2	Well A3	Well A4	Well A5
	Sampling date						
71865	Iodide, water, filtered, milligrams per liter					7/26/2010	7/26/2010
71870	Bromide, water, filtered, milligrams per liter					0.025	0.002
72019	Depth to water level, feet below land surface					0.26	0.09
73547	trans-1,4-Dichloro-2-butene, water, unfiltered, recoverable, micrograms per liter						
73570	Ethyl methacrylate, water, unfiltered, recoverable, micrograms per liter						
75985	Tritium 2-sigma combined uncertainty, water, unfiltered, picocuries per liter						
76002	Rn-222, 2-sigma combined uncertainty, water, unfiltered, picocuries per liter						
77041	Carbon disulfide, water, unfiltered, micrograms per liter						
77093	cis-1,2-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	6					
77103	n-Butyl methyl ketone, water, unfiltered, recoverable, micrograms per liter						
77128	Styrene, water, unfiltered, recoverable, micrograms per liter	100					
77135	o-Xylene, water, unfiltered, recoverable, micrograms per liter						
77168	1,1-Dichloropropene, water, unfiltered, recoverable, micrograms per liter						
77170	2,2-Dichloropropane, water, unfiltered, recoverable, micrograms per liter						
77173	1,3-Dichloropropane, water, unfiltered, recoverable, micrograms per liter						
77220	2-Ethyltoluene, water, unfiltered, recoverable, micrograms per liter						
77221	1,2,3-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter						
77222	1,2,4-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter						
77223	Isopropylbenzene, water, unfiltered, recoverable, micrograms per liter						
77224	n-Propylbenzene, water, unfiltered, recoverable, micrograms per liter						
77226	1,3,5-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter						
77275	2-Chlorotoluene, water, unfiltered, recoverable, micrograms per liter						
77277	4-Chlorotoluene, water, unfiltered, recoverable, micrograms per liter						
77297	Bromochloromethane, water, unfiltered, recoverable, micrograms per liter						
77342	n-Butylbenzene, water, unfiltered, recoverable, micrograms per liter						
77350	sec-Butylbenzene, water, unfiltered, recoverable, micrograms per liter						
77353	tert-Butylbenzene, water, unfiltered, recoverable, micrograms per liter						
77356	4-Isopropyltoluene, water, unfiltered, recoverable, micrograms per liter						
77424	Iodomethane, water, unfiltered, recoverable, micrograms per liter						
77443	1,2,3-Trichloropropane, water, unfiltered, recoverable, micrograms per liter						
77562	1,1,1,2-Tetrachloroethane, water, unfiltered, recoverable, micrograms per liter						
77613	1,2-Dibromoethane, water, unfiltered, recoverable, micrograms per liter						
77613	1,2,3-Trichlorobenzene, water, unfiltered, recoverable, micrograms per liter						
77651	1,2-Dibromoethane, water, unfiltered, recoverable, micrograms per liter					0.05	
77652	1,1,2-Trichloro-1,2,2-trifluoroethane, water, unfiltered, recoverable, micrograms per liter						
78032	Methyl tert-butyl ether, water, unfiltered, recoverable, micrograms per liter						
78109	3-Chloropropene, water, unfiltered, recoverable, micrograms per liter						
78133	Isobutyl methyl ketone, water, unfiltered, recoverable, micrograms per liter						
81552	Acetone, water, unfiltered, recoverable, micrograms per liter						
81555	Bromobenzene, water, unfiltered, recoverable, micrograms per liter						
81576	Diethyl ether, water, unfiltered, recoverable, micrograms per liter						
81577	Diisopropyl ether, water, unfiltered, recoverable, micrograms per liter						
81593	Methyl acrylonitrile, water, unfiltered, recoverable, micrograms per liter						
81595	Ethyl methyl ketone, water, unfiltered, recoverable, micrograms per liter						
81597	Methyl methacrylate, water, unfiltered, recoverable, micrograms per liter						
81607	Tetrahydrofuran, water, unfiltered, recoverable, micrograms per liter						
82081	C-13/C-12 ratio, water, unfiltered, per mil						
82082	Deuterium/Protium ratio, water, unfiltered, per mil						
82085	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil					-44.90	-41.20
82303	Rn-222, water, unfiltered, picocuries per liter					-6.86	-6.76
82346	Ethion, water, filtered, recoverable, micrograms per liter						
82625	1,2-Dibromo-3-chloropropane, water, unfiltered, recoverable, micrograms per liter						
82630	Metribuzin, water, filtered, recoverable, micrograms per liter						
82660	2,6-Diethylalanine, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82661	Trifluralin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						

Source: USGS California Water Science Center.

**Water Quality Data for Multiple Depth Monitoring Well  
Pala Park Well (8S/2W-19A1-6)  
July 2010**

Code	Parameter	MCL	Well A1	Well A2	Well A3	Well A4	Well A5
	Sampling date						7/26/2010
82662	Dimethoate, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82664	Phorate, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82667	Methyl parathion, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82670	Tebuthiuron, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82673	Benfluralin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82675	Terbufos, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82676	Propyzamide, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82680	Carbaryl, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82682	DCPA, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82683	Pendimethalin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82686	Azinphos-methyl, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82687	cis-Permethrin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
85795	m-Xylene plus p-xylene, water, unfiltered, laboratory, microsiemens per centimeter at 25 degrees Celsius					679	737
90095	Specific conductance, water, unfiltered, laboratory, microsiemens per centimeter at 25 degrees Celsius						
90851	Trihalomethanes, water, unfiltered, calcd, micrograms per liter						
99563	Bisphenol A-d3, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery						
99564	Caffeine-13C, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery						
99585	Decafluorobiphenyl, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery						
99586	Fluoranthene-d10, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery						
99832	1,2-Dichloroethane-d4, surrogate, Schedule 2090, water, unfiltered, percent recovery						
99833	Toluene-d8, surrogate, Schedule 2090, water, unfiltered, percent recovery						
99834	1-Bromo-4-fluorobenzene, surrogate, VOC schedules, water, unfiltered, percent recovery						
99994	Diazinon-d10, surrogate, Schedule 2003, water, filtered, percent recovery						
99995	alpha-HCH-d6, surrogate, Schedule 2003, water, filtered, percent recovery						

Notes:

- U.S. EPA STORET numbers for MCLs correspond to the same as the USGS NWIS data parameter number except as follows:
  - (a) MCL shown for U.S. EPA STORET No. 620.
  - (b) MCL shown for U.S. EPA STORET No. 951.
  - (c) MCL shown for U.S. EPA STORET No. 1002.
  - (d) MCL shown for U.S. EPA STORET No. 1007.
  - (e) MCL shown for U.S. EPA STORET No. 1012.
  - (f) MCL shown for U.S. EPA STORET No. 1027.
  - (g) MCL shown for U.S. EPA STORET No. 1034.
  - (h) MCL shown for U.S. EPA STORET No. 1042.
  - (i) MCL shown for U.S. EPA STORET No. 1059.
  - (j) MCL shown for U.S. EPA STORET No. 1067.
  - (k) MCL shown for U.S. EPA STORET No. 1077.
  - (l) MCL shown for U.S. EPA STORET No. 1092.
  - (m) MCL shown for U.S. EPA STORET No. 1097.
  - (n) MCL shown for U.S. EPA STORET No. 1105.
  - (o) MCL shown for U.S. EPA STORET No. 1147.
  - (p) MCL shown for U.S. EPA STORET No. 34247.
  - (q) MCL shown for U.S. EPA STORET No. 71850.

Code--Data parameter number used in USGS National Water Information System (NWIS).

E--Estimated.

M--Presence verified but not quantified.

MCL--Maximum Contaminant Level reported by California DHS (May 25, 2007 Database) for U.S. EPA STORET number.

V--Biased results from contamination.



**Water Quality Data for Multiple Depth Monitoring Well  
Pala Park Well (8S/2W-19A1-6)  
August 2011**

Code	Parameter	MCL	Well A1	Well A2	Well A3	Well A4 8/22/2011	Well A5 8/22/2011
	Sampling date						
3	Sampling depth, feet						
10	Temperature, water, degrees Celsius					22.8	19.8
28	Agency analyzing sample, code					80020	80020
59	Flow rate, instantaneous, gallons per minute						
95	Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius					670	647
191	Hydrogen ion, water, unfiltered, calculated, milligrams per liter					0.00001	0.00002
300	Dissolved oxygen, water, unfiltered, milligrams per liter						
400	pH, water, unfiltered, field, standard units					8.0	7.7
403	pH, water, unfiltered, laboratory, standard units					8.2	7.8
405	Carbon dioxide, water, unfiltered, milligrams per liter					2.4	6.3
453	Bicarbonate, water, filtered, incremental titration, field, milligrams per liter					147	195
602	Total nitrogen, water, filtered, milligrams per liter					< 0.07	3.6
607	Organic nitrogen, water, filtered, milligrams per liter					< 0.02	0.05
608	Ammonia, water, filtered, milligrams per liter as nitrogen					0.031	0.011
613	Nitrite, water, filtered, milligrams per liter as nitrogen	1 (a)				< 0.001	< 0.001
618	Nitrate, water, filtered, milligrams per liter as nitrogen					< 0.020	3.52
623	Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen					< 0.05	0.06
631	Nitrate plus nitrite, water, filtered, milligrams per liter as nitrogen					< 0.02	3.52
660	Orthophosphate, water, filtered, milligrams per liter					0.57	1.74
666	Phosphorus, water, filtered, milligrams per liter					0.17	0.54
671	Orthophosphate, water, filtered, milligrams per liter as phosphorus					0.186	0.569
900	Hardness, water, milligrams per liter as calcium carbonate					107	178
904	Noncarb hardness, water filtered field, milligrams per liter as calcium carbonate						
905	Noncarb hardness, water filtered lab, milligrams per liter as calcium carbonate						
915	Calcium, water, filtered, milligrams per liter					35.3	50.6
925	Magnesium, water, filtered, milligrams per liter					4.43	12.4
930	Sodium, water, filtered, milligrams per liter					95.0	67.5
931	Sodium adsorption ratio, water, number					4.01	2.20
932	Sodium fraction of cations, water, percent in equivalents of major cations					66	45
935	Potassium, water, filtered, milligrams per liter					2.01	2.14
940	Chloride, water, filtered, milligrams per liter	600				79.5	35.0
945	Sulfate, water, filtered, milligrams per liter	600				76.7	98.0
950	Fluoride, water, filtered, milligrams per liter	2 (b)				0.22	0.16
955	Silica, water, filtered, milligrams per liter					17.2	29.4
1000	Arsenic, water, filtered, micrograms per liter	10 (c)				3.6	2.0
1005	Barium, water, filtered, micrograms per liter	1000 (d)				20.0	45.9
1010	Beryllium, micrograms per liter	4 (e)					
1020	Boron, water, filtered, micrograms per liter					100	131
1025	Cadmium, micrograms per liter	5 (f)					
1030	Chromium, micrograms per liter	50 (g)					
1035	Cobalt, micrograms per liter						
1040	Copper, micrograms per liter	1000 (h)					
1046	Iron, water, filtered, micrograms per liter	300				3.3	3.7
1049	Lead, micrograms per liter						
1056	Manganese, water, filtered, micrograms per liter	50				21.6	< 0.16
1057	Thallium, micrograms per liter	2 (i)					
1060	Molybdenum, micrograms per liter						
1065	Nickel, micrograms per liter	100 (j)					
1075	Silver, micrograms per liter	100 (k)					
1080	Strontium, water, filtered, micrograms per liter					321	295
1085	Vanadium, micrograms per liter						
1090	Zinc, micrograms per liter	5000 (l)					
1095	Antimony, micrograms per liter	6 (m)					

**Water Quality Data for Multiple Depth Monitoring Well  
Pala Park Well (8S/2W-19A1-6)  
August 2011**

Code	Parameter	MCL	Well A1	Well A2	Well A3	Well A4	Well A5
	Sampling date						
1106	Aluminum, water, filtered, micrograms per liter	1000 (n)				5.5	1.8
1130	Lithium, water, filtered, micrograms per liter					8.15	7.16
1145	Selenium, micrograms per liter	50 (o)					
4022	Terbutylazine, water, filtered, recoverable, micrograms per liter						
4025	Hexazinone, water, filtered, recoverable, micrograms per liter						
4029	Bromacil, water, filtered, recoverable, micrograms per liter						
4035	Simazine, water, filtered, recoverable, micrograms per liter						
4036	Prometryn, water, filtered, recoverable, micrograms per liter						
4037	Prometon, water, filtered, recoverable, micrograms per liter						
4040	2-Chloro-4-isopropylamino-6-amino-s-triazine, water, filtered, recoverable, micrograms per liter						
4095	Fonofos, water, filtered, recoverable, micrograms per liter						
7000	Tritium, water, unfiltered, picocuries per liter						
22703	Uranium, natural, micrograms per liter						
29801	Alkalinity, water, filtered, fixed endpoint (pH 4.5) titration, laboratory, milligrams per liter as calcium carbonate					118	153
30217	Dibromomethane, water, unfiltered, recoverable, micrograms per liter						
32101	Bromodichloromethane, water, unfiltered, recoverable, micrograms per liter						
32102	Tetrachloromethane, water, unfiltered, recoverable, micrograms per liter	0.5					
32103	1,2-Dichloroethane, water, unfiltered, recoverable, micrograms per liter						
32104	Tribromomethane, water, unfiltered, recoverable, micrograms per liter						
32105	Dibromochloromethane, water, unfiltered, recoverable, micrograms per liter						
32106	Trichloromethane, water, unfiltered, recoverable, micrograms per liter						
34010	Toluene, water, unfiltered, recoverable, micrograms per liter	150					
34030	Benzene, water, unfiltered, recoverable, micrograms per liter	1					
34215	Acrylonitrile, water, unfiltered, recoverable, micrograms per liter						
34221	Anthracene, water, filtered, recoverable, micrograms per liter						
34248	Benzofalpyrene, water, filtered, recoverable, micrograms per liter	0.2 (p)					
34288	Tribromomethane, water, filtered, recoverable, micrograms per liter						
34301	Chlorobenzene, water, unfiltered, recoverable, micrograms per liter	70					
34311	Chloroethane, water, unfiltered, recoverable, micrograms per liter						
34371	Ethylbenzene, water, unfiltered, recoverable, micrograms per liter	300					
34377	Fluoranthene, water, filtered, recoverable, micrograms per liter						
34396	Hexachloroethane, water, unfiltered, recoverable, micrograms per liter						
34409	Isophorone, water, filtered, recoverable, micrograms per liter						
34413	Bromomethane, water, unfiltered, recoverable, micrograms per liter						
34418	Chloromethane, water, unfiltered, recoverable, micrograms per liter						
34423	Dichloromethane, water, unfiltered, recoverable, micrograms per liter	5					
34443	Naphthalene, water, filtered, recoverable, micrograms per liter						
34462	Phenanthrene, water, filtered, recoverable, micrograms per liter						
34466	Phenol, water, filtered, recoverable, micrograms per liter						
34470	Pyrene, water, filtered, recoverable, micrograms per liter						
34475	Tetrachloroethene, water, unfiltered, recoverable, micrograms per liter	5					
34476	Tetrachloroethane, water, filtered, recoverable, micrograms per liter						
34488	Trichlorofluoromethane, water, unfiltered, recoverable, micrograms per liter	150					
34496	1,1-Dichloroethane, water, unfiltered, recoverable, micrograms per liter	5					
34501	1,1-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	6					
34506	1,1,1-Trichloroethane, water, unfiltered, recoverable, micrograms per liter	200					
34511	1,1,2-Trichloroethane, water, unfiltered, recoverable, micrograms per liter	5					
34516	1,1,2,2-Tetrachloroethane, water, unfiltered, recoverable, micrograms per liter	1					
34536	1,2-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter	600					
34541	1,2-Dichloropropane, water, unfiltered, recoverable, micrograms per liter	5					
34546	trans-1,2-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	10					
34551	1,2,4-Trichlorobenzene, water, unfiltered, recoverable, micrograms per liter	5					
34566	1,3-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter						

**Water Quality Data for Multiple Depth Monitoring Well  
Pala Park Well (8S/2W-19A1-6)  
August 2011**

Code	Parameter	MCL	Well A1	Well A2	Well A3	Well A4	Well A5
	Sampling date						
34571	1,4-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter						
34572	1,4-Dichlorobenzene, water, filtered, recoverable, micrograms per liter	5				8/22/2011	
34668	Dichlorodifluoromethane, water, unfiltered, recoverable, micrograms per liter						
34696	Naphthalene, water, unfiltered, recoverable, micrograms per liter						
34699	trans-1,3-Dichloropropene, water, unfiltered, recoverable, micrograms per liter	0.5					
34704	cis-1,3-Dichloropropene, water, unfiltered, recoverable, micrograms per liter	0.5					
38454	Dicropthos, water, filtered, recoverable, micrograms per liter						
38775	Dichlorvos, water, filtered, recoverable, micrograms per liter						
38933	Chlorpyrifos, water, filtered, recoverable, micrograms per liter						
39086	Alkalinity, water, filtered, incremental titration, field, milligrams per liter as calcium carbonate						
39175	Vinyl chloride, water, unfiltered, recoverable, micrograms per liter	0.5				122	161
39180	Trichloroethene, water, unfiltered, recoverable, micrograms per liter						
39381	Dieldrin, water, filtered, recoverable, micrograms per liter	5					
39415	Metolachlor, water, filtered, recoverable, micrograms per liter						
39532	Malathion, water, filtered, recoverable, micrograms per liter						
39572	Diazinon, water, filtered, recoverable, micrograms per liter						
39632	Atrazine, water, filtered, recoverable, micrograms per liter						
39702	Hexachlorobutadiene, water, unfiltered, recoverable, micrograms per liter						
46342	Alachlor, water, filtered, recoverable, micrograms per liter						
49260	Acetochlor, water, filtered, recoverable, micrograms per liter						
49295	1-Naphthol, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
49933	C-14, water, filtered, percent modern						
49934	C-14, counting error, water, filtered, percent modern						
49991	Methyl acrylate, water, unfiltered, recoverable, micrograms per liter						
49999	1,2,3,4-Tetramethylbenzene, water, unfiltered, recoverable, micrograms per liter						
50000	1,2,3,5-Tetramethylbenzene, water, unfiltered, recoverable, micrograms per liter						
50002	Bromoethene, water, unfiltered, recoverable, micrograms per liter						
50004	tert-Butyl ether, water, unfiltered, recoverable, micrograms per liter						
50005	Methyl tert-pentyl ether, water, unfiltered, recoverable, micrograms per liter						
50305	Caffeine, water, filtered, recoverable, micrograms per liter						
50359	Metaxyl, water, filtered, recoverable, micrograms per liter						
61209	Perchlorate, water, unfiltered, recoverable, micrograms per liter						
61585	Cyfluthrin, water, filtered, recoverable, micrograms per liter	6					
61586	Cypermethrin, water, filtered, recoverable, micrograms per liter						
61591	Fenamiphos, water, filtered, recoverable, micrograms per liter						
61593	Iprodione, water, filtered, recoverable, micrograms per liter						
61594	Isofenphos, water, filtered, recoverable, micrograms per liter						
61596	Metaxyl, water, filtered, recoverable, micrograms per liter						
61598	Methidathion, water, filtered, recoverable, micrograms per liter						
61599	Myclobutanil, water, filtered, recoverable, micrograms per liter						
61601	Phosmet, water, filtered, recoverable, micrograms per liter						
61610	Tribuphos, water, filtered, recoverable, micrograms per liter						
61618	2-Chloro-2',6'-diethylacetanilide, water, filtered, recoverable, micrograms per liter						
61620	2-Ethyl-6-methylaniline, water, filtered, recoverable, micrograms per liter						
61625	3,4-Dichloroaniline, water, filtered, recoverable, micrograms per liter						
61633	4-Chloro-2-methylphenol, water, filtered, recoverable, micrograms per liter						
61635	Azinphos oxygen analog, water, filtered, recoverable, micrograms per liter						
61636	Chlorpyrifos oxygen analog, water, filtered, recoverable, micrograms per liter						
61644	Ethion monooxon, water, filtered, recoverable, micrograms per liter						
61645	Fenamiphos sulfone, water, filtered, recoverable, micrograms per liter						
61646	Fenamiphos sulfoxide, water, filtered, recoverable, micrograms per liter						
61652	Malaoxon, water, filtered, recoverable, micrograms per liter						
61664	Methyl paraoxon, water, filtered, recoverable, micrograms per liter						

**Water Quality Data for Multiple Depth Monitoring Well  
Pala Park Well (8S/2W-19A1-6)  
August 2011**

Code	Parameter	MCL	Well A1	Well A2	Well A3	Well A4	Well A5
	Sampling date					8/22/2011	8/22/2011
61666	Phorate oxygen analog, water, filtered, recoverable, micrograms per liter						
61668	Phosmet oxygen analog, water, filtered, recoverable, micrograms per liter						
61674	Terbufos oxygen analog sulfone, water, filtered, recoverable, micrograms per liter						
61705	Diethoxyoctylphenol, water, filtered, recoverable, micrograms per liter						
61706	Monoethoxyoctylphenol, water, filtered, recoverable, micrograms per liter						
62005	Cotinine, water, filtered, recoverable, micrograms per liter						
62054	1-Methylnaphthalene, water, filtered, recoverable, micrograms per liter						
62055	2,6-Dimethylnaphthalene, water, filtered, recoverable, micrograms per liter						
62056	2-Methylnaphthalene, water, filtered, recoverable, micrograms per liter						
62057	3-beta-Coprostano, water, filtered, recoverable, micrograms per liter						
62058	3-Methyl-1H-indole, water, filtered, recoverable, micrograms per liter						
62059	3-tert-Butyl-4-hydroxyanisole, water, filtered, recoverable, micrograms per liter						
62060	4-Cumylphenol, water, filtered, recoverable, micrograms per liter						
62061	4-Octylphenol, water, filtered, recoverable, micrograms per liter						
62062	4-tert-Octylphenol, water, filtered, recoverable, micrograms per liter						
62063	5-Methyl-1H-benzotriazole, water, filtered, recoverable, micrograms per liter						
62064	Acetophenone, water, filtered, recoverable, micrograms per liter						
62065	Acetyl hexamethyl tetrahydro naphthalene, water, filtered, recoverable, micrograms per liter						
62066	9,10-Anthraquinone, water, filtered, recoverable, micrograms per liter						
62067	Benzophenone, water, filtered, recoverable, micrograms per liter						
62068	beta-Sitosterol, water, filtered, recoverable, micrograms per liter						
62070	Camphor, water, filtered, recoverable, micrograms per liter						
62071	Carbazole, water, filtered, recoverable, micrograms per liter						
62072	Cholesterol, water, filtered, recoverable, micrograms per liter						
62073	D-Limonene, water, filtered, recoverable, micrograms per liter						
62075	Hexahydrohexamethyl cyclopentabenzopyran, water, filtered, recoverable, micrograms per liter						
62076	Indole, water, filtered, recoverable, micrograms per liter						
62077	Isoborneol, water, filtered, recoverable, micrograms per liter						
62078	Isopropylbenzene, water, filtered, recoverable, micrograms per liter						
62079	Isoquinoline, water, filtered, recoverable, micrograms per liter						
62080	Menthol, water, filtered, recoverable, micrograms per liter						
62081	Methyl salicylate, water, filtered, recoverable, micrograms per liter						
62082	DEET, water, filtered, recoverable, micrograms per liter						
62083	Diethoxynonylphenol, water, filtered, recoverable, micrograms per liter						
62084	p-Cresol, water, filtered, recoverable, micrograms per liter						
62085	4-Nonylphenol, water, filtered, recoverable, micrograms per liter						
62086	beta-Stigmasterol, water, filtered, recoverable, micrograms per liter						
62087	Tris(2-chloroethyl) phosphate, water, filtered, recoverable, micrograms per liter						
62088	Tris(dichloroisopropyl) phosphate, water, filtered, recoverable, micrograms per liter						
62089	Tributyl phosphate, water, filtered, recoverable, micrograms per liter						
62090	Tricosan, water, filtered, recoverable, micrograms per liter						
62091	Triethyl citrate, water, filtered, recoverable, micrograms per liter						
62092	Triphenyl phosphate, water, filtered, recoverable, micrograms per liter						
62093	Tris(2-butoxyethyl) phosphate, water, filtered, recoverable, micrograms per liter						
62166	Fipronil, water, filtered, recoverable, micrograms per liter						
62167	Fipronil sulfide, water, filtered, recoverable, micrograms per liter						
62168	Fipronil sulfone, water, filtered, recoverable, micrograms per liter						
62169	Desulfinylfipronil amide, water, filtered, recoverable, micrograms per liter						
62170	Desulfinylfipronil, water, filtered, recoverable, micrograms per liter						
62854	Total nitrogen, (NH3+NO2+NO3+Organic), filtered, milligrams per liter	6					
63790	Perchlorate, water, filtered, recoverable, micrograms per liter						
70300	Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter	1500				418	412
70301	Residue, water, filtered, sum of constituents, milligrams per liter					385	410

**Water Quality Data for Multiple Depth Monitoring Well  
Pala Park Well (8S/2W-19A1-6)  
August 2011**

Code	Parameter	MCL	Well A1	Well A2	Well A3	Well A4	Well A5
	Sampling date					8/22/2011	8/22/2011
70303	Residue, water, filtered, tons per acre-foot						
71846	Ammonia, water, filtered, milligrams per liter as NH4					0.040	0.015
71851	Nitrate, water, filtered, milligrams per liter	45 (g)				< 0.089	15.6
71856	Nitrite, water, filtered, milligrams per liter					< 0.003	< 0.003
71865	Iodide, water, filtered, milligrams per liter					0.021	0.002
71870	Bromide, water, filtered, milligrams per liter					0.267	0.069
72019	Depth to water level, feet below land surface						
73547	trans-1,4-Dichloro-2-butene, water, unfiltered, recoverable, micrograms per liter						
73570	Ethyl methacrylate, water, unfiltered, recoverable, micrograms per liter						
75985	Tritium 2-sigma combined uncertainty, water, unfiltered, picocuries per liter						
76002	Rn-222, 2-sigma combined uncertainty, water, unfiltered, picocuries per liter						
77041	Carbon disulfide, water, unfiltered, micrograms per liter						
77093	cis-1,2-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	6					
77103	n-Butyl methyl ketone, water, unfiltered, recoverable, micrograms per liter						
77128	Styrene, water, unfiltered, recoverable, micrograms per liter	100					
77135	o-Xylene, water, unfiltered, recoverable, micrograms per liter						
77168	1,1-Dichloropropene, water, unfiltered, recoverable, micrograms per liter						
77170	2,2-Dichloropropane, water, unfiltered, recoverable, micrograms per liter						
77173	1,3-Dichloropropane, water, unfiltered, recoverable, micrograms per liter						
77220	2-Ethyltoluene, water, unfiltered, recoverable, micrograms per liter						
77221	1,2,3-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter						
77222	1,2,4-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter						
77223	Isopropylbenzene, water, unfiltered, recoverable, micrograms per liter						
77224	n-Propylbenzene, water, unfiltered, recoverable, micrograms per liter						
77226	1,3,5-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter						
77275	2-Chlorotoluene, water, unfiltered, recoverable, micrograms per liter						
77277	4-Chlorotoluene, water, unfiltered, recoverable, micrograms per liter						
77297	Bromochloromethane, water, unfiltered, recoverable, micrograms per liter						
77342	n-Butylbenzene, water, unfiltered, recoverable, micrograms per liter						
77350	sec-Butylbenzene, water, unfiltered, recoverable, micrograms per liter						
77353	tert-Butylbenzene, water, unfiltered, recoverable, micrograms per liter						
77356	4-Isopropyltoluene, water, unfiltered, recoverable, micrograms per liter						
77424	Iodomethane, water, unfiltered, recoverable, micrograms per liter						
77443	1,2,3-Trichloropropane, water, unfiltered, recoverable, micrograms per liter						
77562	1,1,1,2-Tetrachloroethane, water, unfiltered, recoverable, micrograms per liter						
77613	1,2,3-Trichlorobenzene, water, unfiltered, recoverable, micrograms per liter						
77651	1,2-Dibromoethane, water, unfiltered, recoverable, micrograms per liter						
77652	1,1,2-Trichloro-1,2,2-trifluoroethane, water, unfiltered, recoverable, micrograms per liter	0.05					
78032	Methyl tert-butyl ether, water, unfiltered, recoverable, micrograms per liter						
78109	3-Chloropropene, water, unfiltered, recoverable, micrograms per liter						
78133	Isobutyl methyl ketone, water, unfiltered, recoverable, micrograms per liter						
81552	Acetone, water, unfiltered, recoverable, micrograms per liter						
81555	Bromobenzene, water, unfiltered, recoverable, micrograms per liter						
81576	Diethyl ether, water, unfiltered, recoverable, micrograms per liter						
81577	Diisopropyl ether, water, unfiltered, recoverable, micrograms per liter						
81593	Methyl acrylonitrile, water, unfiltered, recoverable, micrograms per liter						
81595	Ethyl methyl ketone, water, unfiltered, recoverable, micrograms per liter						
81597	Methyl methacrylate, water, unfiltered, recoverable, micrograms per liter						
81607	Tetrahydrofuran, water, unfiltered, recoverable, micrograms per liter						
82081	C-13/C-12 ratio, water, unfiltered, per mil						
82082	Deuterium/Protium ratio, water, unfiltered, per mil						
82085	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil						
82303	Rn-222, water, unfiltered, picocuries per liter					-45.61	-41.48
						-6.85	-6.56

**Water Quality Data for Multiple Depth Monitoring Well  
Pala Park Well (8S/2W-19A1-6)  
August 2011**

Code	Parameter	MCL	Well A1	Well A2	Well A3	Well A4	Well A5
	Sampling date						8/22/2011
82346	Ethion, water, filtered, recoverable, micrograms per liter						
82625	1,2-Dibromo-3-chloropropane, water, unfiltered, recoverable, micrograms per liter						
82630	Metribuzin, water, filtered, recoverable, micrograms per liter						
82660	2,6-Diethylaniline, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82661	Trifluralin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82662	Dimethoate, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82664	Phorate, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82667	Methyl parathion, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82670	Tebuthiuron, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82673	Benfluralin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82675	Terbufos, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82676	Propyzamide, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82680	Carbaryl, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82682	DCPA, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82683	Pendimethalin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82686	Azinphos-methyl, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82687	cis-Permethrin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
85795	m-Xylene plus p-xylene, water, unfiltered, recoverable, micrograms per liter					653	634
90095	Specific conductance, water, unfiltered, laboratory, microsiemens per centimeter at 25 degrees Celsius						
90851	Triholomehtanes, water, unfiltered, calcd, micrograms per liter						
99583	Bisphenol A-d3, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery						
99584	Caffeine-13C, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery						
99585	Decafluorobiphenyl, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery						
99586	Fluoranthene-d10, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery						
99832	1,2-Dichloroethane-d4, surrogate, Schedule 2090, water, unfiltered, percent recovery						
99833	Toluene-d8, surrogate, Schedule 2090, water, unfiltered, percent recovery						
99834	1-Bromo-4-fluorobenzene, surrogate, VOC schedules, water, unfiltered, percent recovery						
99994	Diazinon-d10, surrogate, Schedule 2003, water, filtered, percent recovery						
99995	alpha-HCH-d6, surrogate, Schedule 2003, water, filtered, percent recovery						

Notes:

- U.S. EPA STORET numbers for MCLs correspond to the same as the USGS NWIS data parameter number except as follows:
- (a) MCL shown for U.S. EPA STORET No. 620.
  - (b) MCL shown for U.S. EPA STORET No. 951.
  - (c) MCL shown for U.S. EPA STORET No. 1002.
  - (d) MCL shown for U.S. EPA STORET No. 1007.
  - (e) MCL shown for U.S. EPA STORET No. 1012.
  - (f) MCL shown for U.S. EPA STORET No. 1027.
  - (g) MCL shown for U.S. EPA STORET No. 1034.
  - (h) MCL shown for U.S. EPA STORET No. 1042.
  - (i) MCL shown for U.S. EPA STORET No. 1059.
  - (j) MCL shown for U.S. EPA STORET No. 1067.
  - (k) MCL shown for U.S. EPA STORET No. 1077.
  - (l) MCL shown for U.S. EPA STORET No. 1092.
  - (m) MCL shown for U.S. EPA STORET No. 1097.
  - (n) MCL shown for U.S. EPA STORET No. 1105.
  - (o) MCL shown for U.S. EPA STORET No. 1147.
  - (p) MCL shown for U.S. EPA STORET No. 34247.
  - (q) MCL shown for U.S. EPA STORET No. 71850.

Code--Data parameter number used in USGS National Water Information System (NWIS).

E--Estimated.

M--Presence verified but not quantified.

MCL--Maximum Contaminant Level reported by California DHS (May 25, 2007 Database) for U.S. EPA STORET number.

V--Biased results from contamination.

**ANNUAL REPORT**

**COOPERATIVE WATER RESOURCE  
MANAGEMENT AGREEMENT**

**CALENDAR YEAR 2013**

**APPENDIX C-2**

**WOLF VALLEY GROUNDWATER MONITORING WELL**





## Site Description

### Wolf Valley Groundwater Monitoring Well (8S/2W-20J1-2)

**LOCATION:** Latitude 33° 27' 47", longitude 117° 06' 11", in Riverside County, California. Well is located in a residential neighborhood along the north side of Wolf Valley Road approximately 130 feet northeast of the intersection with Nightingale Road.

**SITE INFORMATION:** Land-surface altitude is 1076.23 feet above mean sea level from 24000 scale topographic map.

**WATER-LEVEL RECORD:**

State well number	USGS station number	Intermittent water-level	Daily water-level
8S/2W-20J1	332747117061101	03/05/1990 to present	10/18/2006 to present
8S/2W-20J2	332747117061102	03/05/1990 to present	10/23/2010 to present

**TOPOGRAPHIC MAP:** USGS Pechanga, California, 7.5 minute series.

**WELL SUMMARY INFORMATION:**

State well number	USGS station number	Hole depth (ft)	Perforation depth (ft)	Casing size and type	Date drilled
8S/2W-20J1	332747117061101	590	555-575	2" PVC	2/17/1990
8S/2W-20J2	332747117061102	590	160-180	2" PVC	2/18/1990

**ADDITIONAL INFORMATION:**

Additional information can be found at the following web site:  
<http://ca.water.usgs.gov/temecula/>.

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WELL CONSTRUCTION  
 MONITOTING WELLS VW5-20J1 and 2VW5-0J2



View of vault located in grass, looking West.

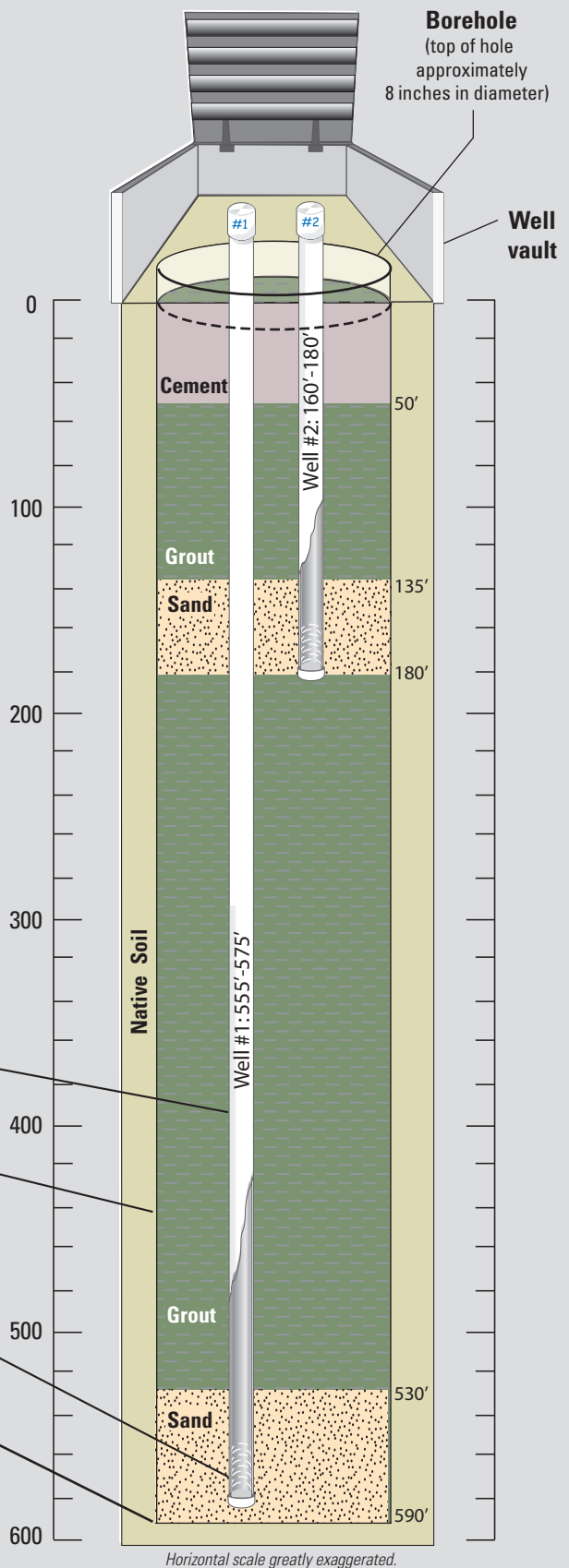


View of wells inside vault.

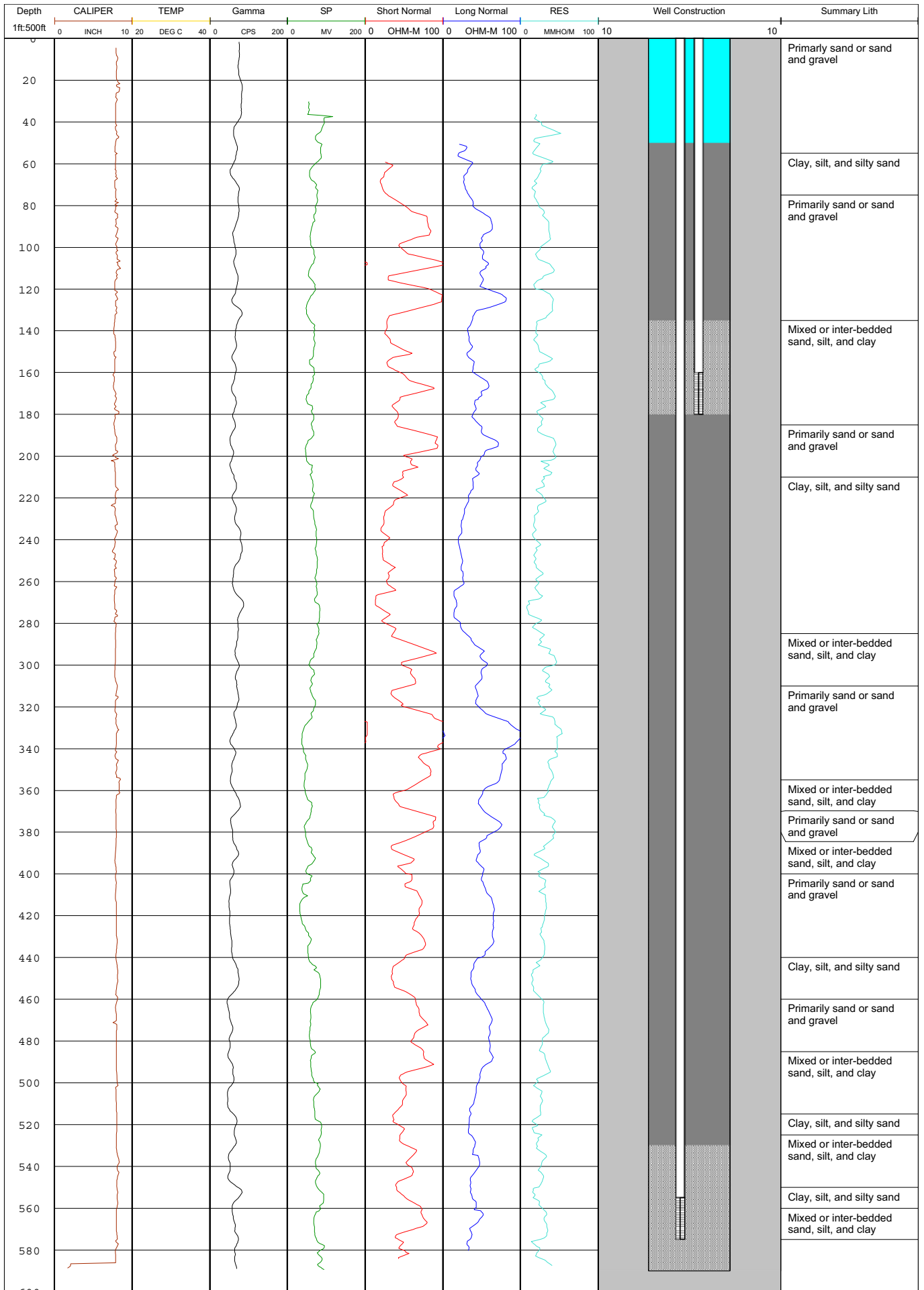
Drill method: hydraulic mud rotary

- Well casing**  
(2 inches in diameter)
- Borehole**  
(bottom of hole approximately 8 inches in diameter)
- Well screen**  
(0.020 x 1.5 inch slots)
- Total Depth: 590 feet*

DEPTH, IN FEET BELOW LAND SURFACE

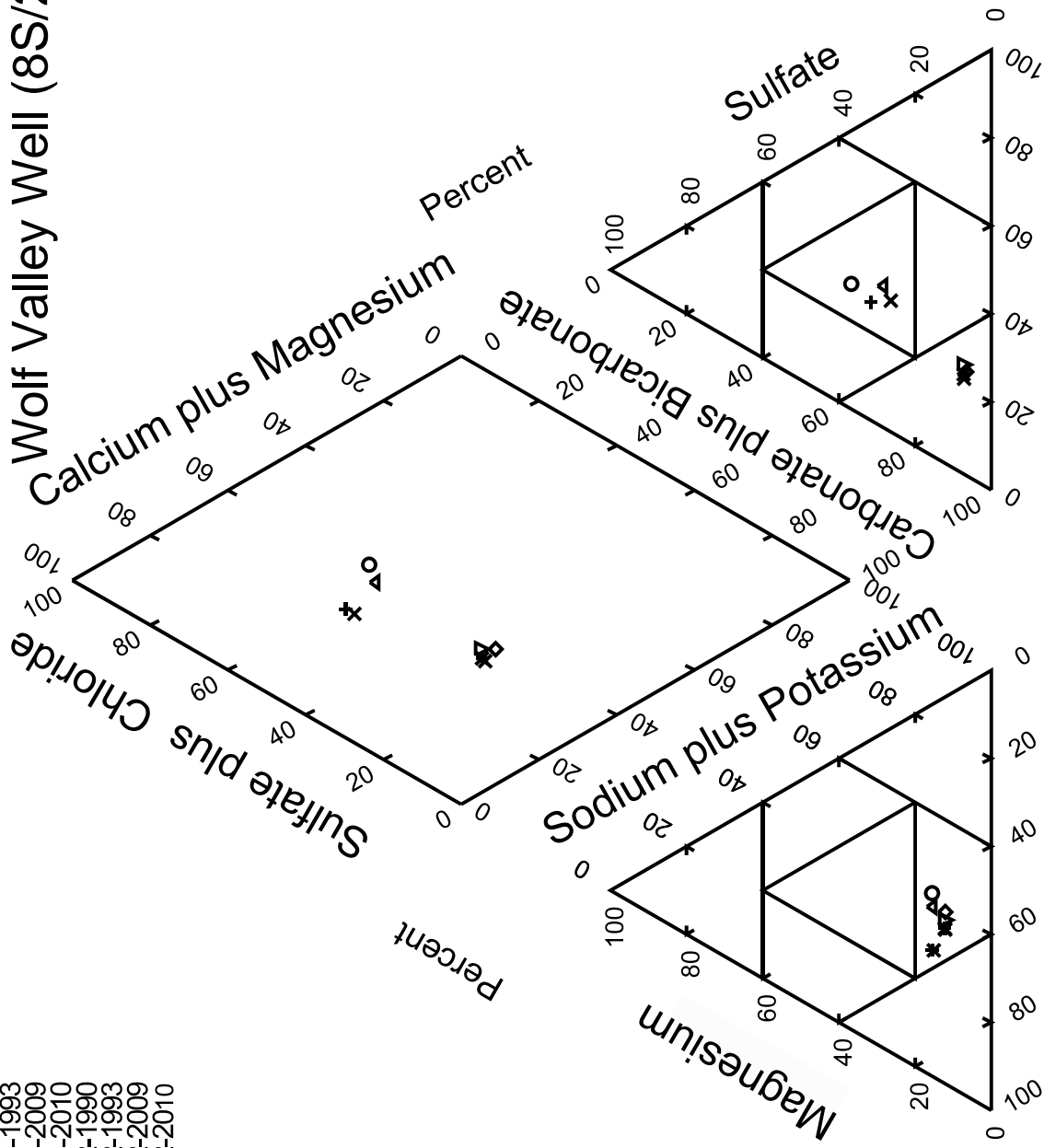


Source: USGS California Water Science Center.



# Tri-Linear Diagram Wolf Valley Well (8S/2W-20J1-2)

- Explanation**
- J1-1990
  - ◄ J1-1993
  - + J1-2009
  - × J1-2010
  - ◊ J2-1990
  - ◄ J2-1993
  - × J2-2009
  - ✱ J2-2010

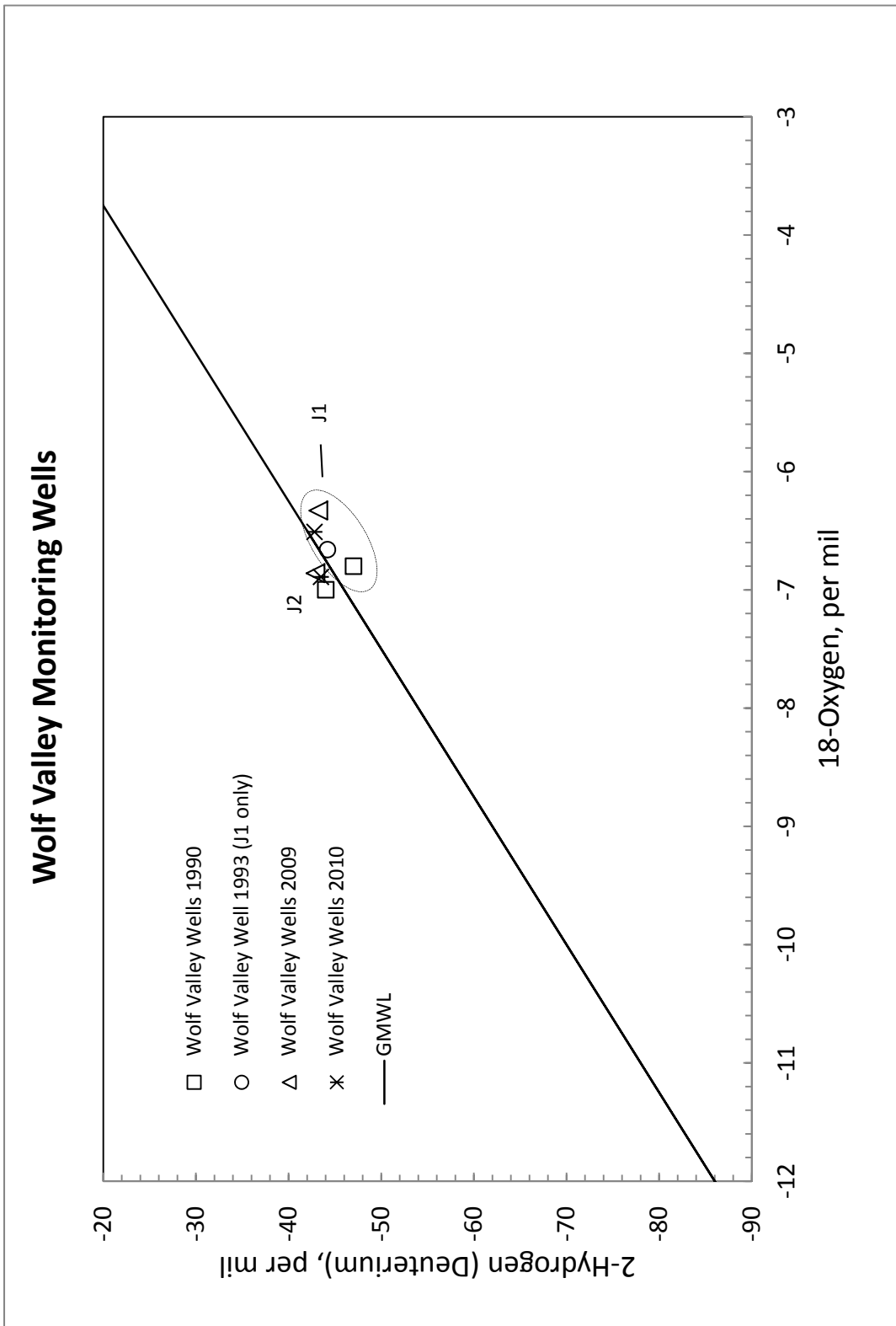


Chloride, Fluoride, Nitrite plus Nitrate  
Percent

Calcium

Source: USGS California Water Science Center.

# Stable Isotope Diagram



Source: USGS California Water Science Center.

**Piezometric Head for Multiple Depth Monitoring Well  
Wolf Valley Well (8S/2W-20J1-2)**

**March 1990 through December 2013**

Well 20J1			Well 20J2		
Date	Depth (feet)	Elevation (feet, MSL)	Date	Depth (feet)	Elevation (feet, MSL)
Mar 5 1990	73.70	1002.53	Mar 5 1990	62.47	1013.76
Mar 15 1990	73.93	1002.30	Mar 15 1990	62.41	1013.82
May 3 1990			May 3 1990	62.21	1014.02
May 18 1990	72.93	1003.30			
Jul 3 1990	72.52	1003.71	Jul 3 1990	61.88	1014.35
Aug 2 1990	72.44	1003.79	Aug 2 1990	61.80	1014.43
Aug 15 1990	72.28	1003.95	Aug 15 1990	61.65	1014.58
Oct 31 1990	72.03	1004.20	Oct 31 1990	61.32	1014.91
Nov 14 1990	71.86	1004.37	Nov 14 1990	61.23	1015.00
Nov 29 1990	71.84	1004.39	Nov 29 1990	61.20	1015.03
Dec 10 1990	71.69	1004.54	Dec 10 1990	61.13	1015.10
Dec 19 1990			Dec 19 1990	61.12	1015.11
Jan 18 1991	71.48	1004.75	Jan 18 1991	61.06	1015.17
Jan 22 1991	71.43	1004.80	Jan 22 1991	61.05	1015.18
Jan 24 1991			Jan 24 1991	61.09	1015.14
Feb 6 1991	71.43	1004.80	Feb 6 1991	61.03	1015.20
Feb 22 1991	71.47	1004.76	Feb 22 1991	61.05	1015.18
Mar 6 1991	70.81	1005.42	Mar 6 1991	61.03	1015.20
Apr 12 1991	69.62	1006.61	Apr 12 1991	60.64	1015.59
Apr 26 1991			Apr 26 1991	60.50	1015.73
May 24 1991	69.40	1006.83	May 24 1991	60.43	1015.80
May 30 1991	69.43	1006.80	May 30 1991	60.38	1015.85
Jun 13 1991	69.62	1006.61	Jun 13 1991	60.40	1015.83
Jul 31 1991	69.76	1006.47	Jul 31 1991	60.35	1015.88
Aug 20 1991	69.76	1006.47	Aug 20 1991	60.29	1015.94
Nov 8 1991	70.15	1006.08	Nov 8 1991	60.49	1015.74
Nov 26 1991	70.17	1006.06	Nov 26 1991	60.57	1015.66
Dec 12 1991	70.28	1005.95	Dec 12 1991	60.67	1015.56
Jan 10 1992	70.03	1006.20	Jan 10 1992	60.68	1015.55
Jan 27 1992	70.01	1006.22	Jan 27 1992	60.74	1015.49
Feb 7 1992	69.81	1006.42	Feb 7 1992	60.73	1015.50
Feb 23 1992			Feb 23 1992	60.65	1015.58
Feb 28 1992	68.56	1007.67	Feb 28 1992		
Mar 13 1992	69.30	1006.93	Mar 13 1992	60.61	1015.62
Apr 10 1992	68.90	1007.33	Apr 10 1992	60.47	1015.76
May 1 1992	68.87	1007.36	May 1 1992	60.39	1015.84
May 28 1992	68.84	1007.39	May 28 1992	60.33	1015.90
Jun 19 1992	69.05	1007.18	Jun 19 1992	60.33	1015.90
Jul 15 1992	69.44	1006.79	Jul 15 1992	60.42	1015.81
Jul 23 1992	69.41	1006.82	Jul 23 1992	60.46	1015.77
Sep 1 1992	69.77	1006.46	Sep 1 1992	60.61	1015.62
Sep 17 1992	69.86	1006.37	Sep 17 1992	60.67	1015.56
Oct 15 1992	70.26	1005.97	Oct 15 1992	60.93	1015.30
Nov 17 1992	70.08	1006.15	Nov 17 1992	60.85	1015.38

**Piezometric Head for Multiple Depth Monitoring Well  
Wolf Valley Well (8S/2W-20J1-2)**

**March 1990 through December 2013**

Well 20J1			Well 20J2		
Date	Depth (feet)	Elevation (feet, MSL)	Date	Depth (feet)	Elevation (feet, MSL)
Dec 30 1992	69.85	1006.38	Dec 30 1992	60.95	1015.28
Mar 16 1993	63.73	1012.50	Mar 16 1993	58.84	1017.39
Mar 22 1993	63.61	1012.62	Mar 22 1993	58.58	1017.65
Apr 13 1993	63.65	1012.58	Apr 13 1993	57.55	1018.68
Apr 22 1993	63.74	1012.49	Apr 22 1993	57.15	1019.08
Jul 1 1994	62.34	1013.89	Jul 1 1994		
Jul 28 1994	62.55	1013.68	Jul 28 1994		
Aug 17 1994	65.62	1010.61	Aug 17 1994		
Sep 1 1994	66.45	1009.78	Sep 1 1994		
Oct 3 1994	65.90	1010.33	Oct 3 1994		
Nov 1 1994	66.99	1009.24	Nov 1 1994		
Dec 6 1994	63.50	1012.73	Dec 6 1994		
Jan 4 1995	64.40	1011.83	Jan 4 1995		
Feb 7 1995	64.18	1012.05	Feb 7 1995		
Jul 21 1995	72.10	1004.13	Jul 21 1995		
Aug 11 1995	73.65	1002.58	Aug 11 1995		
Sep 5 1995	73.00	1003.23	Sep 5 1995		
Oct 3 1995	72.00	1004.23	Oct 3 1995		
Nov 3 1995	74.02	1002.21	Nov 3 1995		
Dec 4 1995	67.87	1008.36	Dec 4 1995		
Jan 3 1996	69.95	1006.28	Jan 3 1996		
Feb 8 1996	67.85	1008.38	Feb 8 1996		
Mar 18 1996	66.94	1009.29	Mar 18 1996		
Apr 15 1996	72.15	1004.08	Apr 15 1996		
May 1 1996	73.02	1003.21	May 1 1996		
Jun 3 1996	74.82	1001.41	Jun 3 1996		
Jul 10 1996	68.73	1007.50	Jul 10 1996		
Aug 2 1996	71.06	1005.17	Aug 2 1996		
Sep 3 1996	76.29	999.94	Sep 3 1996		
Oct 18 1996	70.85	1005.38	Oct 18 1996	48.14	1028.09
Nov 4 1996	71.23	1005.00	Nov 4 1996	48.35	1027.88
Dec 3 1996	75.12	1001.11	Dec 3 1996	48.21	1028.02
Jan 24 1997	69.65	1006.58	Jan 24 1997	48.72	1027.51
Feb 19 1997	75.90	1000.33	Feb 19 1997	48.63	1027.60
Mar 13 1997	81.92	994.31	Mar 13 1997	48.99	1027.24
Apr 9 1997	83.98	992.25	Apr 9 1997	49.62	1026.61
May 5 1997	87.42	988.81	May 5 1997	50.33	1025.90
Jun 2 1997	81.72	994.51	Jun 2 1997	51.06	1025.17
Jul 21 1997	86.62	989.61	Jul 21 1997	51.95	1024.28
Aug 15 1997	91.15	985.08	Aug 15 1997	52.58	1023.65
Sep 9 1997	87.44	988.79	Sep 9 1997	52.67	1023.56
Oct 16 1997	84.70	991.53	Oct 16 1997	53.58	1022.65
Nov 7 1997	91.69	984.54	Nov 7 1997	53.87	1022.36
Dec 12 1997	86.83	989.40	Dec 12 1997	54.82	1021.41



**Piezometric Head for Multiple Depth Monitoring Well  
Wolf Valley Well (8S/2W-20J1-2)**

**March 1990 through December 2013**

Well 20J1			Well 20J2		
Date	Depth (feet)	Elevation (feet, MSL)	Date	Depth (feet)	Elevation (feet, MSL)
Jan 23 1998	92.59	983.64	Jan 23 1998	55.23	1021.00
Mar 2 1998	86.91	989.32	Mar 2 1998	55.80	1020.43
Apr 8 1998	80.32	995.91	Apr 8 1998	55.09	1021.14
May 1 1998	91.32	984.91	May 1 1998	54.99	1021.24
Jun 2 1998	86.85	989.38	Jun 2 1998	55.38	1020.85
Jul 2 1998	87.34	988.89	Jul 2 1998	55.59	1020.64
Aug 11 1998	95.88	980.35	Aug 11 1998	56.08	1020.15
Sep 10 1998	92.12	984.11	Sep 10 1998	56.83	1019.40
Oct 16 1998	92.14	984.09	Oct 16 1998	57.39	1018.84
Nov 23 1998	100.48	975.75	Nov 23 1998	57.68	1018.55
Dec 7 1998	103.96	972.27	Dec 7 1998	57.95	1018.28
Jan 5 1999	107.46	968.77	Jan 5 1999	58.41	1017.82
Feb 1 1999	111.16	965.07	Feb 1 1999	59.07	1017.16
Mar 1 1999	102.08	974.15	Mar 1 1999	59.73	1016.50
Apr 8 1999	111.12	965.11	Apr 8 1999	60.67	1015.56
May 3 1999	119.83	956.40	May 3 1999		
Jun 10 1999	106.93	969.30	Jun 10 1999	62.43	1013.80
Jul 1 1999	111.31	964.92	Jul 1 1999	62.71	1013.52
Aug 3 1999	113.81	962.42	Aug 3 1999	63.75	1012.48
Sep 8 1999	113.84	962.39	Sep 8 1999	65.02	1011.21
Oct 15 1999	119.21	957.02	Oct 15 1999	65.73	1010.50
Nov 12 1999	116.71	959.52	Nov 12 1999	66.63	1009.60
Dec 14 1999	108.04	968.19	Dec 14 1999	66.94	1009.29
Jan 6 2000	109.89	966.34	Jan 6 2000	67.48	1008.75
Feb 9 2000	132.67	943.56	Feb 9 2000	67.99	1008.24
Mar 13 2000	121.62	954.61	Mar 13 2000	68.27	1007.96
Apr 3 2000	129.77	946.46	Apr 3 2000	68.94	1007.29
May 9 2000	143.04	933.19	May 9 2000	69.66	1006.57
Jun 5 2000	150.23	926.00	Jun 5 2000	70.35	1005.88
Jul 6 2000	134.48	941.75	Jul 6 2000	71.36	1004.87
Aug 1 2000	135.96	940.27	Aug 1 2000	71.74	1004.49
Sep 6 2000	135.44	940.79	Sep 6 2000	72.77	1003.46
Oct 4 2000	134.43	941.80	Oct 4 2000	72.36	1003.87
Nov 7 2000	153.91	922.32	Nov 7 2000	73.74	1002.49
Dec 6 2000	146.64	929.59	Dec 6 2000	74.68	1001.55
Jan 4 2001	143.95	932.28	Jan 4 2001	75.26	1000.97
Feb 1 2001	132.28	943.95	Feb 1 2001	75.66	1000.57
Mar 13 2001	124.13	952.10	Mar 13 2001	75.94	1000.29
Apr 6 2001	129.01	947.22	Apr 6 2001	76.32	999.91
May 4 2001	130.43	945.80	May 4 2001	76.64	999.59
Jun 7 2001	135.71	940.52	Jun 7 2001	76.81	999.42
Jul 3 2001	137.36	938.87	Jul 3 2001	77.23	999.00
Aug 2 2001	140.92	935.31	Aug 2 2001	77.96	998.27
Sep 6 2001	158.00	918.23	Sep 6 2001	78.55	997.68

