ANNUAL REPORT

COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT

CALENDAR YEAR 2019

JULY 2020

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

WATERMASTER
SANTA MARGARITA RIVER WATERSHED
169 Parkshore Drive, Suite 110
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July 14, 2020

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 2019

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 2019. 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 2019. 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,

Michael J. Preszler, P.E.
Watermaster

MJP
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TABLE OF CONTENTS

PAGE NO.

LIST OF TABLES

Page No.

LIST OF FIGURES

Page No.

APPENDICES

MAPS

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 2019

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 2019, regularly scheduled quarterly TAC meetings were conducted on January 15, April 23, and July 16. Upon agreement by the parties, the quarterly meeting normally held in October was not deemed necessary and not held.

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 2019 include continuation of the California Statewide Groundwater Elevation Monitoring (CASGEM) program and the Sustainable Groundwater Management Act (SGMA).

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 upon stipulated 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 implementation of 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 Water 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 Water 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 1st of each year. The Minimum 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.

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 1st 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 1st…, 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 1st. "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 1st accounting of the prior year" **[§5(a)]**.

The hydrologic condition for 2019 was determined in accordance with CWRMA procedures as reported in the May 1, 2019 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 2019 resulted in the classification of the hydrologic condition as a Above Normal hydrologic year and thus the Minimum Daily Flow Requirements for 2019 are shown in Table 2 under the column heading for "Above Normal" hydrologic year. The determinations of the hydrologic conditions for the years 2003 through 2019 are summarized on Table 3.

2.4 Annual Accounting for 2019 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 annual accounting for the 2019 CWRMA operations is documented in the May 29, 2020 memorandum prepared by Stetson Engineers, Inc., as provided in Appendix B-1. The memorandum provides a description of the operations during 2019, 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 2019, the parties reached agreement to modify normal operations to minimize CAP credits for the year. This modification and the e-mail communications between the parties to reach agreement on the modification are provided in Appendix B-2.

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

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)

Calendar Year	Hydrologic Condition
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
2014	Below Normal
2015	Below Normal
2016	Below Normal
2017	Above Normal
2018	Critically Dry
2019	Above Normal

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(b) 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 1st accounting of the prior year." The Minimum Daily Flow Requirement for the 2019 winter period was determined to be 4.6 cfs (11.5 – 6.9 cfs in Credits), as documented in the annual accounting for the 2018 CWRMA operations (April 23, 2019 memorandum prepared by Stetson Engineers, Inc.).

A summary of the annual accounting for the 2019 CWRMA operations is shown on Table 4. During Calendar Year 2019, the total releases by the District to meet CWRMA flow requirements were 3,720.0 acre feet. All water was released from the raw water source 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 2019, there were 74 days when the 10-day running average was less than the required flow under normal CWRMA operations.

The Minimum Daily Flow Requirement for the 2020 winter period is determined as part of the annual accounting for the 2019 CWRMA operations. As described on Page 1, Appendix B-1, the Minimum Daily Flow Requirement at the Gorge during the 2020 winter period is determined to be 11.5 cfs.

Table 4

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

2019 Calendar Year - Above Normal 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	Camp Pendleton Groundwater Bank 6/ Cumulative Balance AF
January	1,769.3	1,748.8	4.6	17.8	3	97.1	0.0	424.7	5000.0
February	18,742.7	18,860.4	4.6	17.8	0	1.3	0.0	383.6	5000.0
March	1,433.7	1,402.5	4.6	17.8	0	30.6	0.0	424.7	5000.0
April	284.0	284.1	4.6	17.8	14	203.7	0.0	411.0	5000.0
May	662.9	662.6	11.5	11.7	18	474.6	0.0	12.4	5000.0
June	548.7	548.8	9.4	9.4	9	462.2	0.0	0.0	5000.0
July	469.3	481.1	7.8	7.8	0	432.3	0.0	0.0	5000.0
August	461.2	469.2	7.6	7.6	0	445.7	0.0	0.0	5000.0
September	439.2	434.8	7.4	7.4	10	408.5	0.0	0.0	5000.0
October	466.2	466.2	7.7	7.7	17	460.4	0.0	0.0	5000.0
November	2,089.8	2,089.8	8.8	8.8	0	452.3	0.0	0.0	5000.0
December	2,822.4	2,810.4	8.8	10.4	3	251.3	0.0	99.2	5000.0
TOTAL	**30,189.4**	**30,258.7**			**74**	**3,720.0**	**0.0**	**1,755.6**	**FULL**

1/ Required flows for January through April are equal to 11.5 cfs less 6.9 cfs of credits (1,107 AF of Climatic Credit earned in 2018 plus 534 AF CAP Credit remaining from 2017).

2/ December 2019 flow requirement reduced from 10.4 cfs to 8.8 per Camp Pendleton's request to forego water.

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 2018.

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. Climatic Credits of 1,107 earned in 2018.

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.

2.5 Climatic Credits

Section 5(b) 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 1st. 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 1st, 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, no Climatic Credits were earned by the District in 2019. 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, no CAP Credits were earned by the District in 2019. 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 2019 as 1,755.6 acre feet earned through determining the difference between actual and required flow requirements during the winter period, as well as foregone water. 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 and is available at the following website:

http://www.usbr.gov/lc/socal/reports/SMMonitoringFinalReport.pdf

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, 2019, 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, 2019, 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 is 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). In April 2013, the Temecula Creek Groundwater Monitoring Well was drilled to a depth of 1,720 feet, and was completed with five piezometers. The piezometric head for the five piezometers for the Temecula Creek Groundwater Monitoring Well for the period September 28, 2013 through December 31, 2019, is shown on Figure 3. In August 2013, the VDC Recharge Basin Groundwater Monitoring Well was drilled to a depth of 1,033 feet, and was completed with six piezometers. The piezometric head for the four active piezometers for the VDC Recharge Basin Groundwater Monitoring Well for the period April 24, 2014 through December 31, 2019, is shown on Figure 4.

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 is provided in Appendix C-3 and Appendix C-4, respectively.

Figure 1
Piezometric Head for Multiple Depth Monitoring Well
Pala Park Well (8S/2W-19A1-6)
December 27, 2006 through December 31, 2019

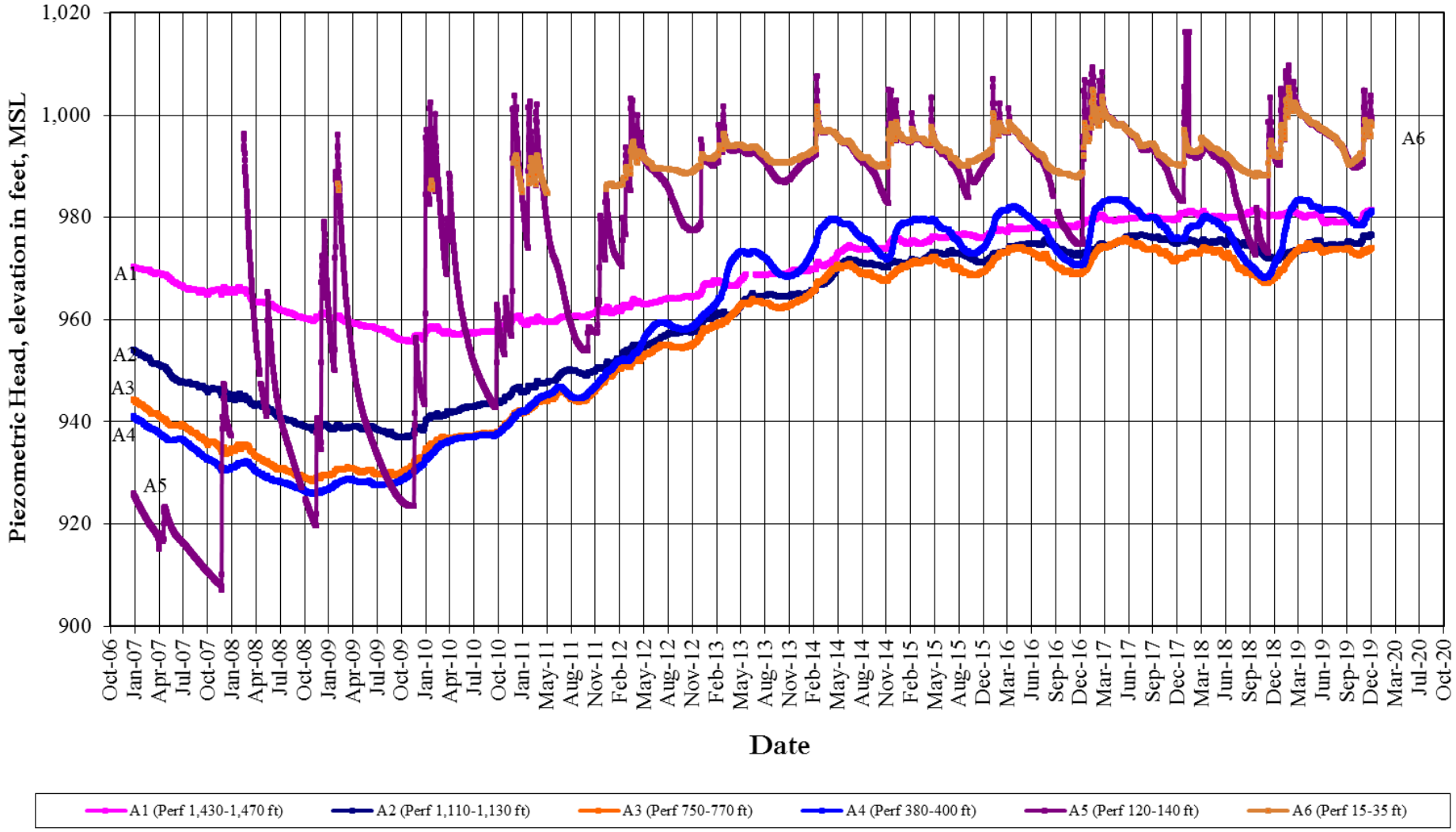


Figure 2
Piezometric Head for Multiple Depth Monitoring Well
Wolf Valley Well (8S/2W-20J1-2)
March 5, 1990 through December 31, 2019

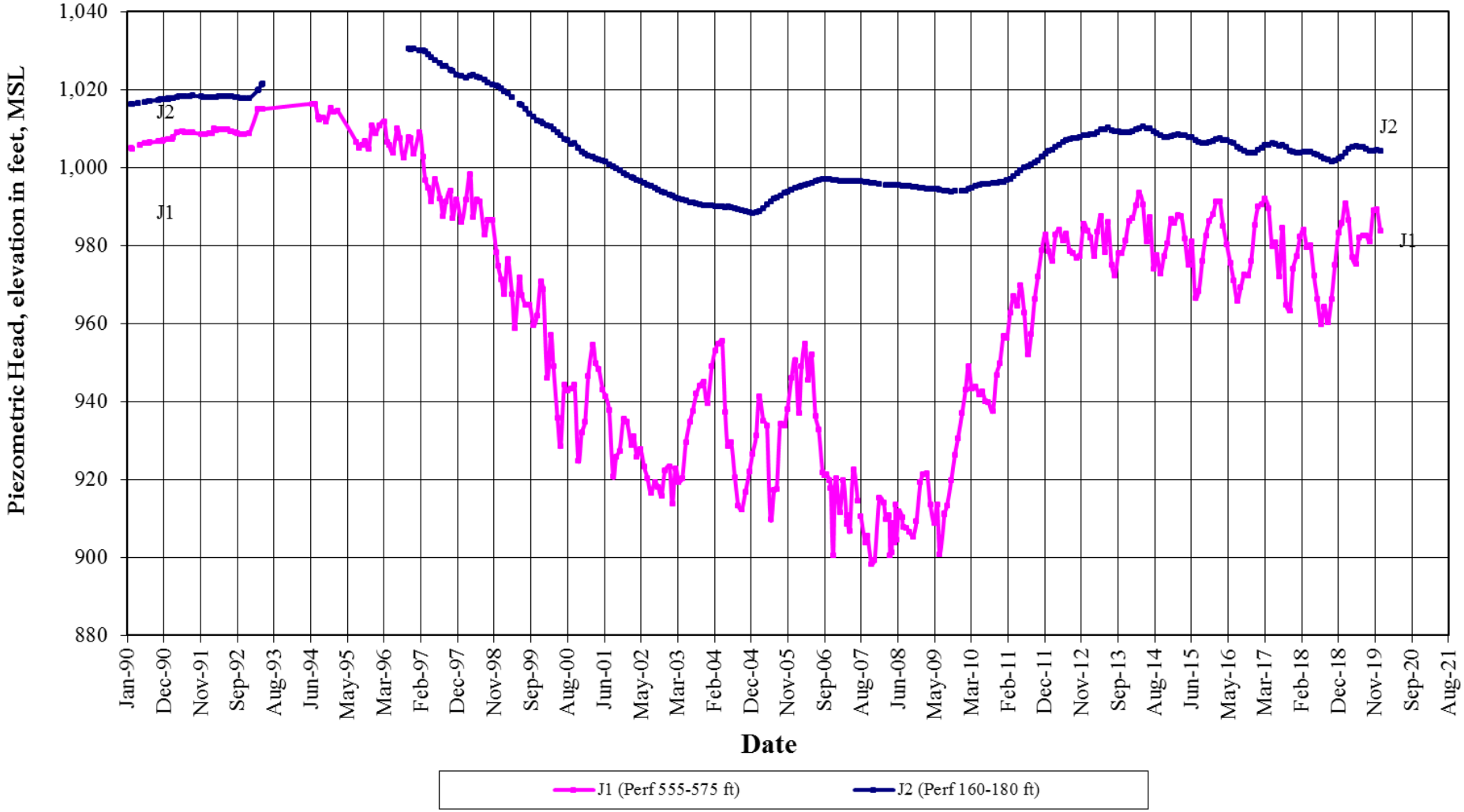


Figure 3
Piezometric Head for Multiple Depth Monitoring Well
Temecula Creek Well (8S/2W-15F1-5)
September 28, 2013 through December 31, 2019