**Piezometric Head for Multiple Depth Monitoring Well  
Wolf Valley Well (8S/2W-20J1-2)**

**March 1990 through December 2013**

Well 20J1			Well 20J2		
Date	Depth (feet)	Elevation (feet, MSL)	Date	Depth (feet)	Elevation (feet, MSL)
Oct 3 2001	152.81	923.42	Oct 3 2001	78.94	997.29
Nov 1 2001	151.35	924.88	Nov 1 2001	79.48	996.75
Dec 5 2001	143.25	932.98	Dec 5 2001	80.14	996.09
Jan 4 2002	143.98	932.25	Jan 4 2002	80.69	995.54
Feb 13 2002	150.03	926.20	Feb 13 2002	81.22	995.01
Mar 5 2002	147.77	928.46	Mar 5 2002	81.47	994.76
Apr 2 2002	152.97	923.26	Apr 2 2002	82.04	994.19
May 1 2002	150.81	925.42	May 1 2002	82.23	994.00
Jun 3 2002	155.46	920.77	Jun 3 2002	82.63	993.60
Jul 2 2002	158.38	917.85	Jul 2 2002	83.15	993.08
Aug 1 2002	162.28	913.95	Aug 1 2002	83.44	992.79
Sep 3 2002	159.45	916.78	Sep 3 2002	83.88	992.35
Oct 3 2002	160.66	915.57	Oct 3 2002	84.35	991.88
Nov 1 2002	162.89	913.34	Nov 1 2002	84.83	991.40
Dec 2 2002	156.42	919.81	Dec 2 2002	85.20	991.03
Jan 10 2003	155.53	920.70	Jan 10 2003	85.75	990.48
Feb 4 2003	164.96	911.27	Feb 4 2003	86.02	990.21
Mar 3 2003	155.96	920.27	Mar 3 2003	86.33	989.90
Apr 2 2003	159.33	916.90	Apr 2 2003	86.72	989.51
May 1 2003	158.53	917.70	May 1 2003	86.98	989.25
Jun 2 2003	149.29	926.94	Jun 2 2003	87.22	989.01
Jul 7 2003	143.93	932.30	Jul 7 2003	87.60	988.63
Aug 1 2003	141.10	935.13	Aug 1 2003	87.79	988.44
Sep 2 2003	136.78	939.45	Sep 2 2003	88.02	988.21
Oct 3 2003	134.60	941.63	Oct 3 2003	88.15	988.08
Nov 3 2003	133.73	942.50	Nov 3 2003	88.33	987.90
Dec 5 2003	139.10	937.13	Dec 5 2003	88.40	987.83
Jan 15 2004	129.79	946.44	Jan 15 2004	88.51	987.72
Feb 12 2004	125.73	950.50	Feb 12 2004	88.70	987.53
Mar 8 2004	123.92	952.31	Mar 8 2004	88.62	987.61
Apr 13 2004	123.18	953.05	Apr 13 2004	88.61	987.62
May 10 2004	141.40	934.83	May 10 2004	88.82	987.41
Jun 1 2004	150.23	926.00	Jun 1 2004	88.68	987.55
Jul 1 2004	149.29	926.94	Jul 1 2004	88.93	987.30
Aug 2 2004	158.11	918.12	Aug 2 2004	89.15	987.08
Sep 1 2004	165.49	910.74	Sep 1 2004	89.40	986.83
Oct 1 2004	166.51	909.72	Oct 1 2004	89.69	986.54
Nov 3 2004	161.96	914.27	Nov 3 2004	89.87	986.36
Dec 8 2004	156.68	919.55	Dec 8 2004	90.29	985.94
Jan 4 2005	152.09	924.14	Jan 4 2005	90.31	985.92
Feb 4 2005	147.52	928.71	Feb 4 2005	90.28	985.95
Mar 2 2005	137.32	938.91	Mar 2 2005	90.02	986.21
Apr 8 2005	143.64	932.59	Apr 8 2005	89.22	987.01
May 9 2005	145.00	931.23	May 9 2005	88.24	987.99

**Piezometric Head for Multiple Depth Monitoring Well  
Wolf Valley Well (8S/2W-20J1-2)**

**March 1990 through December 2013**

Well 20J1			Well 20J2		
Date	Depth (feet)	Elevation (feet, MSL)	Date	Depth (feet)	Elevation (feet, MSL)
Jun 9 2005	168.88	907.35	Jun 9 2005	87.40	988.83
Jul 11 2005	161.44	914.79	Jul 11 2005	86.73	989.50
Aug 2 2005	161.15	915.08	Aug 2 2005	86.31	989.92
Sep 2 2005	144.41	931.82	Sep 2 2005	85.83	990.40
Oct 7 2005	145.01	931.22	Oct 7 2005	85.22	991.01
Nov 4 2005	140.62	935.61	Nov 4 2005	84.82	991.41
Dec 9 2005	132.75	943.48	Dec 9 2005	84.31	991.92
Jan 11 2006	128.07	948.16	Jan 11 2006	83.96	992.27
Feb 10 2006	141.72	934.51	Feb 10 2006	83.74	992.49
Mar 7 2006	129.78	946.45	Mar 7 2006	83.45	992.78
Apr 7 2006	123.89	952.34	Apr 7 2006	83.21	993.02
May 5 2006	133.10	943.13	May 5 2006	82.92	993.31
Jun 1 2006	126.68	949.55	Jun 1 2006	82.56	993.67
Jul 6 2006	142.38	933.85	Jul 6 2006	82.18	994.05
Aug 3 2006	145.94	930.29	Aug 3 2006	82.01	994.22
Sep 7 2006	156.98	919.25	Sep 7 2006	81.75	994.48
Sep 26 2006	157.61	918.62	Sep 26 2006		
Oct 13 2006	157.53	918.70	Oct 13 2006	81.70	994.53
Nov 7 2006	158.94	917.29	Nov 7 2006	81.71	994.52
Nov 17 2006	160.83	915.40	Nov 17 2006		
Dec 7 2006	178.24	897.99	Dec 7 2006	81.81	994.42
Dec 21 2006	161.13	915.10	Dec 21 2006		
Jan 3 2007	158.33	917.90	Jan 3 2007	81.96	994.27
Feb 2 2007	167.16	909.07	Feb 2 2007	82.13	994.10
Mar 7 2007	159.04	917.19	Mar 7 2007	82.21	994.02
Apr 5 2007	170.12	906.11	Apr 5 2007	82.21	994.02
Apr 5 2007	169.77	906.46	Apr 5 2007		
Apr 6 2007	167.92	908.31	Apr 6 2007		
Apr 9 2007	167.88	908.35	Apr 9 2007		
May 1 2007	171.87	904.36	May 1 2007	82.20	994.03
Jun 1 2007	156.08	920.15	Jun 1 2007	82.21	994.02
Jul 10 2007	164.26	911.97	Jul 10 2007		
Jul 11 2007			Jul 11 2007	82.19	994.04
Aug 6 2007	168.06	908.17	Aug 6 2007	82.12	994.11
Sep 14 2007	174.97	901.26	Sep 14 2007	82.37	993.86
Oct 3 2007	173.28	902.95	Oct 3 2007	82.36	993.87
Nov 7 2007	180.53	895.70	Nov 7 2007	82.63	993.60
Dec 4 2007	179.45	896.78	Dec 4 2007	82.67	993.56
Jan 15 2008	163.43	912.80	Jan 15 2008	82.97	993.26
Feb 21 2008	164.67	911.56	Feb 21 2008		
Mar 12 2008	169.01	907.22	Mar 12 2008	83.08	993.15
Apr 9 2008	167.88	908.35	Apr 9 2008		
Apr 18 2008	178.07	898.16	Apr 18 2008	83.16	993.07
May 1 2008	177.39	898.84	May 1 2008	83.22	993.01

**Piezometric Head for Multiple Depth Monitoring Well  
Wolf Valley Well (8S/2W-20J1-2)**

**March 1990 through December 2013**

Well 20J1			Well 20J2		
Date	Depth (feet)	Elevation (feet, MSL)	Date	Depth (feet)	Elevation (feet, MSL)
May 6 2008	169.97	906.26	May 6 2008		
May 28 2008	175.04	901.19	May 28 2008		
May 30 2008	174.62	901.61	May 30 2008		
Jun 2 2008	165.15	911.08	Jun 2 2008		
Jun 3 2008	173.91	902.32	Jun 3 2008	83.14	993.09
Jun 12 2008	174.22	902.01	Jun 12 2008		
Jul 2 2008	166.87	909.36	Jul 2 2008	83.29	992.94
Jul 30 2008	168.32	907.91	Jul 30 2008	83.37	992.86
Aug 8 2008	171.04	905.19	Aug 8 2008		
Sep 4 2008	171.07	905.16	Sep 4 2008	83.43	992.80
Oct 2 2008	172.10	904.13	Oct 2 2008	83.54	992.69
Nov 4 2008	173.31	902.92	Nov 4 2008	83.69	992.54
Dec 3 2008	169.48	906.75	Dec 3 2008	83.80	992.43
Jan 6 2009	159.51	916.72	Jan 6 2009	83.94	992.29
Jan 29 2009	157.55	918.68	Jan 29 2009	83.97	992.26
Mar 4 2009	157.14	919.09	Mar 4 2009	84.12	992.11
Apr 2 2009	165.09	911.14	Apr 2 2009	84.08	992.15
May 6 2009	169.97	906.26	May 6 2009	84.10	992.13
Jun 2 2009	165.15	911.08	Jun 2 2009	84.10	992.13
Jun 24 2009	177.81	898.42	Jun 24 2009	84.44	991.79
Aug 4 2009	167.70	908.53	Aug 4 2009	84.61	991.62
Aug 4 2009	167.36	908.87	Aug 4 2009		
Aug 27 2009	165.44	910.79	Aug 27 2009	84.65	991.58
Oct 2 2009	158.97	917.26	Oct 2 2009	84.82	991.41
Nov 3 2009	152.46	923.77	Nov 3 2009	84.76	991.47
Nov 30 2009	148.13	928.10	Nov 30 2009		
Jan 5 2010	141.72	934.51	Jan 5 2010	84.66	991.57
Feb 4 2010	135.75	940.48	Feb 4 2010	84.56	991.67
Mar 2 2010	129.56	946.67	Mar 2 2010	84.19	992.04
Mar 31 2010	135.54	940.69	Mar 31 2010	83.83	992.40
May 5 2010	135.05	941.18	May 5 2010	83.51	992.72
Jun 2 2010	136.83	939.40	Jun 2 2010	83.25	992.98
Jun 30 2010	136.29	939.94	Jun 30 2010	83.00	993.23
Jul 28 2010	138.64	937.59	Jul 28 2010	82.96	993.27
Aug 23 2010	138.86	937.37	Aug 23 2010	82.81	993.42
Sep 30 2010	141.18	935.05	Sep 30 2010	82.69	993.54
Oct 31 2010	131.83	944.40	Oct 31 2010	82.59	993.64
Nov 30 2010	128.89	947.34	Nov 30 2010	82.51	993.72
Dec 31 2010	122.00	954.23	Dec 31 2010	82.40	993.83
Jan 31 2011	122.34	953.89	Jan 31 2011	81.96	994.27
Feb 28 2011	115.97	960.26	Feb 28 2011	81.59	994.64
Mar 31 2011	111.73	964.50	Mar 31 2011	80.81	995.42
Apr 30 2011	114.10	962.13	Apr 30 2011	80.14	996.09
May 31 2011	108.96	967.27	May 31 2011	79.43	996.80

**Piezometric Head for Multiple Depth Monitoring Well  
Wolf Valley Well (8S/2W-20J1-2)**

**March 1990 through December 2013**

Well 20J1			Well 20J2		
Date	Depth (feet)	Elevation (feet, MSL)	Date	Depth (feet)	Elevation (feet, MSL)
Jun 30 2011	115.91	960.32	Jun 30 2011	78.67	997.56
Jul 31 2011	126.74	949.49	Jul 31 2011	78.31	997.92
Aug 31 2011	121.32	954.91	Aug 31 2011	78.02	998.21
Sep 30 2011	112.47	963.76	Sep 30 2011	77.45	998.78
Oct 28 2011	106.64	969.59	Oct 28 2011	76.89	999.34
Nov 30 2011	99.89	976.34	Nov 30 2011	75.83	1000.40
Dec 31 2011	95.89	980.34	Dec 31 2011	75.06	1001.17
Jan 31 2012	100.27	975.96	Jan 31 2012	74.45	1001.78
Feb 29 2012	102.56	973.67	Feb 29 2012	74.12	1002.11
Mar 31 2012	95.82	980.41	Mar 31 2012	73.43	1002.80
Apr 30 2012	94.62	981.61	Apr 30 2012	72.93	1003.30
May 31 2012	97.42	978.81	May 31 2012	72.19	1004.04
Jun 30 2012	95.64	980.59	Jun 30 2012	71.72	1004.51
Jul 31 2012	100.16	976.07	Jul 31 2012	71.40	1004.83
Aug 31 2012	100.80	975.43	Aug 31 2012	71.21	1005.02
Sep 30 2012	101.82	974.41	Sep 30 2012	71.09	1005.14
Oct 28 2012	101.44	974.79	Oct 28 2012	70.97	1005.26
Nov 30 2012	93.16	983.07	Nov 30 2012	70.50	1005.73
Dec 31 2012	94.90	981.33	Dec 31 2012	70.45	1005.78
Jan 31 2013	96.72	979.51	Jan 31 2013	70.07	1006.16
Feb 28 2013	101.55	974.68	Feb 28 2013	70.07	1006.16
Mar 31 2013	95.07	981.16	Mar 31 2013	69.56	1006.67
Apr 30 2013	91.12	985.11	Apr 30 2013	68.86	1007.37
May 31 2013	100.46	975.77	May 31 2013	68.99	1007.24
Jun 30 2013	92.76	983.47	Jun 30 2013	68.48	1007.75
Jul 31 2013	103.60	972.63	Jul 31 2013	69.06	1007.17
Aug 31 2013	106.38	969.85	Aug 31 2013	69.37	1006.86
Sep 30 2013	100.63	975.60	Sep 30 2013	69.42	1006.81
Oct 28 2013	100.75	975.48	Oct 28 2013	69.66	1006.57
Nov 30 2013	97.40	978.83	Nov 30 2013	69.73	1006.50
Dec 31 2013	92.44	983.79	Dec 31 2013	69.57	1006.66

Notes:

- (1) Data reported as 12:00 PM reading for period March 1990 through September 2010.
- (2) Data reported as daily median value for period October 2010 to present.

Source: USGS California Water Science Center.

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Water Quality Data for Multiple Depth Monitoring Well  
Wolf Valley Well (8S/2W-20J1)

Code	Parameter	MCL	Well J1				
			8/15/1990	12/20/1993	8/4/2009	7/26/2010	
	Sampling date						
3	Sampling depth, feet						
10	Temperature, water, degrees Celsius		20.5	20	21.8	21.7	
28	Agency analyzing sample, code		80020	80020	80020	80020	
59	Flow rate, instantaneous, gallons per minute						
95	Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius		1150	863	898	775	
300	Dissolved oxygen, water, unfiltered, milligrams per liter		0.00002	0.00002		0.000003	
400	pH, water, unfiltered, field, standard units		7.8	7.8	7.5	7.5	
403	pH, water, unfiltered, laboratory, standard units		8.1	7.7	7.6	7.6	
405	Carbon dioxide, water, unfiltered, milligrams per liter		7.2			12	
453	Bicarbonate, water, filtered, incremental titration, field, milligrams per liter				253	223	
602	Total nitrogen, water, filtered, milligrams per liter		1.5			< 4.1	
607	Organic nitrogen, water, filtered, milligrams per liter					< 0.10	
608	Ammonia, water, filtered, milligrams per liter as nitrogen		< 0.01	< 0.01	< 0.020	< 0.020	
613	Nitrite, water, filtered, milligrams per liter as nitrogen	1 (a)		< 0.01	< 0.002	0.001 E	
618	Nitrate, water, filtered, milligrams per liter as nitrogen					4.05 E	
623	Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen		0.2		< 0.01	< 0.10	
631	Nitrate plus nitrite, water, filtered, milligrams per liter as nitrogen		1.3	3.6	3.42	4.05	
660	Orthophosphate, water, filtered, milligrams per liter		0.123	0.092		0.114	
666	Phosphorus, water, filtered, milligrams per liter		0.04		0.03 E	0.03 E	
671	Orthophosphate, water, filtered, milligrams per liter as phosphorus		0.04	0.03	0.029	0.037	
900	Hardness, water, milligrams per liter as calcium carbonate		340	270		282	
904	Noncarb hardness, water filtered field, milligrams per liter as calcium carbonate		110	71		99	
905	Noncarb hardness, water filtered lab, milligrams per liter as calcium carbonate					94	
915	Calcium, water, filtered, milligrams per liter		100	80	102	88.8	
925	Magnesium, water, filtered, milligrams per liter		22	16	17.1	14.60	
930	Sodium, water, filtered, milligrams per liter		110	76	59.2	51.5	
931	Sodium adsorption ratio, water, number		2.6	2		1.34	
932	Sodium fraction of cations, water, percent in equivalents of major cations		41	38		28	
935	Potassium, water, filtered, milligrams per liter		2.3	1.4	1.51	1.35	
940	Chloride, water, filtered, milligrams per liter	600	110	86	71.9	64.4	
945	Sulfate, water, filtered, milligrams per liter	600	200	112	129	89.5	
950	Fluoride, water, filtered, milligrams per liter	2 (b)	0.5		0.08 E	0.12	
955	Silica, water, filtered, milligrams per liter		25	23	29.0	26.7	
1000	Arsenic, water, filtered, micrograms per liter	10 (c)		2	1.2	1.1	
1005	Barium, water, filtered, micrograms per liter	1000 (d)		61	65.9	56.6	
1010	Beryllium, micrograms per liter	4 (e)		< 0.5			
1020	Boron, water, filtered, micrograms per liter		110	70	59	55	
1025	Cadmium, micrograms per liter	5 (f)		< 1			
1030	Chromium, micrograms per liter	50 (g)		< 5			
1035	Cobalt, micrograms per liter			< 3			
1040	Copper, micrograms per liter	1000 (h)		< 10			
1046	Iron, water, filtered, micrograms per liter	300	< 3	< 3	2 E	< 6	
1049	Lead, micrograms per liter			< 10			
1056	Manganese, water, filtered, micrograms per liter	50	51	5	< 0.2	< 0.2	
1057	Thallium, micrograms per liter	2 (i)					
1060	Molybdenum, micrograms per liter			< 10			
1065	Nickel, micrograms per liter			< 10			
1075	Silver, micrograms per liter	100 (j)		1			
1080	Strontium, water, filtered, micrograms per liter	100 (k)		310	479	413	
1085	Vanadium, micrograms per liter			18			
1090	Zinc, micrograms per liter	5000 (l)		< 3			
1095	Antimony, micrograms per liter	6 (m)					
1106	Aluminum, water, filtered, micrograms per liter	1000 (n)			< 4.0	4.1	
1130	Lithium, water, filtered, micrograms per liter			7	8	8	

**Water Quality Data for Multiple Depth Monitoring Well  
Wolf Valley Well (8S/2W-20J1)**

Code	Parameter	MCL	Well J1			
			8/15/1990	12/20/1993	8/4/2009	7/26/2010
	Sampling date					
1145	Selenium, micrograms per liter	50 (o)				
4022	Terbutylazine, water, filtered, recoverable, micrograms per liter			< 1		
4025	Hexazinone, water, filtered, recoverable, micrograms per liter					
4029	Bromacil, water, filtered, recoverable, micrograms per liter					
4035	Simazine, water, filtered, recoverable, micrograms per liter					
4036	Prometryn, water, filtered, recoverable, micrograms per liter					
4037	Prometon, water, filtered, recoverable, micrograms per liter					
4040	2-Chloro-4-isopropylamino-6-amino-s-triazine, water, filtered, recoverable, micrograms per liter					
4095	Fonollos, water, filtered, recoverable, micrograms per liter			4.0	3.9	
7000	Tritium, water, unfiltered, picocuries per liter					
22703	Uranium, natural, micrograms per liter					
29801	Alkalinity, water, filtered, fixed endpoint (pH 4.5) titration, lab, milligrams per liter as calcium carbonate			215	189	
30217	Dibromomethane, water, unfiltered, recoverable, micrograms per liter			< 0.04		
32101	Bromodichloromethane, water, unfiltered, recoverable, micrograms per liter			< 0.04		
32102	Tetrachloromethane, water, unfiltered, recoverable, micrograms per liter	0.5		< 0.06		
32103	1,2-Dichloroethane, water, unfiltered, recoverable, micrograms per liter			< 0.1		
32104	Tribromomethane, water, unfiltered, recoverable, micrograms per liter			< 0.10		
32105	Dibromochloromethane, water, unfiltered, recoverable, micrograms per liter			< 0.1		
32106	Trichloromethane, water, unfiltered, recoverable, micrograms per liter			< 0.04		
34010	Toluene, water, unfiltered, recoverable, micrograms per liter	150		< 0.02		
34030	Benzene, water, unfiltered, recoverable, micrograms per liter	1		< 0.02		
34215	Acrylonitrile, water, unfiltered, recoverable, micrograms per liter			< 0.4		
34221	Anthracene, water, filtered, recoverable, micrograms per liter					
34248	Benzoflapyrene, water, filtered, recoverable, micrograms per liter	0.2 (p)				
34288	Tribromomethane, water, filtered, recoverable, micrograms per liter					
34301	Chlorobenzene, water, unfiltered, recoverable, micrograms per liter	70		< 0.02		
34311	Chloroethane, water, unfiltered, recoverable, micrograms per liter			< 0.1		
34371	Ethylbenzene, water, unfiltered, recoverable, micrograms per liter	300		< 0.04		
34377	Fluoranthene, water, filtered, recoverable, micrograms per liter					
34396	Hexachloroethane, water, unfiltered, recoverable, micrograms per liter			< 0.1		
34409	Isophorone, water, filtered, recoverable, micrograms per liter					
34413	Bromomethane, water, unfiltered, recoverable, micrograms per liter			< 0.4		
34418	Chloromethane, water, unfiltered, recoverable, micrograms per liter			< 0.1		
34423	Dichloromethane, water, unfiltered, recoverable, micrograms per liter			< 0.04		
34443	Naphthalene, water, filtered, recoverable, micrograms per liter	5				
34462	Phenanthrene, water, filtered, recoverable, micrograms per liter					
34466	Phenol, water, filtered, recoverable, micrograms per liter					
34470	Pyrene, water, filtered, recoverable, micrograms per liter					
34475	Tetrachloroethene, water, unfiltered, recoverable, micrograms per liter	5		< 0.04		
34476	Tetrachloroethene, water, filtered, recoverable, micrograms per liter					
34488	Trichlorofluoromethane, water, unfiltered, recoverable, micrograms per liter	150		0.05 E		
34496	1,1-Dichloroethane, water, unfiltered, recoverable, micrograms per liter	5		< 0.04		
34501	1,1-Dichloroethane, water, unfiltered, recoverable, micrograms per liter	6		< 0.02		
34506	1,1,1-Trichloroethane, water, unfiltered, recoverable, micrograms per liter	200		< 0.02		
34511	1,1,2-Trichloroethane, water, unfiltered, recoverable, micrograms per liter	5		< 0.06		
34516	1,1,2,2-Tetrachloroethane, water, unfiltered, recoverable, micrograms per liter	1		< 0.10		
34536	1,2-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter	600		< 0.02		
34541	1,2-Dichloropropane, water, unfiltered, recoverable, micrograms per liter	5		< 0.02		
34546	trans-1,2-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	10		< 0.02		
34551	1,2,4-Trichlorobenzene, water, unfiltered, recoverable, micrograms per liter	5		< 0.04		
34566	1,3-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter			< 0.02		
34571	1,4-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter	5		< 0.02		
34572	1,4-Dichlorobenzene, water, filtered, recoverable, micrograms per liter					
34668	Dichlorodifluoromethane, water, unfiltered, recoverable, micrograms per liter			< 0.10		
34696	Naphthalene, water, unfiltered, recoverable, micrograms per liter			< 0.2		



Water Quality Data for Multiple Depth Monitoring Well  
Wolf Valley Well (8S/2W-20J1)

Code	Parameter	MCL	Well J1			
			8/15/1990	12/20/1993	8/4/2009	7/26/2010
	Sampling date					
34699	trans-1,3-Dichloropropene, water, unfiltered, recoverable, micrograms per liter	0.5			< 0.10	
34704	cis-1,3-Dichloropropene, water, unfiltered, recoverable, micrograms per liter	0.5			< 0.10	
38454	Dicropophos, water, filtered, recoverable, micrograms per liter					
38775	Dichlorvos, water, filtered, recoverable, micrograms per liter					
38933	Chlorpyrifos, water, filtered, recoverable, micrograms per liter					
39036	Alkalinity, water, filtered, fixed endpoint (pH 4.5) titration, laboratory, milligrams per liter as calcium carbonate		240	200	207	184
39086	Alkalinity, water, filtered, incremental titration, field, milligrams per liter as calcium carbonate	0.5			< 0.1	
39175	Vinyl chloride, water, unfiltered, recoverable, micrograms per liter				< 0.02	
39180	Trichloroethene, water, unfiltered, recoverable, micrograms per liter	5				
39381	Dieldrin, water, filtered, recoverable, micrograms per liter					
39415	Melolachlor, water, filtered, recoverable, micrograms per liter					
39532	Malathion, water, filtered, recoverable, micrograms per liter					
39572	Diazinon, water, filtered, recoverable, micrograms per liter					
39632	Atrazine, water, filtered, recoverable, micrograms per liter					
39702	Hexachlorbutadiene, water, unfiltered, recoverable, micrograms per liter				< 0.1	
46342	Alachlor, water, filtered, recoverable, micrograms per liter					
49260	Acetochlor, water, filtered, recoverable, micrograms per liter					
49295	1-Naphthol, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
49933	C-14, water, filtered, percent modern				96.47	98.33
49934	C-14, counting error, water, filtered, percent modern				0.320	0.320
49991	Methyl acrylate, water, unfiltered, recoverable, micrograms per liter				< 0.6	
49999	1,2,3,4-Tetramethylbenzene, water, unfiltered, recoverable, micrograms per liter				< 0.1	
50000	1,2,3,5-Tetramethylbenzene, water, unfiltered, recoverable, micrograms per liter				< 0.1	
50002	Bromoethene, water, unfiltered, recoverable, micrograms per liter				< 0.1	
50004	tert-Butyl ethyl ether, water, unfiltered, recoverable, micrograms per liter				< 0.04	
50005	Methyl tert-pentyl ether, water, unfiltered, recoverable, micrograms per liter				< 0.06	
50305	Caffeine, water, filtered, recoverable, micrograms per liter					
50359	Metolaxyl, water, filtered, recoverable, micrograms per liter					
61209	Perchlorate, water, unfiltered, recoverable, micrograms per liter	6				
61585	Cyfluthrin, water, filtered, recoverable, micrograms per liter					
61586	Cypermethrin, water, filtered, recoverable, micrograms per liter					
61591	Fenamiphos, water, filtered, recoverable, micrograms per liter					
61593	Iprodione, water, filtered, recoverable, micrograms per liter					
61594	Isofenphos, water, filtered, recoverable, micrograms per liter					
61596	Metolaxyl, water, filtered, recoverable, micrograms per liter					
61598	Methidathion, water, filtered, recoverable, micrograms per liter					
61599	Myclobutamil, water, filtered, recoverable, micrograms per liter					
61601	Phosmet, water, filtered, recoverable, micrograms per liter					
61610	Tribuphos, water, filtered, recoverable, micrograms per liter					
61618	2-Chloro-2',6'-diethylacetanilide, water, filtered, recoverable, micrograms per liter					
61620	2-Ethyl-6-methylaniine, water, filtered, recoverable, micrograms per liter					
61625	3,4-Dichloroaniline, water, filtered, recoverable, micrograms per liter					
61633	4-Chloro-2-methylphenol, water, filtered, recoverable, micrograms per liter					
61635	Azinphos-methyl oxygen analog, water, filtered, recoverable, micrograms per liter					
61636	Chlorpyrifos oxygen analog, water, filtered, recoverable, micrograms per liter					
61644	Ethion monoxon, water, filtered, recoverable, micrograms per liter					
61645	Fenamiphos sulfone, water, filtered, recoverable, micrograms per liter					
61646	Fenamiphos sulfoxide, water, filtered, recoverable, micrograms per liter					
61652	Malaoxon, water, filtered, recoverable, micrograms per liter					
61664	Methyl paraoxon, water, filtered, recoverable, micrograms per liter					
61666	Phorate oxygen analog, water, filtered, recoverable, micrograms per liter					
61668	Phosmet oxygen analog, water, filtered, recoverable, micrograms per liter					
61674	Terbufos oxygen analog sulfone, water, filtered, recoverable, micrograms per liter					
61705	Dithoxycytophenol, water, filtered, recoverable, micrograms per liter					
61706	Monethoxyoctylphenol, water, filtered, recoverable, micrograms per liter					

Water Quality Data for Multiple Depth Monitoring Well  
Wolf Valley Well (8S/2W-20J1)

Code	Parameter	MCL	Well J1			
			8/15/1990	12/20/1993	8/4/2009	7/26/2010
	Sampling date					
62005	Cocaine, water, filtered, recoverable, micrograms per liter					
62054	1-Methylnaphthalene, water, filtered, recoverable, micrograms per liter					
62055	2,6-Dimethylnaphthalene, water, filtered, recoverable, micrograms per liter					
62056	2-Methylnaphthalene, water, filtered, recoverable, micrograms per liter					
62057	3-beta-Coprostanol, water, filtered, recoverable, micrograms per liter					
62058	3-Methyl-1H-indole, water, filtered, recoverable, micrograms per liter					
62059	3-tert-Butyl-4-hydroxyanisole, water, filtered, recoverable, micrograms per liter					
62060	4-Cumylphenol, water, filtered, recoverable, micrograms per liter					
62061	4-Octylphenol, water, filtered, recoverable, micrograms per liter					
62062	4-tert-Octylphenol, water, filtered, recoverable, micrograms per liter					
62063	5-Methyl-1H-benzotriazole, water, filtered, recoverable, micrograms per liter					
62064	Acetophenone, water, filtered, recoverable, micrograms per liter					
62065	Acetyl hexamethyl tetrahydro naphthalene, water, filtered, recoverable, micrograms per liter					
62066	9-10-Antraquinone, water, filtered, recoverable, micrograms per liter					
62067	Benzophenone, water, filtered, recoverable, micrograms per liter					
62068	beta-Sitosterol, water, filtered, recoverable, micrograms per liter					
62070	Camphor, water, filtered, recoverable, micrograms per liter					
62071	Carbazole, water, filtered, recoverable, micrograms per liter					
62072	Cholesterol, water, filtered, recoverable, micrograms per liter					
62073	D-Limonene, water, filtered, recoverable, micrograms per liter					
62075	Hexahydrohexamethyl cyclopentabenzopyran, water, filtered, recoverable, micrograms per liter					
62076	Indole, water, filtered, recoverable, micrograms per liter					
62077	Isoborneol, water, filtered, recoverable, micrograms per liter					
62078	Isopropylbenzene, water, filtered, recoverable, micrograms per liter					
62079	Isquinoline, water, filtered, recoverable, micrograms per liter					
62080	Menthol, water, filtered, recoverable, micrograms per liter					
62081	Methyl salicylate, water, filtered, recoverable, micrograms per liter					
62082	DEET, water, filtered, recoverable, micrograms per liter					
62083	Diethoxyonylphenol, water, filtered, recoverable, micrograms per liter					
62084	p-Cresol, water, filtered, recoverable, micrograms per liter					
62085	4-Nonylphenol, water, filtered, recoverable, micrograms per liter					
62086	beta-Stigmasterol, water, filtered, recoverable, micrograms per liter					
62087	Tris(2-chloroethyl) phosphate, water, filtered, recoverable, micrograms per liter					
62088	Tris(dichloroisopropyl) phosphate, water, filtered, recoverable, micrograms per liter					
62089	Tributyl phosphate, water, filtered, recoverable, micrograms per liter					
62090	Triclosan, water, filtered, recoverable, micrograms per liter					
62091	Triethyl citrate, water, filtered, recoverable, micrograms per liter					
62092	Triphenyl phosphate, water, filtered, recoverable, micrograms per liter					
62093	Tris(2-butoxyethyl) phosphate, water, filtered, recoverable, micrograms per liter					
62166	Fipronil, water, filtered, recoverable, micrograms per liter					
62167	Fipronil sulfide, water, filtered, recoverable, micrograms per liter					
62168	Fipronil sulfone, water, filtered, recoverable, micrograms per liter					
62169	Desulfinyfipronil amide, water, filtered, recoverable, micrograms per liter					
62170	Desulfinyfipronil, water, filtered, recoverable, micrograms per liter					
62854	Total nitrogen, (NH3+NO2+NO3+Organic), filtered, milligrams per liter					
63790	Perchlorate, water, filtered, recoverable, micrograms per liter	6				
70300	Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter	1500	596	531	482	
70301	Residue, water, filtered, sum of constituents, milligrams per liter		717	528	466 E	
70303	Residue, water, filtered, tons per acre-foot					
71846	Ammonia, water, filtered, milligrams per liter as NH4					< 0.026
71851	Nitrate, water, filtered, milligrams per liter	45 (q)				17.9 E
71856	Nitrite, water, filtered, milligrams per liter					0.004 E
71865	Iodide, water, filtered, milligrams per liter			0.003	0.001 E	
71870	Bromide, water, filtered, milligrams per liter			0.36	0.35	
72019	Depth to water level, feet below land surface		72.28			

Water Quality Data for Multiple Depth Monitoring Well  
Wolf Valley Well (8S/2W-20J1)

Code	Parameter	MCL	Well J1			
			8/15/1990	12/20/1993	8/4/2009	7/26/2010
	Sampling date					
73547	trans-1,4-Dichloro-2-butene, water, unfiltered, recoverable, micrograms per liter				< 0.4	
73570	Ethyl methacrylate, water, unfiltered, recoverable, micrograms per liter				< 0.1	
75985	Tritium 2-sigma combined uncertainty, water, unfiltered, picocuries per liter					
76002	Rn-222, 2-sigma combined uncertainty, water, unfiltered, picocuries per liter					
77041	Carbon disulfide, water, unfiltered, micrograms per liter				< 0.04	
77093	cis-1,2-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	6			< 0.02	
77103	n-Butyl methyl ketone, water, unfiltered, recoverable, micrograms per liter	100			< 0.6	
77128	Styrene, water, unfiltered, recoverable, micrograms per liter				< 0.04	
77135	o-Xylene, water, unfiltered, recoverable, micrograms per liter				< 0.04	
77168	1,1-Dichloropropane, water, unfiltered, recoverable, micrograms per liter				< 0.04	
77170	2,2-Dichloropropane, water, unfiltered, recoverable, micrograms per liter				< 0.06	
77173	1,3-Dichloropropane, water, unfiltered, recoverable, micrograms per liter				< 0.1	
77220	2-Ethyltoluene, water, unfiltered, recoverable, micrograms per liter				< 0.02	
77221	1,2,3-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter				< 0.1	
77222	1,2,4-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter				< 0.04	
77223	Isopropylbenzene, water, unfiltered, recoverable, micrograms per liter				< 0.04	
77224	n-Propylbenzene, water, unfiltered, recoverable, micrograms per liter				< 0.04	
77226	1,3,5-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter				< 0.04	
77275	2-Chlorotoluene, water, unfiltered, recoverable, micrograms per liter				< 0.02	
77277	4-Chlorotoluene, water, unfiltered, recoverable, micrograms per liter				< 0.02	
77297	Bromochloromethane, water, unfiltered, recoverable, micrograms per liter				< 0.06	
77342	n-Butylbenzene, water, unfiltered, recoverable, micrograms per liter				< 0.1	
77350	sec-Butylbenzene, water, unfiltered, recoverable, micrograms per liter				< 0.02	
77353	tert-Butylbenzene, water, unfiltered, recoverable, micrograms per liter				< 0.06	
77356	4-Isopropyltoluene, water, unfiltered, recoverable, micrograms per liter				< 0.06	
77424	Iodomethane, water, unfiltered, recoverable, micrograms per liter				< 0.80	
77443	1,2,3-Trichloropropane, water, unfiltered, recoverable, micrograms per liter				< 0.12	
77562	1,1,1,2-Tetrachloroethane, water, unfiltered, recoverable, micrograms per liter				< 0.04	
77613	1,2,3-Trichlorobenzene, water, unfiltered, recoverable, micrograms per liter				< 0.1	
77651	1,2-Dibromoethane, water, unfiltered, recoverable, micrograms per liter	0.05			< 0.04	
77652	1,1,2-Trichloro-1,2,2-trifluoroethane, water, unfiltered, recoverable, micrograms per liter				< 0.04	
78032	Methyl tert-butyl ether, water, unfiltered, recoverable, micrograms per liter				< 0.1	
78109	3-Chloropropene, water, unfiltered, recoverable, micrograms per liter				< 0.08	
78133	Isobutyl methyl ketone, water, unfiltered, recoverable, micrograms per liter				< 0.4	
81552	Acetone, water, unfiltered, recoverable, micrograms per liter				< 4	
81555	Bromobenzene, water, unfiltered, recoverable, micrograms per liter				< 0.02	
81576	Diethyl ether, water, unfiltered, recoverable, micrograms per liter				< 0.1	
81577	Diisopropyl ether, water, unfiltered, recoverable, micrograms per liter				< 0.06	
81593	Methyl acrylonitrile, water, unfiltered, recoverable, micrograms per liter				< 0.2	
81595	Ethyl methyl ketone, water, unfiltered, recoverable, micrograms per liter				< 1.6	
81597	Methyl methacrylate, water, unfiltered, recoverable, micrograms per liter				< 0.2	
81607	Tetrahydrofuran, water, unfiltered, recoverable, micrograms per liter				< 1	
82081	C-13/C-12 ratio, water, unfiltered, per mil				-15.29	-15.56
82082	Deuterium/Protium ratio, water, unfiltered, per mil				-43.20	-42.80
82085	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil				-47	-44.2
82303	Rn-222, water, unfiltered, picocuries per liter				-6.8	-6.66
82346	Ethion, water, filtered, recoverable, micrograms per liter					
82625	1,2-Dibromo-3-chloropropane, water, unfiltered, recoverable, micrograms per liter					< 1.0
82630	Metribuzin, water, filtered, recoverable, micrograms per liter					
82660	2,6-Diethylaniline, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82661	Trifluralin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82662	Dimethoate, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82664	Phorate, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82667	Methyl parathion, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82670	Tebuthiuron, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					

**Water Quality Data for Multiple Depth Monitoring Well  
Wolf Valley Well (8S/2W-20J1)**

Code	Parameter	MCL	Well J1			
			8/15/1990	12/20/1993	8/4/2009	7/26/2010
	Sampling date					
82673	Benfluralin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82675	Terbufos, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82676	Propyzamide, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82680	Carbaryl, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82682	DCPA, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82683	Pendimethalin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82686	Azinphos-methyl, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82687	cis-Permethrin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
85795	m-Xylene plus p-xylene, water, unfiltered, recoverable, micrograms per liter					
90095	Specific conductance, water, unfiltered, laboratory, microsiemens per centimeter at 25 degrees Celsius		1130	868	< 0.08	911
90851	Trihometanes, water, unfiltered, calcd, micrograms per liter					787
99583	Bisphenol A-d3, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery					
99584	Caffeine-13C, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery					
99585	Decalorobiphenyl, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery					
99586	Fluoranthene-d10, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery					
99832	1,2-Dichloroethane-d4, surrogate, Schedule 2090, water, unfiltered, percent recovery					131
99833	Toluene-d8, surrogate, Schedule 2090, water, unfiltered, percent recovery					86.4
99834	1-Bromo-4-fluorobenzene, surrogate, VOC schedules, water, unfiltered, percent recovery					85.9
99994	Diazinon-d10, surrogate, Schedule 2003, water, filtered, percent recovery					
99995	alpha-HCH-d6, surrogate, Schedule 2003, water, filtered, percent recovery					

Notes: U.S. EPA STORET numbers for MCLs correspond to the same as the USGS NWIS data parameter number except as follows:

- (a) MCL shown for U.S. EPA STORET No. 620.
- (b) MCL shown for U.S. EPASTORET No. 951.
- (c) MCL shown for U.S. EPA STORET No. 1002.
- (d) MCL shown for U.S. EPA STORET No. 1007.
- (e) MCL shown for U.S. EPA STORET No. 1012.
- (f) MCL shown for U.S. EPA STORET No. 1027.
- (g) MCL shown for U.S. EPA STORET No. 1034.
- (h) MCL shown for U.S. EPA STORET No. 1042.
- (i) MCL shown for U.S. EPA STORET No. 1059.
- (j) MCL shown for U.S. EPA STORET No. 1067.
- (k) MCL shown for U.S. EPASTORET No. 1077.
- (l) MCL shown for U.S. EPA STORET No. 1092.
- (m) MCL shown for U.S. EPA STORET No. 1097.
- (n) MCL shown for U.S. EPA STORET No. 1105.
- (o) MCL shown for U.S. EPA STORET No. 1147.
- (p) MCL shown for U.S. EPA STORET No. 34247.
- (q) MCL shown for U.S. EPA STORET No. 71850.

Code--Data parameter number used in USGS National Water Information System (NWIS).  
 E--Estimated.  
 M--Presence verified but not quantified.  
 MCL--Maximum Contaminant Level reported by California DHS (May 25, 2007 Database) for U.S. EPA STORET number.  
 V--Biased results from contamination.

Water Quality Data for Multiple Depth Monitoring Well  
Wolf Valley Well (8S/2W-20J2)

Code	Parameter	MCL	Well J2				
			8/15/1990	12/20/1993	8/4/2009	7/26/2010	
	Sampling date						
3	Sampling depth, feet						
10	Temperature, water, degrees Celsius		19	19	20.8	20.8	
28	Agency analyzing sample, code		80020	80020	80020	80020	
59	Flow rate, instantaneous, gallons per minute						
95	Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius			400	423	422	
191	Hydrogen ion, water, unfiltered, calculated, milligrams per liter		0.00003	0.00003		0.00003	
300	Dissolved oxygen, water, unfiltered, milligrams per liter						
400	pH, water, unfiltered, field, standard units		7.6	7.6	7.5	7.5	
403	pH, water, unfiltered, laboratory, standard units		8.6	7.6	7.5	7.6	
405	Carbon dioxide, water, unfiltered, milligrams per liter		7.7			9.7	
453	Bicarbonate, water, filtered, incremental titration, field, milligrams per liter				193	193	
602	Total nitrogen, water, filtered, milligrams per liter		1.7			< 1.7	
607	Organic nitrogen, water, filtered, milligrams per liter					< 0.10	
608	Ammonia, water, filtered, milligrams per liter as nitrogen		< 0.01	< 0.01	0.012 E	< 0.020	
613	Nitrite, water, filtered, milligrams per liter as nitrogen	1 (a)		< 0.01	< 0.002	0.001 E	
618	Nitrate, water, filtered, milligrams per liter as nitrogen					1.57 E	
623	Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen		0.5		< 0.01	< 0.10	
631	Nitrate plus nitrite, water, filtered, milligrams per liter as nitrogen		1.2	1.2	1.58	1.57	
660	Orthophosphate, water, filtered, milligrams per liter		0.675	0.307		0.306	
666	Phosphorus, water, filtered, milligrams per liter		0.23		0.09	0.09	
671	Orthophosphate, water, filtered, milligrams per liter as phosphorus		0.22	0.1	0.096	0.100	
900	Hardness, water, milligrams per liter as calcium carbonate		130	130		141	
904	Noncarb hardness, water filtered field, milligrams per liter as calcium carbonate						
905	Noncarb hardness, water filtered lab, milligrams per liter as calcium carbonate						
915	Calcium, water, filtered, milligrams per liter		42	42	43.5	45.6	
925	Magnesium, water, filtered, milligrams per liter		6.3	6	6.02	6.42	
930	Sodium, water, filtered, milligrams per liter		38	35	32.6	34.7	
931	Sodium adsorption ratio, water, number		1.4	1.3		1.27	
932	Sodium fraction of cations, water, percent in equivalents of major cations		39	37		35	
935	Potassium, water, filtered, milligrams per liter		0.8	0.8	0.84	0.83	
940	Chloride, water, filtered, milligrams per liter		27	29	24.4	25.9	
945	Sulfate, water, filtered, milligrams per liter		600	12	13.0	13.2	
950	Fluoride, water, filtered, milligrams per liter		0.7		0.28	0.31	
955	Silica, water, filtered, milligrams per liter		28	25	28.3	25.7	
1000	Arsenic, water, filtered, micrograms per liter			1	1.0	0.96	
1005	Barium, water, filtered, micrograms per liter			40	42.8	42.5	
1010	Beryllium, micrograms per liter			< 0.5			
1020	Boron, water, filtered, micrograms per liter		60	50	37	37	
1025	Cadmium, micrograms per liter			< 1			
1030	Chromium, micrograms per liter			< 5			
1035	Cobalt, micrograms per liter			< 3			
1040	Copper, micrograms per liter			< 10			
1046	Iron, water, filtered, micrograms per liter		< 3	< 3	< 4	< 6	
1049	Lead, micrograms per liter			< 10			
1056	Manganese, water, filtered, micrograms per liter		< 1	< 1	0.2 E	0.1 E	
1057	Thallium, micrograms per liter						
1060	Molybdenum, micrograms per liter			< 10			
1065	Nickel, micrograms per liter			< 10			
1075	Silver, micrograms per liter			< 1			
1080	Strontium, water, filtered, micrograms per liter			170	175	183	
1085	Vanadium, micrograms per liter			15			
1090	Zinc, micrograms per liter			4			
1095	Antimony, micrograms per liter						
1106	Aluminum, water, filtered, micrograms per liter				< 4.0	6.3	
1130	Lithium, water, filtered, micrograms per liter			5	5	6	

**Water Quality Data for Multiple Depth Monitoring Well  
Wolf Valley Well (8S/2W-20J2)**

Code	Parameter	MCL	Well J2			
			8/15/1990	12/20/1993	8/4/2009	7/26/2010
	Sampling date					
1145	Selenium, micrograms per liter	50 (o)				
4022	Terbutylazine, water, filtered, recoverable, micrograms per liter			< 1		
4025	Hexazinone, water, filtered, recoverable, micrograms per liter					
4029	Bromacil, water, filtered, recoverable, micrograms per liter					
4035	Simazine, water, filtered, recoverable, micrograms per liter					
4036	Prometryn, water, filtered, recoverable, micrograms per liter					
4037	Prometon, water, filtered, recoverable, micrograms per liter					
4040	2-Chloro-4-isopropylamino-6-amino-s-triazine, water, filtered, recoverable, micrograms per liter					
4095	Fonollos, water, filtered, recoverable, micrograms per liter			5.5	5.2	
7000	Tritium, water, unfiltered, picocuries per liter					
22703	Uranium, natural, micrograms per liter					
29801	Alkalinity, water, filtered, fixed endpoint (pH 4.5) titration, lab, milligrams per liter as calcium carbonate			163	162	
30217	Dibromomethane, water, unfiltered, recoverable, micrograms per liter			< 0.04		
32101	Bromodichloromethane, water, unfiltered, recoverable, micrograms per liter			< 0.04		
32102	Tetrachloromethane, water, unfiltered, recoverable, micrograms per liter	0.5		< 0.06		
32103	1,2-Dichloroethane, water, unfiltered, recoverable, micrograms per liter			< 0.1		
32104	Tribromomethane, water, unfiltered, recoverable, micrograms per liter			< 0.10		
32105	Dibromochloromethane, water, unfiltered, recoverable, micrograms per liter			< 0.1		
32106	Trichloromethane, water, unfiltered, recoverable, micrograms per liter			< 0.04		
34010	Toluene, water, unfiltered, recoverable, micrograms per liter	150		< 0.02		
34030	Benzene, water, unfiltered, recoverable, micrograms per liter	1		< 0.02		
34215	Acrylonitrile, water, unfiltered, recoverable, micrograms per liter			< 0.4		
34221	Anthracene, water, filtered, recoverable, micrograms per liter					
34248	Benzoflapyrene, water, filtered, recoverable, micrograms per liter	0.2 (p)				
34288	Tribromomethane, water, filtered, recoverable, micrograms per liter					
34301	Chlorobenzene, water, unfiltered, recoverable, micrograms per liter	70		< 0.02		
34311	Chloroethane, water, unfiltered, recoverable, micrograms per liter			< 0.1		
34371	Ethylbenzene, water, unfiltered, recoverable, micrograms per liter	300		< 0.04		
34377	Fluoranthene, water, filtered, recoverable, micrograms per liter					
34396	Hexachloroethane, water, unfiltered, recoverable, micrograms per liter			< 0.1		
34409	Isophorone, water, filtered, recoverable, micrograms per liter					
34413	Bromomethane, water, unfiltered, recoverable, micrograms per liter			< 0.4		
34418	Chloromethane, water, unfiltered, recoverable, micrograms per liter			< 0.1		
34423	Dichloromethane, water, unfiltered, recoverable, micrograms per liter			< 0.04		
34443	Naphthalene, water, filtered, recoverable, micrograms per liter	5				
34462	Phenanthrene, water, filtered, recoverable, micrograms per liter					
34466	Phenol, water, filtered, recoverable, micrograms per liter					
34470	Pyrene, water, filtered, recoverable, micrograms per liter					
34475	Tetrachloroethene, water, unfiltered, recoverable, micrograms per liter	5		< 0.04		
34476	Tetrachloroethene, water, filtered, recoverable, micrograms per liter					
34488	Trichlorofluoromethane, water, unfiltered, recoverable, micrograms per liter	150		0.15		
34496	1,1-Dichloroethane, water, unfiltered, recoverable, micrograms per liter	5		< 0.04		
34501	1,1-Dichloroethane, water, unfiltered, recoverable, micrograms per liter	6		< 0.02		
34506	1,1,1-Trichloroethane, water, unfiltered, recoverable, micrograms per liter	200		< 0.02		
34511	1,1,2-Trichloroethane, water, unfiltered, recoverable, micrograms per liter	5		< 0.06		
34516	1,1,2,2-Tetrachloroethane, water, unfiltered, recoverable, micrograms per liter	1		< 0.10		
34536	1,2-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter	600		< 0.02		
34541	1,2-Dichloropropane, water, unfiltered, recoverable, micrograms per liter	5		< 0.02		
34546	trans-1,2-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	10		< 0.02		
34551	1,2,4-Trichlorobenzene, water, unfiltered, recoverable, micrograms per liter	5		< 0.04		
34566	1,3-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter			< 0.02		
34571	1,4-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter	5		< 0.02		
34572	1,4-Dichlorobenzene, water, filtered, recoverable, micrograms per liter					
34668	Dichlorodifluoromethane, water, unfiltered, recoverable, micrograms per liter			< 0.10		
34696	Naphthalene, water, unfiltered, recoverable, micrograms per liter			< 0.2		

**Water Quality Data for Multiple Depth Monitoring Well  
Wolf Valley Well (8S/2W-20J2)**

Code	Parameter	MCL	Well J2			
			8/15/1990	12/20/1993	8/4/2009	7/26/2010
	Sampling date					
34699	trans-1,3-Dichloropropene, water, unfiltered, recoverable, micrograms per liter	0.5			< 0.10	
34704	cis-1,3-Dichloropropene, water, unfiltered, recoverable, micrograms per liter	0.5			< 0.10	
38454	Dicropophos, water, filtered, recoverable, micrograms per liter					
38775	Dichlorvos, water, filtered, recoverable, micrograms per liter					
38933	Chlorpyrifos, water, filtered, recoverable, micrograms per liter					
39036	Alkalinity, water, filtered, fixed endpoint (pH 4.5) titration, laboratory, milligrams per liter as calcium carbonate		160	150	158	159
39086	Alkalinity, water, filtered, incremental titration, field, milligrams per liter as calcium carbonate	0.5			< 0.1	
39175	Vinyl chloride, water, unfiltered, recoverable, micrograms per liter				< 0.02	
39180	Trichloroethene, water, unfiltered, recoverable, micrograms per liter	5				
39381	Dieldrin, water, filtered, recoverable, micrograms per liter					
39415	Melolachlor, water, filtered, recoverable, micrograms per liter					
39532	Malathion, water, filtered, recoverable, micrograms per liter					
39572	Diazinon, water, filtered, recoverable, micrograms per liter					
39632	Atrazine, water, filtered, recoverable, micrograms per liter					
39702	Hexachlorobutadiene, water, unfiltered, recoverable, micrograms per liter				< 0.1	
46342	Alachlor, water, filtered, recoverable, micrograms per liter					
49260	Acetochlor, water, filtered, recoverable, micrograms per liter					
49295	1-Naphthol, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
49933	C-14, water, filtered, percent modern				103.4	103.3
49934	C-14, counting error, water, filtered, percent modern				0.360	0.400
49991	Methyl acrylate, water, unfiltered, recoverable, micrograms per liter				< 0.6	
49999	1,2,3,4-Tetramethylbenzene, water, unfiltered, recoverable, micrograms per liter				< 0.1	
50000	1,2,3,5-Tetramethylbenzene, water, unfiltered, recoverable, micrograms per liter				< 0.1	
50002	Bromoethene, water, unfiltered, recoverable, micrograms per liter				< 0.1	
50004	tert-Butyl ethyl ether, water, unfiltered, recoverable, micrograms per liter				< 0.04	
50005	Methyl tert-pentyl ether, water, unfiltered, recoverable, micrograms per liter				< 0.06	
50305	Caffeine, water, filtered, recoverable, micrograms per liter					
50359	Metolaxyl, water, filtered, recoverable, micrograms per liter					
61209	Perchlorate, water, unfiltered, recoverable, micrograms per liter	6				
61585	Cyfluthrin, water, filtered, recoverable, micrograms per liter					
61586	Cypermethrin, water, filtered, recoverable, micrograms per liter					
61591	Fenamiphos, water, filtered, recoverable, micrograms per liter					
61593	Iprodione, water, filtered, recoverable, micrograms per liter					
61594	Isofenphos, water, filtered, recoverable, micrograms per liter					
61596	Metolaxyl, water, filtered, recoverable, micrograms per liter					
61598	Methidathion, water, filtered, recoverable, micrograms per liter					
61599	Myclobutamil, water, filtered, recoverable, micrograms per liter					
61601	Phosmet, water, filtered, recoverable, micrograms per liter					
61610	Tribuphos, water, filtered, recoverable, micrograms per liter					
61618	2-Chloro-2',6'-diethylacetanilide, water, filtered, recoverable, micrograms per liter					
61620	2-Ethyl-6-methylaniine, water, filtered, recoverable, micrograms per liter					
61625	3,4-Dichloroaniline, water, filtered, recoverable, micrograms per liter					
61633	4-Chloro-2-methylphenol, water, filtered, recoverable, micrograms per liter					
61635	Azinphos-methyl oxygen analog, water, filtered, recoverable, micrograms per liter					
61636	Chlorpyrifos oxygen analog, water, filtered, recoverable, micrograms per liter					
61644	Ethion monoxon, water, filtered, recoverable, micrograms per liter					
61645	Fenamiphos sulfone, water, filtered, recoverable, micrograms per liter					
61646	Fenamiphos sulfoxide, water, filtered, recoverable, micrograms per liter					
61652	Malaoxon, water, filtered, recoverable, micrograms per liter					
61664	Methyl paraoxon, water, filtered, recoverable, micrograms per liter					
61666	Phorate oxygen analog, water, filtered, recoverable, micrograms per liter					
61668	Phosmet oxygen analog, water, filtered, recoverable, micrograms per liter					
61674	Terbufos oxygen analog sulfone, water, filtered, recoverable, micrograms per liter					
61705	Diethoxyoctylphenol, water, filtered, recoverable, micrograms per liter					
61706	Monethoxyoctylphenol, water, filtered, recoverable, micrograms per liter					

Water Quality Data for Multiple Depth Monitoring Well  
Wolf Valley Well (8S/2W-20J2)