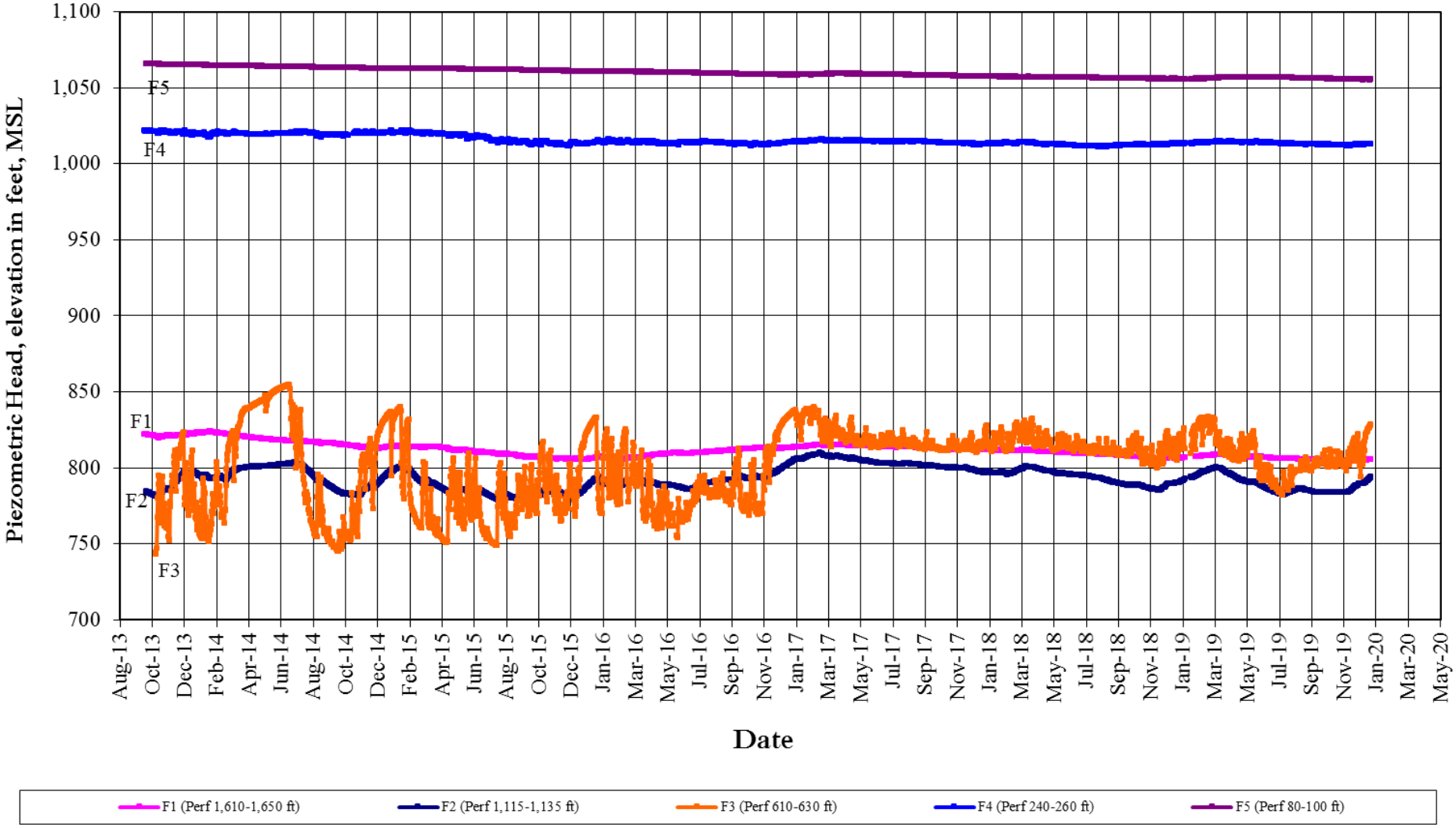
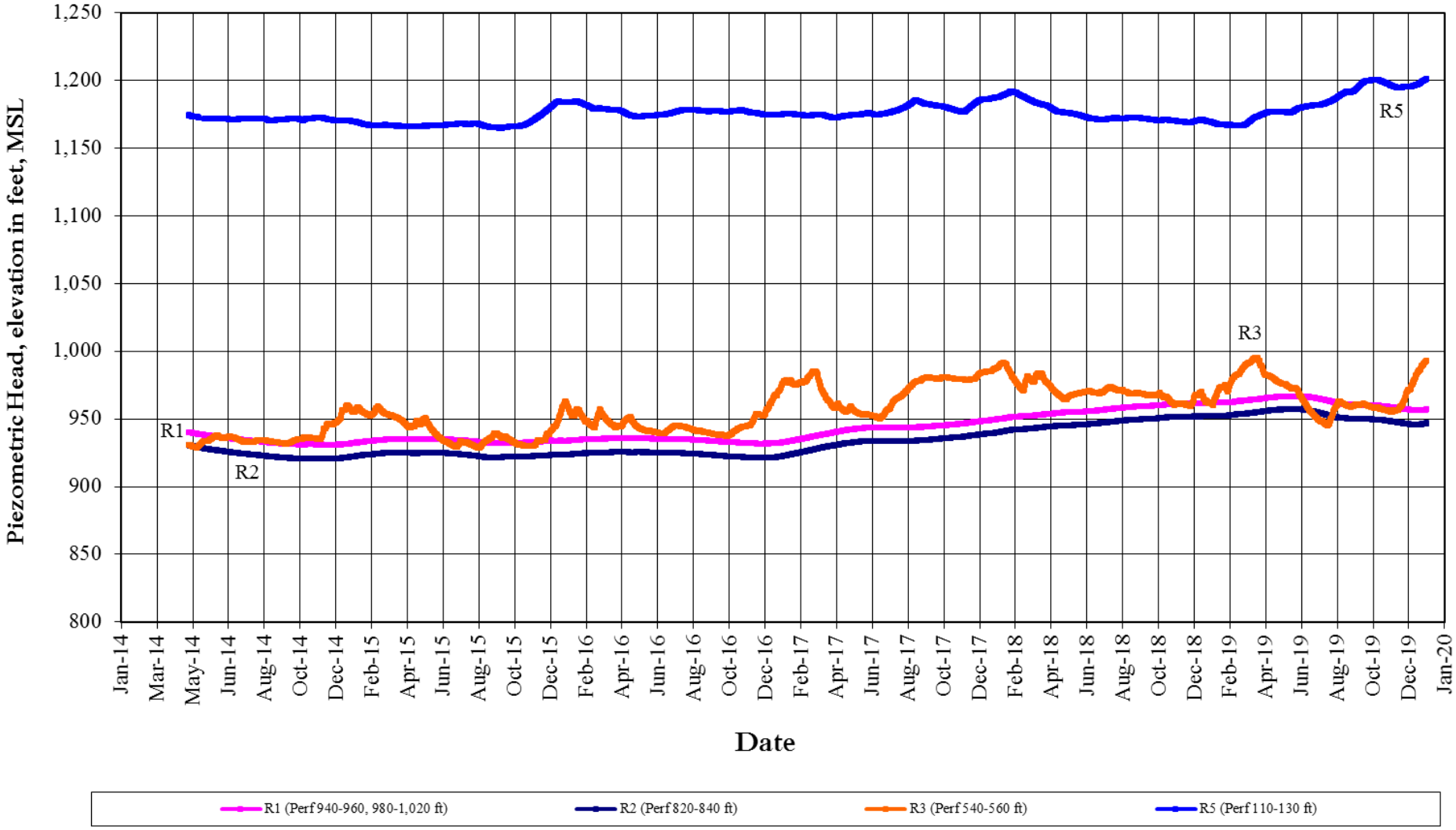


Figure 4
Piezometric Head for Multiple Depth Monitoring Well
VDC Recharge Basin Well (8S/1W-6R1-6)
April 24, 2014 through December 31, 2019



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&amp

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 are included in Appendix C-1. Water quality data was collected in one or more of the piezometers between 2006 and 2011. 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 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.

Water quality data for the Temecula Creek Groundwater Monitoring Well are included in Appendix C-3. The water quality data include samples collected in 2013 and 2014. The samples collected in 2013 were included as part of construction of the well. Data for 2014 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-3.

Water quality data for the VDC Recharge Basin Groundwater Monitoring Well are included in Appendix C-4. The water quality data include samples collected in 2013 and 2014. The samples collected in 2013 were included as part of construction of the well. Data for 2014 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-4.

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 May 16, 2017 are provided in Appendix D-2. The Vail Lake sampling program was suspended from June 22, 2013 until October 31, 2015. The sampling event on October 31, 2015 was the only sampling for 2015. 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, were analyzed in 2014 for tritium and carbon isotopes. The water quality data tabulation for 2012 shown in Appendix E has been updated to include the age-dating results for Well Nos. 109 and 234.

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 16, 2019, 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 in 2012. 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 was completed in 2014 and 2015 with publication of the April 25, 2014 (revised January 8, 2015) report prepared by GEOSCIENCE Support Services, Inc., entitled Surface and Ground Water Model of the Murrieta-Temecula Ground Water Basin, California, Model Update and Refinement Report. The model update included the following: (1) development of GSFLOW which is a coupled surface water and groundwater model that includes a Precipitation-Runoff Modeling System (PRMS) and MODFLOW, (2) refinement of the groundwater model cell size, active/inactive boundaries and locations of recharge and discharge, (3) development of a three-dimensional lithologic model based on lithologic and geophysical borehole logs from wells in the area, (4) refinement of groundwater model layer elevations based on the results from the lithologic model, and (5) update of the surface water and groundwater model with data through 2008. The CWRMA Groundwater Model was again updated in 2017. The 2017 updates included: (1) revision of depth of model layer 1 (younger alluvium) by incorporating the agreed upon depth and production from younger alluvium for ten RCWD wells, (2) updated land use and model flux terms (pumping and recharge) from the period 1998 through 2014, and (3) GSFLOW model update and recalibration from 1998 through 2014 against observed water level and streamflow data.

7. Other Items Related to CWRMA

Other items of note for 2019 related to CWRMA include the continued implementation of the State of California groundwater elevation monitoring program for the groundwater basin upstream of the Gorge and the California Sustainable Groundwater Management Act. 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 Nos. 9-4 (Santa Margarita Valley) located in the Lower Santa Margarita River and 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. Camp Pendleton was accepted as the monitoring entity for Basin 9-4 on October 14, 2015. Camp Pendleton also developed a CASGEM monitoring plan for Basin 9-4. Additional information for the CASGEM program, the approved monitoring plans, and groundwater monitoring data posted for Basin Nos. 9-4 and 9-5 can be found at the following website:

https://www.water.ca.gov/Programs/Groundwater-Management/Groundwater-Elevation-Monitoring--CASGEM

7.2 Sustainable Groundwater Management Act

On September 16, 2014, Governor Brown signed the California Sustainable Groundwater Management Act (Act or SGMA) that was established as part of a comprehensive three-bill package that includes AB 1739 (Dickinson), SB 1168 (Pavley), and SB 1319 (Pavley) to provide the framework for statewide groundwater management by local authorities. The state agencies charged with administration of the Act are both the Department of Water Resources (DWR) and the State Water Resources Control Board (SWRCB).

The Act pertains to all groundwater basins identified and defined in DWR Bulletin 118. However, the Act includes an exemption for adjudicated basins as provided in §10720.8(a) that specifically lists the Santa Margarita River Watershed as an exempted adjudicated area. Thus, the three Bulletin 118 basins located within the Watershed are not subject to the general requirements of the Act. However, as specified in §10720.8(f), the Watermaster must comply with certain requirements under the Act, including reporting to DWR annually, on or before April 1.

As part of the annual reporting requirements, the Watermaster submits to DWR copies of the Annual Watermaster Report and the Annual CWRMA Report to provide information for the DWR Bulletin No. 118 basins within the Watershed. In addition, the groundwater monitoring data for the basins under the CASGEM Program fulfills a portion of the reporting requirements specified in §10720.8(f)(3)(A).

ANNUAL REPORT

COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT

CALENDAR YEAR 2019

APPENDIX A

HYDROLOGIC CONDITION DETERMINATION

FINAL DRAFT TECHNICAL MEMORANDUM 042319.1

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: May 1, 2019

FROM: Stetson Engineers JOB NO: 2628-1002

RE: Hydrologic Conditions in the Santa Margarita River Watershed for the 2019 Calendar Year

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, 2019 through December 31, 2019.

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 2018 through April 2019. Daily rainfall for October 1, 2018 through April 30, 2019 at Wildomar was available from the Riverside County Flood Control and Water Conservation District website at http://www.floodcontrol.co.riverside.ca.us/data/246.ytd.txt

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 2018 through April 30, 2019, 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]

Month	Precipitation (in)
Oct-18	1.13
Nov-18	0.97
Dec-18	1.68
Jan-19	3.20
Feb-19	7.30
Mar-19	1.61
Apr-19	0.09
Water Year Total	15.98

Source: Riverside County Flood Control and Water Conservation District (May 1, 2019).

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

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	
1	0.0	0.0	0.0	0.0	4.2	31.1	10.6	
2	0.0	0.0	0.0	0.0	4.9	39.3	10.2	
3	0.0	0.0	0.0	0.0	21.4	52.2	10.0	
4	0.0	0.0	0.0	0.0	67.4	41.9	10.0	
5	0.0	0.0	0.0	0.0	224.1	35.1	10.1	
6	0.0	0.0	0.0	0.0	92.6	33.7	9.9	
7	0.0	0.0	0.0	0.4	33.9	37.1	9.5	
8	0.0	0.0	0.0	0.8	19.6	33.5	9.1	
9	0.0	0.0	0.0	0.8	13.6	30.5	8.8	
10	0.0	0.0	0.0	0.8	10.1	28.2	8.5	
11	0.0	0.0	0.0	0.8	12.0	26.6	8.4	
12	0.0	0.0	0.0	0.9	8.4	30.0	8.4	
13	0.0	0.0	0.0	1.0	7.5	25.6	8.2	
14	0.0	0.0	0.0	1.2	*1,666.1*	23.2	7.9	
15	0.0	0.0	0.0	2.4	*376.9*	21.6	7.7	
16	0.0	0.0	0.0	3.5	149.4	20.4	7.7	
17	0.0	0.0	0.0	4.6	97.8	19.1	7.8	
18	0.0	0.0	0.0	19.0	78.0	18.2	7.5	
19	0.0	0.0	0.0	8.4	57.9	17.5	7.4	
20	0.0	0.0	0.0	5.3	54.3	17.0	7.3	
21	0.0	0.0	0.0	4.1	67.4	18.6	7.3	
22	0.0	0.0	0.0	3.4	54.0	16.9	7.3	
23	0.0	0.0	0.0	3.1	48.4	15.6	7.0	
24	0.0	0.0	0.0	2.9	44.2	14.8	6.6	
25	0.0	0.0	0.0	2.8	39.7	14.1	6.5	
26	0.0	0.0	0.0	2.6	37.5	13.6	6.3	
27	0.0	0.0	0.0	2.3	35.5	13.0	6.2	
28	0.0	0.0	0.0	2.3	33.5	12.4	6.3	
29	0.0	0.0	0.0	2.2		12.2	6.5	
30	0.0	0.0	0.0	2.1		11.6	7.0	
31	0.0		0.0	2.7		11.1		
								TOTAL
Total	0.0	0.0	0.0	80.4	3,360.3	735.7	242.0	**4,418.4**
Mean	0.0	0.0	0.0	2.6	86.0	23.7	8.5	**16.4**
Maximum	0.0	0.0	0.0	19.0	892.6	52.2	10.6	**892.6**
Minimum	0.0	0.0	0.0	0.0	4.2	11.1	7.9	**0.0**

Source: USGS Station #11042400 (http://waterdata.usgs.gov/nwis/dv). Data downloaded 5/1/19. Data from December 11, 2018 through April 30, 2019 are provisional. The gage did not report observations between 2/14/19 15:00 PST and 2/15/19 14:45 PST. Discharge on 2/14/19 and 2/15/19 was estimated by Stetson using an interpolated recession hydrograph during the missing period.

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.

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

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.

$$V = 1.38 * S \qquad (2)$$

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.

$$Z = 0.5 * V \qquad (3)$$

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 2019 calendar year are summarized in Table 3. The initial HI was computed as 29,951, which falls in the Above Normal category. According to Figure C-1 in the CWRMA, Above Normal hydrologic conditions are defined as years in which the HI is greater than 14,510 acre-feet but less than 47,810 acre-feet. Because 2018 was classified as a Critically Dry year and 2019 was initially classified as Above Normal, an antecedent condition correction was applied per the instructions in CWRMA Exhibit C. After subtracting 10,000 from the initial HI, the corrected HI is 19,951, which remains within the Above Normal hydrologic category. The HI for 2019 is Above Normal.

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 2019 for an Above Normal year are listed in Table 4.

TABLE 3. HYDROLOGIC INDEX CALCULATIONS
CALENDAR YEAR 2019

Month	[1] Precipitation at Wildomar [inch]	[2] Natural Flow at Murrieta [Acre-Feet]	[3] Observed Flow at Aguanga [Acre-Feet]	[4] Calculated Flow at Vail Lake [Acre-Feet]	[5] Estimated Contributions from Pauba and Wolf Valleys [Acre-Feet]	[6] Hydrologic Index [Acre-Feet]
Oct 2018	1.13	0.0	0.0	0.0	0.0	0.0
Nov 2018	0.97	0.0	0.0	0.0	0.0	0.0
Dec 2018	1.68	0.0	0.0	0.0	0.0	0.0
Jan 2019	3.20	850.1	80.4	111.0	55.5	1,016.6
Feb 2019	7.30	19,954.4	3,360.3	4,637.2	2,318.6	26,910.2
Mar 2019	1.61	0.0	735.7	1,015.3	507.7	1,523.0
Apr 2019	0.09	0.0	242.0	334.0	167.0	501.0
Totals	15.98	20,804.5	4,418.4	6,097.5	3,048.8	29,950.8
					Initial Classification for 2019:	AN
					Classification for Previous Year, 2018:	CD
					Antecedent Condition Correction:	-10,000.0
					Corrected HI:	**19,950.8**
					2019 Classification:	**AN**

Notes: [1] Precipitation at Wildomar Station #246 from Riverside County Flood Control and Water Conservation District (May 1, 2019).

[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 = $(9.068-34.798 * [1] + 11.339 * [1]^2) * (86400/43560) *$ (days in month)

[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

An antecedent correction factor applies to the initial value computed in column [6] under the following conditions:

- If the hydrologic index is initially classified as Above Normal and the previous year was Critically Dry, subtract 10,000 from the initial value.
- If the hydrologic index is initially classified as Below Normal and the previous year was Above Normal or Very Wet, add 2,200 to the initial value.

TABLE 4. ACTUAL FLOW REQUIREMENT AT THE GORGE FOR CALENDAR YEAR 2019

Above Normal Hydrologic Year

Month	2/3 Natural Flow at the Gorge [1] [cfs]	Actual Flow Requirement at the Gorge [cfs]
Jan-Apr	17.8	11.5
May	11.7	11.5
June	9.4	9.4
July	7.8	7.8
August	7.6	7.6
September	7.4	7.4
October	7.7	7.7
November	8.8	8.8
December	10.4	10.4

[1] 2/3 Natural flow at the Gorge is based on the median flow during Above Normal conditions from 1931 through 1996.

ANNUAL REPORT

COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT

CALENDAR YEAR 2019

APPENDIX B-1

May 29, 2020 MEMORANDUM FROM STETSON ENGINEERS, INC.

FINAL TECHNICAL MEMORANDUM 043020A.1

785 Grand Avenue, Suite 202 • Carlsbad, California • 92008
TEL: (760) 730-0701 FAX: (415) 457-1638 e-mail: mollyp@stetsonengineers.com

TO: CWRMA Technical Advisory Committee DATE: May 29, 2020

FROM: Stetson Engineers JOB NO: 2628-0002

RE: Summary of Climatic, CAP, and Groundwater Bank Credits as of December 31, 2019

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, 2019. Mr. Rich Ottolini on behalf of Rancho California Water District (District) provided Stetson Engineers with an updated "Tracking Model" on March 30, 2020. Table 1 summarizes the 2003 through 2019 Hydrologic Conditions, Climatic Credits, CAP Credits, and Groundwater Bank Credits either earned or used by the two parties.

Through December 31, 2019, the District earned 0 AF of Climatic Credit due to the Above Normal conditions, and did not earn new CAP credit in 2019. At the end of 2019, the District had no credits to carry over from previous years. 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 1st accounting of the prior year" **[§5(e)]**.

Because no new credits were earned in 2019, and no credits were carried over from previous years, the Minimum Daily Flow Requirement at the Gorge during the 2020 winter period is 11.5 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 2019 were 3,720 AF. In the May 1, 2019 memorandum from Stetson Engineers to the Technical Advisory Committee, the Hydrologic Condition for 2019 was determined to be Above Normal. Camp Pendleton earned 1,756 AF of Groundwater Bank Credit due to maximum flow requirements stipulated in the CWRMA, but did not accrue those credits because the Groundwater Bank balance was already at its maximum value of 5,000 AF at the start of 2019. The streamflow measured at the Gorge was 30,189 AF during the 2019 calendar year. During this period, total releases by the District accounted for 12% of the total flow measured at the Gorge during the Above Normal Hydrologic Conditions of 2019. 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 2003 THROUGH 2019

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

[1] 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.

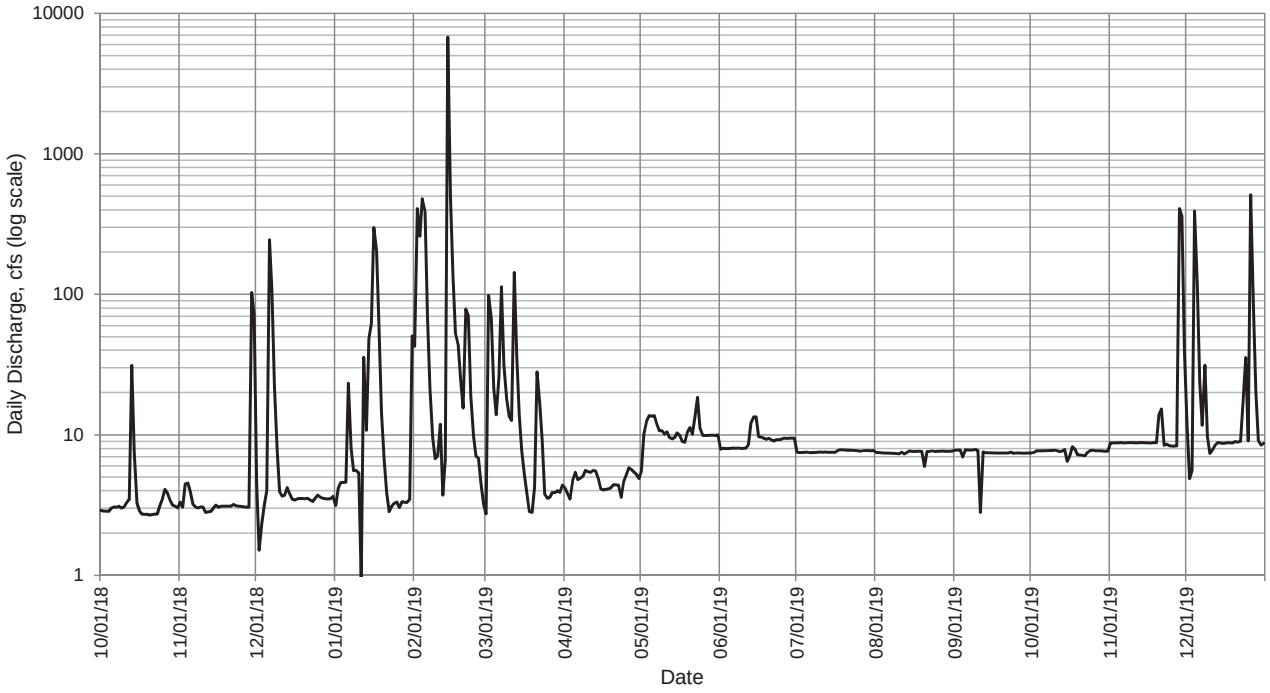
(TABLE CONTINUED ON NEXT PAGE)

TABLE 1. SUMMARY OF CLIMATIC, CAP, AND GROUNDWATER BANK CREDITS 2003 THROUGH 2019 (CONTINUED FROM PREVIOUS PAGE)

	Calendar Year							
Credit	2013	2014	2015	2016	2017	2018	2019	2020
Hydrologic Condition	Critically Dry	Below Normal	Below Normal	Below Normal	Above Normal	Critically Dry	Above Normal	TBD
Previous Year's Climatic Credit (AF)	1,248	406	749	563	623	0	1,107	0
Climatic Credit Used (AF)	1,248	406	749	563	623	0	1,107	0
Climatic Credit Earned (AF)	406	749	563	623	0	1,107	0	n/a
Climatic Credits Remaining (AF)	406	749	563	623	0	1,107	0	n/a
Previous Year's CAP Credit (AF)	148	0	9	4.5	0	1,069	0	0
CAP Credit Used (AF)	148	0	4.5	4.5	0	535	534	0
CAP Credit Earned (AF)	0	9	0	0	1,069	0	0	n/a
CAP Credits Remaining (AF)	0	4.5	4.5	0	1,069	534	0	n/a
Previous Year's Groundwater Bank Credit (AF)	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	n/a
Groundwater Bank Credit Earned (AF)	360	622	756	569	1,944	360	1,756	n/a
Groundwater Bank Credit Remaining (AF)	5,000	5,000	5,000	5,000	5,000	5,000	5,000	n/a
Minimum Required Winter Flow at the Gorge[1] (cfs)	5.6	9.8	8.3	9.1	8.9	9.3	4.6	11.5

[1] Required flow converted to a cfs equivalent for a winter period of 120 days.

Figure 1
Daily Discharge at the Gorge
USGS Gage 11044000 - Santa Margarita River near Temecula
October 2018 - December 2019



Notes:
All values shown are from USGS gage 11044000 and are approved, published values.
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.

CREDITS, FOREGONE WATER, AND RELEASE SOURCES

Due to Above Normal Hydrologic Conditions, the District did not earn Climatic Credit in 2019. The District did not make releases in excess of 4,000 AF, so no new CAP Credit was earned for 2019. No CAP Credit was carried over from previous years.

Camp Pendleton earned input to the Groundwater Bank in 2019, 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, 1,756 AF would have been credited to the Groundwater Bank due to the District's Actual Flow Maintenance Requirements being less than the flows in accordance with the Section 5 Flow Requirement (see CWRMA Art. 17).

In November 2019, Camp Pendleton requested that the November 2019 release rate of 8.8 cfs be continued through the end of the calendar year, rather than increasing to 10.4 cfs in December. The District agreed and made releases to meet a flow requirement of 8.8 cfs in December 2019. Camp Pendleton's request to forego water resulted in 99 AF of foregone water for the month of December 2019.

In 2019, the District released 3,720 AF to meet the Actual Flow Maintenance Requirement. The District released all water from the MWD raw water source at WR-34.

OPERATIONS

There were 74 days during 2019 when the Section 5 Flow Requirement was not met. In the tracking model, violation days are determined by calculating a 10-day running average of the provisional USGS daily website discharge at the Gorge. Each time the flow requirement changes, e.g. on January 1, May 1, June 1, etc., the running average resets and flow violation days are not assessed until the tenth day following the change. A violation day occurs when the 10-day running average flow rate is less than the flow requirement.

Based on review of the release data, recorded flow at the Gorge, and the Minimum Daily Flow Requirement, a shortage of 88 AF occurred due to operational inefficiency. A shortage occurs when releases at the Gorge are less than required under CWRMA based on the 10-day running average. In previous years, operational inefficiency has ranged from a shortage of -73 AF to an excess release of 220 AF.

SUMMARY

Table 2 quantifies the monthly flow releases at the Gorge, credits earned, and credits applied from 2003 through 2019. 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).

In 2019, Camp Pendleton maintained the maximum amount of water available in its Groundwater Bank; the District accumulated no new credits in 2019 and carried over no credits from previous years. Based on this, the 2020 winter-time flow requirement was determined to be 11.5 cfs. The Hydrologic Condition for 2020 will be established on May 1, 2020 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.

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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
Calendar Year 2003						**5,484.5**	**0.0**	**1,484.5**	**443**	**2**	**2,096.3**	**584.5**	**0.0**
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
Calendar Year 2004						**2,524.6**	**677.7**	**0.0**	**66**	**12**	**360.0**	**0.0**	**0.0**
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
Calendar Year 2005						**4,396.9**	**0.0**	**396.9**	**94**	**10**	**2,543.7**	**492.3**	**0.0**

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
Calendar Year 2006						**3,997.2**	**476.5**	**0.0**	**220**	**19**	**0.0**	**111.1**	**0.0**
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
Calendar Year 2007						**3,479.7**	**1,212.3**	**0.0**	**11**	**24**	**0.0**	**0.0**	**0.0**
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
Calendar Year 2008						**4,431.7**	**0.0**	**431.7**	**28**	**2**	**2,087.4**	**563.1**	**0.0**

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
Calendar Year 2009						**4,794.6**	**0.0**	**794.6**	**79**	**0**	**3,092.4**	**1,580.6**	**0.0**
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
Calendar Year 2010						**3,974.2**	**0.0**	**0.0**	**-73**	**0**	**5,372.0**	**2,073.1**	**0.0**
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
Calendar Year 2011						**4,295.6**	**0.0**	**295.6**	**57**	**0**	**5,275.5**	**1,976.0**	**0.0**

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
Calendar Year 2012						**3,434.3**	**1,247.8**	**0.0**	**128**	**0**	**147.8**	**0.0**	**0.0**
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
Calendar Year 2013						**2,561.7**	**406.1**	**0.0**	**26.3**	**0**	**360.0**	**0.0**	**0.0**
Winter 2014	BN	8.0	9.8	1.7	0.0	2,186.4	749.2		5.3	0	408.0	0.0	0.0
May-14	BN	5.7	5.7			336.0			0.4	0	0.0	0.0	0.0
Jun-14	BN	4.9	4.9			270.7			0.0	0	0.0	0.0	0.0
Jul-14	BN	4.3	4.3			248.1			0.2	0	0.0	0.0	0.0
Aug-14	BN	4.4	4.4			252.3			1.6	0	0.0	0.0	0.0
Sep-14	BN	4.1	4.1			224.9			-0.4	0	0.0	0.0	0.0
Oct-14	BN	3.9	3.9			216.5			0.0	0	0.0	0.0	0.0
Nov-14	BN	4.5	3.0			164.4			0.0	0	90.0	0.0	0.0
Dec-14	BN	5.3	3.3			109.5			8.9	0	124.0	0.0	0.0
Calendar Year 2014						**4,008.8**	**749.2**	**8.8**	**16.0**	**0**	**622.0**	**0.0**	**0.0**