Code	Parameter	MCL	Well J2			
			8/15/1990	12/20/1993	8/4/2009	7/26/2010
	Sampling date					
62005	Cocaine, water, filtered, recoverable, micrograms per liter					
62054	1-Methylnaphthalene, water, filtered, recoverable, micrograms per liter					
62055	2,6-Dimethylnaphthalene, water, filtered, recoverable, micrograms per liter					
62056	2-Methylnaphthalene, water, filtered, recoverable, micrograms per liter					
62057	3-beta-Coprostanol, water, filtered, recoverable, micrograms per liter					
62058	3-Methyl-1H-indole, water, filtered, recoverable, micrograms per liter					
62059	3-tert-Butyl-4-hydroxanisole, water, filtered, recoverable, micrograms per liter					
62060	4-Cumylphenol, water, filtered, recoverable, micrograms per liter					
62061	4-Octylphenol, water, filtered, recoverable, micrograms per liter					
62062	4-tert-Octylphenol, water, filtered, recoverable, micrograms per liter					
62063	5-Methyl-1H-benzotriazole, water, filtered, recoverable, micrograms per liter					
62064	Acetophenone, water, filtered, recoverable, micrograms per liter					
62065	Acetyl hexamethyl tetrahydro naphthalene, water, filtered, recoverable, micrograms per liter					
62066	9-10-Antraquinone, water, filtered, recoverable, micrograms per liter					
62067	Benzophenone, water, filtered, recoverable, micrograms per liter					
62068	beta-Sitosterol, water, filtered, recoverable, micrograms per liter					
62070	Camphor, water, filtered, recoverable, micrograms per liter					
62071	Carbazole, water, filtered, recoverable, micrograms per liter					
62072	Cholesterol, water, filtered, recoverable, micrograms per liter					
62073	D-Limonene, water, filtered, recoverable, micrograms per liter					
62075	Hexahydrohexamethyl cyclopentabenzopyran, water, filtered, recoverable, micrograms per liter					
62076	Indole, water, filtered, recoverable, micrograms per liter					
62077	Isoborneol, water, filtered, recoverable, micrograms per liter					
62078	Isopropylbenzene, water, filtered, recoverable, micrograms per liter					
62079	Isquinoline, water, filtered, recoverable, micrograms per liter					
62080	Menthol, water, filtered, recoverable, micrograms per liter					
62081	Methyl salicylate, water, filtered, recoverable, micrograms per liter					
62082	DEET, water, filtered, recoverable, micrograms per liter					
62083	Diethoxyonylphenol, water, filtered, recoverable, micrograms per liter					
62084	p-Cresol, water, filtered, recoverable, micrograms per liter					
62085	4-Nonylphenol, water, filtered, recoverable, micrograms per liter					
62086	beta-Stigmasterol, water, filtered, recoverable, micrograms per liter					
62087	Tris(2-chloroethyl) phosphate, water, filtered, recoverable, micrograms per liter					
62088	Tris(dichloroisopropyl) phosphate, water, filtered, recoverable, micrograms per liter					
62089	Tributyl phosphate, water, filtered, recoverable, micrograms per liter					
62090	Triclosan, water, filtered, recoverable, micrograms per liter					
62091	Triethyl citrate, water, filtered, recoverable, micrograms per liter					
62092	Triphenyl phosphate, water, filtered, recoverable, micrograms per liter					
62093	Tris(2-butoxyethyl) phosphate, water, filtered, recoverable, micrograms per liter					
62166	Fipronil, water, filtered, recoverable, micrograms per liter					
62167	Fipronil sulfide, water, filtered, recoverable, micrograms per liter					
62168	Fipronil sulfone, water, filtered, recoverable, micrograms per liter					
62169	Desulfinfipronil amide, water, filtered, recoverable, micrograms per liter					
62170	Desulfinfipronil, water, filtered, recoverable, micrograms per liter					
62854	Total nitrogen, (NH3+NO2+NO3+Organic), filtered, milligrams per liter					
63790	Perchlorate, water, filtered, recoverable, micrograms per liter	6				
70300	Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter	1500	216	265	250	
70301	Residue, water, filtered, sum of constituents, milligrams per liter		255	247	256 E	
70303	Residue, water, filtered, tons per acre-foot					
71846	Ammonia, water, filtered, milligrams per liter as NH4					< 0.026
71851	Nitrate, water, filtered, milligrams per liter					6.94 E
71856	Nitrite, water, filtered, milligrams per liter	45 (q)				0.003 E
71865	Iodide, water, filtered, milligrams per liter					< 0.002
71870	Bromide, water, filtered, milligrams per liter					0.09
72019	Depth to water level, feet below land surface		61.65			0.09



**Water Quality Data for Multiple Depth Monitoring Well  
Wolf Valley Well (8S/2W-20J2)**

Code	Parameter	MCL	Well J2			
			8/15/1990	12/20/1993	8/4/2009	7/26/2010
	Sampling date					
73547	trans-1,4-Dichloro-2-butene, water, unfiltered, recoverable, micrograms per liter				< 0.4	
73570	Ethyl methacrylate, water, unfiltered, recoverable, micrograms per liter				< 0.1	
75985	Tritium 2-sigma combined uncertainty, water, unfiltered, picocuries per liter					
76002	Rn-222, 2-sigma combined uncertainty, water, unfiltered, picocuries per liter					
77041	Carbon disulfide, water, unfiltered, micrograms per liter				< 0.04	
77093	cis-1,2-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	6			< 0.02	
77103	n-Butyl methyl ketone, water, unfiltered, recoverable, micrograms per liter	100			< 0.6	
77128	Styrene, water, unfiltered, recoverable, micrograms per liter				< 0.04	
77135	o-Xylene, water, unfiltered, recoverable, micrograms per liter				< 0.04	
77168	1,1-Dichloropropane, water, unfiltered, recoverable, micrograms per liter				< 0.04	
77170	2,2-Dichloropropane, water, unfiltered, recoverable, micrograms per liter				< 0.06	
77173	1,3-Dichloropropane, water, unfiltered, recoverable, micrograms per liter				< 0.1	
77220	2-Ethyltoluene, water, unfiltered, recoverable, micrograms per liter				< 0.02	
77221	1,2,3-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter				< 0.1	
77222	1,2,4-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter				< 0.04	
77223	Isopropylbenzene, water, unfiltered, recoverable, micrograms per liter				< 0.04	
77224	n-Propylbenzene, water, unfiltered, recoverable, micrograms per liter				< 0.04	
77226	1,3,5-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter				< 0.04	
77275	2-Chlorotoluene, water, unfiltered, recoverable, micrograms per liter				< 0.02	
77277	4-Chlorotoluene, water, unfiltered, recoverable, micrograms per liter				< 0.02	
77297	Bromochloromethane, water, unfiltered, recoverable, micrograms per liter				< 0.06	
77342	n-Butylbenzene, water, unfiltered, recoverable, micrograms per liter				< 0.1	
77350	sec-Butylbenzene, water, unfiltered, recoverable, micrograms per liter				< 0.02	
77353	tert-Butylbenzene, water, unfiltered, recoverable, micrograms per liter				< 0.06	
77356	4-Isopropyltoluene, water, unfiltered, recoverable, micrograms per liter				< 0.06	
77424	Iodomethane, water, unfiltered, recoverable, micrograms per liter				< 0.80	
77443	1,2,3-Trichloropropane, water, unfiltered, recoverable, micrograms per liter				< 0.12	
77562	1,1,1,2-Tetrachloroethane, water, unfiltered, recoverable, micrograms per liter				< 0.04	
77613	1,2,3-Trichlorobenzene, water, unfiltered, recoverable, micrograms per liter				< 0.1	
77651	1,2-Dibromoethane, water, unfiltered, recoverable, micrograms per liter	0.05			< 0.04	
77652	1,1,2-Trichloro-1,2,2-trifluoroethane, water, unfiltered, recoverable, micrograms per liter				< 0.04	
78032	Methyl tert-butyl ether, water, unfiltered, recoverable, micrograms per liter				< 0.1	
78109	3-Chloropropene, water, unfiltered, recoverable, micrograms per liter				< 0.08	
78133	Isobutyl methyl ketone, water, unfiltered, recoverable, micrograms per liter				< 0.4	
81552	Acetone, water, unfiltered, recoverable, micrograms per liter				< 4	
81555	Bromobenzene, water, unfiltered, recoverable, micrograms per liter				< 0.02	
81576	Diethyl ether, water, unfiltered, recoverable, micrograms per liter				< 0.1	
81577	Diisopropyl ether, water, unfiltered, recoverable, micrograms per liter				< 0.06	
81593	Methyl acrylonitrile, water, unfiltered, recoverable, micrograms per liter				< 0.2	
81595	Ethyl methyl ketone, water, unfiltered, recoverable, micrograms per liter				< 1.6	
81597	Methyl methacrylate, water, unfiltered, recoverable, micrograms per liter				< 0.2	
81607	Tetrahydrofuran, water, unfiltered, recoverable, micrograms per liter				< 1	
82081	C-13/C-12 ratio, water, unfiltered, per mil				-14.99	-15.11
82082	Deuterium/Protium ratio, water, unfiltered, per mil				-42.90	-43.50
82085	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil				-44	
82303	Rn-222, water, unfiltered, picocuries per liter				-7	-6.89
82346	Ethion, water, filtered, recoverable, micrograms per liter					
82625	1,2-Dibromo-3-chloropropane, water, unfiltered, recoverable, micrograms per liter				< 1.0	
82630	Metribuzin, water, filtered, recoverable, micrograms per liter					
82660	2,6-Diethylaniline, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82661	Trifluralin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82662	Dimethoate, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82664	Phorate, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82667	Methyl parathion, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82670	Tebuthiuron, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					

**Water Quality Data for Multiple Depth Monitoring Well  
Wolf Valley Well (8S/2W-20J2)**

Code	Parameter	MCL	Well J2		
			8/15/1990	12/20/1993	8/4/2009
	Sampling date				7/26/2010
82673	Benfluralin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				
82675	Terbufos, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				
82676	Propyzamide, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				
82680	Carbaryl, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				
82682	DCPA, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				
82683	Pendimethalin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				
82686	Azinphos-methyl, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				
82687	cis-Permethrin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				
85795	m-Xylene plus p-xylene, water, unfiltered, recoverable, micrograms per liter				
90095	Specific conductance, water, unfiltered, laboratory, microsiemens per centimeter at 25 degrees Celsius		404	408	< 0.08 433
90851	Trihometanes, water, unfiltered, calcd, micrograms per liter				422
99583	Bisphenol A-d3, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery				
99584	Caffeine-13C, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery				
99585	Decafluorobiphenyl, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery				
99586	Fluoranthene-d10, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery				
99832	1,2-Dichloroethane-d4, surrogate, Schedule 2090, water, unfiltered, percent recovery				133
99833	Toluene-d8, surrogate, Schedule 2090, water, unfiltered, percent recovery				85.7
99834	1-Bromo-4-fluorobenzene, surrogate, VOC schedules, water, unfiltered, percent recovery				87.2
99994	Diazinon-d10, surrogate, Schedule 2003, water, filtered, percent recovery				
99995	alpha-HCH-d6, surrogate, Schedule 2003, water, filtered, percent recovery				

Notes: U.S. EPA STORET numbers for MCLs correspond to the same as the USGS NWIS data parameter number except as follows:

- (a) MCL shown for U.S. EPA STORET No. 620.
- (b) MCL shown for U.S. EPA STORET No. 951.
- (c) MCL shown for U.S. EPA STORET No. 1002.
- (d) MCL shown for U.S. EPA STORET No. 1007.
- (e) MCL shown for U.S. EPA STORET No. 1012.
- (f) MCL shown for U.S. EPA STORET No. 1027.
- (g) MCL shown for U.S. EPA STORET No. 1034.
- (h) MCL shown for U.S. EPA STORET No. 1042.
- (i) MCL shown for U.S. EPA STORET No. 1059.
- (j) MCL shown for U.S. EPA STORET No. 1067.
- (k) MCL shown for U.S. EPA STORET No. 1077.
- (l) MCL shown for U.S. EPA STORET No. 1092.
- (m) MCL shown for U.S. EPA STORET No. 1097.
- (n) MCL shown for U.S. EPA STORET No. 1105.
- (o) MCL shown for U.S. EPA STORET No. 1147.
- (p) MCL shown for U.S. EPA STORET No. 34247.
- (q) MCL shown for U.S. EPA STORET No. 71850.

Code--Data parameter number used in USGS National Water Information System (NWIS).  
 E--Estimated.  
 M--Presence verified but not quantified.  
 MCL--Maximum Contaminant Level reported by California DHS (May 25, 2007 Database) for U.S. EPA STORET number.  
 V--Biased results from contamination.

**ANNUAL REPORT**

**COOPERATIVE WATER RESOURCE  
MANAGEMENT AGREEMENT**

**CALENDAR YEAR 2013**

**APPENDIX D-1**

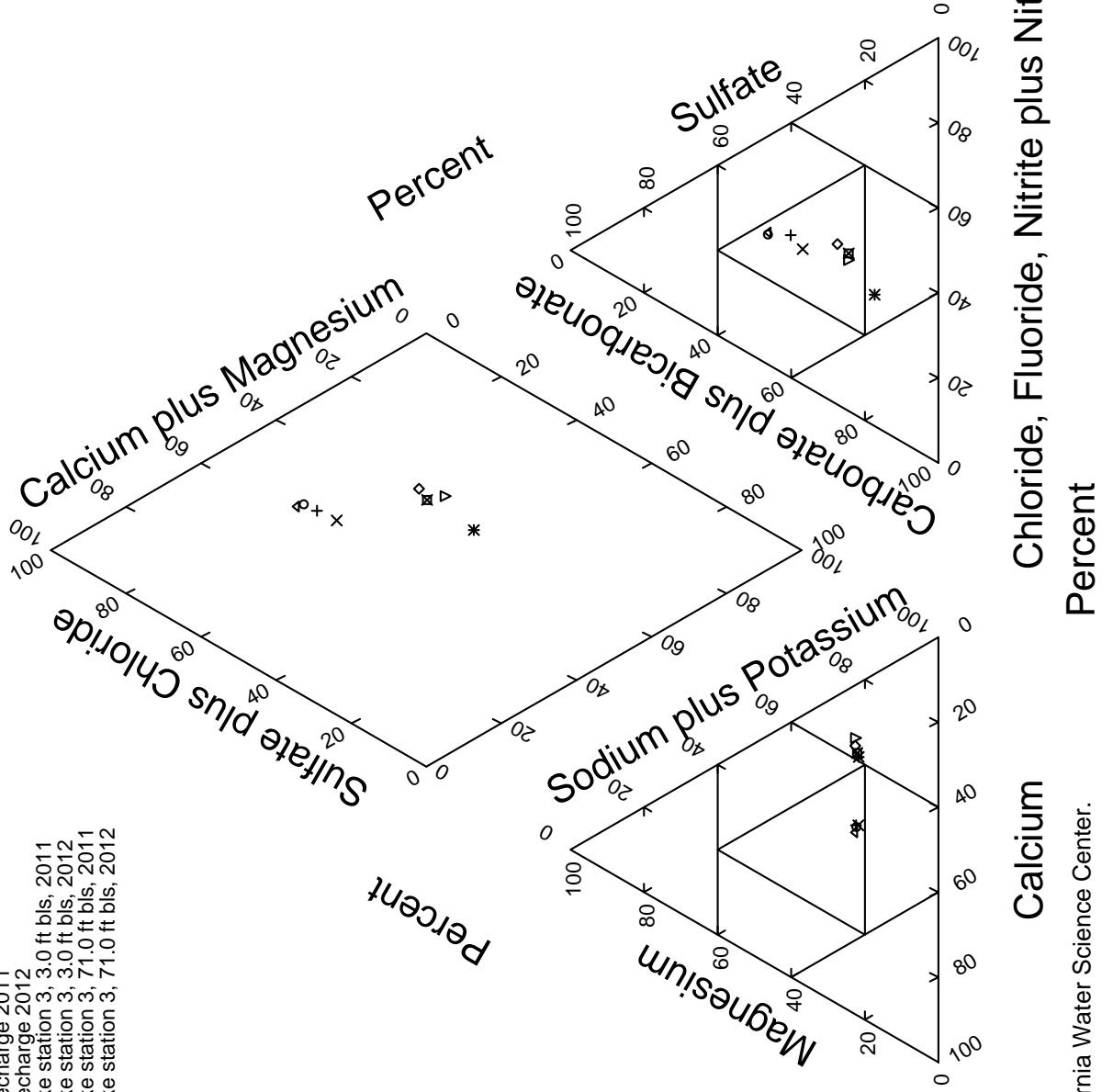
**WATER QUALITY DATA FOR IMPORTED WATER  
DELIVERED TO RCWD UPPER VDC RECHARGE BASINS**



# Tri-Linear Diagram VDC Recharge and Vail Lake

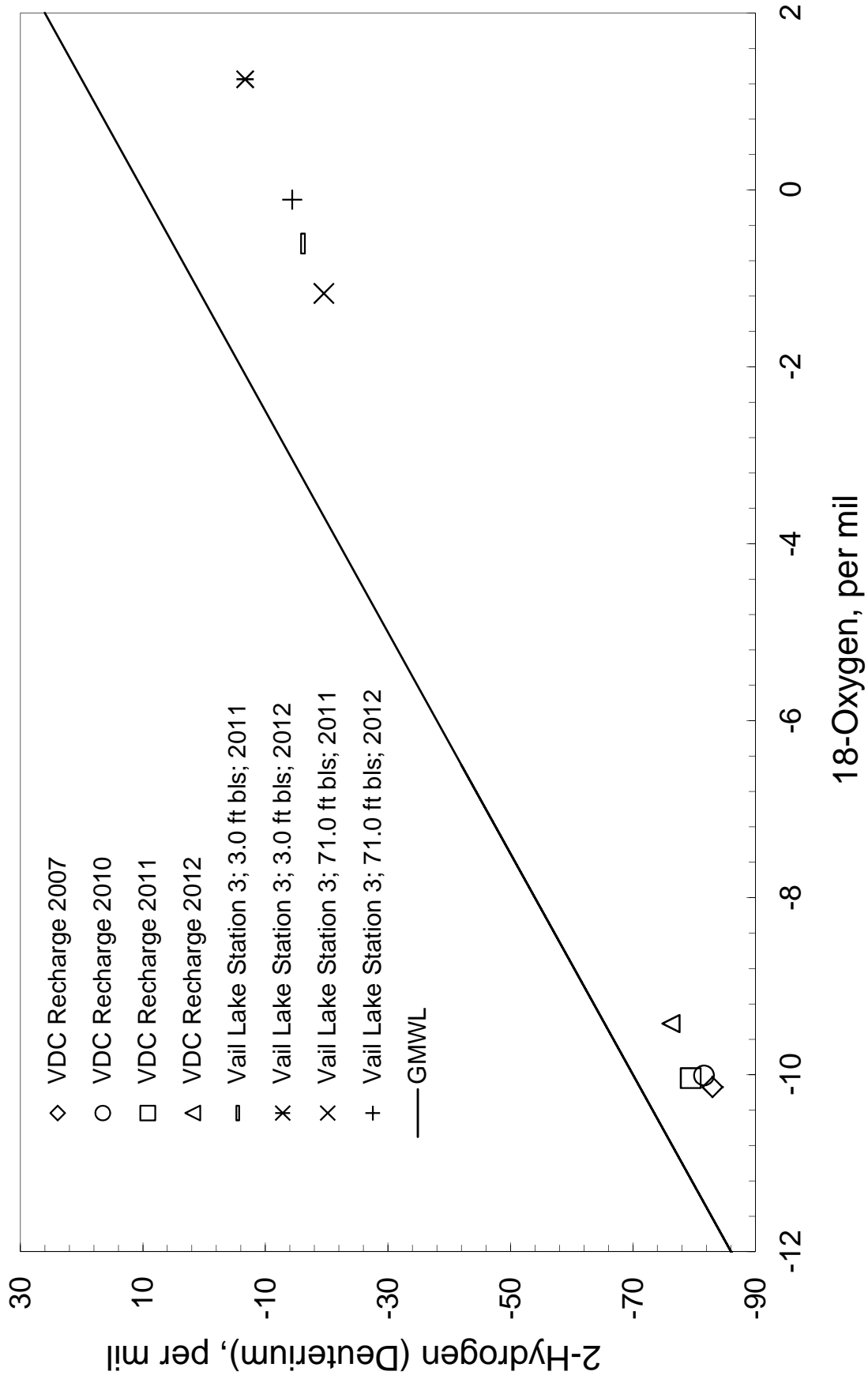
## Explanation

- VDC Recharge 2007
- △ VDC Recharge 2010
- + VDC Recharge 2011
- x VDC Recharge 2012
- ◇ Vail Lake station 3, 3.0 ft bls, 2011
- ▽ Vail Lake station 3, 3.0 ft bls, 2012
- ▣ Vail Lake station 3, 71.0 ft bls, 2011
- \* Vail Lake station 3, 71.0 ft bls, 2012



# Stable Isotope Diagram

## VDC Recharge and Vail Lake



Source: USGS California Water Science Center.

**Water Quality Data for Imported Water Delivered to RCWD Upper VDC Recharge Basin  
Upper Pond 5 in Pauba Valley  
USGS Site No. 333024117005501**

Code	Parameter	MCL	Pond 5 9/17/2007	Pond 5 7/28/2010	Pond 5 8/22/2011	Pond 5 8/21/2012
	Sampling date					
	Estimated Percentage of State Project Water Reported by Metropolitan Water District		28%	19%	63%	51%
3	Sampling depth, feet					
10	Temperature, water, degrees Celsius		24.5	25.4	33.0	27.8
28	Agency analyzing sample, code		80020	80020	80020	80020
59	Flow rate, instantaneous, gallons per minute					
95	Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius		847	875	590	644
191	Hydrogen ion, water, unfiltered, calculated, milligrams per liter		0.00001	0.00001	0.00001	0.00001
300	Dissolved oxygen, water, unfiltered, milligrams per liter		6.1			6.5
400	pH, water, unfiltered, field, standard units		7.9	8.1	7.9	7.9
403	pH, water, unfiltered, laboratory, standard units		8.0	8.1	8.1	8.1
405	Carbon dioxide, water, unfiltered, milligrams per liter		2.5	1.8	2.1	2.4
453	Bicarbonate, water, filtered, incremental titration, field, milligrams per liter			138	102	116
602	Total nitrogen, water, filtered, milligrams per liter			0.3	0.41	0.36
607	Organic nitrogen, water, filtered, milligrams per liter		< 0.18	0.14	0.2	0.19
608	Ammonia, water, filtered, milligrams per liter as nitrogen		< 0.020	0.022	0.011	0.012
613	Nitrite, water, filtered, milligrams per liter as nitrogen	1 (a)	< 0.002	0.003	< 0.001	< 0.001
618	Nitrate, water, filtered, milligrams per liter as nitrogen		< 0.227	0.141	0.197	0.16
623	Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen			0.16	0.21	0.2
631	Nitrate plus nitrite, water, filtered, milligrams per liter as nitrogen		0.23	0.14	0.2	0.16
660	Orthophosphate, water, filtered, milligrams per liter		0.068	0.034	0.137	0.1
666	Phosphorus, water, filtered, milligrams per liter			< 0.04	0.05	0.04
671	Orthophosphate, water, filtered, milligrams per liter as phosphorus		0.022	0.011	0.045	0.033
900	Hardness, water, milligrams per liter as calcium carbonate		232	256	150	176
904	Noncarb hardness, water filtered lab, milligrams per liter as calcium carbonate			141	66	80
905	Noncarb hardness, water filtered lab, milligrams per liter as calcium carbonate		120	138	76	76
915	Calcium, water, filtered, milligrams per liter		55.4	62.0	35.7	42.6
925	Magnesium, water, filtered, milligrams per liter		22.4	24.3	14.7	16.9
930	Sodium, water, filtered, milligrams per liter		81.4	85.3	53.4	63.7
931	Sodium fraction of cations, water, percent in equivalents of major cations		2.33	2.33	1.90	2.09
932	Sodium adsorption ratio, water, number		43	42	43	44
935	Potassium, water, filtered, milligrams per liter		4.49	4.36	3.06	3.45
940	Chloride, water, filtered, milligrams per liter	600	84.9	87.8	60.6	68.7
945	Sulfate, water, filtered, milligrams per liter	600	177	195	99	109
950	Fluoride, water, filtered, milligrams per liter	2 (b)	0.26	0.3	0.17	0.18
955	Silica, water, filtered, milligrams per liter		8.95	6.8	9.63	8.8
1000	Arsenic, water, filtered, micrograms per liter	10 (c)	2.5	2.5	2.6	2.5
1005	Barium, water, filtered, micrograms per liter	1000 (d)	107	96.1	56.2	55.4
1010	Beryllium, micrograms per liter	4 (e)	< 0.06		122	133
1020	Boron, water, filtered, micrograms per liter		138			
1025	Cadmium, micrograms per liter	5 (f)	< 0.04			
1030	Chromium, micrograms per liter	50 (g)	0.11 E			
1035	Cobalt, micrograms per liter		0.04 E			
1040	Copper, micrograms per liter		4.9			
1046	Iron, water, filtered, micrograms per liter	1000 (h)				
1049	Lead, micrograms per liter	300	6	4 E	7.3	< 3.2
1056	Manganese, water, filtered, micrograms per liter		0.62			
1057	Thallium, micrograms per liter	50	1.1	0.4	2.26	1.94
1060	Molybdenum, micrograms per liter	2 (i)	< 0.04			
1065	Nickel, micrograms per liter		4.7			
1075	Silver, micrograms per liter	100 (j)	1.2			
1080	Strontium, water, filtered, micrograms per liter	100 (k)	< 0.10			
1085	Vanadium, micrograms per liter		820	871	472	513
1090	Zinc, micrograms per liter	5000 (l)	3			
			5			

Source: USGS California Water Science Center.

**Water Quality Data for Imported Water Delivered to RCWD Upper VDC Recharge Basin  
Upper Pond 5 in Pauba Valley  
USGS Site No. 333024117005501**

Code	Parameter	MCL	Pond 5 9/17/2007	Pond 5 7/28/2010	Pond 5 8/22/2011	Pond 5 8/21/2012
	Sampling date					
1095	Antimony, micrograms per liter	6 (m)	0.29			
1106	Aluminum, water, filtered, micrograms per liter	1000 (n)	1.3 E	< 3.4	2	< 2.2
1130	Lithium, water, filtered, micrograms per liter		33.1	48	24.4	24.5
1145	Selenium, micrograms per liter	50 (o)	1.4			
4022	Terbutylazine, water, filtered, recoverable, micrograms per liter					
4025	Hexazinone, water, filtered, recoverable, micrograms per liter					
4029	Bromadiol, water, filtered, recoverable, micrograms per liter					
4035	Simazine, water, filtered, recoverable, micrograms per liter					
4036	Prometryn, water, filtered, recoverable, micrograms per liter					
4037	Prometon, water, filtered, recoverable, micrograms per liter					
4040	2-Chloro-4-isopropylamino-6-amino-s-triazine, water, filtered, recoverable, micrograms per liter					
4095	Fonofos, water, filtered, recoverable, micrograms per liter					
7000	Tritium, water, unfiltered, picocuries per liter		19.8			
22703	Uranium, natural, micrograms per liter		3.81			
29801	Alkalinity, water, filtered, fixed endpoint (pH 4.5) titration, laboratory, milligrams per liter as calcium carbonate		111	118	81.5	99.9
30217	Dibromomethane, water, unfiltered, recoverable, micrograms per liter		0.12			
32101	Bromodichloromethane, water, unfiltered, recoverable, micrograms per liter		17.2			
32102	Tetrachloromethane, water, unfiltered, recoverable, micrograms per liter	0.5	< 0.08			
32103	1,2-Dichloroethane, water, unfiltered, recoverable, micrograms per liter		< 0.1			
32104	Tribromomethane, water, unfiltered, recoverable, micrograms per liter		7.28			
32105	Dibromochloromethane, water, unfiltered, recoverable, micrograms per liter		16.1			
32106	Trichloromethane, water, unfiltered, recoverable, micrograms per liter		9.69			
34010	Toluene, water, unfiltered, recoverable, micrograms per liter	150	0.06 E			
34030	Benzene, water, unfiltered, recoverable, micrograms per liter	1	< 0.02			
34215	Acrylonitrile, water, unfiltered, recoverable, micrograms per liter		< 0.4			
34221	Anthracene, water, filtered, recoverable, micrograms per liter					
34248	Benz[a]pyrene, water, filtered, recoverable, micrograms per liter	0.2 (p)				
34288	Tribromomethane, water, filtered, recoverable, micrograms per liter					
34301	Chlorobenzene, water, unfiltered, recoverable, micrograms per liter	70	< 0.02			
34311	Chloroethane, water, unfiltered, recoverable, micrograms per liter		< 0.1			
34371	Ethylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.02			
34377	Fluoranthene, water, filtered, recoverable, micrograms per liter	300				
34396	Hexachloroethane, water, unfiltered, recoverable, micrograms per liter		< 0.1			
34409	Isophorone, water, filtered, recoverable, micrograms per liter					
34413	Bromomethane, water, unfiltered, recoverable, micrograms per liter		< 0.4			
34418	Chloromethane, water, unfiltered, recoverable, micrograms per liter		< 0.1			
34423	Dichloromethane, water, unfiltered, recoverable, micrograms per liter	5	0.1 E			
34443	Naphthalene, water, filtered, recoverable, micrograms per liter					
34462	Phenanthrene, water, filtered, recoverable, micrograms per liter					
34466	Phenol, water, filtered, recoverable, micrograms per liter					
34470	Pyrene, water, filtered, recoverable, micrograms per liter					
34475	Tetrachloroethene, water, unfiltered, recoverable, micrograms per liter	5	< 0.04			
34476	Tetrachloroethane, water, filtered, recoverable, micrograms per liter					
34488	Trichlorofluoromethane, water, unfiltered, recoverable, micrograms per liter	150	< 0.08			
34496	1,1-Dichloroethane, water, unfiltered, recoverable, micrograms per liter	5	< 0.06			
34501	1,1-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	6	< 0.02			
34506	1,1,1-Trichloroethane, water, unfiltered, recoverable, micrograms per liter	200	< 0.04			
34511	1,1,2-Trichloroethane, water, unfiltered, recoverable, micrograms per liter	5	< 0.04			
34516	1,1,2,2-Tetrachloroethane, water, unfiltered, recoverable, micrograms per liter	1	< 0.10			
34536	1,2-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter	600	< 0.04			
34541	1,2-Dichloropropane, water, unfiltered, recoverable, micrograms per liter	5	< 0.02			
34546	trans-1,2-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	10	< 0.02			
34551	1,2,4-Trichlorobenzene, water, unfiltered, recoverable, micrograms per liter	5	< 0.1			



**Water Quality Data for Imported Water Delivered to RCWD Upper VDC Recharge Basin  
Upper Pond 5 in Pauba Valley  
USGS Site No. 333024117005501**

Code	Parameter	MCL	Pond 5 9/17/2007	Pond 5 7/28/2010	Pond 5 8/22/2011	Pond 5 8/21/2012
	Sampling date					
34566	1,3-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter		< 0.04			
34571	1,4-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter		< 0.04			
34572	1,4-Dichlorobenzene, water, filtered, recoverable, micrograms per liter	5				
34668	Dichlorodifluoromethane, water, unfiltered, recoverable, micrograms per liter		< 0.14			
34696	Naphthalene, water, unfiltered, recoverable, micrograms per liter		< 0.4			
34699	trans-1,3-Dichloropropene, water, unfiltered, recoverable, micrograms per liter	0.5	< 0.10			
34704	cis-1,3-Dichloropropene, water, unfiltered, recoverable, micrograms per liter	0.5	< 0.06			
38454	Diclorophos, water, filtered, recoverable, micrograms per liter					
38775	Dichlorvos, water, filtered, recoverable, micrograms per liter					
38933	Chlorpyrifos, water, filtered, recoverable, micrograms per liter					
39086	Alkalinity, water, filtered, incremental titration, field, milligrams per liter as calcium carbonate			115	84.7	96.2
39175	Vinyl chloride, water, unfiltered, recoverable, micrograms per liter	0.5	< 0.1			
39180	Trichloroethene, water, unfiltered, recoverable, micrograms per liter	5	< 0.02			
39381	Dieldrin, water, filtered, recoverable, micrograms per liter					
39415	Metolachlor, water, filtered, recoverable, micrograms per liter					
39532	Malathion, water, filtered, recoverable, micrograms per liter					
39572	Diazinon, water, filtered, recoverable, micrograms per liter					
39632	Atrazine, water, filtered, recoverable, micrograms per liter					
39702	Hexachlorobutadiene, water, unfiltered, recoverable, micrograms per liter		< 0.1			
46342	Alachlor, water, filtered, recoverable, micrograms per liter					
49260	Acetochlor, water, filtered, recoverable, micrograms per liter					
49295	1-Naphthol, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
49933	C-14, water, filtered, percent modern		89.1			
49934	C-14, counting error, water, filtered, percent modern		0.38			
49991	Methyl acrylate, water, unfiltered, recoverable, micrograms per liter		< 0.4			
49999	1,2,3,4-Tetramethylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.1			
50000	1,2,3,5-Tetramethylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.1			
50002	Bromoethene, water, unfiltered, recoverable, micrograms per liter		< 0.1			
50004	tert-Butyl ethyl ether, water, unfiltered, recoverable, micrograms per liter		< 0.04			
50005	Methyl tert-pentyl ether, water, unfiltered, recoverable, micrograms per liter		< 0.04			
50305	Caffeine, water, filtered, recoverable, micrograms per liter					
50359	Metaxyl, water, filtered, recoverable, micrograms per liter					
61209	Perchlorate, water, unfiltered, recoverable, micrograms per liter	6				
61585	Cyfluthrin, water, filtered, recoverable, micrograms per liter					
61586	Cypermethrin, water, filtered, recoverable, micrograms per liter					
61591	Fenamiphos, water, filtered, recoverable, micrograms per liter					
61593	Iprodione, water, filtered, recoverable, micrograms per liter					
61594	Isofenphos, water, filtered, recoverable, micrograms per liter					
61596	Metaxyl, water, filtered, recoverable, micrograms per liter					
61598	Methidathion, water, filtered, recoverable, micrograms per liter					
61599	Myclobutanil, water, filtered, recoverable, micrograms per liter					
61601	Phosmet, water, filtered, recoverable, micrograms per liter					
61610	Tribuphos, water, filtered, recoverable, micrograms per liter					
61618	2-Chloro-2',6'-diethylacetanilide, water, filtered, recoverable, micrograms per liter					
61620	2-Ethyl-6-methylaniline, water, filtered, recoverable, micrograms per liter					
61625	3,4-Dichloroaniline, water, filtered, recoverable, micrograms per liter					
61633	4-Chloro-2-methylphenol, water, filtered, recoverable, micrograms per liter					
61635	Azinphos-methyl oxygen analog, water, filtered, recoverable, micrograms per liter					
61636	Chlorpyrifos oxygen analog, water, filtered, recoverable, micrograms per liter					
61644	Ethion oxonoxon, water, filtered, recoverable, micrograms per liter					
61645	Fenamiphos sulfone, water, filtered, recoverable, micrograms per liter					
61646	Fenamiphos sulfoxide, water, filtered, recoverable, micrograms per liter					
61652	Malaoxon, water, filtered, recoverable, micrograms per liter					

**Water Quality Data for Imported Water Delivered to RCWD Upper VDC Recharge Basin  
Upper Pond 5 in Pauba Valley  
USGS Site No. 333024117005501**

Code	Parameter	MCL	Pond 5 9/17/2007	Pond 5 7/28/2010	Pond 5 8/22/2011	Pond 5 8/21/2012
	Sampling date					
61664	Methyl paraoxon, water, filtered, recoverable, micrograms per liter					
61666	Phorate oxygen analog, water, filtered, recoverable, micrograms per liter					
61668	Phosmet oxygen analog, water, filtered, recoverable, micrograms per liter					
61674	Terbufos oxygen analog sulfone, water, filtered, recoverable, micrograms per liter					
61705	Diethoxyoctylphenol, water, filtered, recoverable, micrograms per liter					
61706	Monoethoxyoctylphenol, water, filtered, recoverable, micrograms per liter					
62005	Cotinine, water, filtered, recoverable, micrograms per liter					
62054	1-Methylnaphthalene, water, filtered, recoverable, micrograms per liter					
62055	2,6-Dimethylnaphthalene, water, filtered, recoverable, micrograms per liter					
62056	2-Methylnaphthalene, water, filtered, recoverable, micrograms per liter					
62057	3-beta-Coprostanol, water, filtered, recoverable, micrograms per liter					
62058	3-Methyl-1H-indole, water, filtered, recoverable, micrograms per liter					
62059	3-tert-Butyl-4-hydroxyanisole, water, filtered, recoverable, micrograms per liter					
62060	4-Cumylphenol, water, filtered, recoverable, micrograms per liter					
62061	4-Octylphenol, water, filtered, recoverable, micrograms per liter					
62062	4-tert-Octylphenol, water, filtered, recoverable, micrograms per liter					
62063	5-Methyl-1H-benzotriazole, water, filtered, recoverable, micrograms per liter					
62064	Acetophenone, water, filtered, recoverable, micrograms per liter					
62065	Acetyl hexamethyl tetrahydro naphthalene, water, filtered, recoverable, micrograms per liter					
62066	9,10-Anthraquinone, water, filtered, recoverable, micrograms per liter					
62067	Benzophenone, water, filtered, recoverable, micrograms per liter					
62068	beta-Sitosterol, water, filtered, recoverable, micrograms per liter					
62070	Camphor, water, filtered, recoverable, micrograms per liter					
62071	Carbazole, water, filtered, recoverable, micrograms per liter					
62072	Cholesterol, water, filtered, recoverable, micrograms per liter					
62073	D-Limonene, water, filtered, recoverable, micrograms per liter					
62075	Hexahydrohexamethyl cyclopentabenzopyran, water, filtered, recoverable, micrograms per liter					
62076	Indole, water, filtered, recoverable, micrograms per liter					
62077	Isoborneol, water, filtered, recoverable, micrograms per liter					
62078	Isopropylbenzene, water, filtered, recoverable, micrograms per liter					
62079	Isouquinoline, water, filtered, recoverable, micrograms per liter					
62080	Menthyl, water, filtered, recoverable, micrograms per liter					
62081	Methyl salicylate, water, filtered, recoverable, micrograms per liter					
62082	DEET, water, filtered, recoverable, micrograms per liter					
62083	Diethoxynonylphenol, water, filtered, recoverable, micrograms per liter					
62084	p-Cresol, water, filtered, recoverable, micrograms per liter					
62085	4-Nonylphenol, water, filtered, recoverable, micrograms per liter					
62086	beta-Stigmastanol, water, filtered, recoverable, micrograms per liter					
62087	Tris(2-chloroethyl) phosphate, water, filtered, recoverable, micrograms per liter					
62088	Tris(dichloroisopropyl) phosphate, water, filtered, recoverable, micrograms per liter					
62089	Tributyl phosphate, water, filtered, recoverable, micrograms per liter					
62090	Triclosan, water, filtered, recoverable, micrograms per liter					
62091	Triethyl citrate, water, filtered, recoverable, micrograms per liter					
62092	Triphenyl phosphate, water, filtered, recoverable, micrograms per liter					
62093	Tris(2-butoxyethyl) phosphate, water, filtered, recoverable, micrograms per liter					
62166	Fipronil, water, filtered, recoverable, micrograms per liter					
62167	Fipronil sulfide, water, filtered, recoverable, micrograms per liter					
62168	Fipronil sulfone, water, filtered, recoverable, micrograms per liter					
62169	Desulfinyfipronil amide, water, filtered, recoverable, micrograms per liter					
62170	Desulfinyfipronil, water, filtered, recoverable, micrograms per liter					
62854	Total nitrogen, (NH3+NO2+NO3+Organic), filtered, milligrams per liter		0.41			
63790	Perchlorate, water, filtered, recoverable, micrograms per liter		1.11			
70300	Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter	1500	526	516	362	384

Source: USGS California Water Science Center.

**Water Quality Data for Imported Water Delivered to RCWD Upper VDC Recharge Basin  
Upper Pond 5 in Pauba Valley  
USGS Site No. 333024117005501**

Code	Parameter	MCL	Pond 5 9/17/2007	Pond 5 7/28/2010	Pond 5 8/22/2011	Pond 5 8/21/2012
	Sampling date					
70301	Residue, water, filtered, sum of constituents, milligrams per liter		503 E	537 E	329	372
70303	Residue, water, filtered, tons per acre-foot					
71846	Ammonia, water, filtered, milligrams per liter as NH4		< 0.026	0.029	0.014	0.015
71851	Nitrate, water, filtered, milligrams per liter	45 (g)	< 1.00	0.623	0.872	0.708
71856	Nitrite, water, filtered, milligrams per liter		< 0.007	0.011	< 0.003	< 0.003
71865	Iodide, water, filtered, milligrams per liter			0.012	0.004	0.008
71870	Bromide, water, filtered, milligrams per liter			0.10	0.075	0.122
72019	Depth to water level, feet below land surface					
73547	trans-1,4-Dichloro-2-butene, water, unfiltered, recoverable, micrograms per liter		< 0.6			
73570	Ethyl methacrylate, water, unfiltered, recoverable, micrograms per liter		< 0.1			
75985	Tritium 2-sigma combined uncertainty, water, unfiltered, picocuries per liter		1.6			
76002	Rn-222, 2-sigma combined uncertainty, water, unfiltered, picocuries per liter		15			
77041	Carbon disulfide, water, unfiltered, micrograms per liter		< 0.06			
77093	cis-1,2-Dichloroethane, water, unfiltered, recoverable, micrograms per liter	6	< 0.02			
77103	n-Butyl methyl ketone, water, unfiltered, recoverable, micrograms per liter		< 0.4			
77128	Styrene, water, unfiltered, recoverable, micrograms per liter	100	< 0.04			
77135	o-Xylene, water, unfiltered, recoverable, micrograms per liter		< 0.04			
77168	1,1-Dichloropropene, water, unfiltered, recoverable, micrograms per liter		< 0.04			
77170	2,2-Dichloropropane, water, unfiltered, recoverable, micrograms per liter		< 0.06			
77173	1,3-Dichloropropane, water, unfiltered, recoverable, micrograms per liter		< 0.1			
77220	2-Ethyltoluene, water, unfiltered, recoverable, micrograms per liter		< 0.04			
77221	1,2,3-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.1			
77222	1,2,4-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.04			
77223	Isopropylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.04			
77224	n-Propylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.04			
77226	1,3,5-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.04			
77275	2-Chlorotoluene, water, unfiltered, recoverable, micrograms per liter		< 0.04			
77277	4-Chlorotoluene, water, unfiltered, recoverable, micrograms per liter		< 0.04			
77297	Bromochloromethane, water, unfiltered, recoverable, micrograms per liter		0.09 E			
77342	n-Butylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.1			
77350	sec-Butylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.04			
77353	tert-Butylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.08			
77356	4-Isopropyltoluene, water, unfiltered, recoverable, micrograms per liter		< 0.08			
77424	Iodomethane, water, unfiltered, recoverable, micrograms per liter		< 0.40			
77443	1,2,3-Trichloropropane, water, unfiltered, recoverable, micrograms per liter		< 0.12			
77562	1,1,1,2-Tetrachloroethane, water, unfiltered, recoverable, micrograms per liter		< 0.04			
77613	1,2,3-Trichlorobenzene, water, unfiltered, recoverable, micrograms per liter		< 0.1			
77651	1,2-Dibromoethane, water, unfiltered, recoverable, micrograms per liter	0.05	< 0.04			
77652	1,1,2-Trichloro-1,2,2-trifluoroethane, water, unfiltered, recoverable, micrograms per liter		< 0.04			
78032	Methyl tert-butyl ether, water, unfiltered, recoverable, micrograms per liter		< 0.10			
78109	3-Chloropropene, water, unfiltered, recoverable, micrograms per liter		< 0.08			
78133	Isobutyl methyl ketone, water, unfiltered, recoverable, micrograms per liter		< 0.2			
81552	Acetone, water, unfiltered, recoverable, micrograms per liter		< 6			
81555	Bromobenzene, water, unfiltered, recoverable, micrograms per liter		< 0.02			
81576	Diethyl ether, water, unfiltered, recoverable, micrograms per liter		< 0.1			
81577	Diisopropyl ether, water, unfiltered, recoverable, micrograms per liter		< 0.06			
81593	Methyl acrylonitrile, water, unfiltered, recoverable, micrograms per liter		< 0.4			
81595	Ethyl methyl ketone, water, unfiltered, recoverable, micrograms per liter		< 1.6			
81597	Methyl methacrylate, water, unfiltered, recoverable, micrograms per liter		< 0.2			
81607	Tetrahydrofuran, water, unfiltered, recoverable, micrograms per liter		< 1			
82081	C-13/C-12 ratio, water, unfiltered, per mil		-6.46			
82082	Deuterium/Protium ratio, water, unfiltered, per mil		-83			
82085	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil		-10.14	-81.6	-79.4	-76.2
				-10.01	-10.04	-9.42

**Water Quality Data for Imported Water Delivered to RCWD Upper VDC Recharge Basin  
Upper Pond 5 in Pauba Valley  
USGS Site No. 333024117005501**

Code	Parameter	MCL	Pond 5 9/17/2007	Pond 5 7/28/2010	Pond 5 8/22/2011	Pond 5 8/21/2012
	Sampling date					
82303	Rn-222, water, unfiltered, picocuries per liter					
82346	Ethion, water, filtered, recoverable, micrograms per liter		0			
82625	1,2-Dibromo-3-chloropropane, water, unfiltered, recoverable, micrograms per liter					
82630	Methibuzin, water, filtered, recoverable, micrograms per liter		< 0.5			
82660	2,6-Diethylaniline, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82661	Trifluralin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82662	Dimethoate, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82664	Phorate, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82667	Methyl parathion, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82670	Tebuuthiuron, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82673	Bentfluralin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82675	Terbufos, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82676	Propyzamide, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82680	Carbaryl, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82682	DCPA, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82683	Pendimethalin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82686	Azinphos-methyl, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82687	cis-Permethrin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
85795	m-Xylene plus p-xylene, water, unfiltered, recoverable, micrograms per liter		< 0.08	868	568	625
90095	Specific conductance, water, unfiltered, laboratory, microsiemens per centimeter at 25 degrees Celsius		859			
90851	Triholomehtanes, water, unfiltered, calcd, micrograms per liter		50.2			
90867	Triholomehtanes, water, unfiltered, calcd, micrograms per liter		50.2			
95583	Bisphenol A-d3, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery					
95584	Caffeine-13C, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery					
95585	Decafluorobiphenyl, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery					
95586	Fluoranthene-d10, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery					
99832	1,2-Dichloroethane-d4, surrogate, Schedule 2090, water, unfiltered, percent recovery					
99833	Toluene-d8, surrogate, Schedule 2090, water, unfiltered, percent recovery					
99834	1-Bromo-4-fluorobenzene, surrogate, VOC schedules, water, unfiltered, percent recovery					
99994	Diazinon-d10, surrogate, Schedule 2003, water, filtered, percent recovery					
99995	alpha-HCH-d6, surrogate, Schedule 2003, water, filtered, percent recovery					

Notes: U.S. EPA STORET numbers for MCLs correspond to the same as the USGS NWIS data parameter number except as follows:

- (a) MCL shown for U.S. EPA STORET No. 620.
- (b) MCL shown for U.S. EPA STORET No. 951.
- (c) MCL shown for U.S. EPA STORET No. 1002.
- (d) MCL shown for U.S. EPA STORET No. 1007.
- (e) MCL shown for U.S. EPA STORET No. 1012.
- (f) MCL shown for U.S. EPA STORET No. 1027.
- (g) MCL shown for U.S. EPA STORET No. 1034.
- (h) MCL shown for U.S. EPA STORET No. 1042.
- (i) MCL shown for U.S. EPA STORET No. 1059.
- (j) MCL shown for U.S. EPA STORET No. 1067.
- (k) MCL shown for U.S. EPA STORET No. 1077.
- (l) MCL shown for U.S. EPA STORET No. 1092.
- (m) MCL shown for U.S. EPA STORET No. 1097.
- (n) MCL shown for U.S. EPA STORET No. 1105.
- (o) MCL shown for U.S. EPA STORET No. 1147.
- (p) MCL shown for U.S. EPA STORET No. 34247.
- (q) MCL shown for U.S. EPA STORET No. 71850.

Code--Data parameter number used in USGS National Water Information System (NWIS).

E--Estimated.

M--Presence verified but not quantified.

MCL--Maximum Contaminant Level reported by California DHS (May 25, 2007 Database) for U.S. EPA STORET number.

V--Biased results from contamination.

**ANNUAL REPORT**

**COOPERATIVE WATER RESOURCE  
MANAGEMENT AGREEMENT**

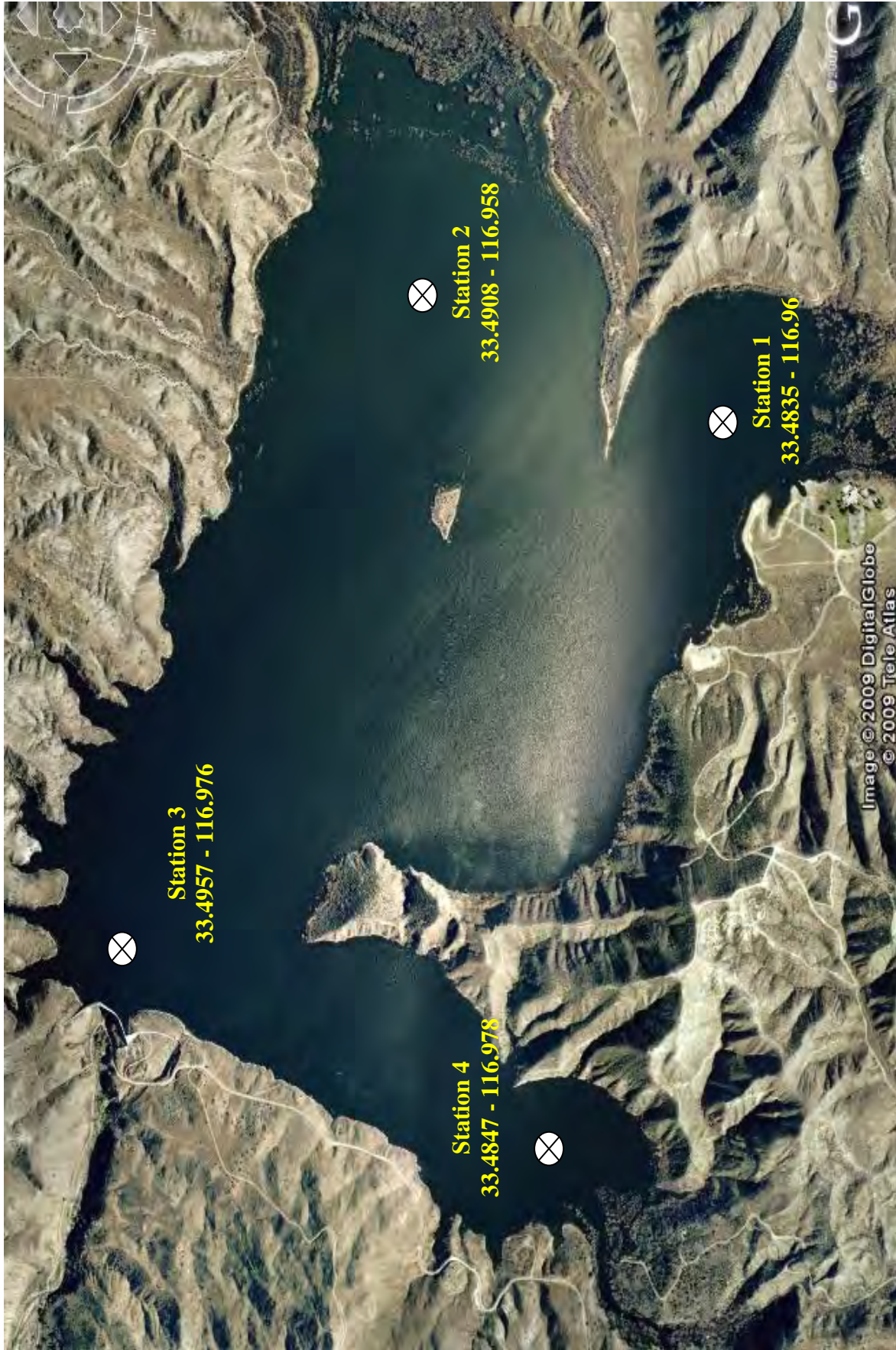
**CALENDAR YEAR 2013**

**APPENDIX D-2**

**WATER QUALITY DATA FOR VAIL LAKE**



# Vail Lake Water Quality Sampling Locations



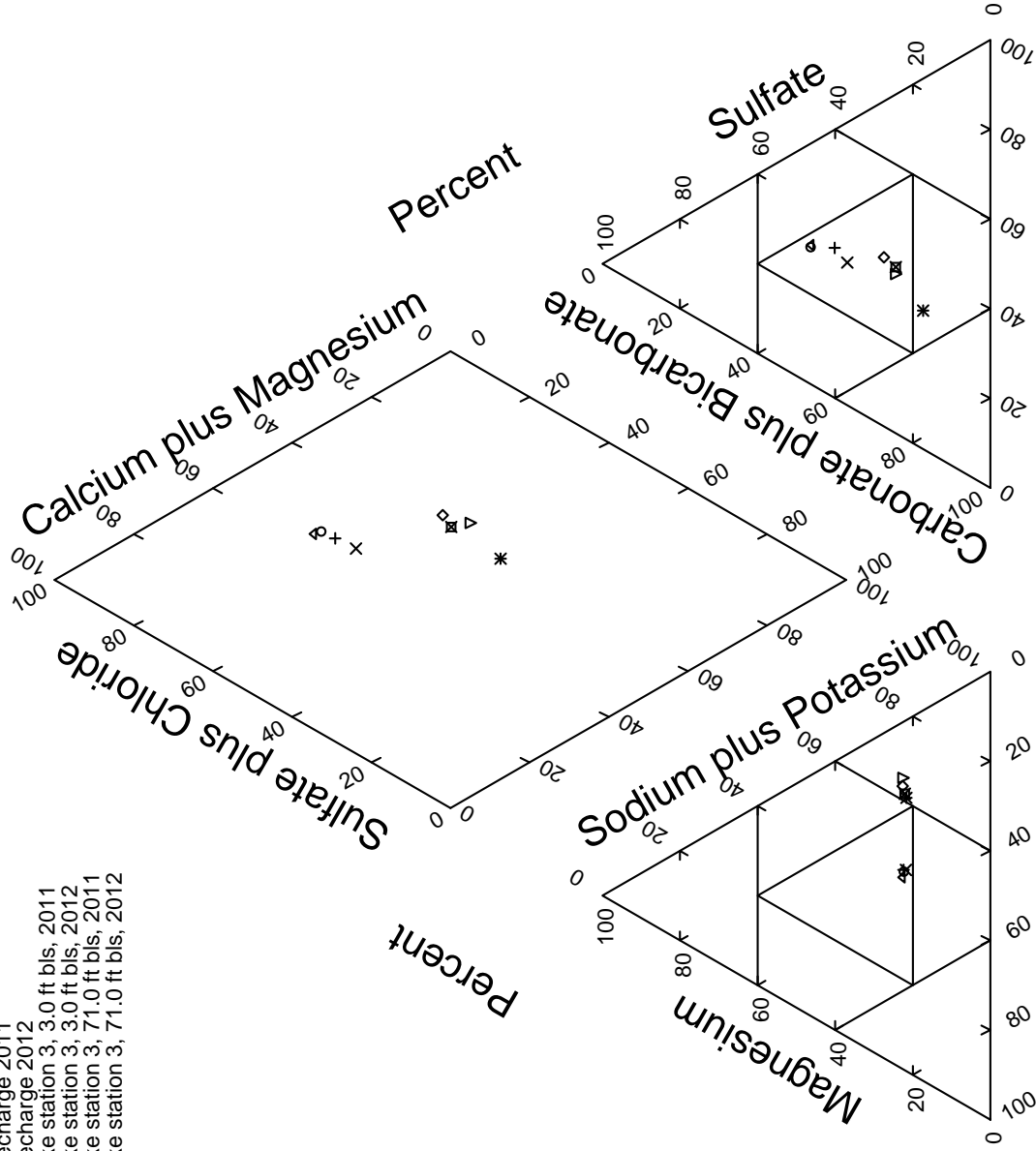
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# Tri-Linear Diagram VDC Recharge and Vail Lake

## Explanation

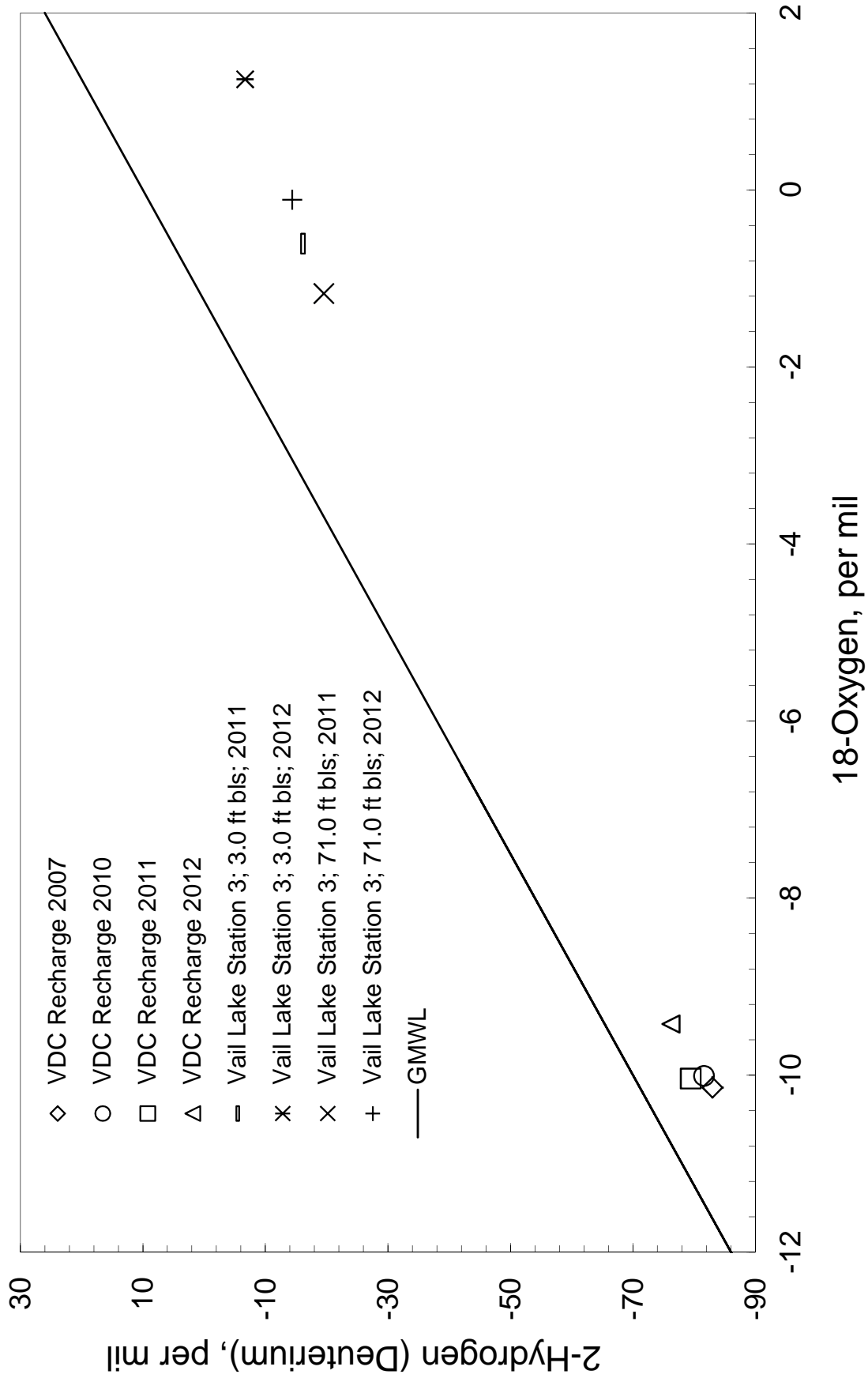
- VDC Recharge 2007
- △ VDC Recharge 2010
- + VDC Recharge 2011
- x VDC Recharge 2012
- ◇ Vail Lake station 3, 3.0 ft bls, 2011
- ▽ Vail Lake station 3, 3.0 ft bls, 2012
- ▣ Vail Lake station 3, 71.0 ft bls, 2011
- \* Vail Lake station 3, 71.0 ft bls, 2012



Source: USGS California Water Science Center.

# Stable Isotope Diagram

## VDC Recharge and Vail Lake



Source: USGS California Water Science Center.

**Water Quality Data for Vail Lake (USGS Station No. 11042510)  
RCWD Water Quality Sampling Station No. 3 Vail 1M  
Data Collected by RCWD**

Parameter	3 Vail 1M 9/22/2009	3 Vail 1M 10/21/2009	3 Vail 1M 11/18/2009	3 Vail 1M 5/26/2010	3 Vail 1M 6/17/2010	3 Vail 1M 8/14/2010	3 Vail 1M 9/18/2010
Sampling Date							
Reservoir Storage Content, acre feet	22,030	21,630	21,230	25,790	25,490	24,510	24,000
Reservoir Storage Content, percent full	44.6%	43.8%	43.0%	52.2%	51.6%	49.6%	48.6%
Water Surface Elevation, feet above mean sea level	1,438.92	1,438.34	1,437.76	1,444.13	1,443.74	1,442.42	1,441.71
Water Surface Elevation, feet above bottom of lowest outlet	86.42	85.84	85.26	91.63	91.24	89.92	89.21
Sampling Depth, meters below water surface	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Dissolved Oxygen, milligrams per liter			10.7	7.98	8.54	6	
pH, standard units		8.98	8.72	9.11	9.29	9.49	
Total Dissolved Solids, milligrams per liter							
Specific Conductance, microsiemens per centimeter at 25 degrees Celsius		1274	1058	1172	1174	1193	1210
Temperature, water, degrees Celsius		19.84	16.02	19.90	22.84	23.88	22.51
Aluminum, micrograms per liter							ND
Ammonia, milligrams per liter as nitrogen	ND	ND	ND	ND		ND	ND
Antimony, micrograms per liter							ND
Arsenic, micrograms per liter							ND
Barium, micrograms per liter							25
Beryllium, micrograms per liter							ND
Bicarbonate as HCO3, milligrams per liter	260	290	300	240		150	180
Carbonate as CO3, milligrams per liter	12	ND	ND	14		48	34
Chloride, milligrams per liter	180		180	130		150	160
Cyanide, milligrams per liter							ND
Fluoride, milligrams per liter							0.5
Hydroxide as OH, milligrams per liter	ND	ND	ND	ND		ND	ND
Inorganic Nitrogen, milligrams per liter	ND	ND	ND	ND		ND	ND
Kjeldahl Nitrogen, milligrams per liter							ND
Lead, micrograms per liter							ND
Mercury, micrograms per liter							ND
Nickel, micrograms per liter							ND
Nitrate Nitrogen, milligrams per liter	ND	ND	ND	ND		ND	ND
Nitrite Nitrogen, milligrams per liter	ND	ND	ND	ND		ND	ND
Ortho Phosphate Phosphorus, milligrams per liter	ND	ND	0.053	ND		ND	ND
Perchlorate, micrograms per liter							ND
Selenium, micrograms per liter							ND
Silver, micrograms per liter							ND
Sulfate, milligrams per liter	180		180	140		150	170
Thallium, micrograms per liter							ND
Total Alkalinity as CaCO3, milligrams per liter	230	240	250	220		200	200
Total Chromium, micrograms per liter							ND
Total Suspended Solids, milligrams per liter	ND	ND	7	8		18	13

**Notes:**

Station No. 3 Vail 1M located near upstream face of Vail Dam, sample depth one meter below water surface.  
Total capacity, 49,370 acre feet, between elevations 1,352.5 feet, bottom of lowest outlet, and 1,470 feet, crest of spillway.  
ND - None detected.

Source: Rancho California Water District.

**Water Quality Data for Vail Lake (USGS Station No. 11042510)  
RCWD Water Quality Sampling Station No. 3 Vail 1M  
Data Collected by RCWD**

Parameter	3 Vail 1M 10/9/2010	3 Vail 1M 11/13/2010	3 Vail 1M 12/11/2010	3 Vail 1M 1/8/2011	3 Vail 1M 2/12/2011	3 Vail 1M 3/19/2011	3 Vail 1M 4/16/2011
Sampling Date							
Reservoir Storage Content, acre feet	23,640	22,510	21,960	27,740	28,060	30,740	32,120
Reservoir Storage Content, percent full	47.9%	45.6%	44.5%	56.2%	56.8%	62.3%	65.1%
Water Surface Elevation, feet above mean sea level	1,441.21	1,439.61	1,438.82	1,446.68	1,447.08	1,450.39	1,452.03
Water Surface Elevation, feet above bottom of lowest outlet	88.71	87.11	86.32	94.18	94.58	97.89	99.53
Sampling Depth, meters below water surface	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Dissolved Oxygen, milligrams per liter							
pH, standard units							
Total Dissolved Solids, milligrams per liter							
Specific Conductance, microsiemens per centimeter at 25 degrees Celsius							
Temperature, water, degrees Celsius							
Aluminum, micrograms per liter							
Ammonia, milligrams per liter as nitrogen	0.18	0.13	0.33	0.18	ND	ND	ND
Antimony, micrograms per liter							
Arsenic, micrograms per liter							
Barium, micrograms per liter							
Beryllium, micrograms per liter							
Bicarbonate as HCO3, milligrams per liter	260	260	270	220	230	190	190
Carbonate as CO3, milligrams per liter	ND	ND	ND	ND	ND	14	12
Chloride, milligrams per liter	150	160	160	130	120	120	110
Cyanide, milligrams per liter							
Fluoride, milligrams per liter							
Hydroxide as OH, milligrams per liter	ND	ND	ND	ND	ND	ND	ND
Inorganic Nitrogen, milligrams per liter	ND	ND	0.3	0.4	ND	ND	ND
Kjeldahl Nitrogen, milligrams per liter							
Lead, micrograms per liter							
Mercury, micrograms per liter							
Nickel, micrograms per liter							
Nitrate Nitrogen, milligrams per liter	ND	ND	ND	0.23	ND	ND	ND
Nitrite Nitrogen, milligrams per liter	ND	ND	ND	ND	ND	ND	ND
Ortho Phosphate Phosphorus, milligrams per liter	ND	ND	ND	0.088	ND	ND	ND
Perchlorate, micrograms per liter							
Selenium, micrograms per liter							
Silver, micrograms per liter							
Sulfate, milligrams per liter	160	150	160	130	120	130	110
Thallium, micrograms per liter							
Total Alkalinity as CaCO3, milligrams per liter	210	220	220	180	190	180	180
Total Chromium, micrograms per liter							
Total Suspended Solids, milligrams per liter	6	10	12	8	10	8	6

Notes:  
 Station No. 3 Vail 1M located near upstream face of Vail Dam, sample depth one meter below water surface.  
 Total capacity, 49,370 acre feet, between elevations 1,352.5 feet, bottom of lowest outlet, and 1,470 feet, crest of spillway.  
 ND - None detected.

Source: Rancho California Water District.

**Water Quality Data for Vail Lake (USGS Station No. 11042510)  
RCWD Water Quality Sampling Station No. 3 Vail 1M  
Data Collected by RCWD**

Parameter	3 Vail 1M 5/14/2011	3 Vail 1M 6/18/2011	3 Vail 1M 7/23/2011	3 Vail 1M 8/20/2011	3 Vail 1M 9/17/2011	3 Vail 1M 10/15/2011	3 Vail 1M 11/5/2011
Sampling Date							
Reservoir Storage Content, acre feet	31,990	31,550	30,730	30,120	29,590	29,140	28,880
Reservoir Storage Content, percent full	64.8%	63.9%	62.2%	61.0%	59.9%	59.0%	58.5%
Water Surface Elevation, feet above mean sea level	1,451.88	1,451.36	1,450.38	1,449.64	1,448.99	1,448.44	1,448.11
Water Surface Elevation, feet above bottom of lowest outlet	99.38	98.86	97.88	97.14	96.49	95.94	95.61
Sampling Depth, meters below water surface	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Dissolved Oxygen, milligrams per liter			23.07				
pH, standard units			9.11				
Total Dissolved Solids, milligrams per liter		520		550	570	600	600
Specific Conductance, microsiemens per centimeter at 25 degrees Celsius			984				
Temperature, water, degrees Celsius			21.7				
Aluminum, micrograms per liter							
Ammonia, milligrams per liter as nitrogen	ND	ND		ND	ND	ND	0.14
Antimony, micrograms per liter							
Arsenic, micrograms per liter							
Barium, micrograms per liter							
Beryllium, micrograms per liter							
Bicarbonate as HCO <sub>3</sub> , milligrams per liter	170	160		200	220	230	240
Carbonate as CO <sub>3</sub> , milligrams per liter	22	30		13	8.4	4.8	ND
Chloride, milligrams per liter	100	110		120	120	120	130
Cyanide, milligrams per liter							
Fluoride, milligrams per liter							
Hydroxide as OH, milligrams per liter	ND	ND		ND	ND	ND	ND
Inorganic Nitrogen, milligrams per liter	ND	ND		ND	ND	ND	ND
Kjeldahl Nitrogen, milligrams per liter							
Lead, micrograms per liter							
Mercury, micrograms per liter							
Nickel, micrograms per liter							
Nitrate Nitrogen, milligrams per liter	ND	ND		ND	ND	ND	ND
Nitrite Nitrogen, milligrams per liter	ND	ND		ND	ND	ND	ND
Ortho Phosphate Phosphorus, milligrams per liter	ND	ND		ND	ND	ND	ND
Perchlorate, micrograms per liter							
Selenium, micrograms per liter							
Silver, micrograms per liter							
Sulfate, milligrams per liter	110	110		110	120	120	110
Thallium, micrograms per liter							
Total Alkalinity as CaCO <sub>3</sub> , milligrams per liter	180	180		190	190	200	190
Total Chromium, micrograms per liter							
Total Suspended Solids, milligrams per liter	16	18		ND	6	7	8

## Notes:

Station No. 3 Vail 1M located near upstream face of Vail Dam, sample depth one meter below water surface.

Total capacity, 49,370 acre feet, between elevations 1,352.5 feet, bottom of lowest outlet, and 1,470 feet, crest of spillway.

ND - None detected.

**Water Quality Data for Vail Lake (USGS Station No. 11042510)  
RCWD Water Quality Sampling Station No. 3 Vail 1M  
Data Collected by RCWD**

Parameter	3 Vail 1M 12/3/2011	3 Vail 1M 1/28/2012	3 Vail 1M 2/25/2012	3 Vail 1M 3/10/2012	3 Vail 1M 4/28/2012	3 Vail 1M 5/12/2012	3 Vail 1M 6/16/2012
Sampling Date							
Reservoir Storage Content, acre feet	28,790	28,740	28,800	28,870	29,360	29,220	28,570
Reservoir Storage Content, percent full	58.3%	58.2%	58.3%	58.5%	59.5%	59.2%	57.9%
Water Surface Elevation, feet above mean sea level	1,448.00	1,447.94	1,448.01	1,448.10	1,448.71	1,448.53	1,447.72
Water Surface Elevation, feet above bottom of lowest outlet	95.50	95.44	95.51	95.60	96.21	96.03	95.22
Sampling Depth, meters below water surface	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Dissolved Oxygen, milligrams per liter							
pH, standard units							
Total Dissolved Solids, milligrams per liter	640	500	490	630	600	590	600
Specific Conductance, microsiemens per centimeter at 25 degrees Celsius							
Temperature, water, degrees Celsius							
Aluminum, micrograms per liter							
Ammonia, milligrams per liter as nitrogen	0.2	ND	ND	ND	< 0.10	< 0.10	< 0.10
Antimony, micrograms per liter							
Arsenic, micrograms per liter							
Barium, micrograms per liter							
Beryllium, micrograms per liter							
Bicarbonate as HCO <sub>3</sub> , milligrams per liter	240	260	220	250	240	240	240
Carbonate as CO <sub>3</sub> , milligrams per liter	ND	ND	18	3.6	11	9.6	7.7
Chloride, milligrams per liter	130	120	130	120	130	130	130
Cyanide, milligrams per liter							
Fluoride, milligrams per liter							
Hydroxide as OH, milligrams per liter	ND	ND	ND	ND	< 3.0	< 3.0	< 3.0
Inorganic Nitrogen, milligrams per liter	0.2	ND	ND	ND	< 0.20	< 0.20	< 0.20
Kjeldahl Nitrogen, milligrams per liter		2.1			1.5	1.4	1.2
Lead, micrograms per liter							
Mercury, micrograms per liter							
Nickel, micrograms per liter							
Nitrate Nitrogen, milligrams per liter	ND	ND	ND	ND	< 0.20	< 0.20	< 0.20
Nitrite Nitrogen, milligrams per liter	ND	ND	ND	ND	< 0.10	< 0.10	< 0.10
Ortho Phosphate Phosphorus, milligrams per liter	ND	ND	ND	ND	< 0.050	< 0.050	< 0.050
Perchlorate, micrograms per liter							
Selenium, micrograms per liter							
Silver, micrograms per liter							
Sulfate, milligrams per liter	120	110	120	120	130	120	120
Thallium, micrograms per liter							
Total Alkalinity as CaCO <sub>3</sub> , milligrams per liter	200	210	210	210	210	220	210
Total Chromium, micrograms per liter							
Total Suspended Solids, milligrams per liter	11	25	14	9	8	8	< 5

## Notes:

Station No. 3 Vail 1M located near upstream face of Vail Dam, sample depth one meter below water surface.

Total capacity, 49,370 acre feet, between elevations 1,352.5 feet, bottom of lowest outlet, and 1,470 feet, crest of spillway.

ND - None detected.

**Water Quality Data for Vail Lake (USGS Station No. 11042510)  
RCWD Water Quality Sampling Station No. 3 Vail 1M  
Data Collected by RCWD**

Parameter	3 Vail 1M 7/14/2012	3 Vail 1M 8/11/2012	3 Vail 1M 9/15/2012	3 Vail 1M 10/20/2012	3 Vail 1M 11/17/2012	3 Vail 1M 12/15/2012	3 Vail 1M 1/19/2013
Sampling Date							
Reservoir Storage Content, acre feet	28,000	27,490	26,880	26,110	25,020	24,340	23,970
Reservoir Storage Content, percent full	56.7%	55.7%	54.4%	52.9%	50.7%	49.3%	48.6%
Water Surface Elevation, feet above mean sea level	1,447.01	1,446.35	1,445.56	1,444.55	1,443.11	1,442.18	1,441.68
Water Surface Elevation, feet above bottom of lowest outlet	94.51	93.85	93.06	92.05	90.61	89.68	89.18
Sampling Depth, meters below water surface	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Dissolved Oxygen, milligrams per liter							
pH, standard units							
Total Dissolved Solids, milligrams per liter	630	610	660	590	680	660	690
Specific Conductance, microsiemens per centimeter at 25 degrees Celsius							
Temperature, water, degrees Celsius							
Aluminum, micrograms per liter							
Ammonia, milligrams per liter as nitrogen	< 0.10	< 0.10	< 0.10	< 0.10	0.15	0.67	< 0.10
Antimony, micrograms per liter							
Arsenic, micrograms per liter							
Barium, micrograms per liter							
Beryllium, micrograms per liter							
Bicarbonate as HCO <sub>3</sub> , milligrams per liter	240	230	230	240	270	280	290
Carbonate as CO <sub>3</sub> , milligrams per liter	12	13	16	11	< 3.0	< 3.0	< 3.0
Chloride, milligrams per liter	130	130	140	140	140	130	140
Cyanide, milligrams per liter							
Fluoride, milligrams per liter	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Hydroxide as OH, milligrams per liter	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	0.67	< 0.20
Inorganic Nitrogen, milligrams per liter	1.3	2.0	3.2	2.2	1.7	2.2	1.5
Kjeldahl Nitrogen, milligrams per liter							
Lead, micrograms per liter							
Mercury, micrograms per liter							
Nickel, micrograms per liter							
Nitrate Nitrogen, milligrams per liter	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Nitrite Nitrogen, milligrams per liter	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.15
Ortho Phosphate Phosphorus, milligrams per liter	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	0.064	< 0.050
Perchlorate, micrograms per liter							
Selenium, micrograms per liter							
Silver, micrograms per liter							
Sulfate, milligrams per liter	120	120	120	140	120	120	130
Thallium, micrograms per liter							
Total Alkalinity as CaCO <sub>3</sub> , milligrams per liter	220	210	220	220	230	230	240
Total Chromium, micrograms per liter							
Total Suspended Solids, milligrams per liter	7	12	6	11	9	10	20

## Notes:

Station No. 3 Vail 1M located near upstream face of Vail Dam, sample depth one meter below water surface.  
Total capacity, 49,370 acre feet, between elevations 1,352.5 feet, bottom of lowest outlet, and 1,470 feet, crest of spillway.  
ND - None detected.

Source: Rancho California Water District.

**Water Quality Data for Vail Lake (USGS Station No. 11042510)  
RCWD Water Quality Sampling Station No. 3 Vail 1M  
Data Collected by RCWD**

Parameter	3 Vail 1M 2/23/2013	3 Vail 1M 3/23/2013	3 Vail 1M 4/20/2013	3 Vail 1M 5/4/2013	3 Vail 1M 6/22/2013
Sampling Date					
Reservoir Storage Content, acre feet	23,790	23,610	23,410	23,280	22,530
Reservoir Storage Content, percent full	48.2%	47.8%	47.4%	47.2%	45.6%
Water Surface Elevation, feet above mean sea level	1,441.43	1,441.17	1,440.90	1,440.17	1,439.64
Water Surface Elevation, feet above bottom of lowest outlet	88.93	88.67	88.40	87.67	87.14
Sampling Depth, meters below water surface	1.0	1.0	1.0	1.0	1.0
Dissolved Oxygen, milligrams per liter					
pH, standard units					
Total Dissolved Solids, milligrams per liter	670	700	690	680	690
Specific Conductance, microsiemens per centimeter at 25 degrees Celsius					
Temperature, water, degrees Celsius					
Aluminum, micrograms per liter					
Ammonia, milligrams per liter as nitrogen	< 0.10	< 0.10	< 0.10	< 0.10	0.11
Antimony, micrograms per liter					
Arsenic, micrograms per liter					
Barium, micrograms per liter					
Beryllium, micrograms per liter					
Bicarbonate as HCO3, milligrams per liter	250	280	290	280	300
Carbonate as CO3, milligrams per liter	3.6	9.6	< 3.0	< 3.0	11
Chloride, milligrams per liter	140	140	150	150	150
Cyanide, milligrams per liter					
Fluoride, milligrams per liter					
Hydroxide as OH, milligrams per liter	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Inorganic Nitrogen, milligrams per liter	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Kjeldahl Nitrogen, milligrams per liter	2.1	1.5	0.77	1.1	1.6
Lead, micrograms per liter					
Mercury, micrograms per liter					
Nickel, micrograms per liter					
Nitrate Nitrogen, milligrams per liter	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Nitrite Nitrogen, milligrams per liter	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Ortho Phosphate Phosphorus, milligrams per liter	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Perchlorate, micrograms per liter					
Selenium, micrograms per liter					
Silver, micrograms per liter					
Sulfate, milligrams per liter	130	130	130	140	130
Thalium, micrograms per liter					
Total Alkalinity as CaCO3, milligrams per liter	210	240	240	230	260
Total Chromium, micrograms per liter					
Total Suspended Solids, milligrams per liter	8	9	< 5	< 5	< 5

**Notes:**

Station No. 3 Vail 1M located near upstream face of Vail Dam, sample depth one meter below water surface.  
 Total capacity, 49,370 acre feet, between elevations 1,352.5 feet, bottom of lowest outlet, and 1,470 feet, crest of spillway.  
 ND - None detected.

Source: Rancho California Water District.



**Water Quality Data for Vail Lake (USGS Station No. 11042510)  
RCWD Water Quality Sampling Station No. 3 Vail 1MAB  
Data Collected by RCWD**

Parameter	3 Vail 1MAB 9/22/2009	3 Vail 1MAB 10/21/2009	3 Vail 1MAB 11/18/2009	3 Vail 1MAB 5/26/2010	3 Vail 1MAB 6/17/2010	3 Vail 1MAB 8/14/2010	3 Vail 1MAB 9/18/2010
Sampling Date							
Reservoir Storage Content, acre feet	22,030	21,630	21,230	25,790	25,490	24,510	24,000
Reservoir Storage Content, percent full	44.6%	43.8%	43.0%	52.2%	51.6%	49.6%	48.6%
Water Surface Elevation, feet above mean sea level	1,438.92	1,438.34	1,437.76	1,444.13	1,443.74	1,442.42	1,441.71
Water Surface Elevation, feet above bottom of lowest outlet	86.42	85.84	85.26	91.63	91.24	89.92	89.21
Sampling Depth, meters above reservoir bottom	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Dissolved Oxygen, milligrams per liter			12.4	14.13	77.2	6.1	
pH, standard units		7.47	8.5	7.8	7.71	7.64	
Total Dissolved Solids, milligrams per liter							
Specific Conductance, microsiemens per centimeter at 25 degrees Celsius		1212	1053	1250	1253	1243	1226
Temperature, water, degrees Celsius		15.46	15.6	12.2	12.46	13.5	16.64
Aluminum, micrograms per liter							
Ammonia, milligrams per liter as nitrogen	4.10	5.50	0.12	1.90		2.40	1.80
Antimony, micrograms per liter							
Arsenic, micrograms per liter							
Barium, micrograms per liter							
Beryllium, micrograms per liter							
Bicarbonate as HCO <sub>3</sub> , milligrams per liter	370	360	300	300	300	320	420
Carbonate as CO <sub>3</sub> , milligrams per liter	ND	ND	ND	ND	ND	ND	ND
Chloride, milligrams per liter	160	160	180	150		150	160
Cyanide, milligrams per liter							
Fluoride, milligrams per liter	ND	ND	ND	ND		ND	ND
Hydroxide as OH, milligrams per liter	4.10	5.50	ND	1.90		2.40	1.80
Inorganic Nitrogen, milligrams per liter							
Kjeldahl Nitrogen, milligrams per liter							
Lead, micrograms per liter							
Mercury, micrograms per liter							
Nickel, micrograms per liter							
Nitrate Nitrogen, milligrams per liter	ND	ND	ND	ND		ND	ND
Nitrite Nitrogen, milligrams per liter	ND	ND	ND	ND		ND	ND
Ortho Phosphate Phosphorus, milligrams per liter	0.78	1.10	0.053	0.470		0.530	1.400
Perchlorate, micrograms per liter							
Selenium, micrograms per liter							
Silver, micrograms per liter							
Sulfate, milligrams per liter	110		190	140		120	69
Thallium, micrograms per liter							
Total Alkalinity as CaCO <sub>3</sub> , milligrams per liter	300	300	250	250		260	340
Total Chromium, micrograms per liter							
Total Suspended Solids, milligrams per liter	ND	ND	6	5		ND	ND

## Notes:

Station No. 3 Vail 1MAB located near upstream face of Vail Dam, sample depth one meter above reservoir bottom.  
Total capacity, 49,370 acre feet, between elevations 1,352.5 feet, bottom of lowest outlet, and 1,470 feet, crest of spillway.  
ND - None detected.

**Water Quality Data for Vail Lake (USGS Station No. 11042510)  
RCWD Water Quality Sampling Station No. 3 Vail 1MAB  
Data Collected by RCWD**

Parameter	3 Vail 1MAB 10/9/2010	3 Vail 1MAB 11/13/2010	3 Vail 1MAB 12/11/2010	3 Vail 1MAB 1/8/2011	3 Vail 1MAB 2/12/2011	3 Vail 1MAB 3/19/2011	3 Vail 1MAB 4/16/2011
Sampling Date							
Reservoir Storage Content, acre feet	23,640	22,510	21,960	27,740	28,060	30,740	32,120
Reservoir Storage Content, percent full	47.9%	45.6%	44.5%	56.2%	56.8%	62.3%	65.1%
Water Surface Elevation, feet above mean sea level	1,441.21	1,439.61	1,438.82	1,446.68	1,447.08	1,450.39	1,452.03
Water Surface Elevation, feet above bottom of lowest outlet	88.71	87.11	86.32	94.18	94.58	97.89	99.53
Sampling Depth, meters above reservoir bottom	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Dissolved Oxygen, milligrams per liter							
pH, standard units							
Total Dissolved Solids, milligrams per liter							
Specific Conductance, microsiemens per centimeter at 25 degrees Celsius							
Temperature, water, degrees Celsius							
Aluminum, micrograms per liter							
Ammonia, milligrams per liter as nitrogen	7.80	9.10	0.31	0.22	ND	0.13	0.45
Antimony, micrograms per liter							
Arsenic, micrograms per liter							
Barium, micrograms per liter							
Beryllium, micrograms per liter							
Bicarbonate as HCO <sub>3</sub> , milligrams per liter	390	430	270	220	230	230	230
Carbonate as CO <sub>3</sub> , milligrams per liter	ND	ND	ND	ND	ND	ND	ND
Chloride, milligrams per liter	150	150	160	130	120	130	120
Cyanide, milligrams per liter							
Fluoride, milligrams per liter	ND	ND	ND	ND	ND	ND	ND
Hydroxide as OH, milligrams per liter	7.80	9.10	0.30	0.6	ND	0.5	0.50
Inorganic Nitrogen, milligrams per liter							
Kjeldahl Nitrogen, milligrams per liter							
Lead, micrograms per liter							
Mercury, micrograms per liter							
Nickel, micrograms per liter							
Nitrate Nitrogen, milligrams per liter	ND	ND	ND	0.34	ND	0.34	ND
Nitrite Nitrogen, milligrams per liter	ND	ND	ND	ND	ND	ND	ND
Ortho Phosphate Phosphorus, milligrams per liter	1.000	0.660	ND	0.09	ND	0.12	0.170
Perchlorate, micrograms per liter							
Selenium, micrograms per liter							
Silver, micrograms per liter							
Sulfate, milligrams per liter	60	45	160	130	120	130	120
Thallium, micrograms per liter							
Total Alkalinity as CaCO <sub>3</sub> , milligrams per liter	320	360	220	180	190	180	180
Total Chromium, micrograms per liter							
Total Suspended Solids, milligrams per liter	6	ND	14	8	8	ND	ND

Notes:  
 Station No. 3 Vail 1MAB located near upstream face of Vail Dam, sample depth one meter above reservoir bottom.  
 Total capacity, 49,370 acre feet, between elevations 1,352.5 feet, bottom of lowest outlet, and 1,470 feet, crest of spillway.  
 ND - None detected.

**Water Quality Data for Vail Lake (USGS Station No. 11042510)  
RCWD Water Quality Sampling Station No. 3 Vail 1MAB  
Data Collected by RCWD**

Parameter	3 Vail 1MAB 5/14/2011	3 Vail 1MAB 6/18/2011	3 Vail 1MAB 7/23/2011	3 Vail 1MAB 8/20/2011	3 Vail 1MAB 9/17/2011	3 Vail 1MAB 10/15/2011	3 Vail 1MAB 11/5/2011
Sampling Date							
Reservoir Storage Content, acre feet	31,990	31,550	30,730	30,120	29,590	29,140	28,880
Reservoir Storage Content, percent full	64.8%	63.9%	62.2%	61.0%	59.9%	59.0%	58.5%
Water Surface Elevation, feet above mean sea level	1,451.88	1,451.36	1,450.38	1,449.64	1,448.99	1,448.44	1,448.11
Water Surface Elevation, feet above bottom of lowest outlet	99.38	98.86	97.88	97.14	96.49	95.94	95.61
Sampling Depth, meters above reservoir bottom	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Dissolved Oxygen, milligrams per liter			0				
pH, standard units			7.56				
Total Dissolved Solids, milligrams per liter		530		560	610	610	590
Specific Conductance, microsiemens per centimeter at 25 degrees Celsius			1007				
Temperature, water, degrees Celsius			12.2				
Aluminum, micrograms per liter							
Ammonia, milligrams per liter as nitrogen	0.81	1.4		3.6	5	4.9	0.13
Antimony, micrograms per liter							
Arsenic, micrograms per liter							
Barium, micrograms per liter							
Beryllium, micrograms per liter							
Bicarbonate as HCO <sub>3</sub> , milligrams per liter	240	240		300	330	290	230
Carbonate as CO <sub>3</sub> , milligrams per liter	ND	ND		ND	ND	ND	ND
Chloride, milligrams per liter	110	130		120	120	120	130
Cyanide, milligrams per liter							
Fluoride, milligrams per liter	ND	ND		ND	ND	ND	ND
Hydroxide as OH, milligrams per liter	0.8	1.4		3.6	5	4.9	ND
Inorganic Nitrogen, milligrams per liter							
Kjeldahl Nitrogen, milligrams per liter							
Lead, micrograms per liter							
Mercury, micrograms per liter							
Nickel, micrograms per liter							
Nitrate Nitrogen, milligrams per liter	ND	ND		ND	ND	ND	ND
Nitrite Nitrogen, milligrams per liter	ND	ND		ND	ND	ND	ND
Ortho Phosphate Phosphorus, milligrams per liter	0.26	0.49		0.36	0.65	0.2	0.45
Perchlorate, micrograms per liter							
Selenium, micrograms per liter							
Silver, micrograms per liter							
Sulfate, milligrams per liter	110	100		74	60	68	110
Thallium, micrograms per liter							
Total Alkalinity as CaCO <sub>3</sub> , milligrams per liter	190	200		240	270	240	190
Total Chromium, micrograms per liter							
Total Suspended Solids, milligrams per liter	6	ND		ND	ND	ND	6

Notes:  
 Station No. 3 Vail 1MAB located near upstream face of Vail Dam, sample depth one meter above reservoir bottom.  
 Total capacity, 49,370 acre feet, between elevations 1,352.5 feet, bottom of lowest outlet, and 1,470 feet, crest of spillway.  
 ND - None detected.

**Water Quality Data for Vail Lake (USGS Station No. 11042510)  
RCWD Water Quality Sampling Station No. 3 Vail 1MAB  
Data Collected by RCWD**

Parameter	3 Vail 1MAB 12/3/2011	3 Vail 1MAB 1/28/2012	3 Vail 1MAB 2/25/2012	3 Vail 1MAB 3/10/2012	3 Vail 1MAB 4/28/2012	3 Vail 1MAB 5/12/2012	3 Vail 1MAB 6/16/2012
Sampling Date							
Reservoir Storage Content, acre feet	28,790	28,740	28,800	28,870	29,360	29,220	28,570
Reservoir Storage Content, percent full	58.3%	58.2%	58.3%	58.5%	59.5%	59.2%	57.9%
Water Surface Elevation, feet above mean sea level	1,448.00	1,447.94	1,448.01	1,448.10	1,448.71	1,448.53	1,447.72
Water Surface Elevation, feet above bottom of lowest outlet	95.50	95.44	95.51	95.60	96.21	96.03	95.22
Sampling Depth, meters above reservoir bottom	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Dissolved Oxygen, milligrams per liter							
pH, standard units							
Total Dissolved Solids, milligrams per liter	670	520	510	630	590	610	600
Specific Conductance, microsiemens per centimeter at 25 degrees Celsius							
Temperature, water, degrees Celsius							
Aluminum, micrograms per liter							
Ammonia, milligrams per liter as nitrogen	0.24	ND	0.4	0.61	1.7	0.97	2.7
Antimony, micrograms per liter							
Arsenic, micrograms per liter							
Barium, micrograms per liter							
Beryllium, micrograms per liter							
Bicarbonate as HCO <sub>3</sub> , milligrams per liter	240	260	260	260	280	260	280
Carbonate as CO <sub>3</sub> , milligrams per liter	ND	ND	ND	ND	< 3.0	< 3.0	< 3.0
Chloride, milligrams per liter	130	120	130	120	130	130	120
Cyanide, milligrams per liter							
Fluoride, milligrams per liter							
Hydroxide as OH, milligrams per liter	ND	ND	ND	ND	< 3.0	< 3.0	< 3.0
Inorganic Nitrogen, milligrams per liter	0.2	ND	0.4	0.6	1.7	0.97	2.7
Kjeldahl Nitrogen, milligrams per liter		1.8			3.1	2.2	4.2
Lead, micrograms per liter							
Mercury, micrograms per liter							
Nickel, micrograms per liter							
Nitrate Nitrogen, milligrams per liter	ND	ND	ND	ND	< 0.20	< 0.20	< 0.20
Nitrite Nitrogen, milligrams per liter	ND	ND	ND	ND	< 0.10	< 0.10	< 0.10
Ortho Phosphate Phosphorus, milligrams per liter	ND	ND	ND	0.13	0.31	0.17	0.45
Perchlorate, micrograms per liter							
Selenium, micrograms per liter							
Silver, micrograms per liter							
Sulfate, milligrams per liter	120	110	120	110	110	100	87
Thallium, micrograms per liter							
Total Alkalinity as CaCO <sub>3</sub> , milligrams per liter	200	210	210	210	230	220	230
Total Chromium, micrograms per liter							
Total Suspended Solids, milligrams per liter	12	23	12	11	6	8	< 5

Notes:  
 Station No. 3 Vail 1MAB located near upstream face of Vail Dam, sample depth one meter above reservoir bottom.  
 Total capacity, 49,370 acre feet, between elevations 1,352.5 feet, bottom of lowest outlet, and 1,470 feet, crest of spillway.  
 ND - None detected.

**Water Quality Data for Vail Lake (USGS Station No. 11042510)  
RCWD Water Quality Sampling Station No. 3 Vail 1MAB  
Data Collected by RCWD**

Parameter	3 Vail 1MAB 7/14/2012	3 Vail 1MAB 8/11/2012	3 Vail 1MAB 9/15/2012	3 Vail 1MAB 10/20/2012	3 Vail 1MAB 11/17/2012	3 Vail 1MAB 12/15/2012	3 Vail 1MAB 1/19/2013
Sampling Date							
Reservoir Storage Content, acre feet	28,000	27,490	26,880	26,110	25,020	24,340	23,970
Reservoir Storage Content, percent full	56.7%	55.7%	54.4%	52.9%	50.7%	49.3%	48.6%
Water Surface Elevation, feet above mean sea level	1,447.01	1,446.35	1,445.56	1,444.55	1,443.11	1,442.18	1,441.68
Water Surface Elevation, feet above bottom of lowest outlet	94.51	93.85	93.06	92.05	90.61	89.68	89.18
Sampling Depth, meters above reservoir bottom	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Dissolved Oxygen, milligrams per liter							
pH, standard units							
Total Dissolved Solids, milligrams per liter	620	600	610	610	700	610	700
Specific Conductance, microsiemens per centimeter at 25 degrees Celsius							
Temperature, water, degrees Celsius							
Aluminum, micrograms per liter							
Ammonia, milligrams per liter as nitrogen	2.5	4.0	4.0	8.6	0.20	14	0.15
Antimony, micrograms per liter							
Arsenic, micrograms per liter							
Barium, micrograms per liter							
Beryllium, micrograms per liter							
Bicarbonate as HCO <sub>3</sub> , milligrams per liter	280	300	340	390	270	400	290
Carbonate as CO <sub>3</sub> , milligrams per liter	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chloride, milligrams per liter	120	120	120	120	130	120	140
Cyanide, milligrams per liter							
Fluoride, milligrams per liter	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Hydroxide as OH, milligrams per liter	2.5	4.0	4.1	8.6	0.20	14	0.31
Inorganic Nitrogen, milligrams per liter	3.4	6.2	6.0	10	1.9	12	2.1
Kjeldahl Nitrogen, milligrams per liter							
Lead, micrograms per liter							
Mercury, micrograms per liter							
Nickel, micrograms per liter							
Nitrate Nitrogen, milligrams per liter	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Nitrite Nitrogen, milligrams per liter	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.16
Ortho Phosphate Phosphorus, milligrams per liter	0.40	< 0.14	0.49	1.1	< 0.050	1.5	< 0.050
Perchlorate, micrograms per liter							
Selenium, micrograms per liter							
Silver, micrograms per liter							
Sulfate, milligrams per liter	87	72	63	42	120	24	130
Thallium, micrograms per liter							
Total Alkalinity as CaCO <sub>3</sub> , milligrams per liter	230	250	280	320	220	330	240
Total Chromium, micrograms per liter							
Total Suspended Solids, milligrams per liter	< 5	7	< 5	6	8	20	22

Notes:  
 Station No. 3 Vail 1MAB located near upstream face of Vail Dam, sample depth one meter above reservoir bottom.  
 Total capacity, 49,370 acre feet, between elevations 1,352.5 feet, bottom of lowest outlet, and 1,470 feet, crest of spillway.  
 ND - None detected.

**Water Quality Data for Vail Lake (USGS Station No. 11042510)  
RCWD Water Quality Sampling Station No. 3 Vail 1MAB  
Data Collected by RCWD**

Parameter	3 Vail 1MAB 2/23/2013	3 Vail 1MAB 3/23/2013	3 Vail 1MAB 4/20/2013	3 Vail 1MAB 5/4/2013	3 Vail 1MAB 6/22/2013
Sampling Date					
Reservoir Storage Content, acre feet	23,790	23,610	23,410	23,280	22,530
Reservoir Storage Content, percent full	48.2%	47.8%	47.4%	47.2%	45.6%
Water Surface Elevation, feet above mean sea level	1,441.43	1,441.17	1,440.90	1,440.17	1,439.64
Water Surface Elevation, feet above bottom of lowest outlet	88.93	88.67	88.40	87.67	87.14
Sampling Depth, meters above reservoir bottom	1.0	1.0	1.0	1.0	1.0
Dissolved Oxygen, milligrams per liter					
pH, standard units					
Total Dissolved Solids, milligrams per liter	680	680	650	700	690
Specific Conductance, microsiemens per centimeter at 25 degrees Celsius					
Temperature, water, degrees Celsius					
Aluminum, micrograms per liter					
Ammonia, milligrams per liter as nitrogen	0.20	0.91	1.6	2.1	3.9
Antimony, micrograms per liter					
Arsenic, micrograms per liter					
Barium, micrograms per liter					
Beryllium, micrograms per liter					
Bicarbonate as HCO <sub>3</sub> , milligrams per liter	290	300	290	290	310
Carbonate as CO <sub>3</sub> , milligrams per liter	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chloride, milligrams per liter	140	130	140	150	140
Cyanide, milligrams per liter					
Fluoride, milligrams per liter					
Hydroxide as OH, milligrams per liter	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Inorganic Nitrogen, milligrams per liter	0.20	0.91	1.6	2.1	3.9
Kjeldahl Nitrogen, milligrams per liter	1.4	2.0	2.9	3.2	4.7
Lead, micrograms per liter					
Mercury, micrograms per liter					
Nickel, micrograms per liter					
Nitrate Nitrogen, milligrams per liter	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Nitrite Nitrogen, milligrams per liter	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Ortho Phosphate Phosphorus, milligrams per liter	< 0.050	0.18	0.30	0.36	0.48
Perchlorate, micrograms per liter					
Selenium, micrograms per liter					
Silver, micrograms per liter					
Sulfate, milligrams per liter	130	120	130	120	96
Thallium, micrograms per liter					
Total Alkalinity as CaCO <sub>3</sub> , milligrams per liter	240	240	240	240	260
Total Chromium, micrograms per liter					
Total Suspended Solids, milligrams per liter	6	6	7	6	< 5

Notes:  
 Station No. 3 Vail 1MAB located near upstream face of Vail Dam, sample depth one meter above reservoir bottom.  
 Total capacity, 49,370 acre feet, between elevations 1,352.5 feet, bottom of lowest outlet, and 1,470 feet, crest of spillway.  
 ND - None detected.

**Water Quality Data for Vail Lake (USGS Station No. 11042510)  
RCWD Water Quality Sampling Station No. 3 Vail 1M  
Data Collected by USGS**

Code	Parameter	MCL	3 Vail 1M	
			8/20/2011	9/15/2012
	Sampling date			
	Reservoir Storage Content, acre feet		30,120	26,880
	Reservoir Storage Content, percent full		61.0%	54.4%
	Water Surface Elevation, feet above mean sea level		1,449.64	1,445.37
	Water Surface Elevation, feet above bottom of lowest outlet		97.14	92.87
3	Sampling depth, feet below water surface		3.0	3.0
10	Temperature, water, degrees Celsius		22.5	27.4
28	Agency analyzing sample, code		80020	80020
59	Flow rate, instantaneous, gallons per minute			
95	Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius		948	1080
191	Hydrogen ion, water, unfiltered, calculated, milligrams per liter		M	M
300	Dissolved oxygen, water, unfiltered, milligrams per liter		8.8	8.7
400	pH, water, unfiltered, field, standard units		8.8	8.9
403	pH, water, unfiltered, laboratory, standard units		8.8	9.0
405	Carbon dioxide, water, unfiltered, milligrams per liter		0.5	0.5
453	Bicarbonate, water, filtered, incremental titration, field, milligrams per liter		203	246
602	Total nitrogen, water, filtered, milligrams per liter		< 0.88	< 0.80
607	Organic nitrogen, water, filtered, milligrams per liter		0.79	0.75
608	Ammonia, water, filtered, milligrams per liter as nitrogen		0.073	0.012
613	Nitrite, water, filtered, milligrams per liter as nitrogen	1 (a)	< 0.001	< 0.001
618	Nitrate, water, filtered, milligrams per liter as nitrogen		< 0.020	< 0.040
623	Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen		0.86	0.76
631	Nitrate plus nitrite, water, filtered, milligrams per liter as nitrogen		< 0.02	< 0.040
660	Orthophosphate, water, filtered, milligrams per liter		0.013	< 0.012
666	Phosphorus, water, filtered, milligrams per liter		0.02	0.02
671	Orthophosphate, water, filtered, milligrams per liter as phosphorus		0.004	< 0.004
900	Hardness, water, milligrams per liter as calcium carbonate		169	201
904	Noncarb hardness, water filtered lab, milligrams per liter as calcium carbonate			
905	Calcium, water, filtered, milligrams per liter		26.1	28.8
915	Magnesium, water, filtered, milligrams per liter		25.1	31.2
925	Sodium, water, filtered, milligrams per liter		128	165
930	Sodium adsorption ratio, water, number		4.31	5.06
931	Sodium fraction of cations, water, percent in equivalents of major cations		61	63
932	Potassium, water, filtered, milligrams per liter		8.57	10.7
940	Chloride, water, filtered, milligrams per liter	600	116	139
945	Sulfate, water, filtered, milligrams per liter	600	115	129
950	Fluoride, water, filtered, milligrams per liter	2 (b)	0.49	0.54
955	Silica, water, filtered, milligrams per liter		10.9	2.4
1000	Arsenic, water, filtered, micrograms per liter	10 (c)	2	1.8
1005	Barium, water, filtered, micrograms per liter	1000 (d)	41.2	35.4
1010	Beryllium, micrograms per liter	4 (e)		
1020	Boron, water, filtered, micrograms per liter		192	227
1025	Cadmium, micrograms per liter	5 (f)		
1030	Chromium, micrograms per liter	50 (g)		
1035	Cobalt, micrograms per liter			
1040	Copper, micrograms per liter	1000 (h)		
1046	Iron, water, filtered, micrograms per liter	300	5	< 3.2
1049	Lead, micrograms per liter			
1056	Manganese, water, filtered, micrograms per liter	50	1.2	0.54
1057	Thallium, micrograms per liter	2 (i)		
1060	Molybdenum, micrograms per liter			
1065	Nickel, micrograms per liter	100 (j)		
1075	Silver, micrograms per liter	100 (k)	254	315
1080	Strontium, water, filtered, micrograms per liter			
1085	Vanadium, micrograms per liter			
1090	Zinc, micrograms per liter	5000 (l)		

**Water Quality Data for Vail Lake (USGS Station No. 11042510)  
RCWD Water Quality Sampling Station No. 3 Vail 1M  
Data Collected by USGS**

Code	Parameter	MCL	8/20/2011	9/15/2012	3 Vail 1M
	Sampling date				
1095	Antimony, micrograms per liter	6 (m)			
1106	Aluminum, water, filtered, micrograms per liter	1000 (n)	3.7	7.2	
1130	Lithium, water, filtered, micrograms per liter		10	7.44	
1145	Selenium, micrograms per liter	50 (o)			
4022	Terbutylazine, water, filtered, recoverable, micrograms per liter				
4025	Hexazinone, water, filtered, recoverable, micrograms per liter				
4029	Bromacil, water, filtered, recoverable, micrograms per liter				
4035	Simazine, water, filtered, recoverable, micrograms per liter				
4036	Prometryn, water, filtered, recoverable, micrograms per liter				
4037	Prometon, water, filtered, recoverable, micrograms per liter				
4040	2-Chloro-4-isopropylamino-6-amino-s-triazine, water, filtered, recoverable, micrograms per liter				
4095	Fonofos, water, filtered, recoverable, micrograms per liter				
7000	Tritium, water, unfiltered, picocuries per liter				
22703	Uranium, natural, micrograms per liter				
29801	Alkalinity, water, filtered, fixed endpoint (pH 4.5) titration, lab. milligrams per liter as calcium carbonate		179	223	
30217	Dibromomethane, water, unfiltered, recoverable, micrograms per liter				
32101	Bromochloromethane, water, unfiltered, recoverable, micrograms per liter				
32102	Tetrachloromethane, water, unfiltered, recoverable, micrograms per liter	0.5			
32103	1,2-Dichloroethane, water, unfiltered, recoverable, micrograms per liter				
32104	Tribromomethane, water, unfiltered, recoverable, micrograms per liter				
32105	Dibromochloromethane, water, unfiltered, recoverable, micrograms per liter				
32106	Trichloromethane, water, unfiltered, recoverable, micrograms per liter				
34010	Toluene, water, unfiltered, recoverable, micrograms per liter	150			
34030	Benzene, water, unfiltered, recoverable, micrograms per liter	1			
34215	Acrylonitrile, water, unfiltered, recoverable, micrograms per liter				
34221	Anthracene, water, filtered, recoverable, micrograms per liter				
34248	Benzo[a]pyrene, water, filtered, recoverable, micrograms per liter	0.2 (p)			
34288	Tribromomethane, water, filtered, recoverable, micrograms per liter				
34301	Chlorobenzene, water, unfiltered, recoverable, micrograms per liter	70			
34311	Chloroethane, water, unfiltered, recoverable, micrograms per liter				
34371	Ethylbenzene, water, unfiltered, recoverable, micrograms per liter	300			
34377	Fluoranthene, water, filtered, recoverable, micrograms per liter				
34396	Hexachloroethane, water, unfiltered, recoverable, micrograms per liter				
34409	Isophorone, water, filtered, recoverable, micrograms per liter				
34413	Bromomethane, water, unfiltered, recoverable, micrograms per liter				
34418	Chloromethane, water, unfiltered, recoverable, micrograms per liter				
34423	Dichloromethane, water, unfiltered, recoverable, micrograms per liter	5			
34443	Naphthalene, water, filtered, recoverable, micrograms per liter				
34462	Phenanthrene, water, filtered, recoverable, micrograms per liter				
34466	Phenol, water, filtered, recoverable, micrograms per liter				
34470	Pyrene, water, filtered, recoverable, micrograms per liter				
34475	Tetrachloroethene, water, unfiltered, recoverable, micrograms per liter	5			
34476	Tetrachloroethane, water, filtered, recoverable, micrograms per liter				
34488	Trichlorofluoromethane, water, unfiltered, recoverable, micrograms per liter	150			
34496	1,1-Dichloroethane, water, unfiltered, recoverable, micrograms per liter	5			
34501	1,1-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	6			
34506	1,1,1-Trichloroethane, water, unfiltered, recoverable, micrograms per liter	200			
34511	1,1,2-Trichloroethane, water, unfiltered, recoverable, micrograms per liter	5			
34516	1,1,2,2-Tetrachloroethane, water, unfiltered, recoverable, micrograms per liter	1			
34536	1,2-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter	600			
34541	1,2-Dichloropropane, water, unfiltered, recoverable, micrograms per liter	5			
34546	trans-1,2-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	10			
34551	1,2,4-Trichlorobenzene, water, unfiltered, recoverable, micrograms per liter	5			
34566	1,3-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter				
34571	1,4-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter	5			
34572	1,4-Dichlorobenzene, water, filtered, recoverable, micrograms per liter				



**Water Quality Data for Vail Lake (USGS Station No. 11042510)  
RCWD Water Quality Sampling Station No. 3 Vail 1M  
Data Collected by USGS**

Code	Parameter	MCL	8/20/2011	9/15/2012	3 Vail 1M
	Sampling date				
34668	Dichlorodifluoromethane, water, unfiltered, recoverable, micrograms per liter				
34696	Naphthalene, water, unfiltered, recoverable, micrograms per liter				
34699	trans-1,3-Dichloropropene, water, unfiltered, recoverable, micrograms per liter	0.5			
34704	cis-1,3-Dichloropropene, water, unfiltered, recoverable, micrograms per liter	0.5			
38454	Dicropthos, water, filtered, recoverable, micrograms per liter				
38775	Dichlorvos, water, filtered, recoverable, micrograms per liter				
38933	Chlorpyrifos, water, filtered, recoverable, micrograms per liter				
39036	Alkalinity, water, filtered, fixed endpoint (pH 4.5) titration, laboratory, milligrams per liter as calcium carbonate				
39086	Alkalinity, water, filtered, incremental titration, field, milligrams per liter as calcium carbonate		180	223	
39175	Vinyl chloride, water, unfiltered, recoverable, micrograms per liter				
39180	Trichloroethene, water, unfiltered, recoverable, micrograms per liter	5			
39381	Dieldrin, water, filtered, recoverable, micrograms per liter				
39415	Metolachlor, water, filtered, recoverable, micrograms per liter				
39532	Melathion, water, filtered, recoverable, micrograms per liter				
39572	Diazinon, water, filtered, recoverable, micrograms per liter				
39632	Atrazine, water, filtered, recoverable, micrograms per liter				
46342	Hexachlorobutadiene, water, unfiltered, recoverable, micrograms per liter				
49260	Alachlor, water, filtered, recoverable, micrograms per liter				
49295	Acetochlor, water, filtered, recoverable, micrograms per liter				
49933	1-Naphthol, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				
49933	C-14, water, filtered, percent modern				
49934	C-14, counting error, water, filtered, percent modern				
49991	Methyl acrylate, water, unfiltered, recoverable, micrograms per liter				
49999	1,2,3,4-Tetramethylbenzene, water, unfiltered, recoverable, micrograms per liter				
50000	1,2,3,5-Tetramethylbenzene, water, unfiltered, recoverable, micrograms per liter				
50002	Bromoethene, water, unfiltered, recoverable, micrograms per liter				
50004	tert-Butyl ethyl ether, water, unfiltered, recoverable, micrograms per liter				
50005	Methyl tert-pentyl ether, water, unfiltered, recoverable, micrograms per liter				
50305	Caffeine, water, filtered, recoverable, micrograms per liter				
50359	Metolaxyl, water, filtered, recoverable, micrograms per liter				
61209	Perchlorate, water, unfiltered, recoverable, micrograms per liter	6			
61585	Cyfluthrin, water, filtered, recoverable, micrograms per liter				
61586	Cypermethrin, water, filtered, recoverable, micrograms per liter				
61591	Fenamiphos, water, filtered, recoverable, micrograms per liter				
61593	Iprodione, water, filtered, recoverable, micrograms per liter				
61594	Isotfenphos, water, filtered, recoverable, micrograms per liter				
61596	Metolaxyl, water, filtered, recoverable, micrograms per liter				
61598	Methidathion, water, filtered, recoverable, micrograms per liter				
61599	Myclobutani, water, filtered, recoverable, micrograms per liter				
61601	Phosmet, water, filtered, recoverable, micrograms per liter				
61610	Tribuphos, water, filtered, recoverable, micrograms per liter				
61618	2-Chloro-2',6'-diethylacetanilide, water, filtered, recoverable, micrograms per liter				
61620	2-Ethyl-6-methylaniline, water, filtered, recoverable, micrograms per liter				
61625	3,4-Dichloroaniline, water, filtered, recoverable, micrograms per liter				
61633	4-Chloro-2-methylphenol, water, filtered, recoverable, micrograms per liter				
61635	Azinphos-methyl oxygen analog, water, filtered, recoverable, micrograms per liter				
61636	Chlorpyrifos oxygen analog, water, filtered, recoverable, micrograms per liter				
61644	Ethion monoxon, water, filtered, recoverable, micrograms per liter				
61645	Fenamiphos sulfone, water, filtered, recoverable, micrograms per liter				
61646	Fenamiphos sulfoxide, water, filtered, recoverable, micrograms per liter				
61652	Malaoxon, water, filtered, recoverable, micrograms per liter				
61664	Methyl paraoxon, water, filtered, recoverable, micrograms per liter				
61666	Phorate oxygen analog, water, filtered, recoverable, micrograms per liter				
61668	Phosmet oxygen analog, water, filtered, recoverable, micrograms per liter				
61674	Terbufos oxygen analog sulfone, water, filtered, recoverable, micrograms per liter				
61705	Diethoxycyphenol, water, filtered, recoverable, micrograms per liter				

**Water Quality Data for Vail Lake (USGS Station No. 11042510)  
RCWD Water Quality Sampling Station No. 3 Vail 1M  
Data Collected by USGS**

Code	Parameter	MCL	8/20/2011	9/15/2012	3 Vail 1M
61706	Sampling date				
62005	Monoethoxyoctylphenol, water, filtered, recoverable, micrograms per liter				
62005	Cotinine, water, filtered, recoverable, micrograms per liter				
62054	1-Methylnaphthalene, water, filtered, recoverable, micrograms per liter				
62055	2,6-Dimethylnaphthalene, water, filtered, recoverable, micrograms per liter				
62056	2-Methylnaphthalene, water, filtered, recoverable, micrograms per liter				
62057	3-beta-Coprostanol, water, filtered, recoverable, micrograms per liter				
62058	3-Methyl-1H-indole, water, filtered, recoverable, micrograms per liter				
62059	3-tert-Butyl-4-hydroxyanisole, water, filtered, recoverable, micrograms per liter				
62060	4-Cumylphenol, water, filtered, recoverable, micrograms per liter				
62061	4-Ocylphenol, water, filtered, recoverable, micrograms per liter				
62062	4-tert-Octylphenol, water, filtered, recoverable, micrograms per liter				
62063	5-Methyl-1H-benzotriazole, water, filtered, recoverable, micrograms per liter				
62064	Acetophenone, water, filtered, recoverable, micrograms per liter				
62065	Acetyl hexamethyl tetrahydro naphthalene, water, filtered, recoverable, micrograms per liter				
62066	9,10-Anthraquinone, water, filtered, recoverable, micrograms per liter				
62067	Benzophenone, water, filtered, recoverable, micrograms per liter				
62068	beta-Sitosterol, water, filtered, recoverable, micrograms per liter				
62070	Camphor, water, filtered, recoverable, micrograms per liter				
62071	Carbazole, water, filtered, recoverable, micrograms per liter				
62072	Cholesterol, water, filtered, recoverable, micrograms per liter				
62073	D-Limonene, water, filtered, recoverable, micrograms per liter				
62075	Hexahydrohexamethyl cyclopentabenzopyran, water, filtered, recoverable, micrograms per liter				
62076	Indole, water, filtered, recoverable, micrograms per liter				
62077	Isoborneol, water, filtered, recoverable, micrograms per liter				
62078	Isopropylbenzene, water, filtered, recoverable, micrograms per liter				
62079	Isoquinoline, water, filtered, recoverable, micrograms per liter				
62080	Menthol, water, filtered, recoverable, micrograms per liter				
62081	Methyl salicylate, water, filtered, recoverable, micrograms per liter				
62082	DEET, water, filtered, recoverable, micrograms per liter				
62083	Diethoxypropylphenol, water, filtered, recoverable, micrograms per liter				
62084	p-Cresol, water, filtered, recoverable, micrograms per liter				
62085	4-Nonylphenol, water, filtered, recoverable, micrograms per liter				
62086	beta-Stigmasiano, water, filtered, recoverable, micrograms per liter				
62087	Tris(2-chloroethyl) phosphate, water, filtered, recoverable, micrograms per liter				
62088	Tris(dichloroisopropyl) phosphate, water, filtered, recoverable, micrograms per liter				
62089	Tributyl phosphate, water, filtered, recoverable, micrograms per liter				
62090	Triclosan, water, filtered, recoverable, micrograms per liter				
62091	Triethyl citrate, water, filtered, recoverable, micrograms per liter				
62092	Triphenyl phosphate, water, filtered, recoverable, micrograms per liter				
62093	Tris(2-butoxyethyl) phosphate, water, filtered, recoverable, micrograms per liter				
62166	Fipronil, water, filtered, recoverable, micrograms per liter				
62167	Fipronil sulfide, water, filtered, recoverable, micrograms per liter				
62168	Fipronil sulfone, water, filtered, recoverable, micrograms per liter				
62169	Desulfinylfipronil amide, water, filtered, recoverable, micrograms per liter				
62170	Desulfinylfipronil, water, filtered, recoverable, micrograms per liter				
62854	Total nitrogen, (NH3+NO2+NO3+Organic), filtered, milligrams per liter				
63790	Perchlorate, water, filtered, recoverable, micrograms per liter	6			
70300	Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter	1500	587	658	
70301	Residue, water, filtered, sum of constituents, milligrams per liter		539	641	
70303	Residue, water, filtered, tons per acre-foot				
71846	Ammonia, water, filtered, milligrams per liter as NH4		0.094	0.016	
71851	Nitrate, water, filtered, milligrams per liter	45 (q)	< 0.089	< 0.177	
71856	Nitrite, water, filtered, milligrams per liter		< 0.003	< 0.003	
71865	Iodide, water, filtered, milligrams per liter		0.021	0.017	
71870	Bromide, water, filtered, milligrams per liter		0.46	0.468	
72019	Depth to water level, feet below land surface				

**Water Quality Data for Vail Lake (USGS Station No. 11042510)  
RCWD Water Quality Sampling Station No. 3 Vail 1M  
Data Collected by USGS**

Code	Parameter	MCL	8/20/2011	9/15/2012	3 Vail 1M
73547	trans-1,4-Dichloro-2-butene, water, unfiltered, recoverable, micrograms per liter				
73570	Ethyl methacrylate, water, unfiltered, recoverable, micrograms per liter				
75985	Tritium 2-sigma combined uncertainty, water, unfiltered, picocuries per liter				
76002	Rn-222, 2-sigma combined uncertainty, water, unfiltered, picocuries per liter				
77041	Carbon disulfide, water, unfiltered, micrograms per liter				
77093	cis-1,2-Dichloroethane, water, unfiltered, recoverable, micrograms per liter	6			
77103	n-Butyl methyl ketone, water, unfiltered, recoverable, micrograms per liter				
77128	Styrene, water, unfiltered, recoverable, micrograms per liter	100			
77135	o-Xylene, water, unfiltered, recoverable, micrograms per liter				
77168	1,1-Dichloropropene, water, unfiltered, recoverable, micrograms per liter				
77170	2,2-Dichloropropane, water, unfiltered, recoverable, micrograms per liter				
77173	1,3-Dichloropropane, water, unfiltered, recoverable, micrograms per liter				
77220	2-Ethyltoluene, water, unfiltered, recoverable, micrograms per liter				
77221	1,2,3-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter				
77222	1,2,4-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter				
77223	Isopropylbenzene, water, unfiltered, recoverable, micrograms per liter				
77224	n-Propylbenzene, water, unfiltered, recoverable, micrograms per liter				
77226	1,3,5-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter				
77275	2-Chlorotoluene, water, unfiltered, recoverable, micrograms per liter				
77277	4-Chlorotoluene, water, unfiltered, recoverable, micrograms per liter				
77297	Bromochloromethane, water, unfiltered, recoverable, micrograms per liter				
77342	n-Butylbenzene, water, unfiltered, recoverable, micrograms per liter				
77350	sec-Butylbenzene, water, unfiltered, recoverable, micrograms per liter				
77353	tert-Butylbenzene, water, unfiltered, recoverable, micrograms per liter				
77356	4-Isopropyltoluene, water, unfiltered, recoverable, micrograms per liter				
77424	Iodomethane, water, unfiltered, recoverable, micrograms per liter				
77443	1,2,3-Trichloropropane, water, unfiltered, recoverable, micrograms per liter				
77562	1,1,1,2-Tetrachloroethane, water, unfiltered, recoverable, micrograms per liter				
77613	1,2,3-Trichlorobenzene, water, unfiltered, recoverable, micrograms per liter				
77651	1,2-Dibromoethane, water, unfiltered, recoverable, micrograms per liter				
77652	1,1,2-Trichloro-1,2,2-trifluoroethane, water, unfiltered, recoverable, micrograms per liter	0.05			
78032	Methyl tert-butyl ether, water, unfiltered, recoverable, micrograms per liter				
78109	3-Chloropropene, water, unfiltered, recoverable, micrograms per liter				
78133	Isobutyl methyl ketone, water, unfiltered, recoverable, micrograms per liter				
81552	Acetone, water, unfiltered, recoverable, micrograms per liter				
81555	Bromobenzene, water, unfiltered, recoverable, micrograms per liter				
81576	Diethyl ether, water, unfiltered, recoverable, micrograms per liter				
81577	Diisopropyl ether, water, unfiltered, recoverable, micrograms per liter				
81593	Methyl acrylonitrile, water, unfiltered, recoverable, micrograms per liter				
81595	Ethyl methyl ketone, water, unfiltered, recoverable, micrograms per liter				
81597	Methyl methacrylate, water, unfiltered, recoverable, micrograms per liter				
81607	Tetrahydrofuran, water, unfiltered, recoverable, micrograms per liter				
82081	C-13/C-12 ratio, water, unfiltered, per mil				
82082	Deuterium/Protium ratio, water, unfiltered, per mil		-16.2	-6.7	
82085	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil		-0.61	1.25	
82303	Rn-222, water, unfiltered, picocuries per liter				
82346	Ethion, water, filtered, recoverable, micrograms per liter				
82625	1,2-Dibromo-3-chloropropane, water, unfiltered, recoverable, micrograms per liter				
82630	Metribuzin, water, filtered, recoverable, micrograms per liter				
82660	2,6-Diethylaniline, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				
82661	Trifluralin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				
82662	Dimethoate, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				
82664	Phorate, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				
82667	Methyl parathion, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				
82670	Tebuthiuron, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				
82673	Benfluralin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				

**Water Quality Data for Vail Lake (USGS Station No. 11042510)  
RCWD Water Quality Sampling Station No. 3 Vail 1M  
Data Collected by USGS**

Code	Parameter	MCL	3 Vail 1M	
			8/20/2011	9/15/2012
	Sampling date			
82675	Terbufos, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter			
82676	Propylamide, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter			
82680	Carbaryl, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter			
82682	DCPA, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter			
82683	Pendimethalin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter			
82686	Azinphos-methyl, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter			
	cis-Permethrin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter			
85795	m-Xylene plus p-xylene, water, unfiltered, recoverable, micrograms per liter			
90095	Specific conductance, water, unfiltered, laboratory, microsiemens per centimeter at 25 degrees Celsius	925		1080
90851	Triholomethanes, water, unfiltered, calcd, micrograms per liter			
99583	Bisphenol A-d3, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery			
99584	Caffeine-13C, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery			
99585	Decafluorobiphenyl, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery			
99586	Fluoranthene-d10, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery			
99832	1,2-Dichloroethane-d4, surrogate, Schedule 2090, water, unfiltered, percent recovery			
99833	Toluene-d8, surrogate, Schedule 2090, water, unfiltered, percent recovery			
99834	1-Bromo-4-fluorobenzene, surrogate, VOC schedules, water, unfiltered, percent recovery			
99994	Diazinon-d10, surrogate, Schedule 2003, water, filtered, percent recovery			
99995	alpha-HCH-d6, surrogate, Schedule 2003, water, filtered, percent recovery			

**Notes:**

- Station No. 3 Vail 1M located near upstream face of Vail Dam, sample depth one meter below water surface.
- Total capacity, 49,370 acre feet, between elevations 1,352.5 feet, bottom of lowest outlet, and 1,470 feet, crest of spillway.
- U.S. EPA STORET numbers for MCLs correspond to the same as the USGS NWIS data parameter number except as follows:
  - (a) MCL shown for U.S. EPA STORET No. 620.
  - (b) MCL shown for U.S. EPASTORET No. 951.
  - (c) MCL shown for U.S. EPA STORET No. 1002.
  - (d) MCL shown for U.S. EPA STORET No. 1007.
  - (e) MCL shown for U.S. EPA STORET No. 1012.
  - (f) MCL shown for U.S. EPA STORET No. 1027.
  - (g) MCL shown for U.S. EPA STORET No. 1034.
  - (h) MCL shown for U.S. EPA STORET No. 1042.
  - (i) MCL shown for U.S. EPA STORET No. 1059.
  - (j) MCL shown for U.S. EPA STORET No. 1067.
  - (k) MCL shown for U.S. EPASTORET No. 1077.
  - (l) MCL shown for U.S. EPA STORET No. 1092.
  - (m) MCL shown for U.S. EPA STORET No. 1097.
  - (n) MCL shown for U.S. EPA STORET No. 1105.
  - (o) MCL shown for U.S. EPA STORET No. 1147.
  - (p) MCL shown for U.S. EPA STORET No. 34247.
  - (q) MCL shown for U.S. EPA STORET No. 71850.