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 2015	BN	8.0	8.3	3.1	0.02	1,661.3	562.7		2.0	0	756.0	0.0	0.0
May-15	BN	5.7	5.7			286.0			8.0	0	0.0	0.0	0.0
Jun-15	BN	4.9	4.9			282.5			8.8	0	0.0	0.0	0.0
Jul-15	BN	4.3	4.3			215.8			6.0	0	0.0	0.0	0.0
Aug-15	BN	4.4	4.4			252.3			0.2	0	0.0	0.0	0.0
Sep-15	BN	4.1	4.1			217.6			5.8	0	0.0	0.0	0.0
Oct-15	BN	3.9	3.9			233.0			3.5	0	0.0	0.0	0.0
Nov-15	BN	4.5	4.5			257.3			0.2	0	0.0	0.0	0.0
Dec-15	BN	5.3	5.3			330.6			-0.2	0	0.0	0.0	0.0
Calendar Year 2015						**3,736.4**	**562.7**	**0.0**	**34.3**	**0**	**756.0**	**0.0**	**0.0**
Winter 2016	BN	8.0	9.1	2.3	0.04	1,897.5	623.3		24.2	0	568.7	0.0	0.0
May-16	BN	5.7	5.7			333.7			0.4	0	0.0	0.0	0.0
Jun-16	BN	4.9	4.9			285.7			0.0	0	0.0	0.0	0.0
Jul-16	BN	4.3	4.3			264.0			0.0	0	0.0	0.0	0.0
Aug-16	BN	4.4	4.4			255.4			1.8	0	0.0	0.0	0.0
Sep-16	BN	4.1	4.1			232.2			0.2	0	0.0	0.0	0.0
Oct-16	BN	3.9	3.9			222.0			0.0	0	0.0	0.0	0.0
Nov-16	BN	4.5	4.5			233.1			3.4	0	0.0	0.0	0.0
Dec-16	BN	5.3	5.3			182.1			-11.5	0	0.0	0.0	0.0
Calendar Year 2016						**3,905.7**	**623.3**	**0.0**	**18.5**	**0**	**568.7**	**0.0**	**0.0**
Winter 2017	AN	17.8	8.9	2.6	0.00	1,369.2	0.0		61.7	0	1,500.0	0.0	0.0
May-17	AN	11.7	11.5			650.1			1.9	6	12.4	0.0	0.0
Jun-17	AN	9.4	9.4			521.6			0.1	3	0.0	0.0	0.0
Jul-17	AN	7.8	7.8			464.8			0.0	0	0.0	0.0	0.0
Aug-17	AN	7.6	7.6			451.3			8.8	0	0.0	0.0	0.0
Sep-17	AN	7.4	7.4			433.6			0.5	0	0.0	0.0	0.0
Oct-17	AN	7.7	7.7			476.7			-0.9	9	0.0	0.0	0.0
Nov-17	AN	8.8	4.5			393.0			-5.6	6	119.0	119.0	0.0
Dec-17	AN	10.4	5.3			308.9			-24.9	19	313.1	313.1	0.0
Calendar Year 2017						**5,069.2**	**0.0**	**1,069.2**	**41.6**	**43**	**1,944.5**	**432.1**	**0.0**

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

(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 2018	CD	4.5	9.3	0.0	0.00	1,791.7	1,106.6		-0.7	9	360.0	0.0	0.0
May-18	CD	3.8	3.8			166.6			10.2	9	0.0	0.0	0.0
Jun-18	CD	3.3	3.3			159.5			5.7	4	0.0	0.0	0.0
Jul-18	CD	3.0	3.0			165.6			20.5	0	0.0	0.0	0.0
Aug-18	CD	3.0	3.0			174.1			9.4	0	0.0	0.0	0.0
Sep-18	CD	3.0	3.0			152.3			6.1	1	0.0	0.0	0.0
Oct-18	CD	3.0	3.0			159.6			10.4	3	0.0	0.0	0.0
Nov-18	CD	3.0	3.0			166.5			11.3	0	0.0	0.0	0.0
Dec-18	CD	3.3	3.3			130.3			8.6	0	0.0	0.0	0.0
Calendar Year 2018						**3,066.2**	**1,106.6**	**0.0**	**81.5**	**26**	**360.0**	**0.0**	**0.0**
Winter 2019	AN	17.8	4.6	4.6	2.25	332.7	0.0		-39.0	17	1,644.0	0.0	0.0
May-19	AN	11.7	11.5			474.6			-58.4	18	12.4	0.0	0.0
Jun-19	AN	9.4	9.4			462.2			-10.5	9	0.0	0.0	0.0
Jul-19	AN	7.8	7.8			432.3			1.5	0	0.0	0.0	0.0
Aug-19	AN	7.6	7.6			445.7			1.6	0	0.0	0.0	0.0
Sep-19	AN	7.4	7.4			408.5			-5.2	10	0.0	0.0	0.0
Oct-19	AN	7.7	7.7			460.4			-7.2	17	0.0	0.0	0.0
Nov-19	AN	8.8	8.8			452.3			22.8	0	0.0	0.0	0.0
Dec-19	AN	10.4	8.8			251.3			6.6	3	99.2	99.2	0.0
Calendar Year 2019						**3,720.0**	**0.0**	**0.0**	**-87.8**	**74**	**1,755.6**	**99.2**	**0.0**
										Total Groundwater Bank =	**5,000.0**		
Initial Conditions for Winter 2020	**TBD**	**TBD**	**11.5**		**-**	**TBD**	**TBD**	**TBD**	**TBD**	**TBD**	**5,000.0**	**TBD**	**TBD**

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 *Winter Section 5 Flow Requirement* = 11.5 - Climatic Credit Applied - CAP Credit Applied *Non-Winter Section 5 Flow Requirement* = the minimum of 11.5 and the Table 5 Flow Requirement 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.
(5) Climatic Credit Applied	Sum of the daily Climatic Credits Applied in the winter of the calendar year.
(6) CAP Credit Applied	Sum of the daily CAP Credits Applied in the winter of the calendar year.
(7) Augmentation at WR-34	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 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 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 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 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 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 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 reduce flow Augmentation at the Gorge from VW to BN conditions. Camp Pendleton took action on August 20, 2014 to reduce the impact of the CAP Credit by requesting the District reduce flow Augmentation at the Gorge from BN to CD conditions. The District implemented this change on November 1, 2014. Camp Pendleton took action on November 16, 2017 to reduce the impact of the CAP Credit by requesting the District reduce flow Augmentation at the Gorge from AN to BN conditions. The District implemented this change on November 17, 2017. Camp Pendleton took action on November 7, 2019 to reduce the impact of the CAP Credit by requesting the District reduce flow Augmentation at the Gorge in December 2019 from 10.4 cfs to 8.8 cfs. The District implemented this change on December 1, 2019.
(14) Emergency Flows	Emergency flows may be called upon by the Commanding General of Camp Pendleton when there is a water supply emergency.

PRELIMINARY 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 2019)

TABLE 11.1

SANTA MARGARITA RIVER WATERSHED

MONTHLY SUMMARY OF REQUIRED FLOWS,
DISCHARGES, CREDITS AND ACCOUNTS
COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT

2019 CALENDAR YEAR - ABOVE NORMAL 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	1,769.3	1,748.8	4.6	17.8	3	97.1	0.0	424.7	5,000.0
Feb	18,742.7	18,860.4	4.6	17.8	0	1.3	0.0	383.6	5,000.0
Mar	1,433.7	1,402.5	4.6	17.8	0	30.6	0.0	424.7	5,000.0
Apr	284.0	284.1	4.6	17.8	14	203.7	0.0	411.0	5,000.0
May	662.9	662.6	11.5	11.7	18	474.6	0.0	12.4	5,000.0
Jun	548.7	548.8	9.4	9.4	9	462.2	0.0	0.0	5,000.0
Jul	469.3	481.1	7.8	7.8	0	432.3	0.0	0.0	5,000.0
Aug	461.2	469.2	7.6	7.6	0	445.7	0.0	0.0	5,000.0
Sep	439.2	434.8	7.4	7.4	10	408.5	0.0	0.0	5,000.0
Oct	466.2	466.2	7.7	7.7	17	460.4	0.0	0.0	5,000.0
Nov	2,089.8	2,089.8	8.8	8.8	0	452.3	0.0	0.0	5,000.0
Dec	2,822.4	2,810.4	8.8	10.4	3	251.3	0.0	99.2	5,000.0
CALENDAR YEAR TOTAL	30,189.4	30,258.7			74	3,720.0	0.0	1,755.6	FULL

1 - Required flows for January through April are equal to 11.5 cfs less 6.9 cfs of credits (1,107 AF Climatic Credit earned in 2018 plus 534 AF CAP Credit remaining from 2017)
2 - December 2019 flow requirement reduced from 10.4 cfs to 8.8 cfs per Camp Pendleton's request to forego water.
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. CAP Credit of 0 AF earned in 2019.
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. No Climatic Credits earned in 2019.
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 2019 - ABOVE NORMAL YEAR

										CAMP PENDLETON GROUNDWATER BANK				
Day	USGS Official Discharge	USGS Daily Website Discharge	10-Day Running Average of Website Discharge	Minimum Flow Maintenance Requirement /1	Running Average Less Required Flow	WR-34 Make-Up Discharge		Climatic Credit Earned		Input /2	Input	Output	Output	Cumulative Balance
	cfs	cfs	cfs	cfs	cfs	cfs	AF	cfs	AF	cfs	AF	cfs	AF	AF
1	3.14	3.14				2.5	4.9	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
2	4.15	4.15				3.4	6.8	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
3	4.55	4.55				3.8	7.5	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
4	4.58	4.59				3.8	7.5	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
5	4.59	4.59				3.7	7.4	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
6	23.3	23.3				0.8	1.5	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
7	8.03	8.03				0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
8	5.56	5.6				1.0	2.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
9	5.57	5.6				3.3	6.6	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
10	5.35	5.4				3.9	7.7	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
11	0.92	0.92	6.7	4.6	2.1	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
12	35.5	35.5	9.8	4.6	5.2	0.6	1.1	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
13	10.8	10.8	10.4	4.6	5.8	1.4	2.8	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
14	48.3	48.3	14.8	4.6	10.2	1.2	2.3	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
15	62.2	62.1	20.6	4.6	16.0	0.3	0.6	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
16	299.	295.	47.7	4.6	43.1	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
17	205.	202.	67.1	4.6	62.5	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
18	57.3	56.	72.2	4.6	67.6	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
19	14.3	13.8	73.0	4.6	68.4	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
20	6.53	6.24	73.1	4.6	68.5	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
21	3.86	3.65	73.3	4.6	68.7	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
22	2.84	2.66	70.1	4.6	65.5	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
23	3.10	2.91	69.3	4.6	64.7	1.0	1.9	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
24	3.26	3.06	64.7	4.6	60.1	1.4	2.7	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
25	3.32	3.12	58.8	4.6	54.2	1.7	3.4	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
26	3.04	2.85	29.6	4.6	25.0	1.9	3.7	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
27	3.34	3.15	9.7	4.6	5.1	2.3	4.6	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
28	3.31	3.31	4.5	4.6	-0.1	2.5	4.9	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
29	3.30	3.30	3.4	4.6	-1.2	2.5	5.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
30	3.46	3.46	3.1	4.6	-1.5	2.7	5.4	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
31	50.5	50.6	7.8	4.6	3.2	3.4	6.8	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
TOTAL SFD	892.0	881.7	789.7	96.6	693.1	49.1		0.0		213.9		0.0		
TOTAL AF	1,769.3	1,748.8	1,566.3	191.6	1,374.7		97.1		0.0		424.7		0.0	5,000.0

1 - Required flows for January through April are equal to 11.5 cfs less 6.9 cfs of credits (1,107 AF Climatic Credit earned in 2018 plus 534 AF CAP Credit remaining from 2017).
2 - 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 2019 - ABOVE NORMAL YEAR

										CAMP PENDLETON GROUNDWATER BANK				
Day	USGS Official Discharge	USGS Daily Website Discharge	10-Day Running Average of Website Discharge	Minimum Flow Maintenance Requirement /1	Running Average Less Required Flow	WR-34 Make-Up Discharge		Climatic Credit Earned		Input /2	Input	Output	Output	Cumulative Balance
	cfs	cfs	cfs	cfs	cfs	cfs	AF	cfs	AF	cfs	AF	cfs	AF	AF
1	42.6	42.6	11.8	4.6	7.2	0.1	0.1	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
2	408.	408.	52.3	4.6	47.7	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
3	259.	259.	77.9	4.6	73.3	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
4	480.	480.	125.6	4.6	121.0	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
5	393.	393.	164.6	4.6	160.0	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
6	68.5	68.5	171.2	4.6	166.6	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
7	21.2	21.2	173.0	4.6	168.4	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
8	9.52	9.50	173.6	4.6	169.0	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
9	6.77	6.77	173.9	4.6	169.3	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
10	7.06	7.06	169.6	4.6	165.0	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
11	11.9	11.9	166.5	4.6	161.9	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
12	3.72	3.72	126.1	4.6	121.5	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
13	6.70	6.68	100.8	4.6	96.2	0.4	0.7	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
14	6,770.	6,760.	728.8	4.6	724.2	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
15	489.	495.	739.0	4.6	734.4	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
16	135.	141.	746.3	4.6	741.7	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
17	53.2	57.9	750.0	4.6	745.4	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
18	44.1	49.7	754.0	4.6	749.4	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
19	24.7	28.8	756.2	4.6	751.6	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
20	15.5	19.1	757.4	4.6	752.8	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
21	78.6	91.0	765.3	4.6	760.7	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
22	70.9	84.1	773.3	4.6	768.7	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
23	19.0	24.0	775.1	4.6	770.5	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
24	9.88	13.2	100.4	4.6	95.8	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
25	7.05	9.80	51.9	4.6	47.3	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
26	6.82	9.52	38.7	4.6	34.1	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
27	4.54	4.54	33.4	4.6	28.8	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
28	3.19	3.19	28.7	4.6	24.1	0.3	0.5	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
TOTAL SFD	9,449.5	9,508.8	9,485.4	128.8	9,356.6	0.8		0.0		193.2		0.0		
TOTAL AF	18,742.7	18,860.4	18,814.0	255.5	18,558.5		1.3		0.0		383.6		0.0	5,000.0

1 - Required flows for January through April are equal to 11.5 cfs less 6.9 cfs of credits (1,107 AF Climatic Credit earned in 2018 plus 534 AF CAP Credit remaining from 2017).
2 - 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 2019 - ABOVE NORMAL YEAR

Day	USGS Official Discharge	USGS Daily Website Discharge	10-Day Running Average of Website Discharge	Minimum Flow Maintenance Requirement /1	Running Average Less Required Flow	WR-34 Make-Up Discharge		Climatic Credit Earned		CAMP PENDLETON GROUNDWATER BANK				
										Input /2	Input	Output	Output	Cumulative Balance
	cfs	cfs	cfs	cfs	cfs	cfs	AF	cfs	AF	cfs	AF	cfs	AF	AF
1	2.74	2.74	26.1	4.6	21.5	0.5	0.9	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
2	98.3	98.3	34.0	4.6	29.4	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
3	67.3	67.3	31.7	4.6	27.1	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
4	21.4	21.4	25.4	4.6	20.8	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
5	13.9	13.9	24.4	4.6	19.8	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
6	25.9	25.9	25.7	4.6	21.1	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
7	113.	113.	36.0	4.6	31.4	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
8	31.2	31.2	38.1	4.6	33.5	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
9	18.1	18.1	39.5	4.6	34.9	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
10	13.7	13.7	40.6	4.6	36.0	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
11	12.7	12.7	41.6	4.6	37.0	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
12	143.	135.	45.2	4.6	40.6	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
13	36.5	32.8	41.8	4.6	37.2	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
14	13.9	12.1	40.8	4.6	36.2	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
15	7.70	6.45	40.1	4.6	35.5	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
16	5.19	4.22	37.9	4.6	33.3	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
17	3.82	3.82	27.0	4.6	22.4	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
18	2.85	2.85	24.2	4.6	19.6	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
19	2.81	2.81	22.6	4.6	18.0	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
20	4.23	4.23	21.7	4.6	17.1	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
21	28.0	28.0	23.2	4.6	18.6	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
22	16.6	16.6	11.4	4.6	6.8	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
23	9.04	9.04	9.0	4.6	4.4	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
24	3.78	3.78	8.2	4.6	3.6	0.0	0.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
25	3.53	3.53	7.9	4.6	3.3	1.2	2.4	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
26	3.59	3.59	7.8	4.6	3.2	1.8	3.6	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
27	3.87	3.87	7.8	4.6	3.2	2.2	4.3	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
28	3.88	3.88	7.9	4.6	3.3	2.4	4.7	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
29	4.01	4.01	8.1	4.6	3.5	2.5	4.9	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
30	3.90	3.90	8.0	4.6	3.4	2.5	4.9	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
31	4.38	4.38	5.7	4.6	1.1	2.5	4.9	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
TOTAL SFD	722.8	707.1	769.4	142.6	626.8	15.6		0.0		213.9		0.0		
TOTAL AF	1,433.7	1,402.5	1,526.1	282.8	1,243.2		30.6		0.0		424.7		0.0	5,000.0