Code--Data parameter number used in USGS National Water Information System (NWIS).  
 E--Estimated.  
 M--Presence verified but not quantified.  
 MCL--Maximum Contaminant Level reported by California DHS (May 25, 2007 Database) for U.S. EPA STORET number.  
 V--Biased results from contamination.

**Water Quality Data for Vail Lake (USGS Station No. 11042510)  
RCWD Water Quality Sampling Station No. 3 Vail 1MAB  
Data Collected by USGS**

Code	Parameter	MCL	3 Vail 1MAB	
			8/20/2011	9/15/2012
	Sampling date			
	Reservoir Storage Content, acre feet		30,120	26,880
	Reservoir Storage Content, percent full		61.0%	54.4%
	Water Surface Elevation, feet above mean sea level		1,449.64	1,445.37
	Water Surface Elevation, feet above bottom of lowest outlet		97.14	92.87
3	Sampling depth, feet below water surface		71.0	71.0
10	Temperature, water, degrees Celsius		15.5	23.8
28	Agency analyzing sample, code		80020	80020
59	Flow rate, instantaneous, gallons per minute			
95	Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius		1000	1080
191	Hydrogen ion, water, unfiltered, calculated, milligrams per liter		0.00002	0.00003
300	Dissolved oxygen, water, unfiltered, milligrams per liter			
400	pH, water, unfiltered, field, standard units		7.7	7.6
403	pH, water, unfiltered, laboratory, standard units		7.8	7.6
405	Carbon dioxide, water, unfiltered, milligrams per liter		9.2	15
453	Bicarbonate, water, filtered, incremental titration, field, milligrams per liter		284	359
602	Total nitrogen, water, filtered, milligrams per liter		< 3.7	< 6.0
607	Organic nitrogen, water, filtered, milligrams per liter		0.81	0.81
608	Ammonia, water, filtered, milligrams per liter as nitrogen		2.88	5.11
613	Nitrite, water, filtered, milligrams per liter as nitrogen	1 (a)	< 0.003	0.002
618	Nitrate, water, filtered, milligrams per liter as nitrogen		< 0.020	< 0.038
623	Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen		3.7	5.9
631	Nitrate plus nitrite, water, filtered, milligrams per liter as nitrogen		< 0.02	< 0.040
660	Orthophosphate, water, filtered, milligrams per liter		1.5	2.41
666	Phosphorus, water, filtered, milligrams per liter		0.49	0.78
671	Orthophosphate, water, filtered, milligrams per liter as phosphorus		0.488	0.786
900	Hardness, water, milligrams per liter as calcium carbonate		186	224
904	Noncarb hardness, water filtered field, milligrams per liter as calcium carbonate			
905	Noncarb hardness, water filtered lab, milligrams per liter as calcium carbonate			
915	Calcium, water, filtered, milligrams per liter		31.5	39.7
925	Magnesium, water, filtered, milligrams per liter		26	30.1
930	Sodium, water, filtered, milligrams per liter		132	154
931	Sodium adsorption ratio, water, number		4.22	4.47
932	Sodium fraction of cations, water, percent in equivalents of major cations		59	59
935	Potassium, water, filtered, milligrams per liter		9.46	10.2
940	Chloride, water, filtered, milligrams per liter	600	117	124
945	Sulfate, water, filtered, milligrams per liter	600	105	95.5
950	Fluoride, water, filtered, milligrams per liter	2 (b)	0.48	0.53
955	Silica, water, filtered, milligrams per liter		9.6	5.84
1000	Arsenic, water, filtered, micrograms per liter	10 (c)	1.3	1.5
1005	Barium, water, filtered, micrograms per liter	1000 (d)	58.6	96.6
1010	Beryllium, micrograms per liter	4 (e)		
1020	Boron, water, filtered, micrograms per liter		188	220
1025	Cadmium, micrograms per liter	5 (f)		
1030	Chromium, micrograms per liter	50 (g)		
1035	Cobalt, micrograms per liter			
1040	Copper, micrograms per liter	1000 (h)		
1046	Iron, water, filtered, micrograms per liter	300	28	15.6
1049	Lead, micrograms per liter			
1056	Manganese, water, filtered, micrograms per liter	50	299	423
1057	Thallium, micrograms per liter	2 (i)		
1060	Molybdenum, micrograms per liter			
1065	Nickel, micrograms per liter	100 (j)		
1075	Silver, micrograms per liter	100 (k)		
1080	Strontium, water, filtered, micrograms per liter		295	340
1085	Vanadium, micrograms per liter			
1090	Zinc, micrograms per liter	5000 (l)		

**Water Quality Data for Vail Lake (USGS Station No. 11042510)  
RCWD Water Quality Sampling Station No. 3 Vail 1MAB  
Data Collected by USGS**

Code	Parameter	MCL	3 Vail 1MAB	
			8/20/2011	9/15/2012
1095	Sampling date			
1095	Antimony, micrograms per liter	6 (m)		
1106	Aluminum, water, filtered, micrograms per liter	1000 (n)	< 1.7	< 2.2
1130	Lithium, water, filtered, micrograms per liter		9	7.2
1145	Selenium, micrograms per liter	50 (o)		
4022	Terbutylazine, water, filtered, recoverable, micrograms per liter			
4025	Hexazinone, water, filtered, recoverable, micrograms per liter			
4029	Bromacil, water, filtered, recoverable, micrograms per liter			
4035	Simazine, water, filtered, recoverable, micrograms per liter			
4036	Prometryn, water, filtered, recoverable, micrograms per liter			
4037	Prometon, water, filtered, recoverable, micrograms per liter			
4040	2-Chloro-4-isopropylamino-6-amino-s-triazine, water, filtered, recoverable, micrograms per liter			
4095	Fonofos, water, filtered, recoverable, micrograms per liter			
7000	Tritium, water, unfiltered, picocuries per liter			
22703	Uranium, natural, micrograms per liter			
29801	Alkalinity, water, filtered, fixed endpoint (pH 4.5) titration, lab. milligrams per liter as calcium carbonate		210	276
30217	Dibromomethane, water, unfiltered, recoverable, micrograms per liter			
32101	Bromochloromethane, water, unfiltered, recoverable, micrograms per liter			
32102	Tetrachloromethane, water, unfiltered, recoverable, micrograms per liter	0.5		
32103	1,2-Dichloroethane, water, unfiltered, recoverable, micrograms per liter			
32104	Tribromomethane, water, unfiltered, recoverable, micrograms per liter			
32105	Dibromochloromethane, water, unfiltered, recoverable, micrograms per liter			
32106	Trichloromethane, water, unfiltered, recoverable, micrograms per liter			
34010	Toluene, water, unfiltered, recoverable, micrograms per liter	150		
34030	Benzene, water, unfiltered, recoverable, micrograms per liter	1		
34215	Acrylonitrile, water, unfiltered, recoverable, micrograms per liter			
34221	Anthracene, water, filtered, recoverable, micrograms per liter			
34248	Benzo[a]pyrene, water, filtered, recoverable, micrograms per liter	0.2 (p)		
34288	Tribromomethane, water, filtered, recoverable, micrograms per liter			
34301	Chlorobenzene, water, unfiltered, recoverable, micrograms per liter	70		
34311	Chloroethane, water, unfiltered, recoverable, micrograms per liter			
34371	Ethylbenzene, water, unfiltered, recoverable, micrograms per liter	300		
34377	Fluoranthene, water, filtered, recoverable, micrograms per liter			
34396	Hexachloroethane, water, unfiltered, recoverable, micrograms per liter			
34409	Isophorone, water, filtered, recoverable, micrograms per liter			
34413	Bromomethane, water, unfiltered, recoverable, micrograms per liter			
34418	Chloromethane, water, unfiltered, recoverable, micrograms per liter			
34423	Dichloromethane, water, unfiltered, recoverable, micrograms per liter	5		
34443	Naphthalene, water, filtered, recoverable, micrograms per liter			
34462	Phenanthrene, water, filtered, recoverable, micrograms per liter			
34466	Phenol, water, filtered, recoverable, micrograms per liter			
34470	Pyrene, water, filtered, recoverable, micrograms per liter			
34475	Tetrachloroethene, water, unfiltered, recoverable, micrograms per liter	5		
34476	Tetrachloroethane, water, filtered, recoverable, micrograms per liter			
34488	Trichlorofluoromethane, water, unfiltered, recoverable, micrograms per liter	150		
34496	1,1-Dichloroethane, water, unfiltered, recoverable, micrograms per liter	5		
34501	1,1-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	6		
34506	1,1,1-Trichloroethane, water, unfiltered, recoverable, micrograms per liter	200		
34511	1,1,2-Trichloroethane, water, unfiltered, recoverable, micrograms per liter	5		
34516	1,1,2,2-Tetrachloroethane, water, unfiltered, recoverable, micrograms per liter	1		
34536	1,2-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter	600		
34541	1,2-Dichloropropane, water, unfiltered, recoverable, micrograms per liter	5		
34546	trans-1,2-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	10		
34551	1,2,4-Trichlorobenzene, water, unfiltered, recoverable, micrograms per liter	5		
34566	1,3-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter			
34571	1,4-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter	5		
34572	1,4-Dichlorobenzene, water, filtered, recoverable, micrograms per liter			

**Water Quality Data for Vail Lake (USGS Station No. 11042510)  
RCWD Water Quality Sampling Station No. 3 Vail 1MAB  
Data Collected by USGS**

Code	Parameter	MCL	8/20/2011	9/15/2012	3 Vail 1MAB
	Sampling date				
34668	Dichlorodifluoromethane, water, unfiltered, recoverable, micrograms per liter				
34696	Naphthalene, water, unfiltered, recoverable, micrograms per liter				
34699	trans-1,3-Dichloropropene, water, unfiltered, recoverable, micrograms per liter	0.5			
34704	cis-1,3-Dichloropropene, water, unfiltered, recoverable, micrograms per liter	0.5			
38454	Dicropthos, water, filtered, recoverable, micrograms per liter				
38775	Dichlorvos, water, filtered, recoverable, micrograms per liter				
38933	Chlorpyrifos, water, filtered, recoverable, micrograms per liter				
39036	Alkalinity, water, filtered, fixed endpoint (pH 4.5) titration, laboratory, milligrams per liter as calcium carbonate				
39086	Alkalinity, water, filtered, incremental titration, field, milligrams per liter as calcium carbonate		234	296	
39175	Vinyl chloride, water, unfiltered, recoverable, micrograms per liter	0.5			
39180	Trichloroethene, water, unfiltered, recoverable, micrograms per liter	5			
39381	Dieldrin, water, filtered, recoverable, micrograms per liter				
39415	Metolachlor, water, filtered, recoverable, micrograms per liter				
39532	Malathion, water, filtered, recoverable, micrograms per liter				
39572	Diazinon, water, filtered, recoverable, micrograms per liter				
39632	Atrazine, water, filtered, recoverable, micrograms per liter				
46342	Hexachlorobutadiene, water, unfiltered, recoverable, micrograms per liter				
49260	Alachlor, water, filtered, recoverable, micrograms per liter				
49285	Acetochlor, water, filtered, recoverable, micrograms per liter				
49333	1-Naphthol, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				
49933	C-14, water, filtered, percent modern				
49934	C-14, counting error, water, filtered, percent modern				
49991	Methyl acrylate, water, unfiltered, recoverable, micrograms per liter				
49999	1,2,3,4-Tetramethylbenzene, water, unfiltered, recoverable, micrograms per liter				
50000	1,2,3,5-Tetramethylbenzene, water, unfiltered, recoverable, micrograms per liter				
50002	Bromoethene, water, unfiltered, recoverable, micrograms per liter				
50004	tert-Butyl ethyl ether, water, unfiltered, recoverable, micrograms per liter				
50005	Methyl tert-pentyl ether, water, unfiltered, recoverable, micrograms per liter				
50305	Caffeine, water, filtered, recoverable, micrograms per liter				
50359	Metolaxyl, water, filtered, recoverable, micrograms per liter				
61209	Perchlorate, water, unfiltered, recoverable, micrograms per liter	6			
61585	Cyfluthrin, water, filtered, recoverable, micrograms per liter				
61586	Cypermethrin, water, filtered, recoverable, micrograms per liter				
61591	Fenamiphos, water, filtered, recoverable, micrograms per liter				
61593	Iprodione, water, filtered, recoverable, micrograms per liter				
61594	Isotfenphos, water, filtered, recoverable, micrograms per liter				
61596	Metolaxyl, water, filtered, recoverable, micrograms per liter				
61598	Methidathion, water, filtered, recoverable, micrograms per liter				
61599	Myclobutani, water, filtered, recoverable, micrograms per liter				
61601	Phosmet, water, filtered, recoverable, micrograms per liter				
61610	Tribuphos, water, filtered, recoverable, micrograms per liter				
61618	2-Chloro-2',6'-diethylacetanilide, water, filtered, recoverable, micrograms per liter				
61620	2-Ethyl-6-methylaniline, water, filtered, recoverable, micrograms per liter				
61625	3,4-Dichloroaniline, water, filtered, recoverable, micrograms per liter				
61633	4-Chloro-2-methylphenol, water, filtered, recoverable, micrograms per liter				
61635	Azinphos-methyl oxygen analog, water, filtered, recoverable, micrograms per liter				
61636	Chlorpyrifos oxygen analog, water, filtered, recoverable, micrograms per liter				
61644	Ethion monoxon, water, filtered, recoverable, micrograms per liter				
61645	Fenamiphos sulfone, water, filtered, recoverable, micrograms per liter				
61646	Fenamiphos sulfoxide, water, filtered, recoverable, micrograms per liter				
61652	Malaoxon, water, filtered, recoverable, micrograms per liter				
61664	Methyl paraoxon, water, filtered, recoverable, micrograms per liter				
61666	Phorate oxygen analog, water, filtered, recoverable, micrograms per liter				
61668	Phosmet oxygen analog, water, filtered, recoverable, micrograms per liter				
61674	Terbufos oxygen analog sulfone, water, filtered, recoverable, micrograms per liter				
61705	Diethoxycyphenol, water, filtered, recoverable, micrograms per liter				

Water Quality Data for Vail Lake (USGS Station No. 11042510)  
 RCWD Water Quality Sampling Station No. 3 Vail 1MAB  
 Data Collected by USGS

Code	Parameter	MCL	8/20/2011	9/15/2012	3 Vail 1MAB
61706	Monothoxyoctylphenol, water, filtered, recoverable, micrograms per liter				
62005	Cotinine, water, filtered, recoverable, micrograms per liter				
62054	1-Methylnaphthalene, water, filtered, recoverable, micrograms per liter				
62055	2,6-Dimethylnaphthalene, water, filtered, recoverable, micrograms per liter				
62056	2-Methylnaphthalene, water, filtered, recoverable, micrograms per liter				
62057	3-beta-Coprostanol, water, filtered, recoverable, micrograms per liter				
62058	3-Methyl-1H-indole, water, filtered, recoverable, micrograms per liter				
62059	3-tert-Butyl-4-hydroxyanisole, water, filtered, recoverable, micrograms per liter				
62060	4-Cumylphenol, water, filtered, recoverable, micrograms per liter				
62061	4-Ocylphenol, water, filtered, recoverable, micrograms per liter				
62062	4-tert-Octylphenol, water, filtered, recoverable, micrograms per liter				
62063	5-Methyl-1H-benzotriazole, water, filtered, recoverable, micrograms per liter				
62064	Acetophenone, water, filtered, recoverable, micrograms per liter				
62065	Acetyl hexamethyl tetrahydro naphthalene, water, filtered, recoverable, micrograms per liter				
62066	9,10-Anthraquinone, water, filtered, recoverable, micrograms per liter				
62067	Benzophenone, water, filtered, recoverable, micrograms per liter				
62068	beta-Sitosterol, water, filtered, recoverable, micrograms per liter				
62070	Camphor, water, filtered, recoverable, micrograms per liter				
62071	Carbazole, water, filtered, recoverable, micrograms per liter				
62072	Cholesterol, water, filtered, recoverable, micrograms per liter				
62073	D-Limonene, water, filtered, recoverable, micrograms per liter				
62075	Hexahydrohexamethyl cyclopentabenzopyran, water, filtered, recoverable, micrograms per liter				
62076	Indole, water, filtered, recoverable, micrograms per liter				
62077	Isoborneol, water, filtered, recoverable, micrograms per liter				
62078	Isopropylbenzene, water, filtered, recoverable, micrograms per liter				
62079	Isoquinoline, water, filtered, recoverable, micrograms per liter				
62080	Menthol, water, filtered, recoverable, micrograms per liter				
62081	Methyl salicylate, water, filtered, recoverable, micrograms per liter				
62082	DEET, water, filtered, recoverable, micrograms per liter				
62083	Diethoxypropylphenol, water, filtered, recoverable, micrograms per liter				
62084	p-Cresol, water, filtered, recoverable, micrograms per liter				
62085	4-Nonylphenol, water, filtered, recoverable, micrograms per liter				
62086	beta-Stigmasiano, water, filtered, recoverable, micrograms per liter				
62087	Tris(2-chloroethyl) phosphate, water, filtered, recoverable, micrograms per liter				
62088	Tris(dichloroisopropyl) phosphate, water, filtered, recoverable, micrograms per liter				
62089	Tributyl phosphate, water, filtered, recoverable, micrograms per liter				
62090	Triclosan, water, filtered, recoverable, micrograms per liter				
62091	Triethyl citrate, water, filtered, recoverable, micrograms per liter				
62092	Triphenyl phosphate, water, filtered, recoverable, micrograms per liter				
62093	Tris(2-butoxyethyl) phosphate, water, filtered, recoverable, micrograms per liter				
62166	Fipronil, water, filtered, recoverable, micrograms per liter				
62167	Fipronil sulfide, water, filtered, recoverable, micrograms per liter				
62168	Fipronil sulfone, water, filtered, recoverable, micrograms per liter				
62169	Desulfinylfipronil amide, water, filtered, recoverable, micrograms per liter				
62170	Desulfinylfipronil, water, filtered, recoverable, micrograms per liter				
62854	Total nitrogen, (NH3+NO2+NO3+Organic), filtered, milligrams per liter				
63790	Perchlorate, water, filtered, recoverable, micrograms per liter	6			
70300	Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter	1500	600	629	
70301	Residue, water, filtered, sum of constituents, milligrams per liter		578	647	
70303	Residue, water, filtered, tons per acre-foot				
71846	Ammonia, water, filtered, milligrams per liter as NH4		3.71	6.58	
71851	Nitrate, water, filtered, milligrams per liter	45 (q)	< 0.089	< 0.17	
71856	Nitrite, water, filtered, milligrams per liter		< 0.010	0.005	
71865	Iodide, water, filtered, milligrams per liter		0.025	0.03	
71870	Bromide, water, filtered, milligrams per liter		0.46	0.45	
72019	Depth to water level, feet below land surface				



**Water Quality Data for Vail Lake (USGS Station No. 11042510)  
RCWD Water Quality Sampling Station No. 3 Vail 1MAB  
Data Collected by USGS**

Code	Parameter	MCL	8/20/2011	9/15/2012	3 Vail 1MAB
73547	trans-1,4-Dichloro-2-butene, water, unfiltered, recoverable, micrograms per liter				
73570	Ethyl methacrylate, water, unfiltered, recoverable, micrograms per liter				
75985	Tritium 2-sigma combined uncertainty, water, unfiltered, picocuries per liter				
76002	Rn-222, 2-sigma combined uncertainty, water, unfiltered, picocuries per liter				
77041	Carbon disulfide, water, unfiltered, micrograms per liter				
77093	cis-1,2-Dichloroethane, water, unfiltered, recoverable, micrograms per liter	6			
77103	n-Butyl methyl ketone, water, unfiltered, recoverable, micrograms per liter				
77128	Styrene, water, unfiltered, recoverable, micrograms per liter	100			
77135	o-Xylene, water, unfiltered, recoverable, micrograms per liter				
77168	1,1-Dichloropropene, water, unfiltered, recoverable, micrograms per liter				
77170	2,2-Dichloropropane, water, unfiltered, recoverable, micrograms per liter				
77173	1,3-Dichloropropane, water, unfiltered, recoverable, micrograms per liter				
77220	2-Ethyltoluene, water, unfiltered, recoverable, micrograms per liter				
77221	1,2,3-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter				
77222	1,2,4-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter				
77223	Isopropylbenzene, water, unfiltered, recoverable, micrograms per liter				
77224	n-Propylbenzene, water, unfiltered, recoverable, micrograms per liter				
77226	1,3-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter				
77275	2-Chlorotoluene, water, unfiltered, recoverable, micrograms per liter				
77277	4-Chlorotoluene, water, unfiltered, recoverable, micrograms per liter				
77297	Bromochloromethane, water, unfiltered, recoverable, micrograms per liter				
77342	n-Butylbenzene, water, unfiltered, recoverable, micrograms per liter				
77350	sec-Butylbenzene, water, unfiltered, recoverable, micrograms per liter				
77353	tert-Butylbenzene, water, unfiltered, recoverable, micrograms per liter				
77356	4-Isopropyltoluene, water, unfiltered, recoverable, micrograms per liter				
77424	Iodomethane, water, unfiltered, recoverable, micrograms per liter				
77443	1,2,3-Trichloropropane, water, unfiltered, recoverable, micrograms per liter				
77562	1,1,1,2-Tetrachloroethane, water, unfiltered, recoverable, micrograms per liter				
77613	1,2,3-Trichlorobenzene, water, unfiltered, recoverable, micrograms per liter				
77651	1,2-Dibromoethane, water, unfiltered, recoverable, micrograms per liter				
77652	1,1,2-Trichloro-1,2,2-trifluoroethane, water, unfiltered, recoverable, micrograms per liter	0.05			
78032	Methyl tert-butyl ether, water, unfiltered, recoverable, micrograms per liter				
78109	3-Chloropropene, water, unfiltered, recoverable, micrograms per liter				
78133	Isobutyl methyl ketone, water, unfiltered, recoverable, micrograms per liter				
81552	Acetone, water, unfiltered, recoverable, micrograms per liter				
81555	Bromobenzene, water, unfiltered, recoverable, micrograms per liter				
81576	Diethyl ether, water, unfiltered, recoverable, micrograms per liter				
81577	Diisopropyl ether, water, unfiltered, recoverable, micrograms per liter				
81593	Methyl acrylonitrile, water, unfiltered, recoverable, micrograms per liter				
81595	Ethyl methyl ketone, water, unfiltered, recoverable, micrograms per liter				
81597	Methyl methacrylate, water, unfiltered, recoverable, micrograms per liter				
81607	Tetrahydrofuran, water, unfiltered, recoverable, micrograms per liter				
82081	C-13/C-12 ratio, water, unfiltered, per mil				
82082	Deuterium/Protium ratio, water, unfiltered, per mil				
82085	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil		-19.5	-14.4	
82303	Rn-222, water, unfiltered, picocuries per liter		-1.17	-0.11	
82346	Ethion, water, filtered, recoverable, micrograms per liter				
82625	1,2-Dibromo-3-chloropropane, water, unfiltered, recoverable, micrograms per liter				
82630	Metribuzin, water, filtered, recoverable, micrograms per liter				
82660	2,6-Diethylaniline, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				
82661	Trifluralin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				
82662	Dimethoate, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				
82664	Phorate, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				
82667	Methyl parathion, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				
82670	Tebuthiuron, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				
82673	Benfluralin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				

**Water Quality Data for Vail Lake (USGS Station No. 11042510)  
RCWD Water Quality Sampling Station No. 3 Vail 1MAB  
Data Collected by USGS**

Code	Parameter	MCL	3 Vail 1MAB	
			8/20/2011	9/15/2012
	Sampling date			
82675	Terbufos, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter			
82676	Propylamide, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter			
82680	Carbaryl, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter			
82682	DCPA, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter			
82683	Pendimethalin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter			
82686	Azinphos-methyl, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter			
	cis-Permethrin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter			
85795	m-Xylene plus p-xylene, water, unfiltered, recoverable, micrograms per liter			
90095	Specific conductance, water, unfiltered, laboratory, microsiemens per centimeter at 25 degrees Celsius	974		1070
90851	Triholomethanes, water, unfiltered, calcd, micrograms per liter			
99583	Bisphenol A-d3, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery			
99584	Caffeine-13C, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery			
99585	Decafluorobiphenyl, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery			
99586	Fluoranthene-d10, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery			
99832	1,2-Dichloroethane-d4, surrogate, Schedule 2090, water, unfiltered, percent recovery			
99833	Toluene-d8, surrogate, Schedule 2090, water, unfiltered, percent recovery			
99834	1-Bromo-4-fluorobenzene, surrogate, VOC schedules, water, unfiltered, percent recovery			
99984	Diazinon-d10, surrogate, Schedule 2003, water, filtered, percent recovery			
99995	alpha-HCH-d6, surrogate, Schedule 2003, water, filtered, percent recovery			

**Notes:**

Station No. 3 Vail 1MAB located near upstream face of Vail Dam, sample depth one meter above reservoir bottom. Total capacity, 49,370 acre feet, between elevations 1,352.5 feet, bottom of lowest outlet, and 1,470 feet, crest of spillway.

U.S. EPA STORET numbers for MCLs correspond to the same as the USGS NWIS data parameter number except as follows:

- (a) MCL shown for U.S. EPA STORET No. 620.
- (b) MCL shown for U.S. EPASTORET No. 951.
- (c) MCL shown for U.S. EPA STORET No. 1002.
- (d) MCL shown for U.S. EPA STORET No. 1007.
- (e) MCL shown for U.S. EPA STORET No. 1012.
- (f) MCL shown for U.S. EPA STORET No. 1027.
- (g) MCL shown for U.S. EPA STORET No. 1034.
- (h) MCL shown for U.S. EPA STORET No. 1042.
- (i) MCL shown for U.S. EPA STORET No. 1059.
- (j) MCL shown for U.S. EPA STORET No. 1067.
- (k) MCL shown for U.S. EPASTORET No. 1077.
- (l) MCL shown for U.S. EPA STORET No. 1092.
- (m) MCL shown for U.S. EPA STORET No. 1097.
- (n) MCL shown for U.S. EPA STORET No. 1105.
- (o) MCL shown for U.S. EPA STORET No. 1147.
- (p) MCL shown for U.S. EPA STORET No. 34247.
- (q) MCL shown for U.S. EPA STORET No. 71850.

Code--Data parameter number used in USGS National Water Information System (NWIS).

E--Estimated.

M--Presence verified but not quantified.

MCL--Maximum Contaminant Level reported by California DHS (May 25, 2007 Database) for U.S. EPA STORET number.

V--Biased results from contamination.

**ANNUAL REPORT**

**COOPERATIVE WATER RESOURCE  
MANAGEMENT AGREEMENT**

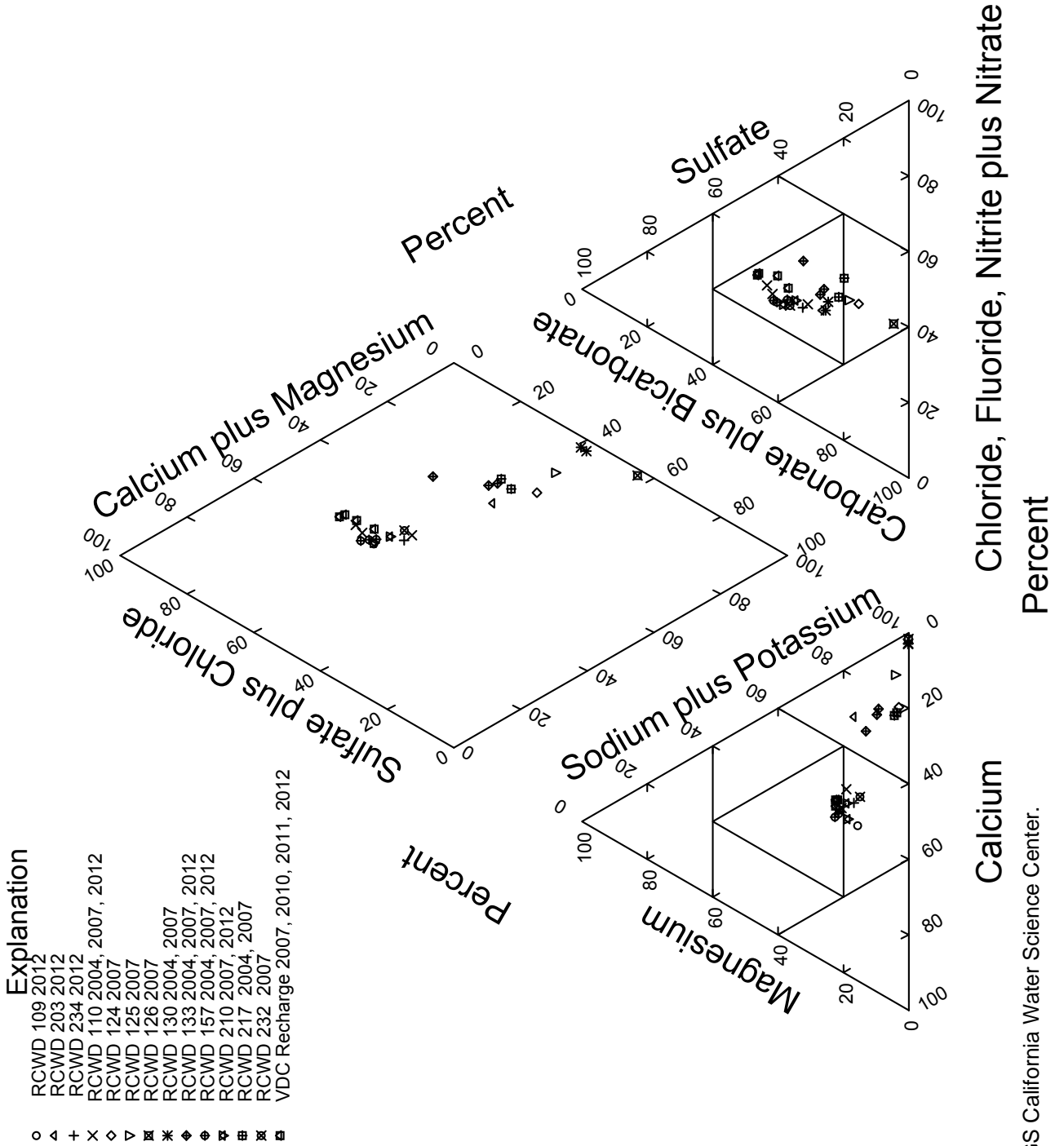
**CALENDAR YEAR 2013**

**APPENDIX E**

**WATER QUALITY DATA FOR  
SELECTED RCWD PRODUCTION WELLS**



# Tri-Linear Diagram RCWD Production Wells

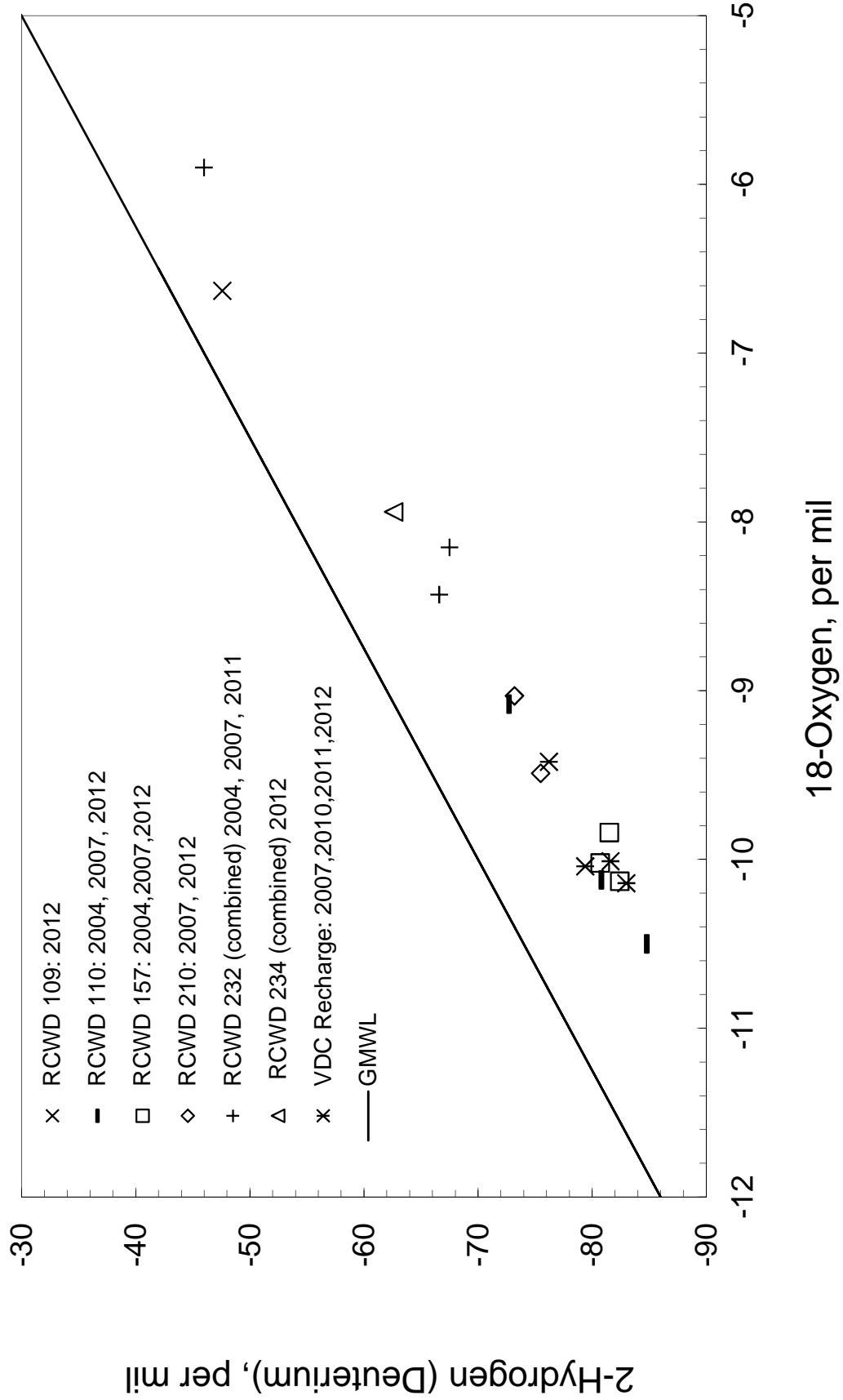


Source: USGS California Water Science Center.

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# Stable Isotope Diagram

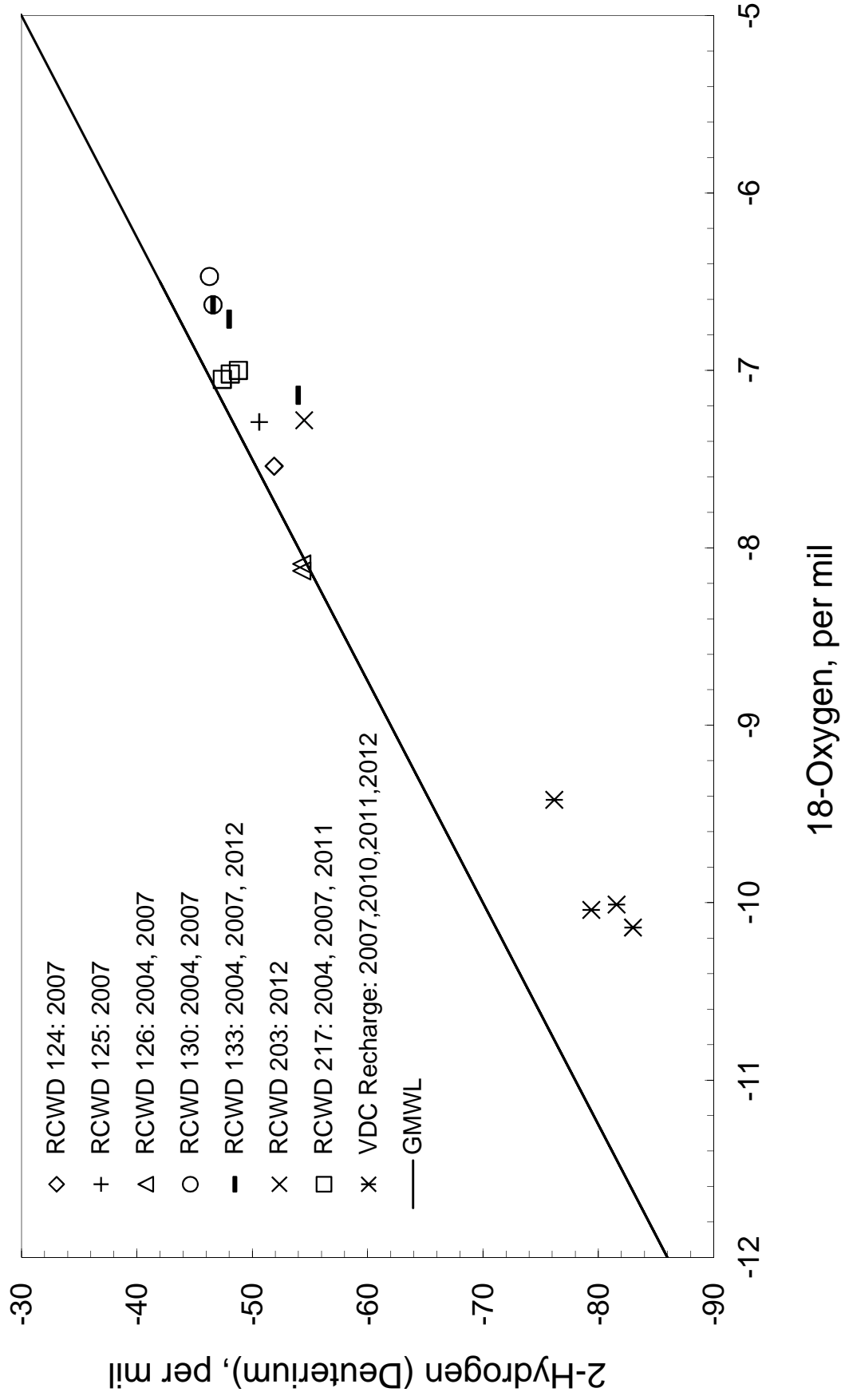
## Pauba Valley Production Wells Completed in Pauba Aquifer



Source: USGS California Water Science Center.

# Stable Isotope Diagram

## Pauba Valley Production Wells Completed in Temecula Aquifer



Source: USGS California Water Science Center.



**Water Quality Data for Selected RCWD Production Wells  
Well Nos. 110, 126, 130, and 133  
2004**

Code	Parameter	MCL	No. 110 6/15/2004	No. 126 5/27/2004	No. 130 6/14/2004	No. 133 5/20/2004
	Sampling date					
3	Sampling depth, feet					
10	Temperature, water, degrees Celsius		20.2		22	21
28	Agency analyzing sample, code		80020	80020	80020	80020
59	Flow rate, instantaneous, gallons per minute					
95	Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius		845	510	807	818
191	Hydrogen ion, water, unfiltered, calculated, milligrams per liter		0.00003		M	0.00001
300	Dissolved oxygen, water, unfiltered, milligrams per liter		4.5		2.3	2.1
400	pH, water, unfiltered, field, standard units		7.5		8.9	7.9
403	pH, water, unfiltered, laboratory, standard units					
405	Carbon dioxide, water, unfiltered, milligrams per liter					
453	Bicarbonate, water, filtered, incremental titration, field, milligrams per liter					
602	Total nitrogen, water, filtered, milligrams per liter					
607	Organic nitrogen, water, filtered, milligrams per liter					
608	Ammonia, water, filtered, milligrams per liter as nitrogen					
613	Nitrite, water, filtered, milligrams per liter as nitrogen	1 (a)				
618	Nitrate, water, filtered, milligrams per liter as nitrogen		0.502		1.28	0.519
623	Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen					
631	Nitrate plus nitrite, water, filtered, milligrams per liter as nitrogen		0.5		1.28	0.52
660	Orthophosphate, water, filtered, milligrams per liter		0.224		0.04	0.031
666	Phosphorus, water, filtered, milligrams per liter					
671	Orthophosphate, water, filtered, milligrams per liter as phosphorus		0.073		0.013	0.01
900	Hardness, water, milligrams per liter as calcium carbonate		243		11.3	102
904	Noncarb hardness, water filtered field, milligrams per liter as calcium carbonate		130			
905	Noncarb hardness, water filtered lab, milligrams per liter as calcium carbonate					
915	Calcium, water, filtered, milligrams per liter		61.9		4.17	25.6
925	Magnesium, water, filtered, milligrams per liter		21.4		0.195	9.08
930	Sodium, water, filtered, milligrams per liter		81.7		172	127
931	Sodium adsorption ratio, water, number					
932	Sodium fraction of cations, water, percent in equivalents of major cations					
935	Potassium, water, filtered, milligrams per liter		5.32		0.9	2.33
940	Chloride, water, filtered, milligrams per liter	600	80.5		84.8	98.8
945	Sulfate, water, filtered, milligrams per liter	600	165		87.1	96.6
950	Fluoride, water, filtered, milligrams per liter	2 (b)	0.5		0.59	1
955	Silica, water, filtered, milligrams per liter		20.1		14.3	22.2
1000	Arsenic, water, filtered, micrograms per liter	10 (c)	0.9		0.9	3.1
1005	Barium, water, filtered, micrograms per liter	1000 (d)	33.9		2.95	52.6
1010	Beryllium, micrograms per liter	4 (e)	< 0.06		< 0.06	< 0.06
1020	Boron, water, filtered, micrograms per liter		105		< 8	726
1025	Cadmium, micrograms per liter	5 (f)	E 0.028		< 0.04	0.051
1030	Chromium, micrograms per liter	50 (g)	< 0.8		1	E 0.6
1035	Cobalt, micrograms per liter		0.151		0.027	0.066
1040	Copper, micrograms per liter	1000 (h)	2.4		V 0.4	V 1.1
1046	Iron, water, filtered, micrograms per liter	300	< 6.4		E 3.7	< 6.4
1049	Lead, micrograms per liter		0.118		< 0.8	0.146
1056	Manganese, water, filtered, micrograms per liter	50	< 0.2		0.65	E 0.19
1057	Thallium, micrograms per liter	2 (i)	< 0.04		< 0.04	< 0.04
1060	Molybdenum, micrograms per liter		7.96		1.65	4.58
1065	Nickel, micrograms per liter	100 (j)	0.4		0.14	0.53
1075	Silver, micrograms per liter	100 (k)	< 0.2		< 0.2	< 0.2
1080	Strontium, water, filtered, micrograms per liter		343		38.8	396
1085	Vanadium, micrograms per liter		5.8		V 0.3	43.4
1090	Zinc, micrograms per liter	5000 (l)	2.2		1.1	0.7
1095	Antimony, micrograms per liter	6 (m)	< 0.2		< 0.2	< 0.2

**Water Quality Data for Selected RCWD Production Wells  
Well Nos. 110, 126, 130, and 133  
2004**

Code	Parameter	MCL	No. 110 6/15/2004	No. 126 5/27/2004	No. 130 6/14/2004	No. 133 5/20/2004
	Sampling date					
1106	Aluminum, water, filtered, micrograms per liter	1000 (n)	< 1.6		2.9	3.8
1130	Lithium, water, filtered, micrograms per liter		3.52		0.62	4.09
1145	Selenium, micrograms per liter	50 (o)	1.1		E 0.3	1
4022	Terbutylazine, water, filtered, recoverable, micrograms per liter		< 0.01	< 0.01	< 0.01	< 0.01
4025	Hexazinone, water, filtered, recoverable, micrograms per liter		< 0.013	< 0.013	< 0.013	< 0.013
4029	Bromacil, water, filtered, recoverable, micrograms per liter		< 0.03	< 0.03	< 0.03	< 0.03
4035	Simazine, water, filtered, recoverable, micrograms per liter		0.007	< 0.005	< 0.005	0.006
4036	Prometryn, water, filtered, recoverable, micrograms per liter		< 0.005	< 0.005	< 0.005	< 0.005
4037	Prometon, water, filtered, recoverable, micrograms per liter		< 0.005	< 0.005	< 0.005	< 0.005
4040	2-Chloro-4-isopropylamino-6-amino-s-triazine, water, filtered, recoverable, micrograms per liter		E 0.006	< 0.006	< 0.006	< 0.006
4095	Fonofos, water, filtered, recoverable, micrograms per liter		< 0.003	< 0.003	< 0.003	< 0.003
7000	Tritium, water, unfiltered, picocuries per liter		21.8	2.2	2.2	3.5
22703	Uranium, natural, micrograms per liter		1.09	0.245	0.245	3.56
29801	Alkalinity, water, filtered, fixed endpoint (pH 4.5) titration, laboratory, milligrams per liter as calcium carbonate					
30217	Dibromomethane, water, unfiltered, recoverable, micrograms per liter		< 0.05	< 0.05	< 0.05	< 0.05
32101	Bromodichloromethane, water, unfiltered, recoverable, micrograms per liter		0.13	< 0.028	< 0.028	E 0.088
32102	Tetrachloromethane, water, unfiltered, recoverable, micrograms per liter	0.5	< 0.06	< 0.06	< 0.06	< 0.06
32103	1,2-Dichloroethane, water, unfiltered, recoverable, micrograms per liter		< 0.13	< 0.13	< 0.13	< 0.13
32104	Tribromomethane, water, unfiltered, recoverable, micrograms per liter		< 0.1	< 0.1	< 0.1	< 0.1
32105	Dibromochloromethane, water, unfiltered, recoverable, micrograms per liter		< 0.1	< 0.1	< 0.1	< 0.1
32106	Trichloromethane, water, unfiltered, recoverable, micrograms per liter		0.48	< 0.02	E 0.02	0.11
34010	Toluene, water, unfiltered, recoverable, micrograms per liter	150	< 0.05	< 0.05	< 0.05	E 0.01
34030	Benzene, water, unfiltered, recoverable, micrograms per liter	1	< 0.021	< 0.021	< 0.021	< 0.021
34215	Acrylonitrile, water, unfiltered, recoverable, micrograms per liter		< 1.2	< 1.2	< 1.2	< 1.2
34221	Anthracene, water, filtered, recoverable, micrograms per liter		< 0.05	< 0.05	< 0.05	< 0.05
34248	Benzol[a]pyrene, water, filtered, recoverable, micrograms per liter	0.2 (p)	< 0.05	< 0.05	< 0.05	< 0.05
34288	Tribromomethane, water, filtered, recoverable, micrograms per liter		< 0.05	< 0.05	< 0.05	< 0.05
34301	Chlorobenzene, water, unfiltered, recoverable, micrograms per liter	70	< 0.028	< 0.028	< 0.028	< 0.028
34311	Chloroethane, water, unfiltered, recoverable, micrograms per liter		< 0.12	< 0.12	< 0.12	< 0.12
34371	Ethylbenzene, water, unfiltered, recoverable, micrograms per liter	300	< 0.03	< 0.03	< 0.03	< 0.03
34377	Fluoranthene, water, filtered, recoverable, micrograms per liter		< 0.05	< 0.05	< 0.05	< 0.05
34396	Hexachloroethane, water, unfiltered, recoverable, micrograms per liter		< 0.14	< 0.14	< 0.14	< 0.14
34409	Isophorone, water, filtered, recoverable, micrograms per liter		< 0.05	< 0.05	< 0.05	< 0.05
34413	Bromomethane, water, unfiltered, recoverable, micrograms per liter		< 0.3	< 0.3	< 0.3	< 0.3
34418	Chloromethane, water, unfiltered, recoverable, micrograms per liter		< 0.2	< 0.2	< 0.2	< 0.2
34423	Dichloromethane, water, unfiltered, recoverable, micrograms per liter	5	< 0.06	< 0.06	< 0.06	< 0.06
34443	Naphthalene, water, filtered, recoverable, micrograms per liter		< 0.05	< 0.05	< 0.05	< 0.05
34462	Phenanthrene, water, filtered, recoverable, micrograms per liter		< 0.05	< 0.05	< 0.05	< 0.05
34466	Phenol, water, filtered, recoverable, micrograms per liter		V 0.28		V 0.27	< 0.05
34470	Pyrene, water, filtered, recoverable, micrograms per liter		< 0.05	< 0.05	< 0.05	< 0.05
34475	Tetrachloroethene, water, unfiltered, recoverable, micrograms per liter	5	< 0.06	< 0.06	< 0.06	< 0.06
34476	Tetrachloroethene, water, filtered, recoverable, micrograms per liter		E 0.03	< 0.05	< 0.05	< 0.05
34488	Trichlorofluoromethane, water, unfiltered, recoverable, micrograms per liter	150	< 0.16	< 0.16	< 0.16	< 0.16
34496	1,1-Dichloroethane, water, unfiltered, recoverable, micrograms per liter	5	< 0.035	< 0.035	< 0.035	< 0.035
34501	1,1-Dichloroethane, water, unfiltered, recoverable, micrograms per liter	6	< 0.024	< 0.024	< 0.024	< 0.024
34506	1,1,1-Trichloroethane, water, unfiltered, recoverable, micrograms per liter	200	< 0.032	< 0.032	< 0.032	< 0.032
34511	1,1,2-Trichloroethane, water, unfiltered, recoverable, micrograms per liter	5	< 0.064	< 0.064	< 0.064	< 0.064
34516	1,1,2,2-Tetrachloroethane, water, unfiltered, recoverable, micrograms per liter	1	< 0.16	< 0.16	< 0.16	< 0.16
34536	1,2-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter	600	< 0.048	< 0.048	< 0.048	< 0.048
34541	trans-1,2-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	5	< 0.029	< 0.029	< 0.029	< 0.029
34546	trans-1,2-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	10	< 0.032	< 0.032	< 0.032	< 0.032
34551	1,2,4-Trichlorobenzene, water, unfiltered, recoverable, micrograms per liter	5	< 0.12	< 0.12	< 0.12	< 0.12
34566	1,3-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter		< 0.03	< 0.03	< 0.03	< 0.03

**Water Quality Data for Selected RCWD Production Wells  
Well Nos. 110, 126, 130, and 133  
2004**

Code	Parameter	MCL	No. 110 6/15/2004	No. 126 5/27/2004	No. 130 6/14/2004	No. 133 5/20/2004
	Sampling date					
34571	1,4-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter		< 0.034	< 0.034	< 0.034	< 0.034
34572	1,4-Dichlorobenzene, water, filtered, recoverable, micrograms per liter	5	< 0.034	< 0.034	< 0.034	< 0.034
34668	Dichlorodifluoromethane, water, unfiltered, recoverable, micrograms per liter		< 0.18	< 0.18	< 0.18	< 0.18
34696	Naphthalene, water, unfiltered, recoverable, micrograms per liter		< 0.52	< 0.52	< 0.52	< 0.52
34699	trans-1,3-Dichloropropene, water, unfiltered, recoverable, micrograms per liter	0.5	< 0.09	< 0.09	< 0.09	< 0.09
34704	cis-1,3-Dichloropropene, water, unfiltered, recoverable, micrograms per liter	0.5	< 0.05	< 0.05	< 0.05	< 0.05
38454	Dicropthos, water, filtered, recoverable, micrograms per liter		< 0.08	< 0.08	< 0.08	< 0.08
38775	Dichloros, water, filtered, recoverable, micrograms per liter		< 0.01	< 0.01	< 0.01	< 0.01
38933	Chlorpyrifos, water, filtered, recoverable, micrograms per liter		< 0.005	< 0.005	< 0.005	< 0.005
39086	Alkalinity, water, filtered, incremental titration, field, milligrams per liter as calcium carbonate					
39175	Vinyl chloride, water, unfiltered, recoverable, micrograms per liter	0.5	< 0.06	< 0.06	< 0.06	< 0.06
39180	Trichloroethene, water, unfiltered, recoverable, micrograms per liter	5	< 0.038	< 0.038	< 0.038	< 0.038
39381	Dieldrin, water, filtered, recoverable, micrograms per liter		< 0.009	< 0.009	< 0.009	< 0.009
39415	Metolachlor, water, filtered, recoverable, micrograms per liter		< 0.013	< 0.013	< 0.013	< 0.013
39532	Malathion, water, filtered, recoverable, micrograms per liter		< 0.027	< 0.027	< 0.027	< 0.027
39572	Diazinon, water, filtered, recoverable, micrograms per liter		< 0.005	< 0.005	< 0.005	< 0.005
39632	Atrazine, water, filtered, recoverable, micrograms per liter		< 0.007	< 0.007	< 0.007	< 0.007
39702	Hexachlorobutadiene, water, unfiltered, recoverable, micrograms per liter		< 0.14	< 0.14	< 0.14	< 0.14
46342	Alachlor, water, filtered, recoverable, micrograms per liter		< 0.005	< 0.005	< 0.005	< 0.005
49260	Acetochlor, water, filtered, recoverable, micrograms per liter		< 0.006	< 0.006	< 0.006	< 0.006
49295	1-Naphthol, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter		< 0.882	< 0.882	< 0.882	< 0.882
49933	C-14, water, filtered, percent modern		92.4	75.42	69.67	
49934	C-14, counting error, water, filtered, percent modern					
49991	Methyl acrylate, water, unfiltered, recoverable, micrograms per liter		< 2	< 2	< 2	< 2
49999	1,2,3,4-Tetramethylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.14	< 0.14	< 0.14	< 0.14
50000	1,2,3,5-Tetramethylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.14	< 0.14	< 0.14	< 0.14
50002	Bromoethene, water, unfiltered, recoverable, micrograms per liter		< 0.1	< 0.1	< 0.1	< 0.1
50004	tert-Butyl ether, water, unfiltered, recoverable, micrograms per liter		< 0.05	< 0.05	< 0.05	< 0.05
50005	Methyl tert-pentyl ether, water, unfiltered, recoverable, micrograms per liter		< 0.08	< 0.08	< 0.08	< 0.08
50305	Caffeine, water, filtered, recoverable, micrograms per liter		< 0.1	< 0.1	< 0.1	< 0.1
50359	Metaalaxyl, water, filtered, recoverable, micrograms per liter		< 0.02	< 0.02	< 0.02	< 0.02
61209	Perchlorate, water, unfiltered, recoverable, micrograms per liter	6	2.2	< 0.49	< 0.25	< 0.25
61585	Cyfluthrin, water, filtered, recoverable, micrograms per liter		< 0.008	< 0.008	< 0.008	< 0.008
61586	Cypermethrin, water, filtered, recoverable, micrograms per liter		< 0.009	< 0.009	< 0.009	< 0.009
61591	Fenamiphos, water, filtered, recoverable, micrograms per liter		< 0.029	< 0.029	< 0.029	< 0.029
61593	Iprothione, water, filtered, recoverable, micrograms per liter		< 1.42	< 1.42	< 1.42	< 1.42
61594	Isofenphos, water, filtered, recoverable, micrograms per liter		< 0.003	< 0.003	< 0.003	< 0.003
61596	Metaalaxyl, water, filtered, recoverable, micrograms per liter		< 0.005	< 0.005	< 0.005	< 0.005
61598	Methidathion, water, filtered, recoverable, micrograms per liter		< 0.006	< 0.006	< 0.006	< 0.006
61599	Myclobutanil, water, filtered, recoverable, micrograms per liter		< 0.008	< 0.008	< 0.008	< 0.008
61601	Phosmet, water, filtered, recoverable, micrograms per liter		< 0.008	< 0.008	< 0.008	< 0.008
61610	Tribuphos, water, filtered, recoverable, micrograms per liter					
61618	2-Chloro-2,6-diethylacetanilide, water, filtered, recoverable, micrograms per liter		< 0.005	< 0.005	< 0.005	< 0.005
61620	2-Ethyl-6-methylacetanilide, water, filtered, recoverable, micrograms per liter		< 0.005	< 0.005	< 0.005	< 0.005
61625	3,4-Dichloroaniline, water, filtered, recoverable, micrograms per liter		< 0.0045	< 0.0045	< 0.0045	< 0.0045
61633	4-Chloro-2-methylphenol, water, filtered, recoverable, micrograms per liter		< 0.0056	< 0.0056	< 0.0056	< 0.0056
61635	Azinphos-methyl oxygen analog, water, filtered, recoverable, micrograms per liter		< 0.016	< 0.016	< 0.016	< 0.016
61636	Chlorpyrifos oxygen analog, water, filtered, recoverable, micrograms per liter		< 0.06	< 0.06	< 0.06	< 0.06
61644	Ethion monooxon, water, filtered, recoverable, micrograms per liter		< 0.034	< 0.034	< 0.034	< 0.034
61645	Fenamiphos sulfone, water, filtered, recoverable, micrograms per liter		< 0.008	< 0.008	< 0.008	< 0.008
61646	Fenamiphos sulfide, water, filtered, recoverable, micrograms per liter		< 0.03	< 0.03	< 0.03	< 0.03
61652	Malaoxon, water, filtered, recoverable, micrograms per liter		< 0.008	< 0.008	< 0.008	< 0.008
61664	Methyl paraoxon, water, filtered, recoverable, micrograms per liter		< 0.03	< 0.03	< 0.03	< 0.03

**Water Quality Data for Selected RCWD Production Wells  
Well Nos. 110, 126, 130, and 133  
2004**

Code	Parameter	MCL	No. 110 6/15/2004	No. 126 5/27/2004	No. 130 6/14/2004	No. 133 5/20/2004
	Sampling date					
61666	Phorate oxygen analog, water, filtered, recoverable, micrograms per liter		< 0.097	< 0.097	< 0.097	< 0.097
61668	Phosmet oxygen analog, water, filtered, recoverable, micrograms per liter		< 0.068	< 0.068	< 0.068	< 0.068
61674	Terbufos oxygen analog sulfone, water, filtered, recoverable, micrograms per liter		< 1	< 1	< 1	< 1
61705	Diethoxyacetylphenol, water, filtered, recoverable, micrograms per liter		< 0.019	< 0.019	< 0.019	< 0.019
61706	Monoethoxyacetylphenol, water, filtered, recoverable, micrograms per liter		< 0.5	< 0.5	< 0.5	< 0.5
62005	Coinine, water, filtered, recoverable, micrograms per liter		< 0.5	< 0.5	< 0.5	< 0.5
62054	1-Methylnaphthalene, water, filtered, recoverable, micrograms per liter		< 0.5	< 0.5	< 0.5	< 0.5
62055	2,6-Dimethylnaphthalene, water, filtered, recoverable, micrograms per liter		< 0.5	< 0.5	< 0.5	< 0.5
62056	2-Methylnaphthalene, water, filtered, recoverable, micrograms per liter		< 2	< 2	< 2	< 2
62057	3-beta-Coprostanol, water, filtered, recoverable, micrograms per liter		< 1	< 1	< 1	< 1
62058	3-Methyl-1H-indole, water, filtered, recoverable, micrograms per liter		< 5	< 5	< 5	< 5
62059	3-tert-Butyl-4-hydroxyanisole, water, filtered, recoverable, micrograms per liter		< 1	< 1	< 1	< 1
62060	4-Cumylphenol, water, filtered, recoverable, micrograms per liter		< 1	< 1	< 1	< 1
62061	4-Octylphenol, water, filtered, recoverable, micrograms per liter		< 1	< 1	< 1	< 1
62062	4-tert-Octylphenol, water, filtered, recoverable, micrograms per liter		< 2	< 2	< 2	< 2
62063	5-Methyl-1H-benzotriazole, water, filtered, recoverable, micrograms per liter		< 0.5	< 0.5	< 0.5	< 0.5
62064	Acetophenone, water, filtered, recoverable, micrograms per liter		< 0.5	< 0.5	< 0.5	< 0.5
62065	Acetyl hexamethyl tetrahydro naphthalene, water, filtered, recoverable, micrograms per liter		< 0.5	< 0.5	< 0.5	< 0.5
62066	9,10-Anthraquinone, water, filtered, recoverable, micrograms per liter		< 0.5	< 0.5	< 0.5	< 0.5
62067	Benzophenone, water, filtered, recoverable, micrograms per liter		< 2	< 2	< 2	< 2
62068	beta-Sitosterol, water, filtered, recoverable, micrograms per liter		< 0.5	< 0.5	< 0.5	< 0.5
62070	Camphor, water, filtered, recoverable, micrograms per liter		< 0.5	< 0.5	< 0.5	< 0.5
62071	Carbazole, water, filtered, recoverable, micrograms per liter		< 2	< 2	< 2	< 2
62072	Cholesterol, water, filtered, recoverable, micrograms per liter		< 0.5	< 0.5	< 0.5	< 0.5
62073	D-Limonene, water, filtered, recoverable, micrograms per liter		< 0.5	< 0.5	< 0.5	< 0.5
62075	Hexahydrohexamethyl cyclopentabenzopyran, water, filtered, recoverable, micrograms per liter		< 0.5	< 0.5	< 0.5	< 0.5
62076	Indole, water, filtered, recoverable, micrograms per liter		< 0.5	< 0.5	< 0.5	< 0.5
62077	Isoborneol, water, filtered, recoverable, micrograms per liter		< 0.5	< 0.5	< 0.5	< 0.5
62078	Isopropylbenzene, water, filtered, recoverable, micrograms per liter		< 0.5	< 0.5	< 0.5	< 0.5
62079	Isoquinoline, water, filtered, recoverable, micrograms per liter		< 0.5	< 0.5	< 0.5	< 0.5
62080	Menthol, water, filtered, recoverable, micrograms per liter		< 0.5	< 0.5	< 0.5	< 0.5
62081	Methyl salicylate, water, filtered, recoverable, micrograms per liter		E 0.06	< 0.5	< 0.5	< 0.5
62082	DEET, water, filtered, recoverable, micrograms per liter		< 5	< 5	< 5	< 5
62083	Diethoxynonylphenol, water, filtered, recoverable, micrograms per liter		< 1	< 1	< 1	< 1
62084	p-Cresol, water, filtered, recoverable, micrograms per liter		< 5	< 5	< 5	< 5
62085	4-Nonylphenol, water, filtered, recoverable, micrograms per liter		< 2	< 2	< 2	< 2
62086	beta-Stigmasterol, water, filtered, recoverable, micrograms per liter		< 0.5	< 0.5	< 0.5	< 0.5
62087	Tris(2-chloroethyl) phosphate, water, filtered, recoverable, micrograms per liter		< 0.5	< 0.5	< 0.5	< 0.5
62088	Tris(dichloroisopropyl) phosphate, water, filtered, recoverable, micrograms per liter		< 0.5	< 0.5	< 0.5	< 0.5
62089	Tributyl phosphate, water, filtered, recoverable, micrograms per liter		< 1	< 1	< 1	< 1
62090	Triclosan, water, filtered, recoverable, micrograms per liter		< 0.5	< 0.5	< 0.5	< 0.5
62091	Triethyl citrate, water, filtered, recoverable, micrograms per liter		< 0.5	< 0.5	< 0.5	< 0.5
62092	Triphenyl phosphate, water, filtered, recoverable, micrograms per liter		< 0.5	< 0.5	< 0.5	< 0.5
62093	Tris(2-butoxyethyl) phosphate, water, filtered, recoverable, micrograms per liter		< 0.016	< 0.016	< 0.016	< 0.016
62166	Fipronil, water, filtered, recoverable, micrograms per liter		< 0.013	< 0.013	< 0.013	< 0.013
62167	Fipronil sulfide, water, filtered, recoverable, micrograms per liter		< 0.024	< 0.024	< 0.024	< 0.024
62168	Fipronil sulfone, water, filtered, recoverable, micrograms per liter		< 0.029	< 0.029	< 0.029	< 0.029
62169	Desulfinyfipronil amide, water, filtered, recoverable, micrograms per liter		< 0.012	< 0.012	< 0.012	< 0.012
62170	Desulfinyfipronil, water, filtered, recoverable, micrograms per liter		0.53	1.31	0.54	0.54
62854	Total nitrogen, (NH3+NO2+NO3+Organic), filtered, milligrams per liter	6				
63790	Perchlorate, water, filtered, recoverable, micrograms per liter		532		478	494
70300	Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter	1500	E 508		V 460	V 473
70301	Residue, water, filtered, sum of constituents, milligrams per liter					

**Water Quality Data for Selected RCWD Production Wells  
Well Nos. 110, 126, 130, and 133  
2004**

Code	Parameter	MCL	No. 110 6/15/2004	No. 126 5/27/2004	No. 130 6/14/2004	No. 133 5/20/2004
	Sampling date					
70303	Residue, water, filtered, tons per acre-foot					
71846	Ammonia, water, filtered, milligrams per liter as NH4		< 0.052		< 0.052	< 0.052
71851	Nitrate, water, filtered, milligrams per liter	45 (q)	2.22		5.68	2.3
71856	Nitrite, water, filtered, milligrams per liter		< 0.026		< 0.026	< 0.026
71865	Iodide, water, filtered, milligrams per liter					
71870	Bromide, water, filtered, milligrams per liter		0.15		0.34	0.37
72019	Depth to water level, feet below land surface					
73547	trans-1,4-Dichloro-2-butene, water, unfiltered, recoverable, micrograms per liter		< 0.7	< 0.7	< 0.7	< 0.7
73570	Ethyl methacrylate, water, unfiltered, recoverable, micrograms per liter		< 0.18	< 0.18	< 0.18	< 0.18
75985	Tritium 2-sigma combined uncertainty, water, unfiltered, picocuries per liter		1.3	0.6	1	0.6
76002	Rn-222, 2-sigma combined uncertainty, water, unfiltered, picocuries per liter		28		24	23
77041	Carbon disulfide, water, unfiltered, micrograms per liter		< 0.038	< 0.038	< 0.038	< 0.038
77093	cis-1,2-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	6	< 0.024	< 0.024	< 0.024	< 0.024
77103	n-Butyl methyl ketone, water, unfiltered, recoverable, micrograms per liter		< 0.7	< 0.7	< 0.7	< 0.7
77128	Styrene, water, unfiltered, recoverable, micrograms per liter	100	< 0.042	< 0.042	< 0.042	< 0.042
77135	o-Xylene, water, unfiltered, recoverable, micrograms per liter		< 0.038	< 0.038	< 0.038	< 0.038
77168	1,1-Dichloropropene, water, unfiltered, recoverable, micrograms per liter		< 0.026	< 0.026	< 0.026	< 0.026
77170	2,2-Dichloropropane, water, unfiltered, recoverable, micrograms per liter		< 0.05	< 0.05	< 0.05	< 0.05
77173	1,3-Dichloropropane, water, unfiltered, recoverable, micrograms per liter		< 0.06	< 0.06	< 0.06	< 0.06
77220	2-Ethyltoluene, water, unfiltered, recoverable, micrograms per liter		< 0.06	< 0.06	< 0.06	< 0.06
77221	1,2,3-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.06	< 0.06	< 0.06	< 0.06
77222	1,2,4-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.056	< 0.056	< 0.056	< 0.056
77223	Isopropylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.038	< 0.038	< 0.038	< 0.038
77224	n-Propylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.042	< 0.042	< 0.042	< 0.042
77226	1,3,5-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.044	< 0.044	< 0.044	< 0.044
77275	2-Chlorotoluene, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04
77277	4-Chlorotoluene, water, unfiltered, recoverable, micrograms per liter		< 0.05	< 0.05	< 0.05	< 0.05
77297	Bromochloromethane, water, unfiltered, recoverable, micrograms per liter		< 0.12	< 0.12	< 0.12	< 0.12
77342	n-Butylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.12	< 0.12	< 0.12	< 0.12
77350	sec-Butylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.06	< 0.06	< 0.06	< 0.06
77353	tert-Butylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.06	< 0.06	< 0.06	< 0.06
77356	4-Isopropyltoluene, water, unfiltered, recoverable, micrograms per liter		< 0.08	< 0.08	< 0.08	< 0.08
77424	Iodomethane, water, unfiltered, recoverable, micrograms per liter		< 0.35	< 0.35	< 0.35	< 0.35
77443	1,2,3-Trichloropropane, water, unfiltered, recoverable, micrograms per liter		< 0.18	< 0.18	< 0.18	< 0.18
77562	1,1,1,2-Tetrachloroethane, water, unfiltered, recoverable, micrograms per liter		< 0.03	< 0.03	< 0.03	< 0.03
77613	1,2,3-Trichlorobenzene, water, unfiltered, recoverable, micrograms per liter		< 0.27	< 0.27	< 0.27	< 0.27
77651	1,2-Dibromoethane, water, unfiltered, recoverable, micrograms per liter	0.05	< 0.036	< 0.036	< 0.036	< 0.036
77652	1,1,2-Trichloro-1,2,2-trifluoroethane, water, unfiltered, recoverable, micrograms per liter		< 0.038	< 0.038	< 0.038	< 0.038
78032	Methyl tert-butyl ether, water, unfiltered, recoverable, micrograms per liter		< 0.17	< 0.17	< 0.17	< 0.17
78109	3-Chloropropene, water, unfiltered, recoverable, micrograms per liter		< 0.5	< 0.5	< 0.5	< 0.5
78133	Isobutyl methyl ketone, water, unfiltered, recoverable, micrograms per liter		< 0.37	< 0.37	< 0.37	< 0.37
81552	Acetone, water, unfiltered, recoverable, micrograms per liter		< 6	< 6	< 6	< 6
81555	Bromobenzene, water, unfiltered, recoverable, micrograms per liter		< 0.028	< 0.028	< 0.028	< 0.028
81576	Diethyl ether, water, unfiltered, recoverable, micrograms per liter		< 0.1	< 0.1	< 0.1	< 0.1
81577	Diisopropyl ether, water, unfiltered, recoverable, micrograms per liter		< 0.1	< 0.1	< 0.1	< 0.1
81593	Methyl acrylonitrile, water, unfiltered, recoverable, micrograms per liter		< 0.76	< 0.76	< 0.76	< 0.76
81595	Ethyl methyl ketone, water, unfiltered, recoverable, micrograms per liter		< 4	< 4	< 4	< 4
81597	Methyl methacrylate, water, unfiltered, recoverable, micrograms per liter		< 0.35	< 0.35	< 0.35	< 0.35
81607	Tetrahydrofuran, water, unfiltered, recoverable, micrograms per liter		< 2.2	< 2.2	< 2.2	< 2.2
82081	C-13/C-12 ratio, water, unfiltered, per mil		-11		-14.2	-14.1
82082	Deuterium/Protium ratio, water, unfiltered, per mil		-85		-46.6	-46
82085	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil		-10.5		-6.63	-6.4
82303	Rn-222, water, unfiltered, picocuries per liter		210		420	310

### Water Quality Data for Selected RCWD Production Wells Well Nos. 110, 126, 130, and 133 2004

Code	Parameter	MCL	No. 110 6/15/2004	No. 126 5/27/2004	No. 130 6/14/2004	No. 133 5/20/2004
	Sampling date					
82346	Ethion, water, filtered, recoverable, micrograms per liter		< 0.004	< 0.004	< 0.004	< 0.004
82625	1,2-Dibromo-3-chloropropane, water, unfiltered, recoverable, micrograms per liter		< 0.51	< 0.51	< 0.51	< 0.51
82630	Metribuzin, water, filtered, recoverable, micrograms per liter		< 0.006	< 0.006	< 0.006	< 0.006
82660	2,6-Diethylaniline, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter		< 0.006	< 0.006	< 0.006	< 0.006
82661	Trifluralin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter		< 0.009	< 0.009	< 0.009	< 0.009
82662	Dimethoate, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter		< 0.0061	< 0.0061	< 0.0061	< 0.0061
82664	Phorate, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter		< 0.011	< 0.011	< 0.011	< 0.011
82670	Methyl parathion, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter		< 0.015	< 0.015	< 0.015	< 0.015
82677	Tebuthiuron, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter		< 0.016	< 0.016	< 0.016	< 0.016
82673	Benfluralin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter		< 0.01	< 0.01	< 0.01	< 0.01
82675	Terbufos, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter		< 0.017	< 0.017	< 0.017	< 0.017
82676	Propyzamide, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter		< 0.004	< 0.004	< 0.004	< 0.004
82680	Carbaryl, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter		< 0.041	< 0.041	< 0.041	< 0.041
82682	DCPA, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter		< 0.003	< 0.003	< 0.003	< 0.003
82683	Pendimethalin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter		< 0.022	< 0.022	< 0.022	< 0.022
82686	Azinphos-methyl, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter		< 0.05	< 0.05	< 0.05	< 0.05
82687	cis-Permethrin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter		< 0.006	< 0.006	< 0.006	< 0.006
85795	m-Xylene plus p-xylene, water, unfiltered, recoverable, micrograms per liter		< 0.06	< 0.06	< 0.06	< 0.06
90095	Specific conductance, water, unfiltered, laboratory, microsiemens per centimeter at 25 degrees Celsius					
90851	Triholomehtanes, water, unfiltered, calcd, micrograms per liter					
90867	Triholomehtanes, water, unfiltered, calcd, micrograms per liter					
99583	Bisphenol A-d3, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery					
99584	Caffeine-13C, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery					
99585	Decafluorobiphenyl, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery					
99586	Fluoranthene-d10, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery					
99832	1,2-Dichloroethane-d4, surrogate, Schedule 2090, water, unfiltered, percent recovery					
99833	Toluene-d8, surrogate, Schedule 2090, water, unfiltered, percent recovery					
99834	1-Bromo-4-fluorobenzene, surrogate, VOC schedules, water, unfiltered, percent recovery					
99994	Diazinon-d10, surrogate, Schedule 2003, water, filtered, percent recovery					
99995	alpha-HCH-d6, surrogate, Schedule 2003, water, filtered, percent recovery					

Notes:

- U.S. EPA STORET numbers for MCLs correspond to the same as the USGS NWIS data parameter number except as follows:
- (a) MCL shown for U.S. EPA STORET No. 620.
  - (b) MCL shown for U.S. EPASTORET No. 951.
  - (c) MCL shown for U.S. EPA STORET No. 1002.
  - (d) MCL shown for U.S. EPA STORET No. 1007.
  - (e) MCL shown for U.S. EPA STORET No. 1012.
  - (f) MCL shown for U.S. EPA STORET No. 1027.
  - (g) MCL shown for U.S. EPA STORET No. 1034.
  - (h) MCL shown for U.S. EPA STORET No. 1042.
  - (i) MCL shown for U.S. EPA STORET No. 1059.
  - (j) MCL shown for U.S. EPA STORET No. 1067.
  - (k) MCL shown for U.S. EPASTORET No. 1077.
  - (l) MCL shown for U.S. EPA STORET No. 1092.
  - (m) MCL shown for U.S. EPA STORET No. 1097.
  - (n) MCL shown for U.S. EPA STORET No. 1105.
  - (o) MCL shown for U.S. EPA STORET No. 1147.
  - (p) MCL shown for U.S. EPA STORET No. 34247.
  - (q) MCL shown for U.S. EPA STORET No. 71850.

Code--Data parameter number used in USGS National Water Information System (NWIS).

E--Estimated.

M--Presence verified but not quantified.

MCL--Maximum Contaminant Level reported by California DHS (May 25, 2007 Database) for U.S. EPA STORET number.

V--Biased results from contamination.

**Water Quality Data for Selected RCWD Production Wells  
Well Nos. 157, 217, and 232  
2004**

Code	Parameter	MCL	No. 157		No. 217	No. 232
			5/27/2004	7/26/2004		
	Sampling date					
3	Sampling depth, feet					
10	Temperature, water, degrees Celsius		16.5	19	24.1	19.5
28	Agency analyzing sample, code		80020	80020	80020	80020
59	Flow rate, instantaneous, gallons per minute		783	858	704	1020
95	Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius			0.00003	0.00001	
191	Hydrogen ion, water, unfiltered, calculated, milligrams per liter			3.5	4.6	
300	Dissolved oxygen, water, unfiltered, milligrams per liter			7.5	8.1	
400	pH, water, unfiltered, field, standard units					
403	pH, water, unfiltered, laboratory, standard units					
405	Carbon dioxide, water, unfiltered, milligrams per liter					
453	Bicarbonate, water, filtered, incremental titration, field, milligrams per liter					
602	Total nitrogen, water, filtered, milligrams per liter			< 0.06		
607	Organic nitrogen, water, filtered, milligrams per liter			< 0.04	< 0.04	
608	Ammonia, water, filtered, milligrams per liter as nitrogen			< 0.008	0.028	
613	Nitrite, water, filtered, milligrams per liter as nitrogen	1 (a)		0.411	3.81	
618	Nitrate, water, filtered, milligrams per liter as nitrogen					
623	Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen					
631	Nitrate plus nitrite, water, filtered, milligrams per liter as nitrogen			0.41	3.84	
660	Orthophosphate, water, filtered, milligrams per liter			0.113	0.046	
666	Phosphorus, water, filtered, milligrams per liter					
671	Orthophosphate, water, filtered, milligrams per liter as phosphorus			0.037	0.015	
900	Hardness, water, milligrams per liter as calcium carbonate			261	76.6	
904	Noncarb hardness, water filtered field, milligrams per liter as calcium carbonate			120		
905	Noncarb hardness, water filtered lab, milligrams per liter as calcium carbonate					
915	Calcium, water, filtered, milligrams per liter			65	25.6	
925	Magnesium, water, filtered, milligrams per liter			23.7	3	
930	Sodium, water, filtered, milligrams per liter			76.6	116	
931	Sodium adsorption ratio, water, number					
932	Sodium fraction of cations, water, percent in equivalents of major cations					
935	Potassium, water, filtered, milligrams per liter			4.29	1.77	
940	Chloride, water, filtered, milligrams per liter	600		79.9	86.8	
945	Sulfate, water, filtered, milligrams per liter	600		173	61.1	
950	Fluoride, water, filtered, milligrams per liter	2 (b)		0.27	0.82	
955	Silica, water, filtered, milligrams per liter			13.1	18.2	
1000	Arsenic, water, filtered, micrograms per liter	10 (c)		0.5	7.8	
1005	Barium, water, filtered, micrograms per liter	1000 (d)		34.9	62.8	
1010	Beryllium, micrograms per liter	4 (e)		< 0.06	< 0.06	
1020	Boron, water, filtered, micrograms per liter			159	299	
1025	Cadmium, micrograms per liter	5 (f)		E 0.022	< 0.04	
1030	Chromium, micrograms per liter	50 (g)		< 0.8	1.6	
1035	Cobalt, micrograms per liter			0.2	0.069	
1040	Copper, micrograms per liter	1000 (h)		4.9	V 0.9	
1046	Iron, water, filtered, micrograms per liter	300		< 6.4	E 6	
1049	Lead, micrograms per liter			0.936	0.111	
1056	Manganese, water, filtered, micrograms per liter	50		0.29	< 0.2	
1057	Thallium, micrograms per liter	2 (i)		< 0.04	< 0.04	
1060	Molybdenum, micrograms per liter			4.11	2.04	
1065	Nickel, micrograms per liter	100 (j)		1.33	0.55	
1075	Silver, micrograms per liter	100 (k)		< 0.2	< 0.2	
1080	Strontium, water, filtered, micrograms per liter			706	277	
1085	Vanadium, micrograms per liter			3	69	
1090	Zinc, micrograms per liter	5000 (l)		2.9	E 0.6	
1095	Antimony, micrograms per liter	6 (m)		E 0.112	< 0.2	

Source: USGS California Water Science Center.

**Water Quality Data for Selected RCWD Production Wells  
Well Nos. 157, 217, and 232  
2004**

Code	Parameter	MCL	No. 157		No. 217	No. 232
			5/27/2004	7/26/2004		
	Sampling date					
1106	Aluminum, water, filtered, micrograms per liter	1000 (n)		< 1.6	4.8	
1130	Lithium, water, filtered, micrograms per liter			17.4	4.15	
1145	Selenium, micrograms per liter	50 (o)		1.3	1.8	
4022	Terbutylazine, water, filtered, recoverable, micrograms per liter		E 0.006		< 0.01	< 0.01
4025	Hexazinone, water, filtered, recoverable, micrograms per liter		E 0.01	< 0.03	< 0.013	< 0.013
4029	Bromacil, water, filtered, recoverable, micrograms per liter			< 0.03	< 0.03	
4035	Simazine, water, filtered, recoverable, micrograms per liter		0.017	0.006	0.006	< 0.005
4036	Prometryn, water, filtered, recoverable, micrograms per liter		0.008	< 0.005	< 0.005	< 0.005
4037	Prometon, water, filtered, recoverable, micrograms per liter		0.007	< 0.005	< 0.005	< 0.005
4040	2-Chloro-4-isopropylamino-6-amino-s-triazine, water, filtered, recoverable, micrograms per liter		E 0.005	< 0.03	< 0.006	< 0.006
4095	Fonofos, water, filtered, recoverable, micrograms per liter		< 0.003	< 0.003	< 0.003	< 0.003
7000	Tritium, water, unfiltered, picocuries per liter		20.5	1.6	10.6	
22703	Uranium, natural, micrograms per liter			2.67	2.55	
29801	Alkalinity, water, filtered, fixed endpoint (pH 4.5) titration, laboratory, milligrams per liter as calcium carbonate					
30217	Dibromomethane, water, unfiltered, recoverable, micrograms per liter		< 0.05		< 0.05	< 0.05
32101	Bromodichloromethane, water, unfiltered, recoverable, micrograms per liter		0.112	< 0.028	< 0.028	< 0.028
32102	Tetrachloromethane, water, unfiltered, recoverable, micrograms per liter	0.5	< 0.06	< 0.06	< 0.06	< 0.06
32103	1,2-Dichloroethane, water, unfiltered, recoverable, micrograms per liter		< 0.13	< 0.13	< 0.13	< 0.13
32104	Tribromomethane, water, unfiltered, recoverable, micrograms per liter		< 0.1	< 0.1	< 0.1	< 0.1
32105	Dibromochloromethane, water, unfiltered, recoverable, micrograms per liter		< 0.1	< 0.1	< 0.1	< 0.1
32106	Trichloromethane, water, unfiltered, recoverable, micrograms per liter		0.49	< 0.02	< 0.02	< 0.02
34010	Toluene, water, unfiltered, recoverable, micrograms per liter	150	< 0.05	E 0.01	E 0.01	< 0.05
34030	Benzene, water, unfiltered, recoverable, micrograms per liter	1	< 0.021	< 0.021	< 0.021	< 0.021
34215	Acrylonitrile, water, unfiltered, recoverable, micrograms per liter		< 1.2	< 1.2	< 1.2	< 1.2
34221	Anthracene, water, filtered, recoverable, micrograms per liter			< 0.05	< 0.05	
34248	Benz[a]pyrene, water, filtered, recoverable, micrograms per liter	0.2 (p)		< 0.05	< 0.05	
34288	Tribromomethane, water, filtered, recoverable, micrograms per liter			< 0.05	< 0.05	
34301	Chlorobenzene, water, unfiltered, recoverable, micrograms per liter	70	< 0.028	< 0.028	< 0.028	< 0.028
34311	Chloroethane, water, unfiltered, recoverable, micrograms per liter		< 0.12	< 0.12	< 0.12	< 0.12
34371	Ethylbenzene, water, unfiltered, recoverable, micrograms per liter	300	< 0.03	< 0.03	< 0.03	< 0.03
34377	Fluoranthene, water, filtered, recoverable, micrograms per liter			< 0.05	< 0.05	
34396	Hexachloroethane, water, unfiltered, recoverable, micrograms per liter		< 0.14	< 0.14	< 0.14	< 0.14
34409	Isophorone, water, filtered, recoverable, micrograms per liter			< 0.05	< 0.05	
34413	Bromomethane, water, unfiltered, recoverable, micrograms per liter		< 0.3	< 0.3	< 0.3	< 0.3
34418	Chloromethane, water, unfiltered, recoverable, micrograms per liter		< 0.2	< 0.2	< 0.2	< 0.2
34423	Dichloromethane, water, unfiltered, recoverable, micrograms per liter	5	E 0.03	< 0.06	< 0.06	< 0.06
34443	Naphthalene, water, filtered, recoverable, micrograms per liter			< 0.05	< 0.05	
34462	Phenanthrene, water, filtered, recoverable, micrograms per liter			< 0.05	< 0.05	
34466	Phenol, water, filtered, recoverable, micrograms per liter			< 0.05	< 0.05	
34470	Pyrene, water, filtered, recoverable, micrograms per liter			< 0.05	< 0.05	
34475	Tetrachloroethane, water, unfiltered, recoverable, micrograms per liter	5	< 0.06	E 0.011	E 0.011	< 0.06
34478	Trichloroethane, water, filtered, recoverable, micrograms per liter			< 0.05	< 0.05	
34488	Trichlorofluoromethane, water, unfiltered, recoverable, micrograms per liter	150	< 0.16	< 0.16	< 0.16	< 0.16
34496	1,1-Dichloroethane, water, unfiltered, recoverable, micrograms per liter	5	< 0.035	< 0.035	< 0.035	< 0.035
34501	1,1-Dichloroethane, water, unfiltered, recoverable, micrograms per liter	6	< 0.024	< 0.024	< 0.024	< 0.024
34506	1,1,1-Trichloroethane, water, unfiltered, recoverable, micrograms per liter	200	< 0.032	< 0.032	< 0.032	< 0.032
34511	1,1,2-Trichloroethane, water, unfiltered, recoverable, micrograms per liter	5	< 0.064	< 0.064	< 0.064	< 0.064
34516	1,1,2,2-Tetrachloroethane, water, unfiltered, recoverable, micrograms per liter	1	< 0.16	< 0.16	< 0.16	< 0.16
34536	1,2-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter	600	< 0.048	< 0.048	< 0.048	< 0.048
34541	1,2-Dichloropropane, water, unfiltered, recoverable, micrograms per liter	5	< 0.029	< 0.029	< 0.029	< 0.029
34546	trans-1,2-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	10	< 0.032	< 0.032	< 0.032	< 0.032
34551	1,2,4-Trichlorobenzene, water, unfiltered, recoverable, micrograms per liter	5	< 0.12	< 0.12	< 0.12	< 0.12
34566	1,3-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter		< 0.03	< 0.03	< 0.03	< 0.03



**Water Quality Data for Selected RCWD Production Wells  
Well Nos. 157, 217, and 232  
2004**

Code	Parameter	MCL	No. 157			No. 217	No. 232
			5/27/2004	7/26/2004	5/19/2004		
	Sampling date						
34571	1,4-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter		< 0.034		< 0.034	< 0.034	
34572	1,4-Dichlorobenzene, water, filtered, recoverable, micrograms per liter	5			< 0.05		
34668	Dichlorodifluoromethane, water, unfiltered, recoverable, micrograms per liter		< 0.18		< 0.18	< 0.18	
34696	Naphthalene, water, unfiltered, recoverable, micrograms per liter		< 0.52		< 0.52	< 0.52	
34699	trans-1,3-Dichloropropene, water, unfiltered, recoverable, micrograms per liter	0.5	< 0.09		< 0.09	< 0.09	
34704	cis-1,3-Dichloropropene, water, unfiltered, recoverable, micrograms per liter	0.5	< 0.05		< 0.05	< 0.05	
38454	Dicropthos, water, filtered, recoverable, micrograms per liter		< 0.08		< 0.08	< 0.08	
38775	Dichlorvos, water, filtered, recoverable, micrograms per liter		< 0.01		< 0.01	< 0.01	
38933	Chlorpyrifos, water, filtered, recoverable, micrograms per liter		< 0.005		< 0.005	< 0.005	
39086	Alkalinity, water, filtered, incremental titration, field, milligrams per liter as calcium carbonate						
39175	Vinyl chloride, water, unfiltered, recoverable, micrograms per liter	0.5	< 0.06		< 0.06	< 0.06	
39180	Trichloroethene, water, unfiltered, recoverable, micrograms per liter	5	< 0.038		< 0.038	< 0.038	
39381	Dieldrin, water, filtered, recoverable, micrograms per liter		< 0.009		< 0.009	< 0.009	
39415	Metolachlor, water, filtered, recoverable, micrograms per liter		< 0.013		< 0.013	< 0.013	
39532	Malathion, water, filtered, recoverable, micrograms per liter		< 0.027		< 0.027	< 0.027	
39572	Diazinon, water, filtered, recoverable, micrograms per liter		< 0.005		< 0.005	< 0.005	
39632	Atrazine, water, filtered, recoverable, micrograms per liter		< 0.007	< 0.009	< 0.007	< 0.007	
39702	Hexachlorobutadiene, water, unfiltered, recoverable, micrograms per liter		< 0.14		< 0.14	< 0.14	
46342	Alachlor, water, filtered, recoverable, micrograms per liter		< 0.005		< 0.005	< 0.005	
49260	Acetochlor, water, filtered, recoverable, micrograms per liter		< 0.006		< 0.006	< 0.006	
49295	1-Naphthol, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter		< 0.0882		< 0.0882	< 0.0882	
49933	C-14, water, filtered, percent modern		91.45		74.09		
49934	C-14, counting error, water, filtered, percent modern						
49991	Methyl acrylate, water, unfiltered, recoverable, micrograms per liter		< 2		< 2	< 2	
49999	1,2,3,4-Tetramethylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.14		< 0.14	< 0.14	
50000	1,2,3,5-Tetramethylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.14		< 0.14	< 0.14	
50002	Bromoethene, water, unfiltered, recoverable, micrograms per liter		< 0.1		< 0.1	< 0.1	
50004	tert-Butyl ethyl ether, water, unfiltered, recoverable, micrograms per liter		< 0.05		< 0.05	< 0.05	
50005	Methyl tert-pentyl ether, water, unfiltered, recoverable, micrograms per liter		< 0.08		< 0.08	< 0.08	
50305	Caffeine, water, filtered, recoverable, micrograms per liter			< 0.01	0.17		
50359	Metaxyl, water, filtered, recoverable, micrograms per liter			< 0.02			
61209	Perchlorate, water, unfiltered, recoverable, micrograms per liter			0.74			
61585	Cyfluthrin, water, filtered, recoverable, micrograms per liter	6	< 0.008		< 0.008	< 0.008	
61586	Cypermethrin, water, filtered, recoverable, micrograms per liter		< 0.009		< 0.009	< 0.009	
61591	Fenamiphos, water, filtered, recoverable, micrograms per liter		< 0.029		< 0.029	< 0.029	
61593	Iprodione, water, filtered, recoverable, micrograms per liter		< 1.42		< 1.42	< 1.42	
61594	Isofenphos, water, filtered, recoverable, micrograms per liter		< 0.003		< 0.003	< 0.003	
61596	Metaxyl, water, filtered, recoverable, micrograms per liter		< 0.005		< 0.005	< 0.005	
61598	Methidathion, water, filtered, recoverable, micrograms per liter		< 0.006		< 0.006	< 0.006	
61599	Myclobutanil, water, filtered, recoverable, micrograms per liter		< 0.008		< 0.008	< 0.008	
61601	Phosmet, water, filtered, recoverable, micrograms per liter		< 0.008		< 0.008	< 0.008	
61610	Tribuphos, water, filtered, recoverable, micrograms per liter						
61618	2-Chloro-2',6'-diethylacetanilide, water, filtered, recoverable, micrograms per liter		< 0.005		< 0.005	< 0.005	
61620	2-Ethyl-6-methylaniline, water, filtered, recoverable, micrograms per liter		< 0.005		< 0.005	< 0.005	
61625	3,4-Dichloroaniline, water, filtered, recoverable, micrograms per liter		0.0085		< 0.0045	< 0.0045	
61633	4-Chloro-2-methylphenol, water, filtered, recoverable, micrograms per liter		< 0.0056		< 0.0056	< 0.0056	
61635	Azinphos-methyl oxygen analog, water, filtered, recoverable, micrograms per liter		< 0.016		< 0.016	< 0.016	
61636	Chlorpyrifos oxygen analog, water, filtered, recoverable, micrograms per liter		< 0.06		< 0.06	< 0.06	
61644	Ethion monoxon, water, filtered, recoverable, micrograms per liter		< 0.034		< 0.034	< 0.034	
61645	Fenamiphos sulfone, water, filtered, recoverable, micrograms per liter		< 0.008		< 0.008	< 0.008	
61646	Fenamiphos sulfoxide, water, filtered, recoverable, micrograms per liter		< 0.03		< 0.03	< 0.03	
61652	Malaoxon, water, filtered, recoverable, micrograms per liter		< 0.008		< 0.008	< 0.008	
61664	Methyl paraoxon, water, filtered, recoverable, micrograms per liter		< 0.03		< 0.03	< 0.03	

**Water Quality Data for Selected RCWD Production Wells  
Well Nos. 157, 217, and 232  
2004**

Code	Parameter	MCL	No. 157		No. 217	No. 232
			5/27/2004	7/26/2004		
	Sampling date					
61666	Phorate oxygen analog, water, filtered, recoverable, micrograms per liter		< 0.097		< 0.097	< 0.097
61668	Phosmet oxygen analog, water, filtered, recoverable, micrograms per liter					
61674	Terbufos oxygen analog sulfone, water, filtered, recoverable, micrograms per liter		< 0.068		< 0.068	< 0.068
61705	Diethoxyoctylphenol, water, filtered, recoverable, micrograms per liter					
61706	Monoethoxyoctylphenol, water, filtered, recoverable, micrograms per liter					
62005	Cotinine, water, filtered, recoverable, micrograms per liter			< 0.019		
62054	1-Methylnaphthalene, water, filtered, recoverable, micrograms per liter			< 0.5		
62055	2,6-Dimethylnaphthalene, water, filtered, recoverable, micrograms per liter			< 0.5		
62056	2-Methylnaphthalene, water, filtered, recoverable, micrograms per liter			< 0.5		
62057	3-beta-Coprostanol, water, filtered, recoverable, micrograms per liter			< 2		
62058	3-Methyl-1H-indole, water, filtered, recoverable, micrograms per liter			< 1		
62059	3-tert-Butyl-4-hydroxyanisole, water, filtered, recoverable, micrograms per liter			< 5		
62060	4-Cumylphenol, water, filtered, recoverable, micrograms per liter			< 1		
62061	4-Octylphenol, water, filtered, recoverable, micrograms per liter			< 1		
62062	4-tert-Octylphenol, water, filtered, recoverable, micrograms per liter			< 1		
62063	5-Methyl-1H-benzotriazole, water, filtered, recoverable, micrograms per liter			< 2		
62064	Acetophenone, water, filtered, recoverable, micrograms per liter			< 0.5		
62065	Acetyl hexamethyl tetrahydro naphthalene, water, filtered, recoverable, micrograms per liter			< 0.5		
62066	9,10-Anthraquinone, water, filtered, recoverable, micrograms per liter			< 0.5		
62067	Benzophenone, water, filtered, recoverable, micrograms per liter			< 0.5		
62068	beta-Sitosterol, water, filtered, recoverable, micrograms per liter			< 2		
62070	Camphor, water, filtered, recoverable, micrograms per liter			< 0.5		
62071	Carbazole, water, filtered, recoverable, micrograms per liter			< 0.5		
62072	Cholesterol, water, filtered, recoverable, micrograms per liter			< 2		
62073	D-Limonene, water, filtered, recoverable, micrograms per liter			< 0.5		
62075	Hexahydrohexamethyl cyclopentabenzopyran, water, filtered, recoverable, micrograms per liter			< 0.5		
62076	Indole, water, filtered, recoverable, micrograms per liter			< 0.5		
62077	Isoborneol, water, filtered, recoverable, micrograms per liter			< 0.5		
62078	Isopropylbenzene, water, filtered, recoverable, micrograms per liter			< 0.5		
62079	Isouinolone, water, filtered, recoverable, micrograms per liter			< 0.5		
62080	Menthol, water, filtered, recoverable, micrograms per liter			< 0.5		
62081	Methyl salicylate, water, filtered, recoverable, micrograms per liter			< 0.5		
62082	DEET, water, filtered, recoverable, micrograms per liter			< 0.5		
62083	Diethoxymethylphenol, water, filtered, recoverable, micrograms per liter			< 5		
62084	p-Cresol, water, filtered, recoverable, micrograms per liter			< 1		
62085	4-Nonylphenol, water, filtered, recoverable, micrograms per liter			< 5		
62086	beta-Stigmasterol, water, filtered, recoverable, micrograms per liter			< 2		
62087	Tris(2-chloroethyl) phosphate, water, filtered, recoverable, micrograms per liter			< 0.5		
62088	Tris(dichloroisopropyl) phosphate, water, filtered, recoverable, micrograms per liter			< 0.5		
62089	Tributyl phosphate, water, filtered, recoverable, micrograms per liter			< 0.5		
62090	Triclosan, water, filtered, recoverable, micrograms per liter			< 1		
62091	Triethyl citrate, water, filtered, recoverable, micrograms per liter			< 0.5		
62092	Triphenyl phosphate, water, filtered, recoverable, micrograms per liter			< 0.5		
62093	Tris(2-butoxyethyl) phosphate, water, filtered, recoverable, micrograms per liter			< 0.5		
62166	Fipronil, water, filtered, recoverable, micrograms per liter		< 0.016	< 0.016	< 0.016	< 0.016
62167	Fipronil sulfide, water, filtered, recoverable, micrograms per liter		< 0.013	< 0.013	< 0.013	< 0.013
62168	Fipronil sulfone, water, filtered, recoverable, micrograms per liter		< 0.024	< 0.024	< 0.024	< 0.024
62169	Desulfinylfipronil amide, water, filtered, recoverable, micrograms per liter		< 0.029	< 0.029	< 0.029	< 0.029
62170	Desulfinylfipronil, water, filtered, recoverable, micrograms per liter		< 0.012	< 0.012	< 0.012	< 0.012
62854	Total nitrogen, (NH3+NO2+NO3+Organic), filtered, milligrams per liter			0.47	3.67	
63790	Perchlorate, water, filtered, recoverable, micrograms per liter					
70300	Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter			540	423	
70301	Residue, water, filtered, sum of constituents, milligrams per liter			E 524	V 401	

Source: USGS California Water Science Center.

**Water Quality Data for Selected RCWD Production Wells  
Well Nos. 157, 217, and 232  
2004**

Code	Parameter	MCL	No. 157		No. 217	No. 232
			5/27/2004	7/26/2004		
	Sampling date					
70303	Residue, water, filtered, tons per acre-foot					
71846	Ammonia, water, filtered, milligrams per liter as NH4				< 0.052	
71851	Nitrate, water, filtered, milligrams per liter	45 (q)			16.9	
71856	Nitrite, water, filtered, milligrams per liter				< 0.026	
71865	Iodide, water, filtered, milligrams per liter					
71870	Bromide, water, filtered, milligrams per liter				0.320	
72019	Depth to water level, feet below land surface					
73547	trans-1,4-Dichloro-2-butene, water, unfiltered, recoverable, micrograms per liter		< 0.7		< 0.7	< 0.18
73570	Ethyl methacrylate, water, unfiltered, recoverable, micrograms per liter		< 0.7		< 0.18	< 0.18
75985	Tritium 2-sigma combined uncertainty, water, unfiltered, picocuries per liter		1.3		1	1
76002	Rn-222, 2-sigma combined uncertainty, water, unfiltered, picocuries per liter			22	25	
77041	Carbon disulfide, water, unfiltered, micrograms per liter		< 0.038		< 0.038	< 0.038
77093	cis-1,2-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	6	< 0.024		< 0.024	< 0.024
77103	n-Butyl methyl ketone, water, unfiltered, recoverable, micrograms per liter		< 0.7		< 0.7	< 0.7
77128	Styrene, water, unfiltered, recoverable, micrograms per liter	100	< 0.042		< 0.042	< 0.042
77135	o-Xylene, water, unfiltered, recoverable, micrograms per liter		< 0.038		< 0.038	< 0.038
77168	1,1-Dichloropropane, water, unfiltered, recoverable, micrograms per liter		< 0.026		< 0.026	< 0.026
77170	2,2-Dichloropropane, water, unfiltered, recoverable, micrograms per liter		< 0.05		< 0.05	< 0.05
77173	1,3-Dichloropropane, water, unfiltered, recoverable, micrograms per liter		< 0.06		< 0.06	< 0.06
77220	2-Ethyltoluene, water, unfiltered, recoverable, micrograms per liter		< 0.06		< 0.06	< 0.06
77221	1,2,3-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.06		< 0.06	< 0.06
77222	1,2,4-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.056		< 0.056	< 0.056
77223	Isopropylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.038		< 0.038	< 0.038
77224	n-Propylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.042		< 0.042	< 0.042
77226	1,3,5-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.044		< 0.044	< 0.044
77275	2-Chlorotoluene, water, unfiltered, recoverable, micrograms per liter		< 0.04		< 0.04	< 0.04
77277	4-Chlorotoluene, water, unfiltered, recoverable, micrograms per liter		< 0.05		< 0.05	< 0.05
77297	Bromochloromethane, water, unfiltered, recoverable, micrograms per liter		< 0.12		< 0.12	< 0.12
77342	n-Butylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.12		< 0.12	< 0.12
77350	sec-Butylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.06		< 0.06	< 0.06
77353	tert-Butylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.06		< 0.06	< 0.06
77356	4-Isopropyltoluene, water, unfiltered, recoverable, micrograms per liter		< 0.08		< 0.08	< 0.08
77424	Iodomethane, water, unfiltered, recoverable, micrograms per liter		< 0.35		< 0.35	< 0.35
77443	1,2,3-Trichloropropane, water, unfiltered, recoverable, micrograms per liter		< 0.18		< 0.18	< 0.18
77562	1,1,1,2-Tetrachloroethane, water, unfiltered, recoverable, micrograms per liter		< 0.03		< 0.03	< 0.03
77613	1,2,3-Trichlorobenzene, water, unfiltered, recoverable, micrograms per liter		< 0.27		< 0.27	< 0.27
77651	1,2-Dibromoethane, water, unfiltered, recoverable, micrograms per liter	0.05	< 0.036		< 0.036	< 0.036
77652	1,1,2-Trichloro-1,2,2-trifluoroethane, water, unfiltered, recoverable, micrograms per liter		< 0.038		< 0.038	< 0.038
78032	Methyl tert-butyl ether, water, unfiltered, recoverable, micrograms per liter		< 0.17		< 0.17	< 0.17
78109	3-Chloropropane, water, unfiltered, recoverable, micrograms per liter		< 0.5		< 0.5	< 0.5
78133	Isobutyl methyl ketone, water, unfiltered, recoverable, micrograms per liter		< 0.37		< 0.37	< 0.37
81552	Acetone, water, unfiltered, recoverable, micrograms per liter		< 6		< 6	< 6
81555	Bromobenzene, water, unfiltered, recoverable, micrograms per liter		< 0.028		< 0.028	< 0.028
81576	Diethyl ether, water, unfiltered, recoverable, micrograms per liter		< 0.1		< 0.1	< 0.1
81577	Diisopropyl ether, water, unfiltered, recoverable, micrograms per liter		< 0.1		< 0.1	< 0.1
81593	Methyl acrylonitrile, water, unfiltered, recoverable, micrograms per liter		< 0.76		< 0.76	< 0.76
81595	Ethyl methyl ketone, water, unfiltered, recoverable, micrograms per liter		< 4		< 4	< 4
81597	Methyl methacrylate, water, unfiltered, recoverable, micrograms per liter		< 0.35		< 0.35	< 0.35
81607	Tetrahydrofuran, water, unfiltered, recoverable, micrograms per liter		< 2.2		< 2.2	< 2.2
82081	C-13/C-12 ratio, water, unfiltered, per mil		-10.5		-16.5	-16.5
82082	Deuterium/Protium ratio, water, unfiltered, per mil		-80.7		-48.1	-46
82085	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil		-10.02		-7.02	-5.9
82303	Rn-222, water, unfiltered, picocuries per liter		270		410	

### Water Quality Data for Selected RCWD Production Wells Well Nos. 157, 217, and 232 2004

Code	Parameter	MCL	No. 157		No. 217	No. 232
			5/27/2004	7/26/2004		
	Sampling date					
82346	Ethion, water, filtered, recoverable, micrograms per liter		< 0.004		< 0.004	< 0.004
82625	1,2-Dibromo-3-chloropropane, water, unfiltered, recoverable, micrograms per liter		< 0.51		< 0.51	< 0.51
82630	Metribuzin, water, filtered, recoverable, micrograms per liter		< 0.006		< 0.006	< 0.006
82660	2,6-Diethylaniline, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter		< 0.006		< 0.006	< 0.006
82661	Trifluralin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter		< 0.009		< 0.009	< 0.009
82662	Dimethoate, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter		< 0.0061		< 0.0061	< 0.0061
82664	Phorate, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter		< 0.011		< 0.011	< 0.011
82667	Methyl parathion, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter		< 0.015		< 0.015	< 0.015
82670	Tebuthiuron, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter		< 0.016	< 0.026	< 0.016	< 0.016
82673	Benfluralin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter		< 0.01		< 0.01	< 0.01
82675	Terbufos, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter		< 0.017		< 0.017	< 0.017
82676	Propylamide, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter		< 0.004		< 0.004	< 0.004
82680	Carbaryl, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter		< 0.041		< 0.041	< 0.041
82682	DCPA, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter		< 0.003		< 0.003	< 0.003
82683	Pendimethalin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter		< 0.022		< 0.022	< 0.022
82686	Azinphos-methyl, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter		< 0.05		< 0.05	< 0.05
82687	cis-Permethrin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter		< 0.006		< 0.006	< 0.006
85795	m-Xylene plus p-xylene, water, unfiltered, recoverable, micrograms per liter		< 0.06		< 0.06	< 0.06
90095	Specific conductance, water, unfiltered, laboratory, microsiemens per centimeter at 25 degrees Celsius					
90851	Triholomehtanes, water, unfiltered, calcd, micrograms per liter					
90867	Triholomehtanes, water, unfiltered, calcd, micrograms per liter					
99583	Bisphenol A-d3, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery					
99584	Caffeine-13C, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery					
99585	Decafluorobiphenyl, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery					
99586	Fluoranthene-d10, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery					
99832	1,2-Dichloroethane-d4, surrogate, Schedule 2090, water, unfiltered, percent recovery					
99833	Toluene-d8, surrogate, Schedule 2090, water, unfiltered, percent recovery					
99834	1-Bromo-4-fluorobenzene, surrogate, VOC schedules, water, unfiltered, percent recovery					
99994	Diazinon-d10, surrogate, Schedule 2003, water, filtered, percent recovery					
99995	alpha-HCH-d6, surrogate, Schedule 2003, water, filtered, percent recovery					

Notes:

- (a) U.S. EPA STORET numbers for MCLs correspond to the same as the USGS NWIS data parameter number except as follows:
  - (i) MCL shown for U.S. EPA STORET No. 620.
  - (j) MCL shown for U.S. EPA STORET No. 1067.
  - (k) MCL shown for U.S. EPASTORET No. 1077.
  - (l) MCL shown for U.S. EPA STORET No. 1092.
  - (m) MCL shown for U.S. EPA STORET No. 1097.
  - (n) MCL shown for U.S. EPA STORET No. 1105.
  - (o) MCL shown for U.S. EPA STORET No. 1147.
  - (p) MCL shown for U.S. EPA STORET No. 34247.
  - (q) MCL shown for U.S. EPA STORET No. 71850.

Code--Data parameter number used in USGS National Water Information System (NWIS).

E--Estimated.

M--Presence verified but not quantified.

MCL--Maximum Contaminant Level reported by California DHS (May 25, 2007 Database) for U.S. EPA STORET number.

V--Biased results from contamination.