1 - Required flows for January through April are equal to 11.5 cfs less 6.9 cfs of credits (1,107 AF Climatic Credit earned in 2018 plus 534 AF CAP Credit remaining from 2017).
2 - 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 2019 - ABOVE NORMAL YEAR

Day	USGS Official Discharge	USGS Daily Website Discharge	10-Day Running Average of Website Discharge	Minimum Flow Maintenance Requirement /1	Running Average Less Required Flow	WR-34 Make-Up Discharge		Climatic Credit Earned		CAMP PENDLETON GROUNDWATER BANK				
										Input /2	Input	Output	Output	Cumulative Balance
	cfs	cfs	cfs	cfs	cfs	cfs	AF	cfs	AF	cfs	AF	cfs	AF	AF
1	4.17	4.17	4.4	4.6	-0.2	2.7	5.3	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
2	3.82	3.82	3.9	4.6	-0.7	2.6	5.1	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
3	3.49	3.49	3.9	4.6	-0.7	1.9	3.8	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
4	4.77	4.77	4.0	4.6	-0.6	2.2	4.3	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
5	5.41	5.41	4.2	4.6	-0.4	4.0	7.9	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
6	4.81	4.81	4.3	4.6	-0.3	3.5	6.9	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
7	4.93	4.93	4.4	4.6	-0.2	3.5	7.0	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
8	5.06	5.06	4.5	4.6	-0.1	3.8	7.6	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
9	5.57	5.57	4.6	4.6	0.0	4.4	8.7	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
10	5.46	5.46	4.7	4.6	0.1	4.4	8.7	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
11	5.40	5.40	4.9	4.6	0.3	4.3	8.6	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
12	5.57	5.57	5.0	4.6	0.4	4.4	8.7	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
13	5.53	5.53	5.3	4.6	0.7	4.4	8.7	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
14	4.91	4.91	5.3	4.6	0.7	3.8	7.6	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
15	4.14	4.14	5.1	4.6	0.5	3.1	6.2	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
16	4.05	4.05	5.1	4.6	0.5	3.1	6.1	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
17	4.08	4.08	5.0	4.6	0.4	3.1	6.2	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
18	4.12	4.12	4.9	4.6	0.3	3.1	6.2	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
19	4.21	4.21	4.7	4.6	0.1	3.1	6.2	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
20	4.42	4.42	4.6	4.6	0.0	3.1	6.2	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
21	4.39	4.39	4.5	4.6	-0.1	3.1	6.2	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
22	4.37	4.37	4.4	4.6	-0.2	3.1	6.1	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
23	3.59	3.59	4.2	4.6	-0.4	2.4	4.8	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
24	4.66	4.66	4.2	4.6	-0.4	3.4	6.7	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
25	5.17	5.17	4.3	4.6	-0.3	3.8	7.5	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
26	5.84	5.84	4.5	4.6	-0.1	4.3	8.5	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
27	5.66	5.66	4.6	4.6	0.0	4.0	7.9	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
28	5.44	5.44	4.8	4.6	0.2	3.7	7.4	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
29	5.25	5.30	4.9	4.6	0.3	3.2	6.4	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
30	4.89	4.90	4.9	4.6	0.3	3.1	6.2	0.0	0.0	6.9	13.7	0.0	0.0	5,000.0
TOTAL SFD	143.2	143.2	138.1	138.0	0.1	102.6		0.0		207.0		0.0		
TOTAL AF	284.0	284.1	273.9	273.7	0.2		203.7		0.0		411.0		0.0	5,000.0

1 - Required flows for January through April are equal to 11.5 cfs less 6.9 cfs of credits (1,107 AF Climatic Credit earned in 2018 plus 534 AF CAP Credit remaining from 2017).
2 - 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

MAY 2019 - ABOVE NORMAL YEAR

Day	USGS Official Discharge	USGS Daily Website Discharge	10-Day Running Average of Website Discharge	Minimum Flow Maintenance Requirement /1	Running Average Less Required Flow	WR-34 Make-Up Discharge		Climatic Credit Earned		CAMP PENDLETON GROUNDWATER BANK Input	Input	Output	Output	Cumulative Balance
	cfs	cfs	cfs	cfs	cfs	cfs	AF	cfs	AF	cfs	AF	cfs	AF	AF
1	5.54	5.54				3.9	7.8	0.0	0.0	0.2	0.4	0.0	0.0	5,000.0
2	10.1	10.1				8.3	16.5	0.0	0.0	0.2	0.4	0.0	0.0	5,000.0
3	12.6	12.6				10.5	20.8	0.0	0.0	0.2	0.4	0.0	0.0	5,000.0
4	13.7	13.7				11.5	22.8	0.0	0.0	0.2	0.4	0.0	0.0	5,000.0
5	13.6	13.6				11.5	22.8	0.0	0.0	0.2	0.4	0.0	0.0	5,000.0
6	13.7	13.7				11.5	22.8	0.0	0.0	0.2	0.4	0.0	0.0	5,000.0
7	11.9	11.9				10.2	20.3	0.0	0.0	0.2	0.4	0.0	0.0	5,000.0
8	10.7	10.7				9.1	18.0	0.0	0.0	0.2	0.4	0.0	0.0	5,000.0
9	10.7	10.7				9.1	18.0	0.0	0.0	0.2	0.4	0.0	0.0	5,000.0
10	10.1	10.1				8.6	17.0	0.0	0.0	0.2	0.4	0.0	0.0	5,000.0
11	10.5	10.5	11.8	11.5	0.3	9.0	17.8	0.0	0.0	0.2	0.4	0.0	0.0	5,000.0
12	9.54	9.54	11.7	11.5	0.2	8.0	15.9	0.0	0.0	0.2	0.4	0.0	0.0	5,000.0
13	9.35	9.35	11.4	11.5	-0.1	7.8	15.5	0.0	0.0	0.2	0.4	0.0	0.0	5,000.0
14	9.61	9.61	11.0	11.5	-0.5	8.2	16.3	0.0	0.0	0.2	0.4	0.0	0.0	5,000.0
15	10.3	10.3	10.6	11.5	-0.9	8.8	17.5	0.0	0.0	0.2	0.4	0.0	0.0	5,000.0
16	9.87	9.87	10.3	11.5	-1.2	8.1	16.0	0.0	0.0	0.2	0.4	0.0	0.0	5,000.0
17	8.97	8.97	10.0	11.5	-1.5	7.5	14.9	0.0	0.0	0.2	0.4	0.0	0.0	5,000.0
18	8.85	8.85	9.8	11.5	-1.7	7.3	14.5	0.0	0.0	0.2	0.4	0.0	0.0	5,000.0
19	10.5	10.5	9.8	11.5	-1.7	6.2	12.2	0.0	0.0	0.2	0.4	0.0	0.0	5,000.0
20	11.3	11.3	9.9	11.5	-1.6	4.6	9.1	0.0	0.0	0.2	0.4	0.0	0.0	5,000.0
21	10.1	10.1	9.8	11.5	-1.7	8.0	15.9	0.0	0.0	0.2	0.4	0.0	0.0	5,000.0
22	13.6	13.6	10.2	11.5	-1.3	6.2	12.2	0.0	0.0	0.2	0.4	0.0	0.0	5,000.0
23	18.5	18.5	11.2	11.5	-0.3	0.0	0.0	0.0	0.0	0.2	0.4	0.0	0.0	5,000.0
24	11.1	11.1	11.3	11.5	-0.2	1.7	3.3	0.0	0.0	0.2	0.4	0.0	0.0	5,000.0
25	9.92	9.92	11.3	11.5	-0.2	6.5	12.9	0.0	0.0	0.2	0.4	0.0	0.0	5,000.0
26	9.90	9.90	11.3	11.5	-0.2	7.9	15.7	0.0	0.0	0.2	0.4	0.0	0.0	5,000.0
27	9.92	9.92	11.4	11.5	-0.1	7.1	14.1	0.0	0.0	0.2	0.4	0.0	0.0	5,000.0
28	9.94	9.90	11.5	11.5	0.0	8.0	15.8	0.0	0.0	0.2	0.4	0.0	0.0	5,000.0
29	9.93	9.90	11.4	11.5	-0.1	8.2	16.2	0.0	0.0	0.2	0.4	0.0	0.0	5,000.0
30	9.92	9.90	11.3	11.5	-0.2	8.1	16.1	0.0	0.0	0.2	0.4	0.0	0.0	5,000.0
31	9.97	9.89	11.3	11.5	-0.2	8.0	15.9	0.0	0.0	0.2	0.4	0.0	0.0	5,000.0
TOTAL SFD	334.2	334.1	228.3	241.5	-13.2	239.4		0.0		6.2		0.0		
TOTAL AF	662.9	662.6	452.8	479.0	-26.2		474.6		0.0		12.4		0.0	5,000.0

1 - Minimum Flow Maintenance Requirement equals the Section 5 flow for an Above Normal year.

APPENDIX E

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

JUNE 2019 - ABOVE NORMAL YEAR

Day	USGS Official Discharge	USGS Daily Website Discharge	10-Day Running Average of Website Discharge	Minimum Flow Maintenance Requirement /1	Running Average Less Required Flow	WR-34 Make-Up Discharge		Climatic Credit Earned		CAMP PENDLETON GROUNDWATER BANK Input	Input	Output	Output	Cumulative Balance
	cfs	cfs	cfs	cfs	cfs	cfs	AF	cfs	AF	cfs	AF	cfs	AF	AF
1	7.89	7.90				5.9	11.8	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
2	8.02	8.02				6.2	12.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
3	8.01	8.01				6.3	12.4	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
4	8.01	8.01				6.3	12.4	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
5	8.03	8.03				6.4	12.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
6	8.06	8.06				6.5	12.9	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
7	8.02	8.02				6.6	13.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
8	8.05	8.05				6.7	13.3	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
9	8.01	8.01				6.9	13.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
10	8.03	8.03				7.1	14.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
11	8.05	8.05	8.0	9.4	-1.4	7.3	14.5	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
12	8.53	8.53	8.1	9.4	-1.3	7.8	15.4	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
13	12.2	12.2	8.5	9.4	-0.9	10.6	21.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
14	13.4	13.4	9.0	9.4	-0.4	11.5	22.8	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
15	13.4	13.4	9.6	9.4	0.2	11.5	22.8	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
16	9.71	9.71	9.7	9.4	0.3	8.2	16.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
17	9.64	9.64	9.9	9.4	0.5	7.9	15.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
18	9.44	9.44	10.0	9.4	0.6	7.8	15.5	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
19	9.30	9.30	10.2	9.4	0.8	7.9	15.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
20	9.44	9.44	10.3	9.4	0.9	8.0	15.9	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
21	9.23	9.23	10.4	9.4	1.0	7.8	15.4	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
22	9.03	9.03	10.5	9.4	1.1	7.6	15.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
23	9.25	9.25	10.2	9.4	0.8	7.9	15.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
24	9.24	9.24	9.8	9.4	0.4	7.9	15.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
25	9.33	9.33	9.4	9.4	0.0	7.9	15.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
26	9.46	9.46	9.3	9.4	-0.1	8.1	16.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
27	9.45	9.45	9.3	9.4	-0.1	8.1	16.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
28	9.48	9.48	9.3	9.4	-0.1	8.2	16.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
29	9.48	9.48	9.3	9.4	-0.1	8.2	16.3	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
30	9.47	9.47	9.3	9.4	-0.1	8.2	16.3	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
TOTAL SFD	276.7	276.7	190.1	188.0	2.1	233.3		0.0		0.0		0.0		
TOTAL AF	548.7	548.8	377.1	372.9	4.2		462.2		0.0		0.0		0.0	5,000.0

1 - Minimum Flow Maintenance Requirement equals the Section 5 flow for an Above Normal year.

APPENDIX E

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

JULY 2019 - ABOVE NORMAL YEAR

										CAMP PENDLETON GROUNDWATER BANK				
Day	USGS Official Discharge	USGS Daily Website Discharge	10-Day Running Average of Website Discharge	Minimum Flow Maintenance Requirement /1	Running Average Less Required Flow	WR-34 Make-Up Discharge		Climatic Credit Earned		Input	Input	Output	Output	Cumulative Balance
	cfs	cfs	cfs	cfs	cfs	cfs	AF	cfs	AF	cfs	AF	cfs	AF	AF
1	7.52	7.85				6.9	13.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
2	7.51	7.83				6.9	13.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
3	7.49	7.82				6.8	13.5	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
4	7.52	7.85				6.8	13.4	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
5	7.52	7.84				6.7	13.3	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
6	7.48	7.81				6.7	13.3	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
7	7.51	7.84				6.6	13.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
8	7.51	7.84				6.6	13.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
9	7.53	7.85				6.7	13.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
10	7.55	7.88				6.7	13.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
11	7.53	7.86	7.8	7.8	0.0	6.7	13.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
12	7.55	7.88	7.8	7.8	0.0	6.8	13.4	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
13	7.53	7.86	7.9	7.8	0.1	6.9	13.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
14	7.52	7.85	7.9	7.8	0.1	7.0	13.8	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
15	7.53	7.53	7.8	7.8	0.0	7.0	13.9	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
16	7.53	7.53	7.8	7.8	0.0	7.0	13.9	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
17	7.74	7.75	7.8	7.8	0.0	7.2	14.3	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
18	7.84	7.75	7.8	7.8	0.0	7.2	14.3	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
19	7.83	7.86	7.8	7.8	0.0	7.3	14.4	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
20	7.81	7.87	7.8	7.8	0.0	7.3	14.4	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
21	7.78	7.86	7.8	7.8	0.0	7.3	14.4	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
22	7.78	7.85	7.8	7.8	0.0	7.3	14.4	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
23	7.78	7.86	7.8	7.8	0.0	7.3	14.5	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
24	7.74	7.84	7.8	7.8	0.0	7.4	14.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
25	7.71	7.82	7.8	7.8	0.0	7.4	14.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
26	7.64	7.76	7.8	7.8	0.0	7.3	14.4	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
27	7.72	7.85	7.8	7.8	0.0	7.4	14.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
28	7.74	7.88	7.8	7.8	0.0	7.4	14.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
29	7.73	7.88	7.8	7.8	0.0	7.4	14.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
30	7.70	7.87	7.8	7.8	0.0	7.3	14.5	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
31	7.73	7.91	7.9	7.8	0.1	7.4	14.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
TOTAL SFD	236.6	242.5	164.1	163.8	0.3	218.7		0.0		0.0		0.0		
TOTAL AF	469.3	481.1	325.5	324.9	0.6		432.3		0.0		0.0		0.0	5,000.0

1 - Minimum Flow Maintenance Requirement equals the Section 5 flow for an Above Normal year.