**Water Quality Data for Selected RCWD Production Wells  
Well Nos. 110, 124, 125, 126, and 130  
2007**

Code	Parameter	MCL	No. 110 9/17/2007	No. 124 9/19/2007	No. 125 9/27/2007	No. 126 9/18/2007	No. 130 9/19/2007
	Sampling date						
3	Sampling depth, feet						
10	Temperature, water, degrees Celsius		18.5	22	23.5	26	21
28	Agency analyzing sample, code		80020	80020	80020	80020	80020
59	Flow rate, instantaneous, gallons per minute						
95	Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius		834	585	733	531	807
191	Hydrogen ion, water, unfiltered, calculated, milligrams per liter		0.00004	M	0.00001	M	M
300	Dissolved oxygen, water, unfiltered, milligrams per liter		2.9	1.4	0.9	< 0.2	1.9
400	pH, water, unfiltered, field, standard units		7.4	8.7	8.3	9.1	8.8
403	pH, water, unfiltered, laboratory, standard units						
405	Carbon dioxide, water, unfiltered, milligrams per liter						
453	Bicarbonate, water, filtered, incremental titration, field, milligrams per liter						
602	Total nitrogen, water, filtered, milligrams per liter						
607	Organic nitrogen, water, filtered, milligrams per liter						
608	Ammonia, water, filtered, milligrams per liter as nitrogen	1 (a)				E 0.01	< 0.07
613	Nitrite, water, filtered, milligrams per liter as nitrogen					E 0.012	< 0.02
618	Nitrate, water, filtered, milligrams per liter as nitrogen					0.049	E 0.002
623	Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen					0.23	E 0.16
631	Nitrate plus nitrite, water, filtered, milligrams per liter as nitrogen					0.28	1.16
660	Orthophosphate, water, filtered, milligrams per liter					0.083	0.041
666	Phosphorus, water, filtered, milligrams per liter						
671	Orthophosphate, water, filtered, milligrams per liter as phosphorus					0.027	0.013
900	Hardness, water, milligrams per liter as calcium carbonate		239	57.9	47.1	4.21	72.7
904	Noncarb hardness, water filtered field, milligrams per liter as calcium carbonate						
905	Noncarb hardness, water filtered lab, milligrams per liter as calcium carbonate		113				
915	Calcium, water, filtered, milligrams per liter		60.1	19.7	13.1	1.55	4.33
925	Magnesium, water, filtered, milligrams per liter		21.5	2.05	3.41	0.072	15
930	Sodium, water, filtered, milligrams per liter		77	96.9	140	108	167
931	Sodium adsorption ratio, water, number						
932	Sodium fraction of cations, water, percent in equivalents of major cations						
935	Potassium, water, filtered, milligrams per liter		4.88	1.48	1.87	0.42	0.74
940	Chloride, water, filtered, milligrams per liter	600	81	71.8	93.4	62.2	82.4
945	Sulfate, water, filtered, milligrams per liter	600	166	39.8	61.1	11.4	94
950	Fluoride, water, filtered, milligrams per liter	2 (b)	0.38	0.98	0.53	3.61	0.53
955	Silica, water, filtered, milligrams per liter		15	17.2	16.5	14.8	13.3
1000	Arsenic, water, filtered, micrograms per liter	10 (c)	0.81	11.4	3.3	25.1	3.6
1005	Barium, water, filtered, micrograms per liter	1000 (d)	38.2	67.5	95	13.7	20.9
1010	Beryllium, micrograms per liter	4 (e)	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
1020	Boron, water, filtered, micrograms per liter		140	284	368	1150	343
1025	Cadmium, micrograms per liter	5 (f)	E 0.025	< 0.04	< 0.04	E 0.027	< 0.04
1030	Chromium, micrograms per liter	50 (g)	0.18	0.72	2.2	< 0.12	0.85
1035	Cobalt, micrograms per liter		E 0.03	< 0.04	< 0.04	< 0.04	< 0.04
1040	Copper, micrograms per liter	1000 (h)	0.86	< 0.4	0.7	E 0.23	E 4.6
1046	Iron, water, filtered, micrograms per liter	300	12.5	E 3.8	E 4.6	< 6	E 0.072
1049	Lead, micrograms per liter		E 0.087	< 0.12	0.143	E 0.072	E 0.072
1056	Manganese, water, filtered, micrograms per liter	50	E 0.15	0.23	0.38	0.83	E 0.12
1057	Thallium, micrograms per liter	2 (i)	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
1060	Molybdenum, micrograms per liter		7.08	4.64	4.49	12.7	2.49
1065	Nickel, micrograms per liter	100 (j)	0.56	0.07	0.11	< 0.06	< 0.06
1075	Silver, micrograms per liter	100 (k)	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1080	Strontium, water, filtered, micrograms per liter		374	262	250	26	70.1
1085	Vanadium, micrograms per liter		4.6	117	55.9	60.9	35.5
1090	Zinc, micrograms per liter	5000 (l)	1	E 0.59	1.3	E 0.37	1.2
1095	Antimony, micrograms per liter	6 (m)	E 0.049	E 0.035	< 0.06	E 0.04	< 0.06

**Water Quality Data for Selected RCWD Production Wells  
Well Nos. 110, 124, 125, 126, and 130  
2007**

Code	Parameter	MCL	No. 110 9/17/2007	No. 124 9/19/2007	No. 125 9/27/2007	No. 126 9/18/2007	No. 130 9/19/2007
	Sampling date						
1106	Aluminum, water, filtered, micrograms per liter	1000 (n)	< 1.6	7	5	22	5.4
1130	Lithium, water, filtered, micrograms per liter		3.22	4.57	4.92	5.01	7.90
1145	Selenium, micrograms per liter	50 (o)	1.2	1	2	0.48	1.8
4022	Terbutylazine, water, filtered, recoverable, micrograms per liter						
4025	Hexazinone, water, filtered, recoverable, micrograms per liter						
4029	Bromacil, water, filtered, recoverable, micrograms per liter						
4035	Simazine, water, filtered, recoverable, micrograms per liter						
4036	Prometryn, water, filtered, recoverable, micrograms per liter						
4037	Prometon, water, filtered, recoverable, micrograms per liter						
4040	2-Chloro-4-isopropylamino-6-amino-s-triazine, water, filtered, recoverable, micrograms per liter						
4095	Fonofos, water, filtered, recoverable, micrograms per liter						
7000	Tritium, water, unfiltered, picocuries per liter		18.2	1	1	0	2.6
22703	Uranium, natural, micrograms per liter		1.49	1.98	3.42	2.05	3.74
29801	Alkalinity, water, filtered, fixed endpoint (pH 4.5) titration, laboratory, milligrams per liter as calcium carbonate		126	125	154	146	165
30217	Dibromochloromethane, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
32101	Bromodichloromethane, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	0.24	< 0.04	< 0.04
32102	Tetrachloromethane, water, unfiltered, recoverable, micrograms per liter	0.5	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
32103	1,2-Dichloroethane, water, unfiltered, recoverable, micrograms per liter		< 0.1	< 0.1	< 0.06	< 0.1	< 0.1
32104	Tribromomethane, water, unfiltered, recoverable, micrograms per liter		< 0.08	< 0.08	1.21	< 0.08	< 0.08
32105	Dibromochloromethane, water, unfiltered, recoverable, micrograms per liter		< 0.12	< 0.12	0.39	< 0.12	< 0.12
32106	Trichloromethane, water, unfiltered, recoverable, micrograms per liter		0.57	E 0.035	0.37	< 0.04	E 0.04
34010	Toluene, water, unfiltered, recoverable, micrograms per liter	150	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
34030	Benzene, water, unfiltered, recoverable, micrograms per liter	1	< 0.016	< 0.016	< 0.02	< 0.016	< 0.016
34215	Acrylonitrile, water, unfiltered, recoverable, micrograms per liter		< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
34221	Anthracene, water, filtered, recoverable, micrograms per liter						
34248	Benz[a]pyrene, water, filtered, recoverable, micrograms per liter	0.2 (p)					
34288	Tribromomethane, water, filtered, recoverable, micrograms per liter						
34301	Chlorobenzene, water, unfiltered, recoverable, micrograms per liter	70	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
34311	Chloroethane, water, unfiltered, recoverable, micrograms per liter		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
34371	Ethylbenzene, water, unfiltered, recoverable, micrograms per liter	300	< 0.02	< 0.02	< 0.04	< 0.02	< 0.02
34377	Fluoranthene, water, filtered, recoverable, micrograms per liter						
34396	Hexachloroethane, water, unfiltered, recoverable, micrograms per liter		< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
34409	Isophorone, water, filtered, recoverable, micrograms per liter						
34413	Bromomethane, water, unfiltered, recoverable, micrograms per liter		< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
34418	Chloromethane, water, unfiltered, recoverable, micrograms per liter		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
34423	Dichloromethane, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
34443	Naphthalene, water, filtered, recoverable, micrograms per liter	5					
34462	Phenanthrene, water, filtered, recoverable, micrograms per liter						
34466	Phenol, water, filtered, recoverable, micrograms per liter						
34470	Pyrene, water, filtered, recoverable, micrograms per liter						
34475	Tetrachloroethane, water, unfiltered, recoverable, micrograms per liter	5	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
34476	Trichloroethane, water, filtered, recoverable, micrograms per liter						
34488	Trichlorofluoromethane, water, unfiltered, recoverable, micrograms per liter	150	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
34496	1,1-Dichloroethane, water, unfiltered, recoverable, micrograms per liter	5	< 0.06	< 0.06	< 0.04	< 0.06	< 0.06
34501	1,1-Dichloroethane, water, unfiltered, recoverable, micrograms per liter	6	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
34506	1,1,1-Trichloroethane, water, unfiltered, recoverable, micrograms per liter	200	< 0.04	< 0.04	< 0.02	< 0.04	< 0.04
34511	1,1,2-Trichloroethane, water, unfiltered, recoverable, micrograms per liter	5	< 0.04	< 0.04	< 0.06	< 0.04	< 0.04
34516	1,1,2,2-Tetrachloroethane, water, unfiltered, recoverable, micrograms per liter	1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
34536	1,2-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter	600	< 0.04	< 0.04	< 0.02	< 0.04	< 0.04
34541	trans-1,2-Dichloroethane, water, unfiltered, recoverable, micrograms per liter	5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
34546	trans-1,2-Dichloroethane, water, unfiltered, recoverable, micrograms per liter	10	< 0.018	< 0.018	< 0.02	< 0.018	< 0.018
34551	1,2,4-Trichlorobenzene, water, unfiltered, recoverable, micrograms per liter	5	< 0.12	< 0.12	< 0.08	< 0.12	< 0.12
34566	1,3-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04

**Water Quality Data for Selected RCWD Production Wells  
Well Nos. 110, 124, 125, 126, and 130  
2007**

Code	Parameter	MCL	No. 110 9/17/2007	No. 124 9/19/2007	No. 125 9/27/2007	No. 126 9/18/2007	No. 130 9/19/2007
	Sampling date						
34571	1,4-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
34572	1,4-Dichlorobenzene, water, filtered, recoverable, micrograms per liter	5					
34668	Dichlorodifluoromethane, water, unfiltered, recoverable, micrograms per liter		< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
34696	Naphthalene, water, unfiltered, recoverable, micrograms per liter		< 0.4	< 0.4	< 0.2	< 0.4	< 0.4
34699	trans-1,3-Dichloropropene, water, unfiltered, recoverable, micrograms per liter	0.5	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
34704	cis-1,3-Dichloropropene, water, unfiltered, recoverable, micrograms per liter	0.5	< 0.06	< 0.06	< 0.1	< 0.06	< 0.06
38454	Dicropthos, water, filtered, recoverable, micrograms per liter						
38775	Dichlorvos, water, filtered, recoverable, micrograms per liter						
38933	Chlorpyrifos, water, filtered, recoverable, micrograms per liter						
39086	Alkalinity, water, filtered, incremental titration, field, milligrams per liter as calcium carbonate						
39175	Vinyl chloride, water, unfiltered, recoverable, micrograms per liter	0.5	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
39180	Trichloroethene, water, unfiltered, recoverable, micrograms per liter		< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
39381	Dieldrin, water, filtered, recoverable, micrograms per liter	5					
39415	Metolachlor, water, filtered, recoverable, micrograms per liter						
39532	Malathion, water, filtered, recoverable, micrograms per liter						
39572	Diazinon, water, filtered, recoverable, micrograms per liter						
39632	Atrazine, water, filtered, recoverable, micrograms per liter						
39702	Hexachlorobutadiene, water, unfiltered, recoverable, micrograms per liter		< 0.1	< 0.1	< 0.06	< 0.1	< 0.1
46342	Alechlor, water, filtered, recoverable, micrograms per liter						
49260	Acetochlor, water, filtered, recoverable, micrograms per liter						
49295	1-Naphthol, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
49933	C-14, water, filtered, percent modern		89.82	42.46	44.86	7.7	77.59
49934	C-14, counting error, water, filtered, percent modern						
49991	Methyl acrylate, water, unfiltered, recoverable, micrograms per liter		< 0.4	< 0.4	< 0.6	< 0.4	< 0.4
49999	1,2,3,4-Tetramethylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
50000	1,2,3,5-Tetramethylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.12	< 0.12	< 0.12	< 0.12	< 0.12
50002	Bromoethene, water, unfiltered, recoverable, micrograms per liter		< 0.12	< 0.12	< 0.12	< 0.12	< 0.12
50004	tert-Butyl ethyl ether, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
50005	Methyl tert-pentyl ether, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.06	< 0.04	< 0.04
50305	Caffeine, water, filtered, recoverable, micrograms per liter						
50359	Metaxyl, water, filtered, recoverable, micrograms per liter						
61209	Perchlorate, water, unfiltered, recoverable, micrograms per liter						
61585	Cyfluthrin, water, filtered, recoverable, micrograms per liter	6	0.63	< 0.5	< 0.5	< 0.5	< 0.5
61586	Cypermethrin, water, filtered, recoverable, micrograms per liter						
61591	Fenamiphos, water, filtered, recoverable, micrograms per liter						
61593	Iprodione, water, filtered, recoverable, micrograms per liter						
61594	Isofenphos, water, filtered, recoverable, micrograms per liter						
61596	Metaxyl, water, filtered, recoverable, micrograms per liter						
61598	Methidathion, water, filtered, recoverable, micrograms per liter						
61599	Myclobutanil, water, filtered, recoverable, micrograms per liter						
61601	Phosmet, water, filtered, recoverable, micrograms per liter						
61610	Tribuphos, water, filtered, recoverable, micrograms per liter						
61618	2-Chloro-2,6-diethylacetanilide, water, filtered, recoverable, micrograms per liter						
61620	2-Ethyl-6-methylamine, water, filtered, recoverable, micrograms per liter						
61625	3,4-Dichloroaniline, water, filtered, recoverable, micrograms per liter						
61633	4-Chloro-2-methylphenol, water, filtered, recoverable, micrograms per liter						
61635	Azinphos-methyl oxygen analog, water, filtered, recoverable, micrograms per liter						
61636	Chlorpyrifos oxygen analog, water, filtered, recoverable, micrograms per liter						
61644	Ethion monooxon, water, filtered, recoverable, micrograms per liter						
61645	Fenamiphos sulfone, water, filtered, recoverable, micrograms per liter						
61646	Fenamiphos sulfoxide, water, filtered, recoverable, micrograms per liter						
61652	Malaoxon, water, filtered, recoverable, micrograms per liter						
61664	Methyl paraoxon, water, filtered, recoverable, micrograms per liter						

**Water Quality Data for Selected RCWD Production Wells**  
**Well Nos. 110, 124, 125, 126, and 130**  
**2007**

Code	Parameter	MCL	No. 110 9/17/2007	No. 124 9/19/2007	No. 125 9/27/2007	No. 126 9/18/2007	No. 130 9/19/2007
	Sampling date						
61666	Phorate oxygen analog, water, filtered, recoverable, micrograms per liter						
61668	Phosmet oxygen analog, water, filtered, recoverable, micrograms per liter						
61674	Terbufos oxygen analog sulfone, water, filtered, recoverable, micrograms per liter						
61705	Diethoxyctyphenol, water, filtered, recoverable, micrograms per liter						
61706	Monoethoxyctyphenol, water, filtered, recoverable, micrograms per liter						
62005	Cotinine, water, filtered, recoverable, micrograms per liter						
62054	1-Methylnaphthalene, water, filtered, recoverable, micrograms per liter						
62055	2,6-Dimethylnaphthalene, water, filtered, recoverable, micrograms per liter						
62056	2-Methylnaphthalene, water, filtered, recoverable, micrograms per liter						
62057	3-beta-Coprostanol, water, filtered, recoverable, micrograms per liter						
62058	3-Methyl-1H-indole, water, filtered, recoverable, micrograms per liter						
62059	3-tert-Butyl-4-hydroxyanisole, water, filtered, recoverable, micrograms per liter						
62060	4-Cumylphenol, water, filtered, recoverable, micrograms per liter						
62061	4-Octylphenol, water, filtered, recoverable, micrograms per liter						
62062	4-tert-Octylphenol, water, filtered, recoverable, micrograms per liter						
62063	5-Methyl-1H-benzotriazole, water, filtered, recoverable, micrograms per liter						
62064	Acetophenone, water, filtered, recoverable, micrograms per liter						
62065	Acetyl hexamethyl tetrahydro naphthalene, water, filtered, recoverable, micrograms per liter						
62066	9,10-Anthraquinone, water, filtered, recoverable, micrograms per liter						
62067	Benzophenone, water, filtered, recoverable, micrograms per liter						
62068	beta-Sitosterol, water, filtered, recoverable, micrograms per liter						
62070	Camphor, water, filtered, recoverable, micrograms per liter						
62071	Carbazole, water, filtered, recoverable, micrograms per liter						
62072	Cholesterol, water, filtered, recoverable, micrograms per liter						
62073	D-Limonene, water, filtered, recoverable, micrograms per liter						
62075	Hexahydrohexamethyl cyclopentabenzopyran, water, filtered, recoverable, micrograms per liter						
62076	Indole, water, filtered, recoverable, micrograms per liter						
62077	Isoborneol, water, filtered, recoverable, micrograms per liter						
62078	Isopropylbenzene, water, filtered, recoverable, micrograms per liter						
62079	isoquinoline, water, filtered, recoverable, micrograms per liter						
62080	Menthol, water, filtered, recoverable, micrograms per liter						
62081	Methyl salicylate, water, filtered, recoverable, micrograms per liter						
62082	DEET, water, filtered, recoverable, micrograms per liter						
62083	Diethoxynonylphenol, water, filtered, recoverable, micrograms per liter						
62084	p-Cresol, water, filtered, recoverable, micrograms per liter						
62085	4-Nonylphenol, water, filtered, recoverable, micrograms per liter						
62086	beta-Stigmasterol, water, filtered, recoverable, micrograms per liter						
62087	Tris(2-chloroethyl) phosphate, water, filtered, recoverable, micrograms per liter						
62088	Tris(dichloroisopropyl) phosphate, water, filtered, recoverable, micrograms per liter						
62089	Tributyl phosphate, water, filtered, recoverable, micrograms per liter						
62090	Triclosan, water, filtered, recoverable, micrograms per liter						
62091	Triethyl citrate, water, filtered, recoverable, micrograms per liter						
62092	Triphenyl phosphate, water, filtered, recoverable, micrograms per liter						
62093	Tris(2-butoxyethyl) phosphate, water, filtered, recoverable, micrograms per liter						
62166	Fipronil, water, filtered, recoverable, micrograms per liter						
62167	Fipronil sulfide, water, filtered, recoverable, micrograms per liter						
62168	Fipronil sulfone, water, filtered, recoverable, micrograms per liter						
62169	Desulfinyfipronil amide, water, filtered, recoverable, micrograms per liter						
62170	Desulfinyfipronil, water, filtered, recoverable, micrograms per liter						
62854	Total nitrogen, (NH3+NO2+NO3+Organic), filtered, milligrams per liter	6				0.3	1.23
63790	Perchlorate, water, filtered, recoverable, micrograms per liter						
70300	Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter	1500	521	345	425	297	484
70301	Residue, water, filtered, sum of constituents, milligrams per liter		E 502	E 326	E 424	E 293	E 483

Source: USGS California Water Science Center.



**Water Quality Data for Selected RCWD Production Wells  
Well Nos. 110, 124, 125, 126, and 130  
2007**

Code	Parameter	MCL	No. 110 9/17/2007	No. 124 9/19/2007	No. 125 9/27/2007	No. 126 9/18/2007	No. 130 9/19/2007
	Sampling date						
70303	Residue, water, filtered, tons per acre-foot						
71846	Ammonia, water, filtered, milligrams per liter as NH4					E 0.015	< 0.026
71851	Nitrate, water, filtered, milligrams per liter	45 (q)				1.02	E 5.11
71856	Nitrite, water, filtered, milligrams per liter					0.159	E 0.006
71865	Iodide, water, filtered, milligrams per liter						
71870	Bromide, water, filtered, milligrams per liter		0.145	0.272	0.318	0.203	0.322
72019	Depth to water level, feet below land surface						
73547	trans-1,4-Dichloro-2-butene, water, unfiltered, recoverable, micrograms per liter		< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
73570	Ethyl methacrylate, water, unfiltered, recoverable, micrograms per liter		< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
75985	Tritium 2-sigma combined uncertainty, water, unfiltered, picocuries per liter		1.6	1	0.6	1	1
76002	Rn-222, 2-sigma combined uncertainty, water, unfiltered, picocuries per liter		19	22	20	24	23
77041	Carbon disulfide, water, unfiltered, micrograms per liter		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
77093	cis-1,2-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	6	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
77103	n-Butyl methyl ketone, water, unfiltered, recoverable, micrograms per liter		< 0.4	< 0.4	< 0.6	< 0.4	< 0.4
77128	Styrene, water, unfiltered, recoverable, micrograms per liter	100	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
77135	o-Xylene, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
77168	1,1-Dichloropropene, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
77170	2,2-Dichloropropane, water, unfiltered, recoverable, micrograms per liter		< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
77173	1,3-Dichloropropane, water, unfiltered, recoverable, micrograms per liter		< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
77220	2-Ethyltoluene, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
77221	1,2,3-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
77222	1,2,4-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	E 0.1	< 0.04	E 0.024
77223	Isopropylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
77224	n-Propylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
77226	1,3,5-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
77275	2-Chlorotoluene, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
77277	4-Chlorotoluene, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
77297	Bromochloromethane, water, unfiltered, recoverable, micrograms per liter		< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
77342	n-Butylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
77350	sec-Butylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
77353	tert-Butylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.08	< 0.08	< 0.06	< 0.08	< 0.08
77356	4-Isopropyltoluene, water, unfiltered, recoverable, micrograms per liter		< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
77424	Iodomethane, water, unfiltered, recoverable, micrograms per liter		< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
77443	1,2,3-Trichloropropane, water, unfiltered, recoverable, micrograms per liter		< 0.12	< 0.12	< 0.12	< 0.12	< 0.12
77562	1,1,1,2-Tetrachloroethane, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
77613	1,2,3-Trichlorobenzene, water, unfiltered, recoverable, micrograms per liter		< 0.12	< 0.12	< 0.08	< 0.12	< 0.12
77651	1,2-Dibromoethane, water, unfiltered, recoverable, micrograms per liter	0.05	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
77652	1,1,2-Trichloro-1,2,2-trifluoroethane, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
78032	Methyl tert-butyl ether, water, unfiltered, recoverable, micrograms per liter		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
78109	3-Chloropropene, water, unfiltered, recoverable, micrograms per liter		< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
78133	Isobutyl methyl ketone, water, unfiltered, recoverable, micrograms per liter		< 0.2	< 0.2	< 0.4	< 0.2	< 0.2
81552	Acetone, water, unfiltered, recoverable, micrograms per liter		< 6	< 6	< 4	< 6	< 6
81555	Bromobenzene, water, unfiltered, recoverable, micrograms per liter		< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
81576	Diethyl ether, water, unfiltered, recoverable, micrograms per liter		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
81577	Diisopropyl ether, water, unfiltered, recoverable, micrograms per liter		< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
81593	Methyl acrylonitrile, water, unfiltered, recoverable, micrograms per liter		< 0.4	< 0.4	< 0.2	< 0.4	< 0.4
81595	Ethyl methyl ketone, water, unfiltered, recoverable, micrograms per liter		< 1.6	< 1.6	< 1.6	< 1.6	< 1.6
81597	Methyl methacrylate, water, unfiltered, recoverable, micrograms per liter		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
81607	Tetrahydrofuran, water, unfiltered, recoverable, micrograms per liter		< 1	< 1	< 1.4	< 1	< 1
82081	C-13/C-12 ratio, water, unfiltered, per mil		-8.73	-13.39	-12.64	-11.36	-12.42
82082	Deuterium/Protium ratio, water, unfiltered, per mil		-80.8	-51.9	-50.6	-54.3	-46.3
82085	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil		-10.12	-7.54	-7.29	-8.09	-6.47
82303	Rn-222, water, unfiltered, picocuries per liter		180	330	300	360	370

### Water Quality Data for Selected RCWD Production Wells Well Nos. 110, 124, 125, 126, and 130 2007

Code	Parameter	MCL	No. 110 9/17/2007	No. 124 9/19/2007	No. 125 9/27/2007	No. 126 9/18/2007	No. 130 9/19/2007
	Sampling date						
82346	Ethion, water, filtered, recoverable, micrograms per liter						
82625	1,2-Dibromo-3-chloropropane, water, unfiltered, recoverable, micrograms per liter						
82630	Metribuzin, water, filtered, recoverable, micrograms per liter		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
82660	2,6-Diethylaniline, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82661	Trifluralin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82662	Dimethoate, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82664	Phorate, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82667	Methyl parathion, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82670	Tebuthiuron, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82673	Benfluralin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82675	Terbufos, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82676	Propyzamide, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82680	Carbaryl, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82682	DCPA, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82683	Pendimethalin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82686	Azinphos-methyl, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
82687	cis-Permethrin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter						
85795	m-Xylene plus p-xylene, water, unfiltered, recoverable, micrograms per liter		< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
90095	Specific conductance, water, unfiltered, laboratory, microsiemens per centimeter at 25 degrees Celsius						
90851	Triholomehtanes, water, unfiltered, calcd, micrograms per liter						
90867	Triholomehtanes, water, unfiltered, calcd, micrograms per liter						
99583	Bisphenol A-d3, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery						
99584	Caffeine-13C, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery						
99585	Decafluorobiphenyl, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery						
99586	Fluoranthene-d10, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery						
99832	1,2-Dichloroethane-d4, surrogate, Schedule 2090, water, unfiltered, percent recovery						
99833	Toluene-d8, surrogate, Schedule 2090, water, unfiltered, percent recovery						
99834	1-Bromo-4-fluorobenzene, surrogate, VOC schedules, water, unfiltered, percent recovery						
99994	Diazinon-d10, surrogate, Schedule 2003, water, filtered, percent recovery						
99995	alpha-HCH-d6, surrogate, Schedule 2003, water, filtered, percent recovery						

Notes:

- U.S. EPA STORET numbers for MCLs correspond to the same as the USGS NWIS data parameter number except as follows:
- (a) MCL shown for U.S. EPA STORET No. 620.
  - (b) MCL shown for U.S. EPA STORET No. 951.
  - (c) MCL shown for U.S. EPA STORET No. 1002.
  - (d) MCL shown for U.S. EPA STORET No. 1007.
  - (e) MCL shown for U.S. EPA STORET No. 1012.
  - (f) MCL shown for U.S. EPA STORET No. 1027.
  - (g) MCL shown for U.S. EPA STORET No. 1034.
  - (h) MCL shown for U.S. EPA STORET No. 1042.
  - (i) MCL shown for U.S. EPA STORET No. 1059.
  - (j) MCL shown for U.S. EPA STORET No. 1067.
  - (k) MCL shown for U.S. EPA STORET No. 1077.
  - (l) MCL shown for U.S. EPA STORET No. 1092.
  - (m) MCL shown for U.S. EPA STORET No. 1097.
  - (n) MCL shown for U.S. EPA STORET No. 1105.
  - (o) MCL shown for U.S. EPA STORET No. 1147.
  - (p) MCL shown for U.S. EPA STORET No. 34247.
  - (q) MCL shown for U.S. EPA STORET No. 71850.

Code--Data parameter number used in USGS National Water Information System (NWIS).

E--Estimated.

M--Presence verified but not quantified.

MCL--Maximum Contaminant Level reported by California DHS (May 25, 2007 Database) for U.S. EPA STORET number.

V--Biased results from contamination.

**Water Quality Data for Selected RCWD Production Wells  
Well Nos. 133, 157, 210, 217, and 232  
2007**

Code	Parameter	MCL	No. 133 9/17/2007	No. 157 9/17/2007	No. 210 9/18/2007	No. 217 9/19/2007	No. 232 9/18/2007
	Sampling date						
3	Sampling depth, feet						
10	Temperature, water, degrees Celsius		21	22.5	19	23.5	19
28	Agency analyzing sample, code		80020	80020	80020	80020	80020
59	Flow rate, instantaneous, gallons per minute						
95	Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius		810	903	945	716	947
191	Hydrogen ion, water, unfiltered, calculated, milligrams per liter		0.00001	0.00004	0.00004	0.00001	0.00004
300	Dissolved oxygen, water, unfiltered, milligrams per liter		7	4.2	6	3	5.8
400	pH, water, unfiltered, field, standard units		8.1	7.4	7.4	8.2	7.4
403	pH, water, unfiltered, laboratory, standard units						
405	Carbon dioxide, water, unfiltered, milligrams per liter						
453	Bicarbonate, water, filtered, incremental titration, field, milligrams per liter						
602	Total nitrogen, water, filtered, milligrams per liter						
607	Organic nitrogen, water, filtered, milligrams per liter						
608	Ammonia, water, filtered, milligrams per liter as nitrogen			< 0.05			
613	Nitrite, water, filtered, milligrams per liter as nitrogen	1 (a)		< 0.02			
618	Nitrate, water, filtered, milligrams per liter as nitrogen			0.105			
623	Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen						
631	Nitrate plus nitrite, water, filtered, milligrams per liter as nitrogen			0.11			
660	Orthophosphate, water, filtered, milligrams per liter			0.14			
666	Phosphorus, water, filtered, milligrams per liter						
671	Orthophosphate, water, filtered, milligrams per liter as phosphorus			0.046			
900	Hardness, water, milligrams per liter as calcium carbonate		96.4	262	272	82.3	234
904	Noncarb hardness, water filtered field, milligrams per liter as calcium carbonate						
905	Noncarb hardness, water filtered lab, milligrams per liter as calcium carbonate						
915	Calcium, water, filtered, milligrams per liter		24.1	66.3	74.7	26.7	66.3
925	Magnesium, water, filtered, milligrams per liter		8.7	23.2	20.7	3.7	16.6
930	Sodium, water, filtered, milligrams per liter		132	81.8	85.1	117	101
931	Sodium adsorption ratio, water, number						
932	Sodium fraction of cations, water, percent in equivalents of major cations						
935	Potassium, water, filtered, milligrams per liter		2.41	4.78	5.35	1.77	4.18
940	Chloride, water, filtered, milligrams per liter	600	95	84.3	87.6	84.4	89.1
945	Sulfate, water, filtered, milligrams per liter	600	102	176	171	67.1	162
950	Fluoride, water, filtered, milligrams per liter	2 (b)	0.93	0.28	0.52	0.68	0.50
955	Silica, water, filtered, milligrams per liter		19	13.3	21.8	16.8	26.2
1000	Arsenic, water, filtered, micrograms per liter	10 (c)	2.8	0.51	0.87	6.1	1.6
1005	Barium, water, filtered, micrograms per liter	1000 (d)	53.8	45.5	53.2	62.5	56.3
1010	Beryllium, micrograms per liter	4 (e)	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
1020	Boron, water, filtered, micrograms per liter		649	152	153	289	166
1025	Cadmium, micrograms per liter	5 (f)	< 0.04	E 0.021	E 0.025	< 0.04	E 0.034
1030	Chromium, micrograms per liter	50 (g)	0.71	E 0.08	0.54	1.9	0.97
1035	Cobalt, micrograms per liter		< 0.04	E 0.035	E 0.034	E 0.021	E 0.03
1040	Copper, micrograms per liter	1000 (h)	1.1	1.5	0.42	0.66	1.6
1046	Iron, water, filtered, micrograms per liter	300	E 4	E 3.1	< 6	15.5	E 4.1
1049	Lead, micrograms per liter		0.482	E 0.087	< 0.12	< 0.12	0.151
1056	Manganese, water, filtered, micrograms per liter	50	E 0.12	E 0.15	E 0.14	0.3	< 0.2
1057	Thallium, micrograms per liter	2 (i)	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
1060	Molybdenum, micrograms per liter		4.94	4.39	9.94	1.82	11
1065	Nickel, micrograms per liter	100 (j)	0.47	0.63	0.49	0.18	0.48
1075	Silver, micrograms per liter	100 (k)	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1080	Strontium, water, filtered, micrograms per liter		408	813	366	279	361
1085	Vanadium, micrograms per liter		45.4	3.1	6.8	69.4	14.6
1090	Zinc, micrograms per liter	5000 (l)	3.4	0.81	< 0.06	0.94	4
1095	Antimony, micrograms per liter	6 (m)	< 0.06	0.129	E 0.035	< 0.06	E 0.03

**Water Quality Data for Selected RCWD Production Wells  
Well Nos. 133, 157, 210, 217, and 232  
2007**

Code	Parameter	MCL	No. 133 9/17/2007	No. 157 9/17/2007	No. 210 9/18/2007	No. 217 9/19/2007	No. 232 9/18/2007
	Sampling date						
1106	Aluminum, water, filtered, micrograms per liter	1000 (n)	5.7	E 0.8	< 1.6	4.3	E 1
1130	Lithium, water, filtered, micrograms per liter		4.72	21.2	2.24	5.28	2.97
1145	Selenium, micrograms per liter	50 (o)	1.1	0.45	1.3	1.9	1.9
4022	Terbutylazine, water, filtered, recoverable, micrograms per liter					< 0.008	
4025	Hexazinone, water, filtered, recoverable, micrograms per liter					< 0.026	
4029	Bromacil, water, filtered, recoverable, micrograms per liter					E 0.005	
4035	Simazine, water, filtered, recoverable, micrograms per liter					< 0.006	
4036	Prometryn, water, filtered, recoverable, micrograms per liter					< 0.01	
4037	Prometon, water, filtered, recoverable, micrograms per liter					< 0.014	
4040	2-Chloro-4-isopropylamino-6-amino-s-triazine, water, filtered, recoverable, micrograms per liter					< 0.006	
4095	Fonofos, water, filtered, recoverable, micrograms per liter						
7000	Tritium, water, unfiltered, picocuries per liter		3.2	18.9	16.6	1	12.4
22703	Uranium, natural, micrograms per liter		3.58	2.57	2.55	2.84	2.35
29801	Alkalinity, water, filtered, fixed endpoint (pH 4.5) titration, laboratory, milligrams per liter as calcium carbonate		148	151	163	135	167
30217	Dibromochloromethane, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
32101	Bromodichloromethane, water, unfiltered, recoverable, micrograms per liter		E 0.062	< 0.04	E 0.061	E 0.027	< 0.04
32102	Tetrachloromethane, water, unfiltered, recoverable, micrograms per liter	0.5	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
32103	1,2-Dichloroethane, water, unfiltered, recoverable, micrograms per liter		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
32104	Tribromomethane, water, unfiltered, recoverable, micrograms per liter		< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
32105	Dibromochloromethane, water, unfiltered, recoverable, micrograms per liter		< 0.12	< 0.12	< 0.12	< 0.12	< 0.12
32106	Trichloromethane, water, unfiltered, recoverable, micrograms per liter		0.12	0.43	0.24	E 0.04	E 0.07
34010	Toluene, water, unfiltered, recoverable, micrograms per liter	150	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
34030	Benzene, water, unfiltered, recoverable, micrograms per liter	1	< 0.016	< 0.016	< 0.016	< 0.016	< 0.016
34215	Acrylonitrile, water, unfiltered, recoverable, micrograms per liter		< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
34221	Anthracene, water, filtered, recoverable, micrograms per liter						
34248	Benzo[a]pyrene, water, filtered, recoverable, micrograms per liter	0.2 (p)					
34288	Tribromomethane, water, filtered, recoverable, micrograms per liter						
34301	Chlorobenzene, water, unfiltered, recoverable, micrograms per liter	70	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
34311	Chloroethane, water, unfiltered, recoverable, micrograms per liter		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
34371	Ethylbenzene, water, unfiltered, recoverable, micrograms per liter	300	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
34377	Fluoranthene, water, filtered, recoverable, micrograms per liter						
34396	Hexachloroethane, water, unfiltered, recoverable, micrograms per liter		< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
34409	Isophorone, water, filtered, recoverable, micrograms per liter						
34413	Bromomethane, water, unfiltered, recoverable, micrograms per liter		< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
34418	Chloromethane, water, unfiltered, recoverable, micrograms per liter		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
34423	Dichloromethane, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
34443	Naphthalene, water, filtered, recoverable, micrograms per liter						
34462	Phenanthrene, water, filtered, recoverable, micrograms per liter						
34466	Phenol, water, filtered, recoverable, micrograms per liter						
34470	Pyrene, water, filtered, recoverable, micrograms per liter						
34475	Tetrachloroethane, water, unfiltered, recoverable, micrograms per liter	5	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
34476	Trichloroethane, water, filtered, recoverable, micrograms per liter						
34488	Trichlorofluoromethane, water, unfiltered, recoverable, micrograms per liter	150	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
34496	1,1-Dichloroethane, water, unfiltered, recoverable, micrograms per liter	5	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
34501	1,1-Dichloroethane, water, unfiltered, recoverable, micrograms per liter	6	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
34506	1,1,1-Trichloroethane, water, unfiltered, recoverable, micrograms per liter	200	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
34511	1,1,2-Trichloroethane, water, unfiltered, recoverable, micrograms per liter	5	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
34516	1,1,2,2-Tetrachloroethane, water, unfiltered, recoverable, micrograms per liter	1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
34536	1,2-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter	600	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
34541	1,2-Dichloropropane, water, unfiltered, recoverable, micrograms per liter	5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
34546	trans-1,2-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	10	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018
34551	1,2,4-Trichlorobenzene, water, unfiltered, recoverable, micrograms per liter	5	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12
34566	1,3-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04

**Water Quality Data for Selected RCWD Production Wells  
Well Nos. 133, 157, 210, 217, and 232  
2007**

Code	Parameter	MCL	No. 133 9/17/2007	No. 157 9/17/2007	No. 210 9/18/2007	No. 217 9/19/2007	No. 232 9/18/2007
	Sampling date						
34571	1,4-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
34572	1,4-Dichlorobenzene, water, filtered, recoverable, micrograms per liter	5					
34668	Dichlorodifluoromethane, water, unfiltered, recoverable, micrograms per liter		< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
34696	Naphthalene, water, unfiltered, recoverable, micrograms per liter		< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
34699	trans-1,3-Dichloropropene, water, unfiltered, recoverable, micrograms per liter	0.5	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
34704	cis-1,3-Dichloropropene, water, unfiltered, recoverable, micrograms per liter	0.5	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
38454	Dictriphos, water, filtered, recoverable, micrograms per liter					< 0.08	
38775	Dichlorvos, water, filtered, recoverable, micrograms per liter					< 0.01	
38933	Chlorpyrifos, water, filtered, recoverable, micrograms per liter					< 0.005	
39086	Alkalinity, water, filtered, incremental titration, field, milligrams per liter as calcium carbonate						
39175	Vinyl chloride, water, unfiltered, recoverable, micrograms per liter	0.5	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
39180	Trichloroethene, water, unfiltered, recoverable, micrograms per liter		< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
39381	Dieldrin, water, filtered, recoverable, micrograms per liter	5				< 0.009	
39415	Metolachlor, water, filtered, recoverable, micrograms per liter					< 0.01	
39532	Malathion, water, filtered, recoverable, micrograms per liter					< 0.016	
39572	Diazinon, water, filtered, recoverable, micrograms per liter					< 0.005	
39632	Atrazine, water, filtered, recoverable, micrograms per liter					< 0.007	
39702	Hexachlorobutadiene, water, unfiltered, recoverable, micrograms per liter		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
46342	Alechlor, water, filtered, recoverable, micrograms per liter					< 0.005	
49260	Acetochlor, water, filtered, recoverable, micrograms per liter					< 0.006	
49295	1-Naphthol, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					< 0.0882	
49933	C-14, water, filtered, percent modern		69.82	87.36	94.08	76.99	99.84
49934	C-14, counting error, water, filtered, percent modern						
49991	Methyl acrylate, water, unfiltered, recoverable, micrograms per liter		< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
49999	1,2,3,4-Tetramethylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
50000	1,2,3,5-Tetramethylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.12	< 0.12	< 0.12	< 0.12	< 0.12
50002	Bromoethene, water, unfiltered, recoverable, micrograms per liter		< 0.12	< 0.12	< 0.12	< 0.12	< 0.12
50004	tert-Butyl ethyl ether, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
50005	Methyl tert-pentyl ether, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
50305	Caffeine, water, filtered, recoverable, micrograms per liter						
50359	Metaxyl, water, filtered, recoverable, micrograms per liter						
61209	Perchlorate, water, unfiltered, recoverable, micrograms per liter					1.1	1.6
61585	Cyfluthrin, water, filtered, recoverable, micrograms per liter	6	0.57	< 0.5	0.73	< 0.053	
61586	Cypermethrin, water, filtered, recoverable, micrograms per liter					< 0.046	
61591	Fenamiphos, water, filtered, recoverable, micrograms per liter					< 0.029	
61593	Iprodione, water, filtered, recoverable, micrograms per liter					< 0.026	
61594	Isofenphos, water, filtered, recoverable, micrograms per liter					< 0.011	
61596	Metaxyl, water, filtered, recoverable, micrograms per liter					< 0.007	
61598	Methidathion, water, filtered, recoverable, micrograms per liter					< 0.009	
61599	Myclobutanil, water, filtered, recoverable, micrograms per liter					< 0.033	
61601	Phosmet, water, filtered, recoverable, micrograms per liter					< 0.008	
61610	Tribuphos, water, filtered, recoverable, micrograms per liter					< 0.035	
61618	2-Chloro-2,6-diethylacetamide, water, filtered, recoverable, micrograms per liter					< 0.007	
61620	2-Ethyl-6-methylamine, water, filtered, recoverable, micrograms per liter					< 0.01	
61625	3,4-Dichloroaniline, water, filtered, recoverable, micrograms per liter					< 0.0045	
61633	4-Chloro-2-methylphenol, water, filtered, recoverable, micrograms per liter					< 0.005	
61635	Azinphos-methyl oxygen analog, water, filtered, recoverable, micrograms per liter					< 0.042	
61636	Chlorpyrifos oxygen analog, water, filtered, recoverable, micrograms per liter					< 0.06	
61644	Ethion monooxon, water, filtered, recoverable, micrograms per liter					< 0.021	
61645	Fenamiphos sulfone, water, filtered, recoverable, micrograms per liter					< 0.053	
61646	Fenamiphos sulfoxide, water, filtered, recoverable, micrograms per liter					< 0.06	
61652	Malaoxon, water, filtered, recoverable, micrograms per liter					< 0.039	
61664	Methyl paraoxon, water, filtered, recoverable, micrograms per liter					< 0.019	

**Water Quality Data for Selected RCWD Production Wells  
Well Nos. 133, 157, 210, 217, and 232  
2007**

Code	Parameter	MCL	No. 133 9/17/2007	No. 157 9/17/2007	No. 210 9/18/2007	No. 217 9/19/2007	No. 232 9/18/2007
	Sampling date						
61666	Phorate oxygen analog, water, filtered, recoverable, micrograms per liter					< 0.027	
61668	Phosmet oxygen analog, water, filtered, recoverable, micrograms per liter					< 0.0511	
61674	Terbufos oxygen analog sulfone, water, filtered, recoverable, micrograms per liter					< 0.045	
61705	Diethoxyoctylphenol, water, filtered, recoverable, micrograms per liter						
61706	Monoethoxyoctylphenol, water, filtered, recoverable, micrograms per liter						
62005	Cotinine, water, filtered, recoverable, micrograms per liter						
62054	1-Methylnaphthalene, water, filtered, recoverable, micrograms per liter						
62055	2,6-Dimethylnaphthalene, water, filtered, recoverable, micrograms per liter						
62056	2-Methylnaphthalene, water, filtered, recoverable, micrograms per liter						
62057	3-beta-Coprostanol, water, filtered, recoverable, micrograms per liter						
62058	3-Methyl-1H-indole, water, filtered, recoverable, micrograms per liter						
62059	3-tert-Butyl-4-hydroxyanisole, water, filtered, recoverable, micrograms per liter						
62060	4-Cumylphenol, water, filtered, recoverable, micrograms per liter						
62061	4-Octylphenol, water, filtered, recoverable, micrograms per liter						
62062	4-tert-Octylphenol, water, filtered, recoverable, micrograms per liter						
62063	5-Methyl-1H-benzotriazole, water, filtered, recoverable, micrograms per liter						
62064	Acetophenone, water, filtered, recoverable, micrograms per liter						
62065	Acetyl hexamethyl tetrahydro naphthalene, water, filtered, recoverable, micrograms per liter						
62066	9,10-Anthraquinone, water, filtered, recoverable, micrograms per liter						
62067	Benzophenone, water, filtered, recoverable, micrograms per liter						
62068	beta-Sitosterol, water, filtered, recoverable, micrograms per liter						
62070	Camphor, water, filtered, recoverable, micrograms per liter						
62071	Carbazole, water, filtered, recoverable, micrograms per liter						
62072	Cholesterol, water, filtered, recoverable, micrograms per liter						
62073	D-Limonene, water, filtered, recoverable, micrograms per liter						
62075	Hexahydrohexamethyl cyclopentabenzopyran, water, filtered, recoverable, micrograms per liter						
62076	Indole, water, filtered, recoverable, micrograms per liter						
62077	Isoborneol, water, filtered, recoverable, micrograms per liter						
62078	Isopropylbenzene, water, filtered, recoverable, micrograms per liter						
62079	Isoquinoline, water, filtered, recoverable, micrograms per liter						
62080	Menthol, water, filtered, recoverable, micrograms per liter						
62081	Methyl salicylate, water, filtered, recoverable, micrograms per liter						
62082	DEET, water, filtered, recoverable, micrograms per liter						
62083	Diethoxynonylphenol, water, filtered, recoverable, micrograms per liter						
62084	p-Cresol, water, filtered, recoverable, micrograms per liter						
62085	4-Nonylphenol, water, filtered, recoverable, micrograms per liter						
62086	beta-Stigmastanol, water, filtered, recoverable, micrograms per liter						
62087	Tris(2-chloroethyl) phosphate, water, filtered, recoverable, micrograms per liter						
62088	Tris(dichloroisopropyl) phosphate, water, filtered, recoverable, micrograms per liter						
62089	Tributyl phosphate, water, filtered, recoverable, micrograms per liter						
62090	Triclosan, water, filtered, recoverable, micrograms per liter						
62091	Triethyl citrate, water, filtered, recoverable, micrograms per liter						
62092	Triphenyl phosphate, water, filtered, recoverable, micrograms per liter						
62093	Tris(2-butoxyethyl) phosphate, water, filtered, recoverable, micrograms per liter						
62166	Fipronil, water, filtered, recoverable, micrograms per liter						< 0.016
62167	Fipronil sulfide, water, filtered, recoverable, micrograms per liter						< 0.013
62168	Fipronil sulfone, water, filtered, recoverable, micrograms per liter						< 0.024
62169	Desulfenylipronil amide, water, filtered, recoverable, micrograms per liter						< 0.029
62170	Desulfenylipronil, water, filtered, recoverable, micrograms per liter						< 0.012
62854	Total nitrogen, (NH3+NO2+NO3+Organic), filtered, milligrams per liter			0.15			
63790	Perchlorate, water, filtered, recoverable, micrograms per liter						
70300	Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter	1500	481	565	603	428	597
70301	Residue, water, filtered, sum of constituents, milligrams per liter		E 474	E 543	E 565	E 400	E 567

Source: USGS California Water Science Center.

**Water Quality Data for Selected RCWD Production Wells  
Well Nos. 133, 157, 210, 217, and 232  
2007**

Code	Parameter	MCL	No. 133 9/17/2007	No. 157 9/17/2007	No. 210 9/18/2007	No. 217 9/19/2007	No. 232 9/18/2007
	Sampling date						
70303	Residue, water, filtered, tons per acre-foot		< 0.026				
71846	Ammonia, water, filtered, milligrams per liter as NH4		0.465				
71851	Nitrate, water, filtered, milligrams per liter	45 (q)	< 0.007				
71856	Nitrite, water, filtered, milligrams per liter						
71865	Iodide, water, filtered, milligrams per liter						
71870	Bromide, water, filtered, milligrams per liter		0.336	0.132	0.172	0.308	0.292
72019	Depth to water level, feet below land surface						
73547	trans-1,4-Dichloro-2-butene, water, unfiltered, recoverable, micrograms per liter		< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
73570	Ethyl methacrylate, water, unfiltered, recoverable, micrograms per liter		< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
75985	Tritium 2-sigma combined uncertainty, water, unfiltered, picocuries per liter		1	1.3	1.3	1	1.3
76002	Rn-222, 2-sigma combined uncertainty, water, unfiltered, picocuries per liter		20	21	22	23	21
77041	Carbon disulfide, water, unfiltered, micrograms per liter		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
77093	cis-1,2-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	6	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
77103	n-Butyl methyl ketone, water, unfiltered, recoverable, micrograms per liter		< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
77128	Styrene, water, unfiltered, recoverable, micrograms per liter	100	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
77135	o-Xylene, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
77168	1,1-Dichloropropene, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
77170	2,2-Dichloropropane, water, unfiltered, recoverable, micrograms per liter		< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
77173	1,3-Dichloropropane, water, unfiltered, recoverable, micrograms per liter		< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
77220	2-Ethyltoluene, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
77221	1,2,3-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
77222	1,2,4-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	E 0.024	< 0.04
77223	Isopropylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
77224	n-Propylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
77226	1,3,5-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
77275	2-Chlorotoluene, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
77277	4-Chlorotoluene, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
77297	Bromochloromethane, water, unfiltered, recoverable, micrograms per liter		< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
77342	n-Butylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
77350	sec-Butylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
77353	tert-Butylbenzene, water, unfiltered, recoverable, micrograms per liter		< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
77356	4-Isopropyltoluene, water, unfiltered, recoverable, micrograms per liter		< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
77424	Iodomethane, water, unfiltered, recoverable, micrograms per liter		< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
77443	1,2,3-Trichloropropane, water, unfiltered, recoverable, micrograms per liter		< 0.12	< 0.12	< 0.12	< 0.12	< 0.12
77562	1,1,1,2-Tetrachloroethane, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
77613	1,2,3-Trichlorobenzene, water, unfiltered, recoverable, micrograms per liter		< 0.12	< 0.12	< 0.12	< 0.12	< 0.12
77651	1,2-Dibromoethane, water, unfiltered, recoverable, micrograms per liter	0.05	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
77652	1,1,2-Trichloro-1,2,2-trifluoroethane, water, unfiltered, recoverable, micrograms per liter		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
78032	Methyl tert-butyl ether, water, unfiltered, recoverable, micrograms per liter		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
78109	3-Chloropropene, water, unfiltered, recoverable, micrograms per liter		< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
78133	Isobutyl methyl ketone, water, unfiltered, recoverable, micrograms per liter		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
81552	Acetone, water, unfiltered, recoverable, micrograms per liter		< 6	< 6	< 6	< 6	< 6
81555	Bromobenzene, water, unfiltered, recoverable, micrograms per liter		< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
81576	Diethyl ether, water, unfiltered, recoverable, micrograms per liter		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
81577	Diisopropyl ether, water, unfiltered, recoverable, micrograms per liter		< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
81593	Methyl acrylonitrile, water, unfiltered, recoverable, micrograms per liter		< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
81595	Ethyl methyl ketone, water, unfiltered, recoverable, micrograms per liter		< 1.6	< 1.6	< 1.6	< 1.6	< 1.6
81597	Methyl methacrylate, water, unfiltered, recoverable, micrograms per liter		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
81607	Tetrahydrofuran, water, unfiltered, recoverable, micrograms per liter		< 1	< 1	< 1	< 1	< 1
82081	C-13/C-12 ratio, water, unfiltered, per mil		-12.5	-10.73	-10.92	-14.69	-10.92
82082	Deuterium/Protium ratio, water, unfiltered, per mil		-48	-82.4	-75.5	-47.4	-66.6
82085	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil		-6.71	-10.13	-9.49	-7.05	-8.43
82303	Rn-222, water, unfiltered, picocuries per liter		250	240	250	340	200

### Water Quality Data for Selected RCWD Production Wells Well Nos. 133, 157, 210, 217, and 232 2007

Code	Parameter	MCL	No. 133 9/17/2007	No. 157 9/17/2007	No. 210 9/18/2007	No. 217 9/19/2007	No. 232 9/18/2007
	Sampling date						
82346	Ethion, water, filtered, recoverable, micrograms per liter					< 0.016	
82625	1,2-Dibromo-3-chloropropane, water, unfiltered, recoverable, micrograms per liter				< 0.5	< 0.5	< 0.5
82630	Metribuzin, water, filtered, recoverable, micrograms per liter		< 0.5	< 0.5		< 0.012	
82660	2,6-Diethylaniline, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					< 0.006	
82661	Trifluralin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					< 0.009	
82662	Dimethoate, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					< 0.0061	
82664	Phorate, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					< 0.02	
82667	Methyl parathion, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					< 0.008	
82670	Tebuthiuron, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					< 0.016	
82673	Benfluralin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					< 0.01	
82675	Terbufos, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					< 0.012	
82676	Propyzamide, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					< 0.004	
82680	Carbaryl, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					< 0.06	
82682	DCPA, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					< 0.003	
82683	Pendimethalin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					< 0.02	
82686	Azinphos-methyl, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					< 0.08	
82687	cis-Permethrin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					< 0.01	
85795	m-Xylene plus p-xylene, water, unfiltered, recoverable, micrograms per liter					< 0.08	< 0.08
90095	Specific conductance, water, unfiltered, laboratory, microsiemens per centimeter at 25 degrees Celsius		< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
90651	Triholomehtanes, water, unfiltered, calcd, micrograms per liter						
90867	Triholomehtanes, water, unfiltered, calcd, micrograms per liter						
99583	Bisphenol A-d3, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery						
99584	Caffeine-13C, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery						
99585	Decafluorobiphenyl, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery						
99586	Fluoranthene-d10, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery						
99832	1,2-Dichloroethane-d4, surrogate, Schedule 2090, water, unfiltered, percent recovery						
99833	Toluene-d8, surrogate, Schedule 2090, water, unfiltered, percent recovery						
99834	1-Bromo-4-fluorobenzene, surrogate, VOC schedules, water, unfiltered, percent recovery						
99994	Diazinon-d10, surrogate, Schedule 2003, water, filtered, percent recovery						
99995	alpha-HCH-d6, surrogate, Schedule 2003, water, filtered, percent recovery						

Notes:

- U.S. EPA STORET numbers for MCLs correspond to the same as the USGS NWIS data parameter number except as follows:
- (a) MCL shown for U.S. EPA STORET No. 620.
  - (b) MCL shown for U.S. EPA STORET No. 951.
  - (c) MCL shown for U.S. EPA STORET No. 1002.
  - (d) MCL shown for U.S. EPA STORET No. 1007.
  - (e) MCL shown for U.S. EPA STORET No. 1012.
  - (f) MCL shown for U.S. EPA STORET No. 1027.
  - (g) MCL shown for U.S. EPA STORET No. 1034.
  - (h) MCL shown for U.S. EPA STORET No. 1042.
  - (i) MCL shown for U.S. EPA STORET No. 1059.
  - (j) MCL shown for U.S. EPA STORET No. 1067.
  - (k) MCL shown for U.S. EPA STORET No. 1077.
  - (l) MCL shown for U.S. EPA STORET No. 1092.
  - (m) MCL shown for U.S. EPA STORET No. 1097.
  - (n) MCL shown for U.S. EPA STORET No. 1105.
  - (o) MCL shown for U.S. EPA STORET No. 1147.
  - (p) MCL shown for U.S. EPA STORET No. 34247.
  - (q) MCL shown for U.S. EPA STORET No. 71850.

Code--Data parameter number used in USGS National Water Information System (NWIS).

E--Estimated.

M--Presence verified but not quantified.

MCL--Maximum Contaminant Level reported by California DHS (May 25, 2007 Database) for U.S. EPA STORET number.

V--Biased results from contamination.



**Water Quality Data for Selected RCWD Production Wells  
Well Nos. 109, 110, 133, and 157  
2012**

Code	Parameter	MCL	No. 109 8/21/2012	No. 110 8/21/2012	No. 133 8/21/2012	No. 157 8/21/2012
	Sampling date					
3	Sampling depth, feet					
10	Temperature, water, degrees Celsius		20.9	19.3	20.2	23.4
28	Agency analyzing sample, code		80020	80020	80020	80020
59	Flow rate, instantaneous, gallons per minute					
95	Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius		1250	614	835	720
191	Hydrogen ion, water, unfiltered, calculated, milligrams per liter		0.00006	0.00002	0.00001	M
300	Dissolved oxygen, water, unfiltered, milligrams per liter		3.7	1.4	1.8	0.6
400	pH, water, unfiltered, field, standard units		7.2	7.7	8	7.5
403	pH, water, unfiltered, laboratory, standard units		7.5	7.8	8	7.8
405	Carbon dioxide, water, unfiltered, milligrams per liter		286	140	113	149
453	Bicarbonate, water, filtered, incremental titration, field, milligrams per liter		< 3.7	< 0.41	< 0.80	< 0.26
602	Total nitrogen, water, filtered, milligrams per liter		< 0.07	< 0.07	< 0.07	< 0.07
607	Organic nitrogen, water, filtered, milligrams per liter		< 0.010	< 0.010	< 0.010	< 0.010
608	Ammonia, water, filtered, milligrams per liter as nitrogen	1 (a)	< 0.001	< 0.001	0.003	< 0.001
613	Nitrite, water, filtered, milligrams per liter as nitrogen		3.64	0.342	0.724	0.195
618	Nitrate, water, filtered, milligrams per liter as nitrogen		< 0.07	< 0.07	< 0.07	< 0.07
623	Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen		3.64	0.342	0.727	0.195
631	Nitrate plus nitrite, water, filtered, milligrams per liter as nitrogen		0.135	0.24	0.04	0.108
660	Orthophosphate, water, filtered, milligrams per liter		0.03	0.07	< 0.02	0.03
666	Phosphorus, water, filtered, milligrams per liter		0.044	0.078	0.013	0.035
671	Orthophosphate, water, filtered, milligrams per liter as phosphorus		402	159	137	211
900	Hardness, water, milligrams per liter as calcium carbonate		167	43	43	88
904	Noncarb hardness, water filtered field, milligrams per liter as calcium carbonate		177	41		87
905	Noncarb hardness, water filtered lab, milligrams per liter as calcium carbonate		118.0	39.6	32.6	53
915	Calcium, water, filtered, milligrams per liter		25.9	14.4	13.3	19
925	Magnesium, water, filtered, milligrams per liter		126	67.5	127	69
930	Sodium, water, filtered, milligrams per liter		2.73	2.33	4.75	2.07
931	Sodium adsorption ratio, water, number		40	47	66	41
932	Sodium fraction of cations, water, percent in equivalents of major cations		3.84	3.72	2.95	4.47
935	Potassium, water, filtered, milligrams per liter		600	63.4	101	72
940	Chloride, water, filtered, milligrams per liter		600	88.8	110	128
945	Sulfate, water, filtered, milligrams per liter	2 (b)	0.18	0.35	0.51	0.21
950	Fluoride, water, filtered, milligrams per liter		33.9	15.4	27.8	12.4
955	Silica, water, filtered, milligrams per liter		10 (c)	0.9	1.5	0.45
1000	Arsenic, water, filtered, micrograms per liter	1000 (d)	31.1	21.9	55	37.3
1005	Barium, water, filtered, micrograms per liter	4 (e)				
1010	Beryllium, micrograms per liter		175	156	438	142
1020	Boron, water, filtered, micrograms per liter	5 (f)				
1025	Cadmium, micrograms per liter	50 (g)				
1030	Chromium, micrograms per liter					
1035	Cobalt, micrograms per liter					
1040	Copper, micrograms per liter	1000 (h)	8	< 3.7	16.7	3.6
1046	Iron, water, filtered, micrograms per liter	300				
1049	Lead, micrograms per liter					
1056	Manganese, water, filtered, micrograms per liter	50	< 0.16	< 0.16	0.93	20.4
1057	Thallium, micrograms per liter	2 (i)				
1060	Molybdenum, micrograms per liter					
1065	Nickel, micrograms per liter	100 (j)				
1075	Silver, micrograms per liter	100 (k)				
1080	Strontium, water, filtered, micrograms per liter		819	294	480	613
1085	Vanadium, micrograms per liter					
1090	Zinc, micrograms per liter	5000 (l)				
1095	Antimony, micrograms per liter	6 (m)				

Source: USGS California Water Science Center.

**Water Quality Data for Selected RCWD Production Wells  
Well Nos. 109, 110, 133, and 157  
2012**

Code	Parameter	MCL	No. 109 8/21/2012	No. 110 8/21/2012	No. 133 8/21/2012	No. 157 8/21/2012
	Sampling date					
1106	Aluminum, water, filtered, micrograms per liter					
1130	Lithium, water, filtered, micrograms per liter	1000 (n)	<2.2	<6.6	<6.6	<2.2
1145	Selenium, micrograms per liter	50 (o)	10.7	5.26	8.95	27.5
4022	Terbutylazine, water, filtered, recoverable, micrograms per liter					
4025	Hexazinone, water, filtered, recoverable, micrograms per liter					
4029	Bromacil, water, filtered, recoverable, micrograms per liter					
4035	Simazine, water, filtered, recoverable, micrograms per liter					
4036	Prometryn, water, filtered, recoverable, micrograms per liter					
4037	Prometon, water, filtered, recoverable, micrograms per liter					
4040	2-Chloro-4-isopropylamino-6-amino-s-triazine, water, filtered, recoverable, micrograms per liter					
4095	Fonofos, water, filtered, recoverable, micrograms per liter					
7000	Tritium, water, unfiltered, picocuries per liter					
22703	Uranium, natural, micrograms per liter					
29801	Alkalinity, water, filtered, fixed endpoint (pH 4.5) titration, laboratory, milligrams per liter as calcium carbonate		225	118	156	124
30217	Dibromomethane, water, unfiltered, recoverable, micrograms per liter					
32101	Bromodichloromethane, water, unfiltered, recoverable, micrograms per liter					
32102	Tetrachloromethane, water, unfiltered, recoverable, micrograms per liter	0.5				
32103	1,2-Dichloroethane, water, unfiltered, recoverable, micrograms per liter					
32104	Tribromomethane, water, unfiltered, recoverable, micrograms per liter					
32105	Dibromochloromethane, water, unfiltered, recoverable, micrograms per liter					
32106	Trichloromethane, water, unfiltered, recoverable, micrograms per liter					
34010	Toluene, water, unfiltered, recoverable, micrograms per liter	150				
34030	Benzene, water, unfiltered, recoverable, micrograms per liter	1				
34215	Acrylonitrile, water, unfiltered, recoverable, micrograms per liter					
34221	Anthracene, water, filtered, recoverable, micrograms per liter					
34248	Benz[a]pyrene, water, filtered, recoverable, micrograms per liter	0.2 (p)				
34288	Tribromomethane, water, filtered, recoverable, micrograms per liter					
34301	Chlorobenzene, water, unfiltered, recoverable, micrograms per liter	70				
34311	Chloroethane, water, unfiltered, recoverable, micrograms per liter					
34371	Ethylbenzene, water, unfiltered, recoverable, micrograms per liter	300				
34377	Fluoranthene, water, filtered, recoverable, micrograms per liter					
34396	Hexachloroethane, water, unfiltered, recoverable, micrograms per liter					
34409	Isophorone, water, filtered, recoverable, micrograms per liter					
34413	Bromomethane, water, unfiltered, recoverable, micrograms per liter					
34418	Chloromethane, water, unfiltered, recoverable, micrograms per liter					
34423	Dichloromethane, water, unfiltered, recoverable, micrograms per liter	5				
34443	Naphthalene, water, filtered, recoverable, micrograms per liter					
34462	Phenanthrene, water, filtered, recoverable, micrograms per liter					
34466	Phenol, water, filtered, recoverable, micrograms per liter					
34470	Pyrene, water, filtered, recoverable, micrograms per liter					
34475	Tetrachloroethene, water, unfiltered, recoverable, micrograms per liter	5				
34476	Tetrachloroethane, water, filtered, recoverable, micrograms per liter					
34488	Trichlorofluoromethane, water, unfiltered, recoverable, micrograms per liter	150				
34496	1,1-Dichloroethane, water, unfiltered, recoverable, micrograms per liter	5				
34501	1,1-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	6				
34506	1,1,1-Trichloroethane, water, unfiltered, recoverable, micrograms per liter	200				
34511	1,1,2-Trichloroethane, water, unfiltered, recoverable, micrograms per liter	5				
34516	1,1,2,2-Tetrachloroethane, water, unfiltered, recoverable, micrograms per liter	1				
34536	1,2-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter	600				
34541	1,2-Dichloropropane, water, unfiltered, recoverable, micrograms per liter	5				
34546	trans-1,2-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	10				
34551	1,2,4-Trichlorobenzene, water, unfiltered, recoverable, micrograms per liter	5				
34566	1,3-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter					

**Water Quality Data for Selected RCWD Production Wells  
Well Nos. 109, 110, 133, and 157  
2012**

Code	Parameter	MCL	No. 109 8/21/2012	No. 110 8/21/2012	No. 133 8/21/2012	No. 157 8/21/2012
	Sampling date					
34571	1,4-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter					
34572	1,4-Dichlorobenzene, water, filtered, recoverable, micrograms per liter	5				
34668	Dichlorodifluoromethane, water, unfiltered, recoverable, micrograms per liter					
34696	Naphthalene, water, unfiltered, recoverable, micrograms per liter					
34699	trans-1,3-Dichloropropene, water, unfiltered, recoverable, micrograms per liter	0.5				
34704	cis-1,3-Dichloropropene, water, unfiltered, recoverable, micrograms per liter	0.5				
38454	Dicroporphos, water, filtered, recoverable, micrograms per liter					
38775	Dichlorvos, water, filtered, recoverable, micrograms per liter					
38933	Chlorpyrifos, water, filtered, recoverable, micrograms per liter					
39086	Alkalinity, water, filtered, incremental titration, field, milligrams per liter as calcium carbonate		235	115	93.6	123
39175	Vinyl chloride, water, unfiltered, recoverable, micrograms per liter	0.5				
39180	Trichloroethene, water, unfiltered, recoverable, micrograms per liter	5				
39381	Dieldrin, water, filtered, recoverable, micrograms per liter					
39415	Metolachlor, water, filtered, recoverable, micrograms per liter					
39532	Malathion, water, filtered, recoverable, micrograms per liter					
39572	Diazinon, water, filtered, recoverable, micrograms per liter					
39632	Atrazine, water, filtered, recoverable, micrograms per liter					
39702	Hexachlorobutadiene, water, unfiltered, recoverable, micrograms per liter					
46342	Alechlor, water, filtered, recoverable, micrograms per liter					
49260	Acetochlor, water, filtered, recoverable, micrograms per liter					
49295	1-Naphthol, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
49933	C-14, water, filtered, percent modern					
49934	C-14, counting error, water, filtered, percent modern					
49991	Methyl acrylate, water, unfiltered, recoverable, micrograms per liter					
49999	1,2,3,4-Tetramethylbenzene, water, unfiltered, recoverable, micrograms per liter					
50000	1,2,3,5-Tetramethylbenzene, water, unfiltered, recoverable, micrograms per liter					
50002	Bromoethene, water, unfiltered, recoverable, micrograms per liter					
50004	tert-Butyl ethyl ether, water, unfiltered, recoverable, micrograms per liter					
50005	Methyl tert-pentyl ether, water, unfiltered, recoverable, micrograms per liter					
50305	Caffeine, water, filtered, recoverable, micrograms per liter					
50359	Metaxyl, water, filtered, recoverable, micrograms per liter					
61209	Perchlorate, water, unfiltered, recoverable, micrograms per liter					
61585	Cyfluthrin, water, filtered, recoverable, micrograms per liter	6				
61586	Cypermethrin, water, filtered, recoverable, micrograms per liter					
61591	Fenamiphos, water, filtered, recoverable, micrograms per liter					
61593	Iprodione, water, filtered, recoverable, micrograms per liter					
61594	Isofenphos, water, filtered, recoverable, micrograms per liter					
61596	Metaxyl, water, filtered, recoverable, micrograms per liter					
61598	Methidathion, water, filtered, recoverable, micrograms per liter					
61599	Myclobutanil, water, filtered, recoverable, micrograms per liter					
61601	Phosmet, water, filtered, recoverable, micrograms per liter					
61610	Tribuphos, water, filtered, recoverable, micrograms per liter					
61618	2-Chloro-2',6'-diethylacetanilide, water, filtered, recoverable, micrograms per liter					
61620	2-Ethyl-6-methylamine, water, filtered, recoverable, micrograms per liter					
61625	3,4-Dichloroaniline, water, filtered, recoverable, micrograms per liter					
61633	4-Chloro-2-methylphenol, water, filtered, recoverable, micrograms per liter					
61635	Azinphos-methyl oxygen analog, water, filtered, recoverable, micrograms per liter					
61636	Chlorpyrifos oxygen analog, water, filtered, recoverable, micrograms per liter					
61644	Ethion monooxon, water, filtered, recoverable, micrograms per liter					
61645	Fenamiphos sulfone, water, filtered, recoverable, micrograms per liter					
61646	Fenamiphos sulfoxide, water, filtered, recoverable, micrograms per liter					
61652	Malaaxon, water, filtered, recoverable, micrograms per liter					
61664	Methyl paraoxon, water, filtered, recoverable, micrograms per liter					

Source: USGS California Water Science Center.