APPENDIX E

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

AUGUST 2019 - ABOVE NORMAL YEAR

										CAMP PENDLETON GROUNDWATER BANK				
Day	USGS Official Discharge	USGS Daily Website Discharge	10-Day Running Average of Website Discharge	Minimum Flow Maintenance Requirement /1	Running Average Less Required Flow	WR-34 Make-Up Discharge		Climatic Credit Earned		Input	Input	Output	Output	Cumulative Balance
	cfs	cfs	cfs	cfs	cfs	cfs	AF	cfs	AF	cfs	AF	cfs	AF	AF
1	7.50	7.69				7.2	14.3	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
2	7.49	7.69				7.2	14.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
3	7.48	7.69				7.2	14.3	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
4	7.44	7.66				7.2	14.3	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
5	7.45	7.68				7.3	14.4	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
6	7.40	7.65				7.2	14.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
7	7.40	7.65				7.2	14.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
8	7.40	7.67				7.2	14.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
9	7.39	7.67				7.2	14.3	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
10	7.33	7.62				7.2	14.3	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
11	7.54	7.54	7.7	7.6	0.1	7.4	14.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
12	7.32	7.32	7.6	7.6	0.0	7.2	14.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
13	7.46	7.46	7.6	7.6	0.0	7.3	14.5	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
14	7.67	7.67	7.6	7.6	0.0	7.6	15.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
15	7.65	7.65	7.6	7.6	0.0	7.6	15.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
16	7.62	7.62	7.6	7.6	0.0	7.6	15.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
17	7.64	7.64	7.6	7.6	0.0	7.5	14.9	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
18	7.65	7.65	7.6	7.6	0.0	7.5	14.8	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
19	7.62	7.62	7.6	7.6	0.0	7.4	14.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
20	5.96	7.62	7.6	7.6	0.0	4.8	9.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
21	7.63	7.63	7.6	7.6	0.0	5.2	10.4	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
22	7.62	7.62	7.6	7.6	0.0	7.6	15.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
23	7.67	7.67	7.6	7.6	0.0	7.5	14.9	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
24	7.62	7.62	7.6	7.6	0.0	7.5	14.8	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
25	7.65	7.65	7.6	7.6	0.0	7.6	15.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
26	7.64	7.64	7.6	7.6	0.0	7.7	15.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
27	7.67	7.67	7.6	7.6	0.0	7.7	15.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
28	7.66	7.66	7.6	7.6	0.0	7.6	15.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
29	7.65	7.66	7.6	7.6	0.0	7.6	15.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
30	7.64	7.64	7.6	7.6	0.0	7.6	15.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
31	7.67	7.66	7.6	7.6	0.0	7.6	15.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
TOTAL SFD	232.5	236.6	159.7	159.6	0.1	225.2		0.0		0.0		0.0		
TOTAL AF	461.2	469.2	316.8	316.6	0.2		445.7		0.0		0.0		0.0	5,000.0

1 - Minimum Flow Maintenance Requirement equals the Section 5 flow for an Above Normal year.

APPENDIX E

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

SEPTEMBER 2019 - ABOVE NORMAL YEAR

										CAMP PENDLETON GROUNDWATER BANK				
Day	USGS Official Discharge	USGS Daily Website Discharge	10-Day Running Average of Website Discharge	Minimum Flow Maintenance Requirement /1	Running Average Less Required Flow	WR-34 Make-Up Discharge		Climatic Credit Earned		Input	Input	Output	Output	Cumulative Balance
	cfs	cfs	cfs	cfs	cfs	cfs	AF	cfs	AF	cfs	AF	cfs	AF	AF
1	7.76	7.44				7.4	14.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
2	7.79	7.47				7.4	14.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
3	7.81	7.48				7.5	14.8	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
4	6.96	6.67				6.6	13.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
5	7.83	7.50				7.5	14.9	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
6	7.81	7.48				7.5	14.9	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
7	7.82	7.49				7.5	14.9	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
8	7.80	7.80				7.5	14.8	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
9	7.86	7.86				7.5	14.8	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
10	7.72	7.72				7.4	14.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
11	2.80	2.80	7.0	7.4	-0.4	2.6	5.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
12	7.57	7.57	7.0	7.4	-0.4	7.2	14.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
13	7.47	7.47	7.0	7.4	-0.4	7.1	14.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
14	7.47	7.47	7.1	7.4	-0.3	7.1	14.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
15	7.46	7.47	7.1	7.4	-0.3	7.2	14.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
16	7.43	7.43	7.1	7.4	-0.3	7.1	14.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
17	7.43	7.43	7.1	7.4	-0.3	7.1	14.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
18	7.43	7.43	7.1	7.4	-0.3	7.0	13.9	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
19	7.44	7.44	7.0	7.4	-0.4	7.0	13.8	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
20	7.45	7.45	7.0	7.4	-0.4	6.9	13.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
21	7.43	7.43	7.5	7.4	0.1	6.9	13.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
22	7.44	7.44	7.4	7.4	0.0	6.9	13.7	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
23	7.52	7.52	7.5	7.4	0.1	5.7	11.3	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
24	7.38	7.38	7.4	7.4	0.0	5.6	11.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
25	7.43	7.43	7.4	7.4	0.0	7.0	13.8	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
26	7.44	7.44	7.4	7.4	0.0	6.9	13.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
27	7.44	7.44	7.4	7.4	0.0	6.8	13.5	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
28	7.40	7.40	7.4	7.4	0.0	6.8	13.5	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
29	7.43	7.43	7.4	7.4	0.0	6.9	13.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
30	7.43	7.43	7.4	7.4	0.0	6.9	13.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
TOTAL SFD	221.5	219.2	144.7	148.0	-3.3	206.5		0.0		0.0		0.0		
TOTAL AF	439.2	434.8	287.0	293.6	-6.5		408.5		0.0		0.0		0.0	5,000.0

1 - Minimum Flow Maintenance Requirement equals the Section 5 flow for an Above Normal year.

APPENDIX E

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

OCTOBER 2019 - ABOVE NORMAL YEAR

										CAMP PENDLETON GROUNDWATER BANK				
Day	USGS Official Discharge	USGS Daily Website Discharge	10-Day Running Average of Website Discharge	Minimum Flow Maintenance Requirement /1	Running Average Less Required Flow	WR-34 Make-Up Discharge		Climatic Credit Earned		Input	Input	Output	Output	Cumulative Balance
	cfs	cfs	cfs	cfs	cfs	cfs	AF	cfs	AF	cfs	AF	cfs	AF	AF
1	7.43	7.43				7.2	14.3	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
2	7.50	7.50				7.3	14.4	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
3	7.72	7.72				7.5	14.9	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
4	7.71	7.71				7.5	14.9	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
5	7.72	7.72				7.6	15.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
6	7.71	7.71				7.6	15.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
7	7.74	7.74				7.7	15.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
8	7.73	7.73				7.7	15.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
9	7.74	7.74				7.5	14.9	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
10	7.76	7.76				7.6	15.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
11	7.70	7.70	7.7	7.7	0.0	7.6	15.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
12	7.60	7.60	7.7	7.7	0.0	7.6	15.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
13	7.65	7.65	7.7	7.7	0.0	7.6	15.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
14	7.83	7.83	7.7	7.7	0.0	7.6	15.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
15	6.49	6.49	7.6	7.7	-0.1	7.6	15.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
16	7.07	7.07	7.5	7.7	-0.2	7.6	15.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
17	8.23	8.23	7.6	7.7	-0.1	7.6	15.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
18	7.90	7.90	7.6	7.7	-0.1	7.6	15.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
19	7.23	7.23	7.5	7.7	-0.2	7.0	13.9	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
20	7.21	7.21	7.5	7.7	-0.2	7.0	13.9	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
21	7.14	7.14	7.4	7.7	-0.3	7.0	13.9	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
22	7.12	7.12	7.4	7.7	-0.3	7.0	13.9	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
23	7.51	7.51	7.4	7.7	-0.3	7.4	14.6	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
24	7.74	7.74	7.4	7.7	-0.3	7.6	15.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
25	7.77	7.77	7.5	7.7	-0.2	7.7	15.3	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
26	7.70	7.70	7.6	7.7	-0.1	7.7	15.3	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
27	7.71	7.71	7.5	7.7	-0.2	7.6	15.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
28	7.70	7.70	7.5	7.7	-0.2	7.6	15.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
29	7.67	7.67	7.5	7.7	-0.2	7.6	15.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
30	7.65	7.65	7.6	7.7	-0.1	7.6	15.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
31	7.68	7.68	7.6	7.7	-0.1	7.7	15.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
TOTAL SFD	235.1	235.1	158.5	161.7	-3.2	232.5		0.0		0.0		0.0		
TOTAL AF	466.2	466.2	314.4	320.7	-6.3		460.4		0.0		0.0		0.0	5,000.0

1 - Minimum Flow Maintenance Requirement equals the Section 5 flow for an Above Normal year.

APPENDIX E

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

NOVEMBER 2019 - ABOVE NORMAL YEAR

										CAMP PENDLETON GROUNDWATER BANK				
Day	USGS Official Discharge	USGS Daily Website Discharge	10-Day Running Average of Website Discharge	Minimum Flow Maintenance Requirement /1	Running Average Less Required Flow	WR-34 Make-Up Discharge		Climatic Credit Earned		Input	Input	Output	Output	Cumulative Balance
	cfs	cfs	cfs	cfs	cfs	cfs	AF	cfs	AF	cfs	AF	cfs	AF	AF
1	8.79	8.79				8.7	17.3	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
2	8.77	8.77				8.7	17.3	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
3	8.79	8.79				8.7	17.3	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
4	8.77	8.77				8.7	17.3	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
5	8.80	8.80				8.7	17.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
6	8.78	8.78				8.6	17.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
7	8.79	8.79				8.6	17.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
8	8.80	8.80				8.6	17.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
9	8.82	8.82				8.7	17.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
10	8.80	8.80				8.7	17.2	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
11	8.78	8.78	8.8	8.8	0.0	8.6	17.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
12	8.80	8.80	8.8	8.8	0.0	8.6	17.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
13	8.80	8.80	8.8	8.8	0.0	8.6	17.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
14	8.81	8.81	8.8	8.8	0.0	8.6	17.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
15	8.79	8.79	8.8	8.8	0.0	8.6	17.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
16	8.79	8.79	8.8	8.8	0.0	8.6	17.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
17	8.79	8.79	8.8	8.8	0.0	8.6	17.0	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
18	8.80	8.80	8.8	8.8	0.0	8.6	17.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
19	8.82	8.82	8.8	8.8	0.0	8.6	17.1	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
20	14.0	14.0	9.3	8.8	0.5	8.0	15.9	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
21	15.3	15.3	10.0	8.8	1.2	7.3	14.5	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
22	8.44	8.44	9.9	8.8	1.1	7.3	14.5	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
23	8.55	8.55	9.9	8.8	1.1	8.0	15.9	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
24	8.41	8.41	9.9	8.8	1.1	8.0	15.9	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
25	8.34	8.34	9.8	8.8	1.0	8.0	15.9	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
26	8.34	8.34	9.8	8.8	1.0	8.0	15.9	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
27	8.35	8.35	9.7	8.8	0.9	7.0	13.8	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
28	408.	408.	49.7	8.8	40.9	1.8	3.5	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
29	359.	359.	84.7	8.8	75.9	0.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
30	39.8	39.8	87.3	8.8	78.5	0.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	5,000.0
TOTAL SFD	1,053.6	1,053.6	379.2	176.0	203.2	228.1		0.0		0.0		0.0		
TOTAL AF	2,089.8	2,089.8	752.1	349.1	403.0		452.3		0.0		0.0		0.0	5,000.0

1 - Minimum Flow Maintenance Requirement equals the Section 5 flow for an Above Normal year.

APPENDIX E

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

DECEMBER 2019 - ABOVE NORMAL YEAR

										CAMP PENDLETON GROUNDWATER BANK				
Day	USGS Official Discharge	USGS Daily Website Discharge	10-Day Running Average of Website Discharge	Minimum Flow Maintenance Requirement /1	Running Average Less Required Flow	WR-34 Make-Up Discharge		Climatic Credit Earned		Input /2	Input	Output	Output	Cumulative Balance
	cfs	cfs	cfs	cfs	cfs	cfs	AF	cfs	AF	cfs	AF	cfs	AF	AF
1	11.4	11.4				0.3	0.5	0.0	0.0	1.6	3.2	0.0	0.0	5,000.0
2	4.89	4.89				0.5	0.9	0.0	0.0	1.6	3.2	0.0	0.0	5,000.0
3	5.61	5.61				3.3	6.5	0.0	0.0	1.6	3.2	0.0	0.0	5,000.0
4	391.	391.				2.9	5.8	0.0	0.0	1.6	3.2	0.0	0.0	5,000.0
5	119.	119.				0.2	0.4	0.0	0.0	1.6	3.2	0.0	0.0	5,000.0
6	23.7	23.7				0.2	0.3	0.0	0.0	1.6	3.2	0.0	0.0	5,000.0
7	11.7	11.7				0.2	0.3	0.0	0.0	1.6	3.2	0.0	0.0	5,000.0
8	31.2	31.2				0.1	0.2	0.0	0.0	1.6	3.2	0.0	0.0	5,000.0
9	9.71	9.71				1.3	2.6	0.0	0.0	1.6	3.2	0.0	0.0	5,000.0
10	7.39	7.39				4.5	8.9	0.0	0.0	1.6	3.2	0.0	0.0	5,000.0
11	7.84	7.84	61.2	8.8	52.4	6.2	12.3	0.0	0.0	1.6	3.2	0.0	0.0	5,000.0
12	8.44	8.44	61.6	8.8	52.8	7.2	14.3	0.0	0.0	1.6	3.2	0.0	0.0	5,000.0
13	8.81	8.81	61.9	8.8	53.1	7.8	15.5	0.0	0.0	1.6	3.2	0.0	0.0	5,000.0
14	8.79	8.79	23.7	8.8	14.9	7.8	15.5	0.0	0.0	1.6	3.2	0.0	0.0	5,000.0
15	8.72	8.72	12.6	8.8	3.8	7.8	15.5	0.0	0.0	1.6	3.2	0.0	0.0	5,000.0
16	8.73	8.73	11.1	8.8	2.3	8.0	15.9	0.0	0.0	1.6	3.2	0.0	0.0	5,000.0
17	8.81	8.81	10.8	8.8	2.0	8.1	16.1	0.0	0.0	1.6	3.2	0.0	0.0	5,000.0
18	8.76	8.76	8.6	8.8	-0.2	8.1	16.1	0.0	0.0	1.6	3.2	0.0	0.0	5,000.0
19	8.79	8.79	8.5	8.8	-0.3	8.2	16.2	0.0	0.0	1.6	3.2	0.0	0.0	5,000.0
20	8.94	8.94	8.7	8.8	-0.1	8.2	16.3	0.0	0.0	1.6	3.2	0.0	0.0	5,000.0
21	8.90	8.90	8.8	8.8	0.0	8.2	16.3	0.0	0.0	1.6	3.2	0.0	0.0	5,000.0
22	8.99	8.99	8.8	8.8	0.0	8.2	16.3	0.0	0.0	1.6	3.2	0.0	0.0	5,000.0
23	17.0	17.0	9.6	8.8	0.8	6.1	12.0	0.0	0.0	1.6	3.2	0.0	0.0	5,000.0
24	35.4	35.4	12.3	8.8	3.5	0.2	0.3	0.0	0.0	1.6	3.2	0.0	0.0	5,000.0
25	9.07	9.07	12.3	8.8	3.5	1.7	3.4	0.0	0.0	1.6	3.2	0.0	0.0	5,000.0
26	512.	508.	62.3	8.8	53.5	1.4	2.7	0.0	0.0	1.6	3.2	0.0	0.0	5,000.0
27	83.	81.3	69.5	8.8	60.7	0.2	0.3	0.0	0.0	1.6	3.2	0.0	0.0	5,000.0
28	20.1	19.5	70.6	8.8	61.8	0.1	0.2	0.0	0.0	1.6	3.2	0.0	0.0	5,000.0
29	9.11	8.75	70.6	8.8	61.8	1.2	2.4	0.0	0.0	1.6	3.2	0.0	0.0	5,000.0
30	8.47	8.13	70.5	8.8	61.7	3.6	7.1	0.0	0.0	1.6	3.2	0.0	0.0	5,000.0
31	8.69	9.64	70.6	8.8	61.8	5.1	10.2	0.0	0.0	1.6	3.2	0.0	0.0	5,000.0
TOTAL SFD	1,423.0	1,416.9	734.6	184.8	549.8	126.9		0.0		49.6		0.0		
TOTAL AF	2,822.4	2,810.4	1,457.1	366.5	1,090.5		251.3		0.0		99.2		0.0	5,000.0

1 - Minimum Flow Maintenance Requirement for December reduced from 10.4 cfs to 8.8 cfs per Camp Pendleton's request to forego water to minimize CAP credits.
2 - Foregone make-up water credited to groundwater account but cumulative balance did not increase due to account balance maximum of 5,000 AF.

ANNUAL REPORT

COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT

CALENDAR YEAR 2019

APPENDIX B-2

2019 REQUESTED MODIFICATIONS FOR REQUIRED MINIMUM DAILY FLOWS

From: mpreszler@smrwm.org
To: rheather@smrwm.org
Subject: FW: Request for CWRMA Reduced Flow Augmentation in December
Date: Monday, November 18, 2019 1:52:31 PM

-----Original Message-----
From: Eva Plajzer <plajzere@ranchowater.com>
Sent: Monday, November 18, 2019 9:55 AM
To: Bartu CIV Daniel P <daniel.bartu@usmc.mil>; Rich Ottolini <ottolinir@ranchowater.com>
Cc: Kevin Marcoux <marcouxk@ranchowater.com>; mpreszler@smrwm.org; Boughman CIV Paul R <paul.boughman@usmc.mil>; Simpson CIV John O <john.o.simpson@usmc.mil>
Subject: RE: Request for CWRMA Reduced Flow Augmentation in December

Mr. Bartu,

Rancho California Water District agrees to maintain the same rate of release under the CWRMA agreement for December as it was for November at 8.8 cfs to minimize CAP credits for future years.

Thank you
Regards,

Eva Plajzer, P.E.
Assistant General Manager
Engineering and Operations
Rancho California Water District
Phone: (951) 296-6910
plajzere@ranchowater.com

-----Original Message-----
From: Bartu CIV Daniel P <daniel.bartu@usmc.mil>
Sent: Monday, November 18, 2019 9:19 AM
To: Rich Ottolini <ottolinir@ranchowater.com>; Eva Plajzer <plajzere@ranchowater.com>
Cc: Kevin Marcoux <marcouxk@ranchowater.com>; mpreszler@smrwm.org; Boughman CIV Paul R <paul.boughman@usmc.mil>; Simpson CIV John O <john.o.simpson@usmc.mil>
Subject: Request for CWRMA Reduced Flow Augmentation in December

Mrs. Plajzer,

MCB Camp Pendleton would like to minimize CAP credits earned by Rancho California Water District by means of a reduction in CWRMA rates for the month of December. We propose maintaining the same November rate of 8.8 cfs on through December instead of the 10.4 cfs section 5 flow requirement for an above normal year. The change will not only minimize CAP credits but also reduce impact to winter period flows. This request has been summarized

in the attached memo by Stetson Engineers. Please review and let us know if you agree to this reduction.

Dan Bartu
Water Rights/Water Resources
Water Resources Division
MCB CPEN

MEMORANDUM

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

TO:	Dan Bartu, Water Resources Division	DATE:	November 7, 2019
FROM:	Stetson Engineers	JOB NO:	2628-1000-1002
RE:	Flow Augmentation at the Gorge for the Remainder of Calendar Year 2019		

Stetson Engineers (Stetson) has reviewed this year's observed flow at the Gorge and augmentation to the Santa Margarita River by the Rancho California Water District (District) as stipulated in the Cooperative Water Resource Management Agreement (CWRMA). District augmentation releases from January 1, 2019 through November 30, 2019 are projected to be 3,540 acre-feet (AF)[1], consistent with calendar year 2019 Above Normal conditions. Between December 1, 2019 and December 31, 2019, up to 640 AF of water may be required to meet the CWRMA non-winter Section 5 flow requirements for Above Normal hydrologic conditions. Therefore, total augmentation by the District could reach up to 4,180 AF, which would lead to a 180 AF CAP credit[2]. CAP credits may then be applied to reduce the winter-time flow requirements of the next two years resulting in a reduction of up to 0.4 cfs per year of winter flow releases in 2020 and 2021.

In order to minimize CAP credits earned by the District and the resulting impact of reduced winter period flows at the Gorge, Stetson recommends foregoing a portion of the Section 5 flow requirement at the end of calendar year 2019. Camp Pendleton may request that the District reduce flow augmentation at the Gorge during the month of December to minimize future CAP credits.

Table 1 summarizes the current Section 5 flow requirements for Above Normal conditions and the proposed reduced flow requirement for December 2019. Under Above Normal conditions, the scheduled release rates in November and December are 8.8 cfs and 10.4 cfs, respectively. To minimize potential CAP credit, Stetson recommends that the November Above Normal release rate of 8.8 cfs be continued through the month of December 2019. Reducing the release rate to 8.8 cfs in December represents a 1.6-cfs reduction from the scheduled release rate of 10.4 cfs. Maintaining a release rate of 8.8 cfs in December will lead to a maximum augmentation release of 4,080 AF, and a maximum CAP credit of 80 AF for calendar

[1] Releases for January 1 through November 4 from measurements at WR-34 meter; releases for November 5-30 based on Above Normal flow requirement
[2] The District earns CAP credit for releases made in excess of 4,000 AF in a calendar year.

year 2019. The total augmentation release volume and CAP credit may be reduced if precipitation-driven streamflow occurs at the Gorge prior to January 1, 2020.

TABLE 1. SUMMARY OF 2019 SECTION 5 FLOW REQUIREMENT AND PROPOSED FLOW REQUIREMENTS FOR THE REMAINDER OF 2019

	Section 5 Flow Requirements – Above Normal (current)		Section 5 Flow Requirements – Reduced Releases in December (proposed)		Foregone Quantity of Makeup Water
Release Period	**(cfs)**	**(AF)**	**(cfs)**	**(AF)**	**(AF)**
Jan. 1 – Nov. 30		3,540 [a]		3,540[a]	
December	10.4	640	8.8	540	100
Calendar Year Total[b]		4,180		4,080	100
CAP Credit[c]		180[d]		80[e]	

Notes:

a. Releases for January 1 through November 4 based on recorded releases at WR-34 meter; Flows for November 5-30 estimated based on Above Normal flow requirement.

b. Calendar Year Total and resulting CAP credits may be reduced if precipitation-driven streamflow occurs at the Gorge between now and December 31, 2019.

c. CAP credit is volume of releases in excess of 4,000 AF in the calendar year. Any earned CAP credits may be applied by the District to reduce winter-time streamflow in 2020 and 2021.

d. CAP credit of 180 AF is equivalent to a 0.4 cfs reduction in winter-time flow requirement during the 2020 and 2021 winter-time periods (January 1 - April 30).

e. CAP credit of 80 AF is equivalent to a 0.2 cfs reduction in winter-time flow requirement during the 2020 and 2021 winter-time periods (January 1 - April 30).

Stetson recommends that Camp Pendleton request that the District continue the November release rate of 8.8 cfs through December 31, 2019. Any precipitation-driven streamflow events that occur between today and December 31 will act to reduce or eliminate CAP credits under either the existing or proposed CWRMA flow requirements. If you have any questions regarding our recommendation to reduce the CWRMA flow requirement for December 2019, please feel free to contact us at our Carlsbad office.

ANNUAL REPORT

COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT

CALENDAR YEAR 2019

APPENDIX C-1

PALA PARK GROUNDWATER MONITORING WELL

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

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

SITE INFORMATION: Land-surface altitude is 1016.24 feet above mean sea level (NAVD88).

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.

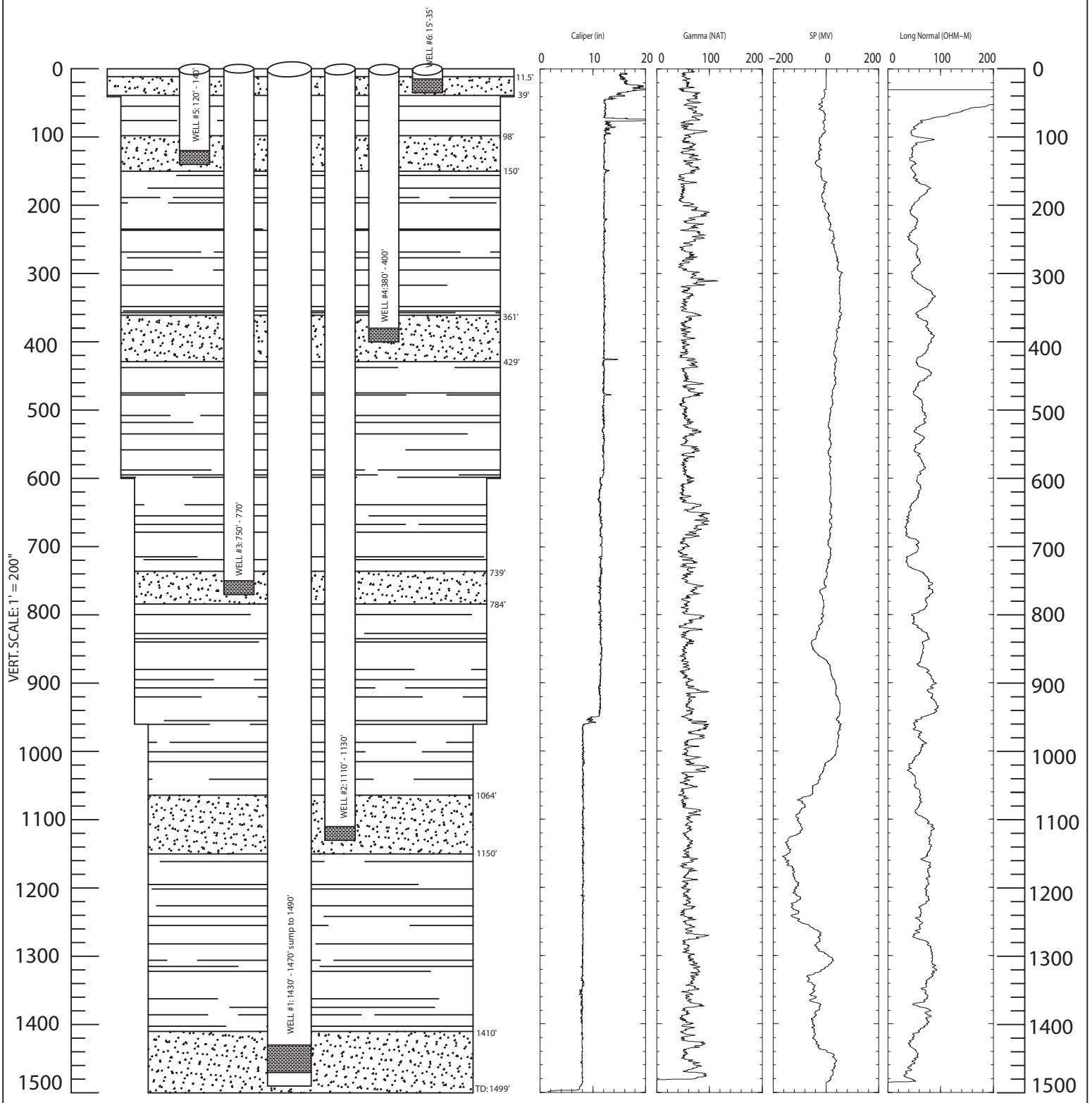
WELL SUMMARY INFORMATION:

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

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/.