**Water Quality Data for Selected RCWD Production Wells**  
**Well Nos. 109, 110, 133, and 157**  
**2012**

Code	Parameter	MCL	No. 109 8/21/2012	No. 110 8/21/2012	No. 133 8/21/2012	No. 157 8/21/2012
	Sampling date					
61666	Phorate oxygen analog, water, filtered, recoverable, micrograms per liter					
61668	Phosmet oxygen analog, water, filtered, recoverable, micrograms per liter					
61674	Terbufos oxygen analog sulfone, water, filtered, recoverable, micrograms per liter					
61705	Diethoxyctyphenol, water, filtered, recoverable, micrograms per liter					
61706	Monoethoxyctyphenol, water, filtered, recoverable, micrograms per liter					
62005	Cotinine, water, filtered, recoverable, micrograms per liter					
62054	1-Methylnaphthalene, water, filtered, recoverable, micrograms per liter					
62055	2,6-Dimethylnaphthalene, water, filtered, recoverable, micrograms per liter					
62056	2-Methylnaphthalene, water, filtered, recoverable, micrograms per liter					
62057	3-beta-Coprostanol, water, filtered, recoverable, micrograms per liter					
62058	3-Methyl-1H-indole, water, filtered, recoverable, micrograms per liter					
62059	3-tert-Butyl-4-hydroxyanisole, water, filtered, recoverable, micrograms per liter					
62060	4-Cumylphenol, water, filtered, recoverable, micrograms per liter					
62061	4-Octylphenol, water, filtered, recoverable, micrograms per liter					
62062	4-tert-Octylphenol, water, filtered, recoverable, micrograms per liter					
62063	5-Methyl-1H-benzotriazole, water, filtered, recoverable, micrograms per liter					
62064	Acetophenone, water, filtered, recoverable, micrograms per liter					
62065	Acetyl hexamethyl tetrahydro naphthalene, water, filtered, recoverable, micrograms per liter					
62066	9,10-Anthraquinone, water, filtered, recoverable, micrograms per liter					
62067	Benzophenone, water, filtered, recoverable, micrograms per liter					
62068	beta-Sitosterol, water, filtered, recoverable, micrograms per liter					
62070	Camphor, water, filtered, recoverable, micrograms per liter					
62071	Carbazole, water, filtered, recoverable, micrograms per liter					
62072	Cholesterol, water, filtered, recoverable, micrograms per liter					
62073	D-Limonene, water, filtered, recoverable, micrograms per liter					
62075	Hexahydrohexamethyl cyclopentabenzopyran, water, filtered, recoverable, micrograms per liter					
62076	Indole, water, filtered, recoverable, micrograms per liter					
62077	Isoborneol, water, filtered, recoverable, micrograms per liter					
62078	Isopropylbenzene, water, filtered, recoverable, micrograms per liter					
62079	Isouinolone, water, filtered, recoverable, micrograms per liter					
62080	Menthol, water, filtered, recoverable, micrograms per liter					
62081	Methyl salicylate, water, filtered, recoverable, micrograms per liter					
62082	DEET, water, filtered, recoverable, micrograms per liter					
62083	Diethoxynonylphenol, water, filtered, recoverable, micrograms per liter					
62084	p-Cresol, water, filtered, recoverable, micrograms per liter					
62085	4-Nonylphenol, water, filtered, recoverable, micrograms per liter					
62086	beta-Stigmastanol, water, filtered, recoverable, micrograms per liter					
62087	Tris(2-chloroethyl) phosphate, water, filtered, recoverable, micrograms per liter					
62088	Tris(dichloroisopropyl) phosphate, water, filtered, recoverable, micrograms per liter					
62089	Tributyl phosphate, water, filtered, recoverable, micrograms per liter					
62090	Triclosan, water, filtered, recoverable, micrograms per liter					
62091	Triethyl citrate, water, filtered, recoverable, micrograms per liter					
62092	Triphenyl phosphate, water, filtered, recoverable, micrograms per liter					
62093	Tris(2-butoxyethyl) phosphate, water, filtered, recoverable, micrograms per liter					
62166	Fipronil, water, filtered, recoverable, micrograms per liter					
62167	Fipronil sulfide, water, filtered, recoverable, micrograms per liter					
62168	Fipronil sulfone, water, filtered, recoverable, micrograms per liter					
62169	Desulfinylfipronil amide, water, filtered, recoverable, micrograms per liter					
62170	Desulfinylfipronil, water, filtered, recoverable, micrograms per liter					
62854	Total nitrogen, (NH3+NO2+NO3+Organic), filtered, milligrams per liter					
63790	Perchlorate, water, filtered, recoverable, micrograms per liter					
70300	Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter	6	826	363	511	432
70301	Residue, water, filtered, sum of constituents, milligrams per liter	1500	828	365	476	434

Source: USGS California Water Science Center.

**Water Quality Data for Selected RCWD Production Wells  
Well Nos. 109, 110, 133, and 157  
2012**

Code	Parameter	MCL	No. 109 8/21/2012	No. 110 8/21/2012	No. 133 8/21/2012	No. 157 8/21/2012
	Sampling date					
70303	Residue, water, filtered, tons per acre-foot					
71846	Ammonia, water, filtered, milligrams per liter as NH4		< 0.013	< 0.013	< 0.013	< 0.013
71851	Nitrate, water, filtered, milligrams per liter	45 (q)	16.1	1.52	3.21	0.861
71856	Nitrite, water, filtered, milligrams per liter		< 0.003	< 0.003	0.009	< 0.003
71865	Iodide, water, filtered, milligrams per liter		0.008	0.002	0.003	0.015
71870	Bromide, water, filtered, milligrams per liter		0.502	0.13	0.313	0.125
72019	Depth to water level, feet below land surface					
73547	trans-1,4-Dichloro-2-butene, water, unfiltered, recoverable, micrograms per liter					
73570	Ethyl methacrylate, water, unfiltered, recoverable, micrograms per liter					
75985	Tritium 2-sigma combined uncertainty, water, unfiltered, picocuries per liter					
76002	Rn-222, 2-sigma combined uncertainty, water, unfiltered, picocuries per liter					
77041	Carbon disulfide, water, unfiltered, micrograms per liter					
77093	cis-1,2-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	6				
77103	n-Butyl methyl ketone, water, unfiltered, recoverable, micrograms per liter					
77128	Styrene, water, unfiltered, recoverable, micrograms per liter	100				
77135	o-Xylene, water, unfiltered, recoverable, micrograms per liter					
77168	1,1-Dichloropropene, water, unfiltered, recoverable, micrograms per liter					
77170	2,2-Dichloropropane, water, unfiltered, recoverable, micrograms per liter					
77173	1,3-Dichloropropane, water, unfiltered, recoverable, micrograms per liter					
77220	2-Ethyltoluene, water, unfiltered, recoverable, micrograms per liter					
77221	1,2,3-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter					
77222	1,2,4-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter					
77223	Isopropylbenzene, water, unfiltered, recoverable, micrograms per liter					
77224	n-Propylbenzene, water, unfiltered, recoverable, micrograms per liter					
77226	1,3,5-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter					
77275	2-Chlorotoluene, water, unfiltered, recoverable, micrograms per liter					
77277	4-Chlorotoluene, water, unfiltered, recoverable, micrograms per liter					
77297	Bromochloromethane, water, unfiltered, recoverable, micrograms per liter					
77342	n-Butylbenzene, water, unfiltered, recoverable, micrograms per liter					
77350	sec-Butylbenzene, water, unfiltered, recoverable, micrograms per liter					
77353	tert-Butylbenzene, water, unfiltered, recoverable, micrograms per liter					
77356	4-Isopropyltoluene, water, unfiltered, recoverable, micrograms per liter					
77424	Iodomethane, water, unfiltered, recoverable, micrograms per liter					
77443	1,2,3-Trichloropropane, water, unfiltered, recoverable, micrograms per liter					
77562	1,1,1,2-Tetrachloroethane, water, unfiltered, recoverable, micrograms per liter					
77613	1,2,3-Trichlorobenzene, water, unfiltered, recoverable, micrograms per liter					
77651	1,2-Dibromoethane, water, unfiltered, recoverable, micrograms per liter					
77652	1,1,2-Trichloro-1,2,2-trifluoroethane, water, unfiltered, recoverable, micrograms per liter	0.05				
78032	Methyl tert-butyl ether, water, unfiltered, recoverable, micrograms per liter					
78109	3-Chloropropene, water, unfiltered, recoverable, micrograms per liter					
78133	Isobutyl methyl ketone, water, unfiltered, recoverable, micrograms per liter					
81552	Acetone, water, unfiltered, recoverable, micrograms per liter					
81555	Bromobenzene, water, unfiltered, recoverable, micrograms per liter					
81576	Diethyl ether, water, unfiltered, recoverable, micrograms per liter					
81577	Diisopropyl ether, water, unfiltered, recoverable, micrograms per liter					
81593	Methyl acrylonitrile, water, unfiltered, recoverable, micrograms per liter					
81595	Ethyl methyl ketone, water, unfiltered, recoverable, micrograms per liter					
81597	Methyl methacrylate, water, unfiltered, recoverable, micrograms per liter					
81607	Tetrahydrofuran, water, unfiltered, recoverable, micrograms per liter					
82081	C-13/C-12 ratio, water, unfiltered, per mil					
82082	Deuterium/Protium ratio, water, unfiltered, per mil		-47.6	-72.7	-54	-81.5
82085	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil		-6.63	-9.08	-7.14	-9.84
82303	Rn-222, water, unfiltered, picocuries per liter					

**Water Quality Data for Selected RCWD Production Wells**  
**Well Nos. 109, 110, 133, and 157**  
**2012**

Code	Parameter	MCL	No. 109 8/21/2012	No. 110 8/21/2012	No. 133 8/21/2012	No. 157 8/21/2012
	Sampling date					
82346	Ethion, water, filtered, recoverable, micrograms per liter					
82625	1,2-Dibromo-3-chloropropane, water, unfiltered, recoverable, micrograms per liter					
82630	Metribuzin, water, filtered, recoverable, micrograms per liter					
82660	2,6-Diethylaniline, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82661	Trifluralin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82662	Dimethoate, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82664	Phorate, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82667	Methyl parathion, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82670	Tebuthiuron, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82673	Benfluralin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82675	Terbufos, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82676	Propyzamide, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82680	Carbaryl, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82682	DCPA, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82683	Pendimethalin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82686	Azinphos-methyl, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
82687	cis-Permethrin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter					
85795	m-Xylene plus p-xylene, water, unfiltered, recoverable, micrograms per liter					
90095	Specific conductance, water, unfiltered, laboratory, microsiemens per centimeter at 25 degrees Celsius		1260	611	840	715
90851	Triholomehtanes, water, unfiltered, calcd, micrograms per liter					
90867	Triholomehtanes, water, unfiltered, calcd, micrograms per liter					
99583	Bisphenol A-d3, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery					
99584	Caffeine-13C, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery					
99585	Decafluorobiphenyl, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery					
99586	Fluoranthene-d10, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery					
99832	1,2-Dichloroethane-d4, surrogate, Schedule 2090, water, unfiltered, percent recovery					
99833	Toluene-d8, surrogate, Schedule 2090, water, unfiltered, percent recovery					
99834	1-Bromo-4-fluorobenzene, surrogate, VOC schedules, water, unfiltered, percent recovery					
99994	Diazinon-d10, surrogate, Schedule 2003, water, filtered, percent recovery					
99995	alpha-HCH-d6, surrogate, Schedule 2003, water, filtered, percent recovery					

Notes:

- U.S. EPA STORET numbers for MCLs correspond to the same as the USGS NWIS data parameter number except as follows:
- (a) MCL shown for U.S. EPA STORET No. 620.
  - (b) MCL shown for U.S. EPASTORET No. 951.
  - (c) MCL shown for U.S. EPA STORET No. 1002.
  - (d) MCL shown for U.S. EPA STORET No. 1007.
  - (e) MCL shown for U.S. EPA STORET No. 1012.
  - (f) MCL shown for U.S. EPA STORET No. 1027.
  - (g) MCL shown for U.S. EPA STORET No. 1034.
  - (h) MCL shown for U.S. EPA STORET No. 1042.
  - (i) MCL shown for U.S. EPA STORET No. 1059.
  - (j) MCL shown for U.S. EPA STORET No. 1067.
  - (k) MCL shown for U.S. EPASTORET No. 1077.
  - (l) MCL shown for U.S. EPA STORET No. 1092.
  - (m) MCL shown for U.S. EPA STORET No. 1097.
  - (n) MCL shown for U.S. EPA STORET No. 1105.
  - (o) MCL shown for U.S. EPA STORET No. 1147.
  - (p) MCL shown for U.S. EPA STORET No. 34247.
  - (q) MCL shown for U.S. EPA STORET No. 71850.

Code--Data parameter number used in USGS National Water Information System (NWIS).

E--Estimated.

M--Presence verified but not quantified.

MCL--Maximum Contaminant Level reported by California DHS (May 25, 2007 Database) for U.S. EPA STORET number.

V--Biased results from contamination.

**Water Quality Data for Selected RCWD Production Wells  
Well Nos. 203, 210, and 234  
2012**

Code	Parameter	MCL	No. 203 8/22/2012	No. 210 8/22/2012	No. 234 8/21/2012
	Sampling date				
3	Sampling depth, feet				
10	Temperature, water, degrees Celsius		22.7	22.7	20.5
28	Agency analyzing sample, code		80020	80020	80020
59	Flow rate, instantaneous, gallons per minute				
95	Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius		743	848	992
191	Hydrogen ion, water, unfiltered, calculated, milligrams per liter		M	0.00003	0.00003
300	Dissolved oxygen, water, unfiltered, milligrams per liter		2.3	3.8	4.8
400	pH, water, unfiltered, field, standard units		8.6	7.5	7.5
403	pH, water, unfiltered, laboratory, standard units		8.5	7.7	7.6
405	Carbon dioxide, water, unfiltered, milligrams per liter		0.8	0.8	12
453	Bicarbonate, water, filtered, incremental titration, field, milligrams per liter		185	188	238
602	Total nitrogen, water, filtered, milligrams per liter		< 0.88	< 3.0	< 5.0
607	Organic nitrogen, water, filtered, milligrams per liter		< 0.07	< 0.07	< 0.07
608	Ammonia, water, filtered, milligrams per liter as nitrogen	1 (a)	< 0.010	< 0.010	< 0.010
613	Nitrite, water, filtered, milligrams per liter as nitrogen		< 0.001	< 0.001	< 0.001
618	Nitrate, water, filtered, milligrams per liter as nitrogen		0.814	2.97	4.97
623	Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen		< 0.07	< 0.07	< 0.07
631	Nitrate plus nitrite, water, filtered, milligrams per liter as nitrogen		0.814	2.97	4.97
660	Orthophosphate, water, filtered, milligrams per liter		0.049	0.269	0.318
666	Phosphorus, water, filtered, milligrams per liter		< 0.02	0.08	0.09
671	Orthophosphate, water, filtered, milligrams per liter as phosphorus		0.016	0.088	0.104
900	Hardness, water, milligrams per liter as calcium carbonate		116	240	277
904	Noncarb hardness, water filtered field, milligrams per liter as calcium carbonate			85	82
905	Noncarb hardness, water filtered lab, milligrams per liter as calcium carbonate			84	80
915	Calcium, water, filtered, milligrams per liter		21	62.9	76.2
925	Magnesium, water, filtered, milligrams per liter		15.2	20	21.1
930	Sodium, water, filtered, milligrams per liter		119	88.5	108
931	Sodium adsorption ratio, water, number		4.84	2.49	2.82
932	Sodium fraction of cations, water, percent in equivalents of major cations		69	44	45
935	Potassium, water, filtered, milligrams per liter		1.81	5.36	4.36
940	Chloride, water, filtered, milligrams per liter	600	77.4	83.2	90.5
945	Sulfate, water, filtered, milligrams per liter	600	93.9	143	158
950	Fluoride, water, filtered, milligrams per liter	2 (b)	1.33	0.48	0.49
955	Silica, water, filtered, milligrams per liter		20.4	22.7	29.2
1000	Arsenic, water, filtered, micrograms per liter	10 (c)	8	0.99	1.3
1005	Barium, water, filtered, micrograms per liter	1000 (d)	27.5	41.5	46.2
1010	Beryllium, micrograms per liter	4 (e)			
1020	Boron, water, filtered, micrograms per liter		834	141	172
1025	Cadmium, micrograms per liter	5 (f)			
1030	Chromium, micrograms per liter	50 (g)			
1035	Cobalt, micrograms per liter				
1040	Copper, micrograms per liter	1000 (h)			
1046	Iron, water, filtered, micrograms per liter	300	3.5	< 3.2	9.2
1049	Lead, micrograms per liter				
1056	Manganese, water, filtered, micrograms per liter	50	< 0.16	< 0.16	0.17
1057	Thallium, micrograms per liter	2 (i)			
1060	Molybdenum, micrograms per liter				
1065	Nickel, micrograms per liter	100 (j)			
1075	Silver, micrograms per liter	100 (k)			
1080	Strontium, water, filtered, micrograms per liter		300	315	378
1085	Vanadium, micrograms per liter				
1090	Zinc, micrograms per liter	5000 (l)			
1095	Antimony, micrograms per liter	6 (m)			

Source: USGS California Water Science Center.

**Water Quality Data for Selected RCWD Production Wells  
Well Nos. 203, 210, and 234  
2012**

Code	Parameter	MCL	No. 203 8/22/2012	No. 210 8/22/2012	No. 234 8/21/2012
	Sampling date				
1106	Aluminum, water, filtered, micrograms per liter				
1130	Lithium, water, filtered, micrograms per liter	1000 (n)	< 6.6	< 6.6	< 2.2
1145	Selenium, micrograms per liter	50 (o)	4.04	3.75	5.68
4022	Terbutylazine, water, filtered, recoverable, micrograms per liter				
4025	Hexazinone, water, filtered, recoverable, micrograms per liter				
4029	Bromacil, water, filtered, recoverable, micrograms per liter				
4035	Simazine, water, filtered, recoverable, micrograms per liter				
4036	Prometryn, water, filtered, recoverable, micrograms per liter				
4037	Prometon, water, filtered, recoverable, micrograms per liter				
4040	2-Chloro-4-isopropylamino-6-amino-s-triazine, water, filtered, recoverable, micrograms per liter				
4095	Fonofos, water, filtered, recoverable, micrograms per liter				
7000	Tritium, water, unfiltered, picocuries per liter				
22703	Uranium, natural, micrograms per liter				
29801	Alkalinity, water, filtered, fixed endpoint (pH 4.5) titration, laboratory, milligrams per liter as calcium carbonate		158	156	197
30217	Dibromomethane, water, unfiltered, recoverable, micrograms per liter				
32101	Bromodichloromethane, water, unfiltered, recoverable, micrograms per liter				
32102	Tetrachloromethane, water, unfiltered, recoverable, micrograms per liter	0.5			
32103	1,2-Dichloroethane, water, unfiltered, recoverable, micrograms per liter				
32104	Tribromomethane, water, unfiltered, recoverable, micrograms per liter				
32105	Dibromochloromethane, water, unfiltered, recoverable, micrograms per liter				
32106	Trichloromethane, water, unfiltered, recoverable, micrograms per liter				
34010	Toluene, water, unfiltered, recoverable, micrograms per liter	150			
34030	Benzene, water, unfiltered, recoverable, micrograms per liter	1			
34215	Acrylonitrile, water, unfiltered, recoverable, micrograms per liter				
34221	Anthracene, water, filtered, recoverable, micrograms per liter				
34248	Benz[a]pyrene, water, filtered, recoverable, micrograms per liter	0.2 (p)			
34288	Tribromomethane, water, filtered, recoverable, micrograms per liter				
34301	Chlorobenzene, water, unfiltered, recoverable, micrograms per liter	70			
34311	Chloroethane, water, unfiltered, recoverable, micrograms per liter				
34371	Ethylbenzene, water, unfiltered, recoverable, micrograms per liter	300			
34377	Fluoranthene, water, filtered, recoverable, micrograms per liter				
34396	Hexachloroethane, water, unfiltered, recoverable, micrograms per liter				
34409	Isophorone, water, filtered, recoverable, micrograms per liter				
34413	Bromomethane, water, unfiltered, recoverable, micrograms per liter				
34418	Chloromethane, water, unfiltered, recoverable, micrograms per liter				
34423	Dichloromethane, water, unfiltered, recoverable, micrograms per liter	5			
34443	Naphthalene, water, filtered, recoverable, micrograms per liter				
34462	Phenanthrene, water, filtered, recoverable, micrograms per liter				
34466	Phenol, water, filtered, recoverable, micrograms per liter				
34470	Pyrene, water, filtered, recoverable, micrograms per liter				
34475	Tetrachloroethene, water, unfiltered, recoverable, micrograms per liter	5			
34476	Tetrachloroethane, water, filtered, recoverable, micrograms per liter				
34488	Trichlorofluoromethane, water, unfiltered, recoverable, micrograms per liter	150			
34496	1,1-Dichloroethane, water, unfiltered, recoverable, micrograms per liter	5			
34501	1,1-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	6			
34506	1,1,1-Trichloroethane, water, unfiltered, recoverable, micrograms per liter	200			
34511	1,1,2-Trichloroethane, water, unfiltered, recoverable, micrograms per liter	5			
34516	1,1,2,2-Tetrachloroethane, water, unfiltered, recoverable, micrograms per liter	1			
34536	1,2-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter	600			
34541	1,2-Dichloropropane, water, unfiltered, recoverable, micrograms per liter	5			
34546	trans-1,2-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	10			
34551	1,2,4-Trichlorobenzene, water, unfiltered, recoverable, micrograms per liter	5			
34566	1,3-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter				



**Water Quality Data for Selected RCWD Production Wells  
Well Nos. 203, 210, and 234  
2012**

Code	Parameter	MCL	No. 203 8/22/2012	No. 210 8/22/2012	No. 234 8/21/2012
	Sampling date				
34571	1,4-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter				
34572	1,4-Dichlorobenzene, water, filtered, recoverable, micrograms per liter	5			
34668	Dichlorodifluoromethane, water, unfiltered, recoverable, micrograms per liter				
34696	Naphthalene, water, unfiltered, recoverable, micrograms per liter				
34699	trans-1,3-Dichloropropene, water, unfiltered, recoverable, micrograms per liter	0.5			
34704	cis-1,3-Dichloropropene, water, unfiltered, recoverable, micrograms per liter	0.5			
38454	Dicorophos, water, filtered, recoverable, micrograms per liter				
38775	Dichlorvos, water, filtered, recoverable, micrograms per liter				
38933	Chlorpyrifos, water, filtered, recoverable, micrograms per liter				
39086	Alkalinity, water, filtered, incremental titration, field, milligrams per liter as calcium carbonate		158	155	196
39175	Vinyl chloride, water, unfiltered, recoverable, micrograms per liter	0.5			
39180	Trichloroethene, water, unfiltered, recoverable, micrograms per liter	5			
39381	Dieldrin, water, filtered, recoverable, micrograms per liter				
39415	Metolachlor, water, filtered, recoverable, micrograms per liter				
39532	Malathion, water, filtered, recoverable, micrograms per liter				
39572	Diazinon, water, filtered, recoverable, micrograms per liter				
39632	Atrazine, water, filtered, recoverable, micrograms per liter				
39702	Hexachlorobutadiene, water, unfiltered, recoverable, micrograms per liter				
46342	Alachlor, water, filtered, recoverable, micrograms per liter				
49260	Acetochlor, water, filtered, recoverable, micrograms per liter				
49295	1-Naphthol, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				
49933	C-14, water, filtered, percent modern				
49934	C-14, counting error, water, filtered, percent modern				
49991	Methyl acrylate, water, unfiltered, recoverable, micrograms per liter				
49999	1,2,3,4-Tetramethylbenzene, water, unfiltered, recoverable, micrograms per liter				
50000	1,2,3,5-Tetramethylbenzene, water, unfiltered, recoverable, micrograms per liter				
50002	Bromoethene, water, unfiltered, recoverable, micrograms per liter				
50004	tert-Butyl ethyl ether, water, unfiltered, recoverable, micrograms per liter				
50005	Methyl tert-pentyl ether, water, unfiltered, recoverable, micrograms per liter				
50305	Caffeine, water, filtered, recoverable, micrograms per liter				
50359	Metaxyl, water, filtered, recoverable, micrograms per liter				
61209	Perchlorate, water, unfiltered, recoverable, micrograms per liter				
61585	Cyfluthrin, water, filtered, recoverable, micrograms per liter	6			
61586	Cypermethrin, water, filtered, recoverable, micrograms per liter				
61591	Fenamiphos, water, filtered, recoverable, micrograms per liter				
61593	Iprodione, water, filtered, recoverable, micrograms per liter				
61594	Isofenphos, water, filtered, recoverable, micrograms per liter				
61596	Metaxyl, water, filtered, recoverable, micrograms per liter				
61598	Methidathion, water, filtered, recoverable, micrograms per liter				
61599	Myclobutanil, water, filtered, recoverable, micrograms per liter				
61601	Phosmet, water, filtered, recoverable, micrograms per liter				
61610	Tribuphos, water, filtered, recoverable, micrograms per liter				
61618	2-Chloro-2',6'-diethylacetanilide, water, filtered, recoverable, micrograms per liter				
61620	2-Ethyl-6-methylamine, water, filtered, recoverable, micrograms per liter				
61625	3,4-Dichloroaniline, water, filtered, recoverable, micrograms per liter				
61633	4-Chloro-2-methylphenol, water, filtered, recoverable, micrograms per liter				
61635	Azinphos-methyl oxygen analog, water, filtered, recoverable, micrograms per liter				
61636	Chlorpyrifos oxygen analog, water, filtered, recoverable, micrograms per liter				
61644	Ethion monooxon, water, filtered, recoverable, micrograms per liter				
61645	Fenamiphos sulfone, water, filtered, recoverable, micrograms per liter				
61646	Fenamiphos sulfoxide, water, filtered, recoverable, micrograms per liter				
61652	Malaoxon, water, filtered, recoverable, micrograms per liter				
61664	Methyl paraoxon, water, filtered, recoverable, micrograms per liter				

**Water Quality Data for Selected RCWD Production Wells  
Well Nos. 203, 210, and 234  
2012**

Code	Parameter	MCL	No. 203 8/22/2012	No. 210 8/22/2012	No. 234 8/21/2012
	Sampling date				
61666	Phorate oxygen analog, water, filtered, recoverable, micrograms per liter				
61668	Phosmet oxygen analog, water, filtered, recoverable, micrograms per liter				
61674	Terbufos oxygen analog sulfone, water, filtered, recoverable, micrograms per liter				
61705	Diethoxyoctylphenol, water, filtered, recoverable, micrograms per liter				
61706	Monoethoxyoctylphenol, water, filtered, recoverable, micrograms per liter				
62005	Cotinine, water, filtered, recoverable, micrograms per liter				
62054	1-Methylnaphthalene, water, filtered, recoverable, micrograms per liter				
62055	2,6-Dimethylnaphthalene, water, filtered, recoverable, micrograms per liter				
62056	2-Methylnaphthalene, water, filtered, recoverable, micrograms per liter				
62057	3-beta-Coprostanol, water, filtered, recoverable, micrograms per liter				
62058	3-Methyl-1H-indole, water, filtered, recoverable, micrograms per liter				
62059	3-tert-Butyl-4-hydroxyanisole, water, filtered, recoverable, micrograms per liter				
62060	4-Cumylphenol, water, filtered, recoverable, micrograms per liter				
62061	4-Octylphenol, water, filtered, recoverable, micrograms per liter				
62062	4-tert-Octylphenol, water, filtered, recoverable, micrograms per liter				
62063	5-Methyl-1H-benzotriazole, water, filtered, recoverable, micrograms per liter				
62064	Acetophenone, water, filtered, recoverable, micrograms per liter				
62065	Acetyl hexamethyl tetrahydro naphthalene, water, filtered, recoverable, micrograms per liter				
62066	9,10-Anthraquinone, water, filtered, recoverable, micrograms per liter				
62067	Benzophenone, water, filtered, recoverable, micrograms per liter				
62068	beta-Sitosterol, water, filtered, recoverable, micrograms per liter				
62070	Camphor, water, filtered, recoverable, micrograms per liter				
62071	Carbazole, water, filtered, recoverable, micrograms per liter				
62072	Cholesterol, water, filtered, recoverable, micrograms per liter				
62073	D-Limonene, water, filtered, recoverable, micrograms per liter				
62075	Hexahydrohexamethyl cyclopentabenzopyran, water, filtered, recoverable, micrograms per liter				
62076	Indole, water, filtered, recoverable, micrograms per liter				
62077	Isoborneol, water, filtered, recoverable, micrograms per liter				
62078	Isopropylbenzene, water, filtered, recoverable, micrograms per liter				
62079	Isoquinoline, water, filtered, recoverable, micrograms per liter				
62080	Menthol, water, filtered, recoverable, micrograms per liter				
62081	Methyl salicylate, water, filtered, recoverable, micrograms per liter				
62082	DEET, water, filtered, recoverable, micrograms per liter				
62083	Diethoxynonylphenol, water, filtered, recoverable, micrograms per liter				
62084	p-Cresol, water, filtered, recoverable, micrograms per liter				
62085	4-Nonylphenol, water, filtered, recoverable, micrograms per liter				
62086	beta-Stigmastanol, water, filtered, recoverable, micrograms per liter				
62087	Tris(2-chloroethyl) phosphate, water, filtered, recoverable, micrograms per liter				
62088	Tris(dichloroisopropyl) phosphate, water, filtered, recoverable, micrograms per liter				
62089	Tributyl phosphate, water, filtered, recoverable, micrograms per liter				
62090	Triclosan, water, filtered, recoverable, micrograms per liter				
62091	Triethyl citrate, water, filtered, recoverable, micrograms per liter				
62092	Triphenyl phosphate, water, filtered, recoverable, micrograms per liter				
62093	Tris(2-butoxyethyl) phosphate, water, filtered, recoverable, micrograms per liter				
62166	Fipronil, water, filtered, recoverable, micrograms per liter				
62167	Fipronil sulfide, water, filtered, recoverable, micrograms per liter				
62168	Fipronil sulfone, water, filtered, recoverable, micrograms per liter				
62169	Desulfinylfipronil amide, water, filtered, recoverable, micrograms per liter				
62170	Desulfinylfipronil, water, filtered, recoverable, micrograms per liter				
62854	Total nitrogen, (NH3+NO2+NO3+Organic), filtered, milligrams per liter				
63790	Perchlorate, water, filtered, recoverable, micrograms per liter				
70300	Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter				
70301	Residue, water, filtered, sum of constituents, milligrams per liter	1500	459	536	610
			450	533	628

Source: USGS California Water Science Center.

**Water Quality Data for Selected RCWD Production Wells  
Well Nos. 203, 210, and 234  
2012**

Code	Parameter	MCL	No. 203 8/22/2012	No. 210 8/22/2012	No. 234 8/21/2012
	Sampling date				
70303	Residue, water, filtered, tons per acre-foot				
71846	Ammonia, water, filtered, milligrams per liter as NH4		< 0.013	< 0.013	< 0.013
71851	Nitrate, water, filtered, milligrams per liter	45 (q)	3.6	13.2	22
71856	Nitrite, water, filtered, milligrams per liter		< 0.003	< 0.003	< 0.003
71865	Iodide, water, filtered, milligrams per liter		0.01	0.002	0.002
71870	Bromide, water, filtered, milligrams per liter		0.226	0.15	0.273
72019	Depth to water level, feet below land surface				
73547	trans-1,4-Dichloro-2-butene, water, unfiltered, recoverable, micrograms per liter				
73570	Ethyl methacrylate, water, unfiltered, recoverable, micrograms per liter				
75985	Tritium 2-sigma combined uncertainty, water, unfiltered, picocuries per liter				
76002	Rn-222, 2-sigma combined uncertainty, water, unfiltered, picocuries per liter				
77041	Carbon disulfide, water, unfiltered, micrograms per liter				
77093	cis-1,2-Dichloroethene, water, unfiltered, recoverable, micrograms per liter	6			
77103	n-Butyl methyl ketone, water, unfiltered, recoverable, micrograms per liter				
77128	Styrene, water, unfiltered, recoverable, micrograms per liter	100			
77135	o-Xylene, water, unfiltered, recoverable, micrograms per liter				
77168	1,1-Dichloropropene, water, unfiltered, recoverable, micrograms per liter				
77170	2,2-Dichloropropane, water, unfiltered, recoverable, micrograms per liter				
77173	1,3-Dichloropropane, water, unfiltered, recoverable, micrograms per liter				
77220	2-Ethyltoluene, water, unfiltered, recoverable, micrograms per liter				
77221	1,2,3-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter				
77222	1,2,4-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter				
77223	Isopropylbenzene, water, unfiltered, recoverable, micrograms per liter				
77224	n-Propylbenzene, water, unfiltered, recoverable, micrograms per liter				
77226	1,3,5-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter				
77275	2-Chlorotoluene, water, unfiltered, recoverable, micrograms per liter				
77277	4-Chlorotoluene, water, unfiltered, recoverable, micrograms per liter				
77297	Bromochloromethane, water, unfiltered, recoverable, micrograms per liter				
77342	n-Butylbenzene, water, unfiltered, recoverable, micrograms per liter				
77350	sec-Butylbenzene, water, unfiltered, recoverable, micrograms per liter				
77353	tert-Butylbenzene, water, unfiltered, recoverable, micrograms per liter				
77356	4-Isopropyltoluene, water, unfiltered, recoverable, micrograms per liter				
77424	Iodomethane, water, unfiltered, recoverable, micrograms per liter				
77443	1,2,3-Trichloropropane, water, unfiltered, recoverable, micrograms per liter				
77562	1,1,1,2-Tetrachloroethane, water, unfiltered, recoverable, micrograms per liter				
77613	1,2,3-Trichlorobenzene, water, unfiltered, recoverable, micrograms per liter				
77651	1,2-Dibromoethane, water, unfiltered, recoverable, micrograms per liter				
77652	1,1,2-Trichloro-1,2,2-trifluoroethane, water, unfiltered, recoverable, micrograms per liter	0.05			
78032	Methyl tert-butyl ether, water, unfiltered, recoverable, micrograms per liter				
78109	3-Chloropropene, water, unfiltered, recoverable, micrograms per liter				
78133	Isobutyl methyl ketone, water, unfiltered, recoverable, micrograms per liter				
81552	Acetone, water, unfiltered, recoverable, micrograms per liter				
81555	Bromobenzene, water, unfiltered, recoverable, micrograms per liter				
81576	Diethyl ether, water, unfiltered, recoverable, micrograms per liter				
81577	Diisopropyl ether, water, unfiltered, recoverable, micrograms per liter				
81593	Methyl acrylonitrile, water, unfiltered, recoverable, micrograms per liter				
81595	Ethyl methyl ketone, water, unfiltered, recoverable, micrograms per liter				
81597	Methyl methacrylate, water, unfiltered, recoverable, micrograms per liter				
81607	Tetrahydrofuran, water, unfiltered, recoverable, micrograms per liter				
82081	C-13/C-12 ratio, water, unfiltered, per mil				
82082	Deuterium/Protium ratio, water, unfiltered, per mil		-54.5	-73.2	-62.6
82085	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil		-7.28	-9.03	-7.94
82303	Rn-222, water, unfiltered, picocuries per liter				

Source: USGS California Water Science Center.

**Water Quality Data for Selected RCWD Production Wells  
Well Nos. 203, 210, and 234  
2012**

Code	Parameter	MCL	No. 203 8/22/2012	No. 210 8/22/2012	No. 234 8/21/2012
	Sampling date				
82346	Ethion, water, filtered, recoverable, micrograms per liter				
82625	1,2-Dibromo-3-chloropropane, water, unfiltered, recoverable, micrograms per liter				
82630	Metribuzin, water, filtered, recoverable, micrograms per liter				
82660	2,6-Diethylamine, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				
82661	Trifluralin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				
82662	Dimethoate, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				
82664	Phorate, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				
82667	Methyl parathion, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				
82670	Tebuthiuron, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				
82673	Benfluralin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				
82675	Terbufos, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				
82676	Propyzamide, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				
82680	Carbaryl, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				
82682	DCPA, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				
82683	Pendimethalin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				
82686	Azinphos-methyl, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				
82687	cis-Permethrin, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter				
85795	m-Xylene plus p-xylene, water, unfiltered, recoverable, micrograms per liter				
90095	Specific conductance, water, unfiltered, laboratory, microsiemens per centimeter at 25 degrees Celsius		739	852	967
90851	Triholomehtanes, water, unfiltered, calcd, micrograms per liter				
90867	Triholomehtanes, water, unfiltered, calcd, micrograms per liter				
99583	Bisphenol A-d3, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery				
99584	Caffeine-13C, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery				
99585	Decafluorobiphenyl, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery				
99586	Fluoranthene-d10, surrogate, Schedule/lab code 2033/8033, water, filtered, percent recovery				
99832	1,2-Dichloroethane-d4, surrogate, Schedule 2090, water, unfiltered, percent recovery				
99833	Toluene-d8, surrogate, Schedule 2090, water, unfiltered, percent recovery				
99834	1-Bromo-4-fluorobenzene, surrogate, VOC schedules, water, unfiltered, percent recovery				
99994	Diazinon-d10, surrogate, Schedule 2003, water, filtered, percent recovery				
99995	alpha-HCH-d6, surrogate, Schedule 2003, water, filtered, percent recovery				

Notes:

U.S. EPA STORET numbers for MCLs correspond to the same as the USGS NWIS data parameter number except as follows:

- (a) MCL shown for U.S. EPA STORET No. 620.
- (b) MCL shown for U.S. EPA STORET No. 951.
- (c) MCL shown for U.S. EPA STORET No. 1002.
- (d) MCL shown for U.S. EPA STORET No. 1007.
- (e) MCL shown for U.S. EPA STORET No. 1012.
- (f) MCL shown for U.S. EPA STORET No. 1027.
- (g) MCL shown for U.S. EPA STORET No. 1034.
- (h) MCL shown for U.S. EPA STORET No. 1042.
- (i) MCL shown for U.S. EPA STORET No. 1059.
- (j) MCL shown for U.S. EPA STORET No. 1067.
- (k) MCL shown for U.S. EPA STORET No. 1077.
- (l) MCL shown for U.S. EPA STORET No. 1092.
- (m) MCL shown for U.S. EPA STORET No. 1097.
- (n) MCL shown for U.S. EPA STORET No. 1105.
- (o) MCL shown for U.S. EPA STORET No. 1147.
- (p) MCL shown for U.S. EPA STORET No. 34247.
- (q) MCL shown for U.S. EPA STORET No. 71850.

Code--Data parameter number used in USGS National Water Information System (NWIS).

E--Estimated.

M--Presence verified but not quantified.

MCL--Maximum Contaminant Level reported by California DHS (May 25, 2007 Database) for U.S. EPA STORET number.

V--Biased results from contamination.

**ANNUAL REPORT**

**COOPERATIVE WATER RESOURCE  
MANAGEMENT AGREEMENT**

**CALENDAR YEAR 2013**

**APPENDIX F**

**WATER QUALITY DATA FOR  
MWD AQUEDUCT NO. 5 DISCHARGE AT OUTLET WR-34**



**Water Quality Data for MWD Aqueduct No. 5 Discharge at Outlet WR-34  
RCWD Water Quality Sampling Station No. WR-34  
Data Collected by RCWD**

Parameter	WR-34 5/30/2012	WR-34 7/12/2012	WR-34 8/28/2012	WR-34 9/18/2012	WR-34 11/1/2012	WR-34 12/21/2012	WR-34 1/24/2013
Sampling Date							
Dissolved Oxygen, milligrams per liter							
pH, standard units							
Total Dissolved Solids, milligrams per liter	470	390	350	390	310	320	330
Specific Conductance, microsiemens per centimeter at 25 degrees Celsius							
Temperature, water, degrees Celsius							
Aluminum, micrograms per liter	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Ammonia, milligrams per liter as nitrogen							
Antimony, micrograms per liter							
Arsenic, micrograms per liter							
Barium, micrograms per liter							
Beryllium, micrograms per liter							
Bicarbonate as HCO <sub>3</sub> , milligrams per liter	130		100		100	96	100
Carbonate as CO <sub>3</sub> , milligrams per liter	< 3.0		< 3.0		< 3.0	< 3.0	< 3.0
Chloride, milligrams per liter							
Cyanide, milligrams per liter							
Fluoride, milligrams per liter							
Hydroxide as OH, milligrams per liter	< 3.0	< 0.2	< 3.0	< 0.2	< 3.0	< 3.0	< 3.0
Inorganic Nitrogen, milligrams per liter			< 0.2	< 0.2	0.27	< 0.20	< 1.0
Kjeldahl Nitrogen, milligrams per liter	0.48	0.41	0.23	0.58	0.35	0.32	0.28
Lead, micrograms per liter							
Mercury, micrograms per liter							
Nickel, micrograms per liter							
Nitrate Nitrogen, milligrams per liter	< 0.20	< 0.20	< 0.20	< 0.20	0.27	< 0.20	< 1.0
Nitrite Nitrogen, milligrams per liter	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nitrogen (Total), milligrams per liter		0.41		0.58			
Organic Nitrogen, milligrams per liter		0.4		0.6			
Ortho Phosphate Phosphorus, milligrams per liter	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	0.050	< 0.050
Perchlorate, micrograms per liter							
Phosphorus (Total), milligrams per liter		< 0.05					
Selenium, micrograms per liter							
Silver, micrograms per liter							
Sulfate, milligrams per liter							
Thallium, micrograms per liter							
Total Alkalinity as CaCO <sub>3</sub> , milligrams per liter	100		84		82	79	85
Total Chromium, micrograms per liter							
Total Suspended Solids, milligrams per liter							

**Water Quality Data for MWD Aqueduct No. 5 Discharge at Outlet WR-34  
RCWD Water Quality Sampling Station No. WR-34  
Data Collected by RCWD**

Parameter	WR-34 2/11/2013	WR-34 3/5/2013	WR-34 4/12/2013	WR-34 5/15/2013	WR-34 6/12/2013	WR-34 7/11/2013	WR-34 8/6/2013
Sampling Date							
Dissolved Oxygen, milligrams per liter							
pH, standard units							
Total Dissolved Solids, milligrams per liter	390	350	480	500	620	580	710
Specific Conductance, microsiemens per centimeter at 25 degrees Celsius							
Temperature, water, degrees Celsius							
Aluminum, micrograms per liter							
Ammonia, milligrams per liter as nitrogen	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.11	< 0.10
Antimony, micrograms per liter							
Arsenic, micrograms per liter							
Barium, micrograms per liter							
Beryllium, micrograms per liter							
Bicarbonate as HCO <sub>3</sub> , milligrams per liter	110	110	130	130	140	140	59
Carbonate as CO <sub>3</sub> , milligrams per liter	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chloride, milligrams per liter							
Cyanide, milligrams per liter							
Fluoride, milligrams per liter							
Hydroxide as OH, milligrams per liter	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Inorganic Nitrogen, milligrams per liter	< 0.20	0.27	< 0.20	0.20	0.20	< 0.20	< 0.20
Kjeldahl Nitrogen, milligrams per liter	0.20	0.79	< 0.10	0.31	0.33	0.35	0.38
Lead, micrograms per liter							
Mercury, micrograms per liter							
Nickel, micrograms per liter							
Nitrate Nitrogen, milligrams per liter	< 0.20	0.27	< 0.20	0.20	0.20	< 0.20	< 0.20
Nitrite Nitrogen, milligrams per liter	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nitrogen (Total), milligrams per liter							
Organic Nitrogen, milligrams per liter							
Ortho Phosphate Phosphorus, milligrams per liter	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Perchlorate, micrograms per liter							
Phosphorus (Total), milligrams per liter							
Selenium, micrograms per liter							
Silver, micrograms per liter							
Sulfate, milligrams per liter							
Thallium, micrograms per liter							
Total Alkalinity as CaCO <sub>3</sub> , milligrams per liter	90	87	110	110	110	110	48
Total Chromium, micrograms per liter							
Total Suspended Solids, milligrams per liter							



**Water Quality Data for MWD Aqueduct No. 5 Discharge at Outlet WR-34  
RCWD Water Quality Sampling Station No. WR-34  
Data Collected by RCWD**

Parameter	WR-34 9/11/2013	WR-34 10/3/2013	WR-34 11/14/2013	WR-34 12/12/2013
Sampling Date				
Dissolved Oxygen, milligrams per liter				
pH, standard units				
Total Dissolved Solids, milligrams per liter	630	550	540	580
Specific Conductance, microsiemens per centimeter at 25 degrees Celsius				
Temperature, water, degrees Celsius				
Aluminum, micrograms per liter				
Ammonia, milligrams per liter as nitrogen	< 0.10	< 0.059	< 0.10	< 0.10
Antimony, micrograms per liter				
Arsenic, micrograms per liter				
Barium, micrograms per liter				
Beryllium, micrograms per liter				
Bicarbonate as HCO3, milligrams per liter	140	89	140	150
Carbonate as CO3, milligrams per liter	< 3.0	< 1.7	< 3.0	< 3.0
Chloride, milligrams per liter				
Cyanide, milligrams per liter				
Fluoride, milligrams per liter				
Hydroxide as OH, milligrams per liter	< 3.0	< 1.7	< 3.0	< 3.0
Inorganic Nitrogen, milligrams per liter	< 0.20	< 0.11	< 0.20	< 0.20
Kjeldahl Nitrogen, milligrams per liter	0.26	0.28	0.36	0.28
Lead, micrograms per liter				
Mercury, micrograms per liter				
Nickel, micrograms per liter				
Nitrate Nitrogen, milligrams per liter	< 0.20	< 0.11	< 0.20	< 0.20
Nitrite Nitrogen, milligrams per liter	< 0.10	< 0.017	< 0.10	< 0.10
Nitrogen (Total), milligrams per liter				
Organic Nitrogen, milligrams per liter				
Ortho Phosphate Phosphorus, milligrams per liter	< 0.050	< 0.0028	< 0.050	< 0.050
Perchlorate, micrograms per liter				
Phosphorus (Total), milligrams per liter		< 0.01		
Selenium, micrograms per liter				
Silver, micrograms per liter				
Sulfate, milligrams per liter				
Thallium, micrograms per liter				
Total Alkalinity as CaCO3, milligrams per liter	110	73	120	120
Total Chromium, micrograms per liter				
Total Suspended Solids, milligrams per liter				

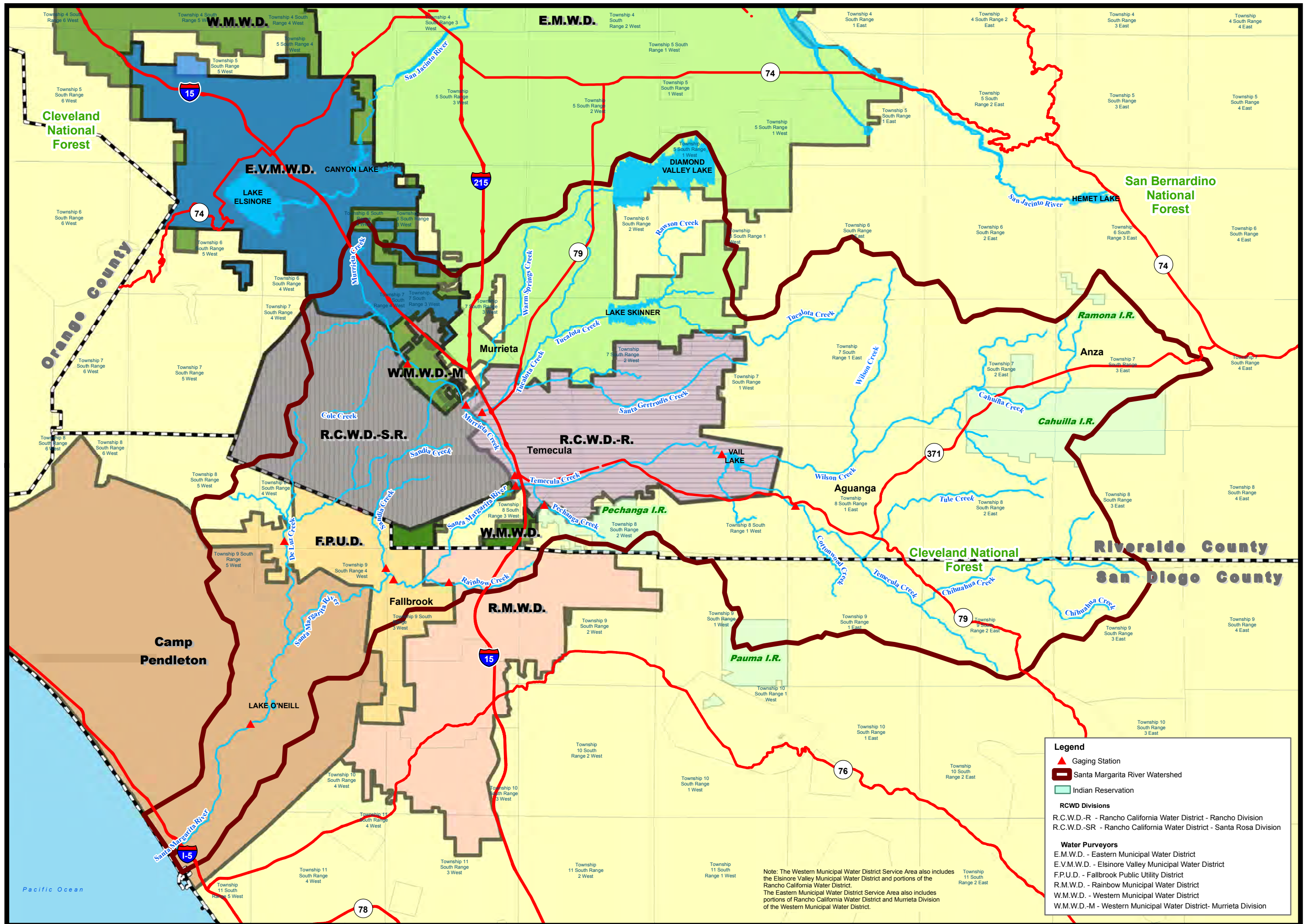
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Map Produced by:  
 Rancho California Water District  
 Geographic Information Systems  
 March 2009



1 inch = 4 miles  
 0 0.5 1 2 3 Miles



**Legend**

- Gaging Station
- Santa Margarita River Watershed
- Indian Reservation

**RCWD Divisions**

- R.C.W.D.-R - Rancho California Water District - Rancho Division
- R.C.W.D.-SR - Rancho California Water District - Santa Rosa Division

**Water Purveyors**

- E.M.W.D. - Eastern Municipal Water District
- E.V.M.W.D. - Elsinore Valley Municipal Water District
- F.P.U.D. - Fallbrook Public Utility District
- R.M.W.D. - Rainbow Municipal Water District
- W.M.W.D. - Western Municipal Water District
- W.M.W.D.-M - Western Municipal Water District- Murrieta Division

Note: The Western Municipal Water District Service Area also includes the Elsinore Valley Municipal Water District and portions of the Rancho California Water District.  
 The Eastern Municipal Water District Service Area also includes portions of Rancho California Water District and Murrieta Division of the Western Municipal Water District.

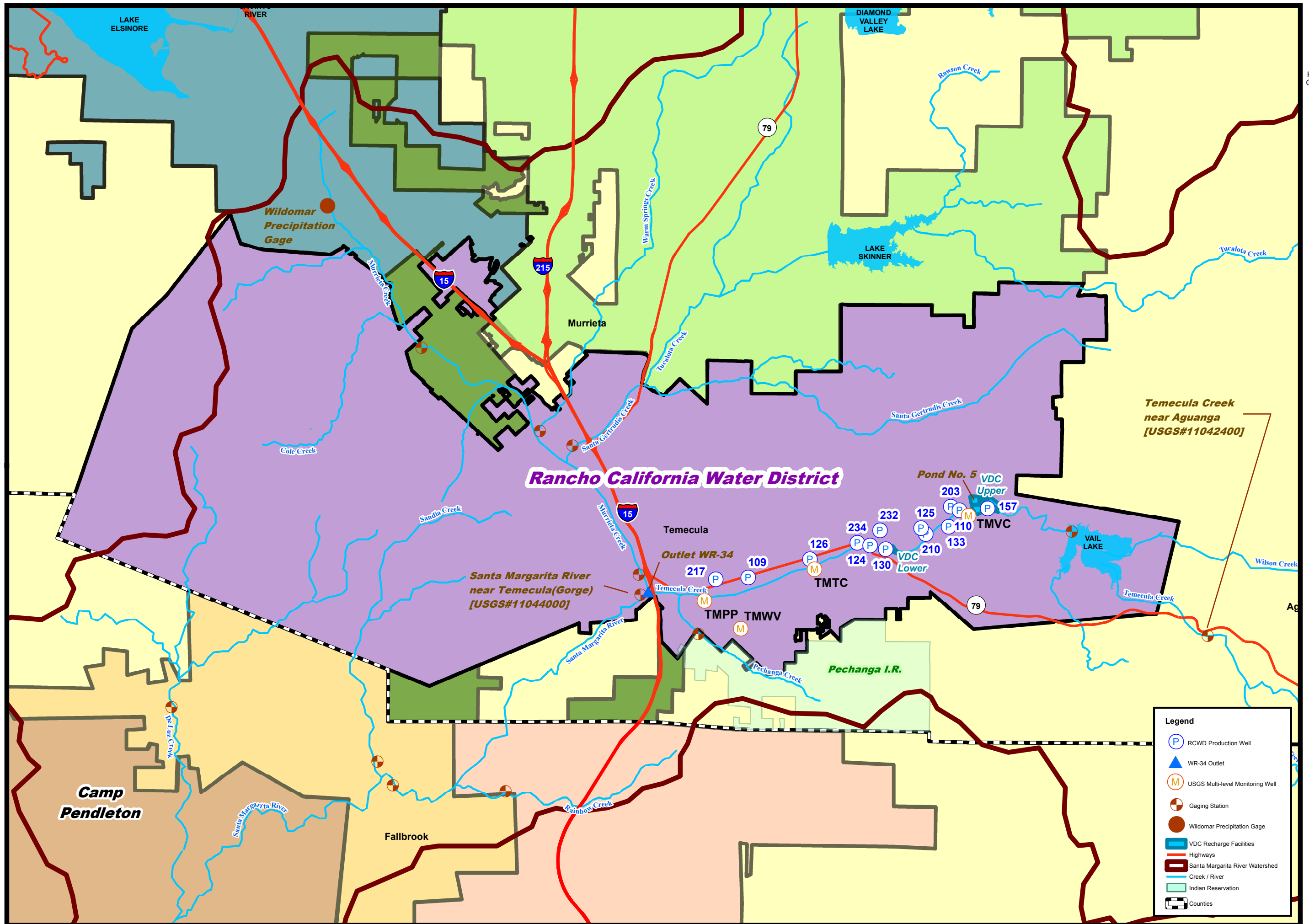
# Major Water Purveyors

## Santa Margarita River Watershed Watermaster





Map Produced by:  
 Rancho California Water District  
 Geographic Information Systems  
 February 2014



**Legend**

- RCWD Production Well
- WR-34 Outlet
- USGS Multi-Level Monitoring Well
- Gaging Station
- Wildomar Precipitation Gage
- VDC Recharge Facilities
- Highways
- Santa Margarita River Watershed
- Creek / River
- Indian Reservation
- Counties

# CWRMA Location Map