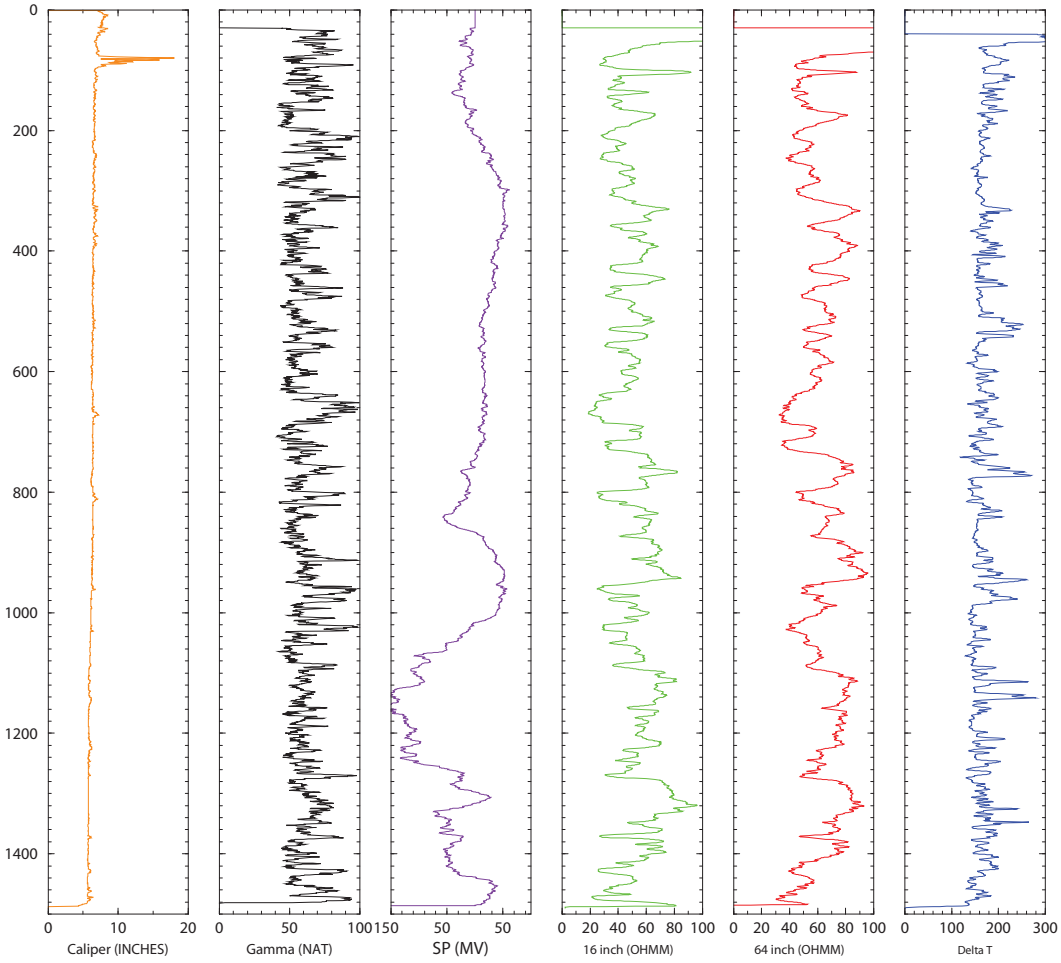
SITE I.D.:	3328191170706 01-06	COMPLETION DATE:	9/30/06
STATION NAME:	08S/02W-19A 01-06	TOTAL DEPTH:	1499'
USGS SITE:	TMPP- Temecula Pala Park	WELL FINISH:	VAULT
OWNER:	Rancho California Water Agency		



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 2019

Month	Well A1	Well A2	Well A3	Well A4	Well A5	Well A6
Oct 06	---	---	---	---	---	---
Nov	---	---	---	---	---	---
Dec	970.21	953.97	944.19	940.78	925.55	---
Jan 07	969.89	953.07	943.31	940.00	922.45	---
Feb	969.68	952.35	942.17	938.89	920.01	---
Mar	969.04	951.26	941.35	937.97	917.71	---
Apr	968.84	950.61	940.37	936.85	922.89	---
May	967.37	948.55	939.28	936.40	918.52	---
Jun	966.56	947.64	939.26	936.53	916.65	---
Jul	966.04	947.62	938.49	935.47	914.84	---
Aug	965.68	947.12	937.37	934.17	912.90	---
Sep	965.39	946.61	936.40	933.08	911.11	---
Oct	965.71	946.51	936.06	932.21	909.40	---
Nov	964.80	945.15	934.01	930.41	907.17	---
Dec	965.43	944.77	934.11	930.75	938.11	---
Jan 08	965.82	944.81	934.92	931.42	---	---
Feb	965.88	944.98	935.58	932.16	989.94	---
Mar	963.78	943.59	934.03	930.95	962.46	---
Apr	963.39	943.15	932.69	929.80	947.48	---
May	963.02	942.36	931.76	928.82	960.12	---
Jun	962.20	941.24	930.79	928.27	944.88	---
Jul	961.59	940.61	930.61	928.07	937.51	---
Aug	961.12	940.10	929.98	927.42	932.44	---
Sep	960.48	939.36	929.45	926.88	927.61	---
Oct	959.97	938.86	928.69	925.98	922.94	---
Nov	960.61	939.25	929.15	926.08	940.57	---
Dec	961.41	939.60	929.68	926.65	975.38	---
Jan 09	960.12	938.38	929.58	927.25	952.55	---
Feb	960.48	939.08	930.62	928.26	982.18	---
Mar	959.58	938.88	931.00	928.77	959.70	---
Apr	959.22	939.16	930.63	928.34	947.76	---
May	958.85	938.80	930.49	928.35	940.85	---
Jun	958.70	939.07	930.44	928.06	936.30	---
Jul	958.07	938.22	929.67	927.63	932.18	---
Aug	957.48	937.81	929.74	927.92	928.57	---
Sep	956.44	937.11	929.67	928.05	925.86	---
Oct	955.94	937.00	930.37	928.85	924.09	---
Nov	955.70	937.27	931.27	929.85	923.54	---
Dec	956.44	938.37	932.63	931.08	947.15	---
Jan 10	958.12	940.62	934.88	932.98	987.33	---
Feb	958.30	941.16	935.99	934.53	1000.20	---
Mar	957.39	941.23	936.94	935.78	973.96	---
Apr	957.31	941.82	936.78	936.37	981.43	---
May	957.13	942.30	937.22	936.81	964.51	---
Jun	957.56	942.96	937.31	937.02	956.53	---
Jul	957.38	943.04	937.35	937.12	950.82	---
Aug	957.68	943.50	937.65	937.39	947.11	---
Sep	957.79	943.75	937.81	937.44	944.16	---
Oct	958.02	943.82	938.09	937.85	958.25	---
Nov	959.06	944.92	939.69	939.11	961.49	---
Dec	960.31	946.27	941.49	941.05	999.57	992.04

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 2019

Month	Well A1	Well A2	Well A3	Well A4	Well A5	Well A6
Jan 11	959.48	946.04	942.22	942.24	982.16	---
Feb	959.81	946.94	942.67	943.04	996.72	991.56
Mar	960.32	947.70	943.87	944.55	992.96	990.82
Apr	959.54	947.67	944.28	945.30	979.90	985.07
May	959.49	948.03	944.74	946.07	971.92	---
Jun	960.59	949.74	946.08	946.70	966.51	---
Jul	960.63	950.13	944.62	945.09	959.44	---
Aug	960.72	949.74	943.91	944.55	955.25	---
Sep	960.36	949.05	944.22	945.16	954.00	---
Oct	961.23	949.88	945.92	946.76	957.56	---
Nov	961.88	950.66	947.62	948.63	976.20	---
Dec	961.56	950.93	948.77	950.20	976.65	986.55
Jan 12	962.29	952.43	950.81	951.89	971.73	986.23
Feb	962.58	953.66	950.83	951.88	993.63	989.09
Mar	963.98	955.00	952.20	953.42	995.52	993.88
Apr	963.26	954.66	952.53	955.32	994.18	992.68
May	963.08	955.17	953.43	957.89	989.88	990.66
Jun	963.48	955.95	954.48	959.25	988.40	989.70
Jul	964.07	957.07	955.13	959.35	986.53	989.47
Aug	964.08	957.24	954.48	958.54	982.95	989.34
Sep	964.36	957.66	954.64	958.17	979.23	988.83
Oct	964.53	957.65	955.01	958.37	977.49	988.68
Nov	964.57	957.70	955.86	959.43	977.90	989.80
Dec	966.85	960.15	957.99	961.11	990.99	991.54
Jan 13	967.70	961.35	959.01	962.77	990.23	991.72
Feb	967.29	961.03	959.27	964.54	993.57	993.78
Mar	966.81	961.02	960.51	970.43	993.38	993.86
Apr	966.88	961.71	961.91	972.78	993.23	994.21
May	968.53	963.81	963.40	973.26	992.76	993.69
Jun	969.56	965.24	964.01	973.54	992.79	993.93
Jul	968.74	964.64	963.48	972.67	991.73	992.70
Aug	968.91	964.98	963.18	971.35	989.71	991.21
Sep	968.95	964.73	962.44	969.41	987.51	990.74
Oct	969.06	964.62	962.58	968.55	986.92	990.61
Nov	969.52	964.88	963.18	968.71	988.27	991.07
Dec	969.47	964.82	963.70	969.62	990.15	991.82
Jan 14	969.59	965.27	964.70	972.00	991.37	992.47
Feb	970.44	966.47	966.65	975.30	996.35	993.52
Mar	970.48	966.94	967.84	978.40	996.68	996.80
Apr	971.51	968.64	969.79	979.80	996.73	996.83
May	973.22	970.76	970.39	979.06	995.25	995.15
Jun	974.31	971.64	970.64	978.70	994.55	994.99
Jul	973.96	971.47	969.85	977.12	992.51	992.94
Aug	973.70	971.05	969.05	975.90	990.64	991.55
Sep	973.86	970.96	968.81	974.84	989.22	990.68
Oct	973.85	970.56	967.88	972.86	985.97	989.95
Nov	973.99	970.20	967.63	971.89	982.93	990.18
Dec	975.70	971.26	969.49	977.05	995.09	995.82

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 2019

Month	Well A1	Well A2	Well A3	Well A4	Well A5	Well A6
Jan 15	975.30	971.09	970.53	979.01	995.18	995.27
Feb	975.29	971.58	971.03	979.26	994.84	995.22
Mar	974.94	971.51	971.14	979.56	995.19	995.41
Apr	975.29	972.20	971.59	979.40	994.29	994.55
May	976.28	973.32	972.37	979.48	994.82	994.71
Jun	975.99	972.87	970.98	977.87	992.41	993.07
Jul	976.65	973.53	971.38	977.04	990.93	991.69
Aug	976.73	973.08	970.06	975.08	988.39	990.44
Sep	976.55	972.33	969.05	973.30	984.20	990.08
Oct	976.24	971.53	968.75	972.95	987.03	991.13
Nov	976.11	971.31	969.33	973.99	989.68	991.99
Dec	976.86	972.04	970.74	976.67	991.81	993.11
Jan 16	977.55	972.83	972.73	980.88	996.05	996.23
Feb	977.24	973.18	973.17	981.40	996.62	996.87
Mar	977.69	974.13	974.02	982.05	997.06	997.13
Apr	977.86	974.80	973.90	981.01	995.25	995.37
May	977.95	974.93	973.31	979.84	993.42	993.85
Jun	977.98	974.64	972.07	978.07	991.67	992.56
Jul	979.27	975.80	972.78	977.29	989.21	990.37
Aug	978.59	974.42	970.65	974.20	---	989.05
Sep	978.33	973.65	969.68	972.29	978.68	988.47
Oct	978.34	973.14	969.41	971.30	976.17	988.20
Nov	978.68	973.05	969.24	970.78	974.79	987.98
Dec	979.35	973.09	969.88	972.42	996.47	995.75
Jan 17	979.75	973.59	972.72	981.34	1001.30	1000.70
Feb	980.53	974.97	974.38	982.64	1008.39	1003.32
Mar	979.46	974.53	974.61	983.52	999.38	999.34
Apr	979.32	975.09	975.18	983.38	998.04	997.87
May	979.61	975.93	975.42	982.96	997.39	997.44
Jun	979.74	976.30	974.74	981.54	995.83	996.06
Jul	979.88	976.46	974.38	980.33	993.42	993.83
Aug	980.24	976.24	973.87	980.01	993.41	994.38
Sep	979.93	976.04	973.85	979.34	992.11	992.69
Oct	979.76	975.85	973.28	978.00	989.75	991.40
Nov	979.45	975.08	971.46	975.81	985.56	990.49
Dec	980.81	975.66	972.07	975.70	983.33	990.23
Jan 18	981.18	975.61	972.93	978.10	992.26	993.09
Feb	980.66	975.04	972.95	978.28	991.72	992.90
Mar	980.67	975.16	973.97	980.17	993.87	994.80
Apr	980.20	975.37	973.50	979.48	992.40	993.54
May	980.19	975.60	973.24	978.44	991.05	992.62
Jun	979.97	975.41	972.78	977.25	989.29	991.77
Jul	980.15	975.20	970.75	974.08	983.37	990.07
Aug	980.75	974.91	969.54	971.73	977.92	988.99
Sep	981.40	974.53	969.23	970.35	974.08	988.39
Oct	980.82	973.28	967.69	968.58	975.71	988.36
Nov	980.30	972.21	967.48	968.57	998.77	990.71
Dec	980.41	971.88	968.64	971.85	990.93	991.99

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

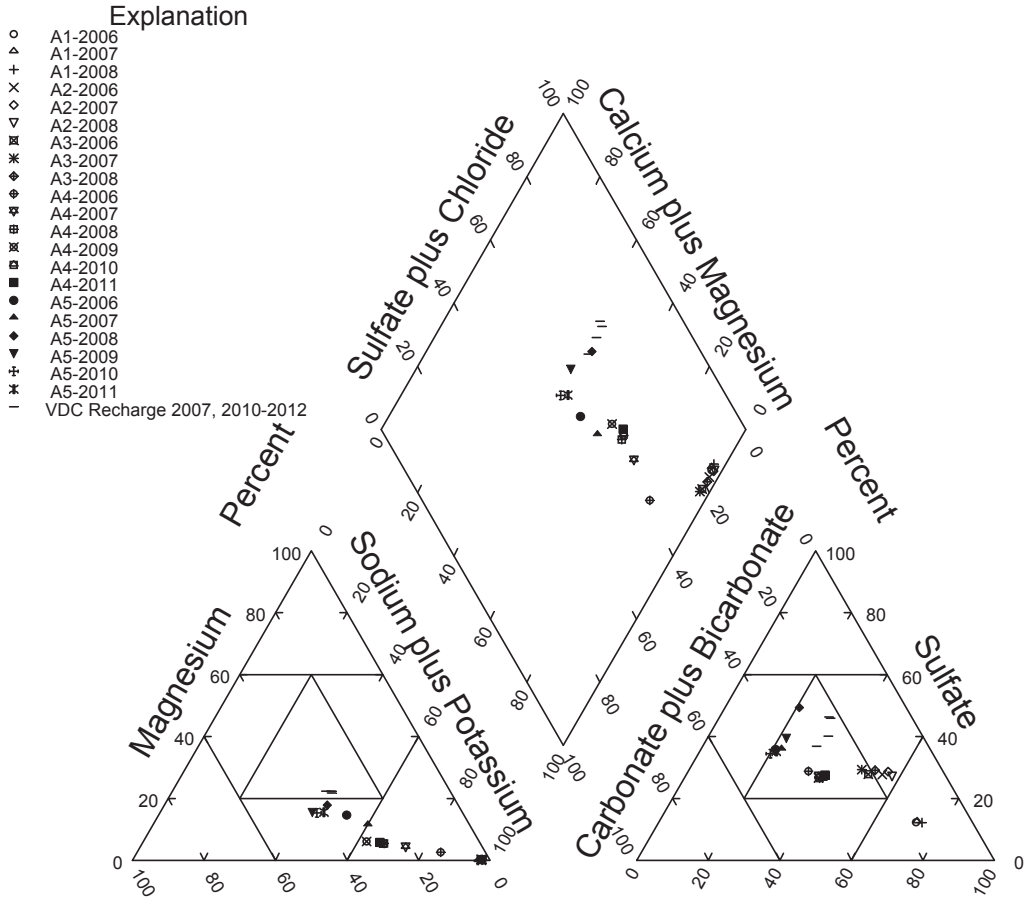
October 2006 through December 2019

Month	Well A1	Well A2	Well A3	Well A4	Well A5	Well A6
Jan 19	980.38	972.14	970.09	976.90	995.25	995.34
Feb	980.88	973.19	972.42	981.87	1001.23	1000.98
Mar	980.60	973.76	974.18	983.50	1000.47	1000.39
Apr	980.34	974.63	974.86	983.25	999.03	999.22
May	980.60	975.38	974.32	982.08	997.93	998.33
Jun	979.06	974.08	973.22	981.47	996.94	997.15
Jul	979.31	974.64	973.63	981.58	995.83	996.02
Aug	978.96	974.62	973.85	981.35	994.27	994.37
Sep	979.49	975.32	974.00	980.46	991.59	990.87
Oct	978.96	974.78	972.67	978.49	989.78	991.32
Nov	980.60	976.35	973.50	978.80	1001.49	997.13
Dec	981.36	976.52	974.03	981.19	998.48	997.82

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.

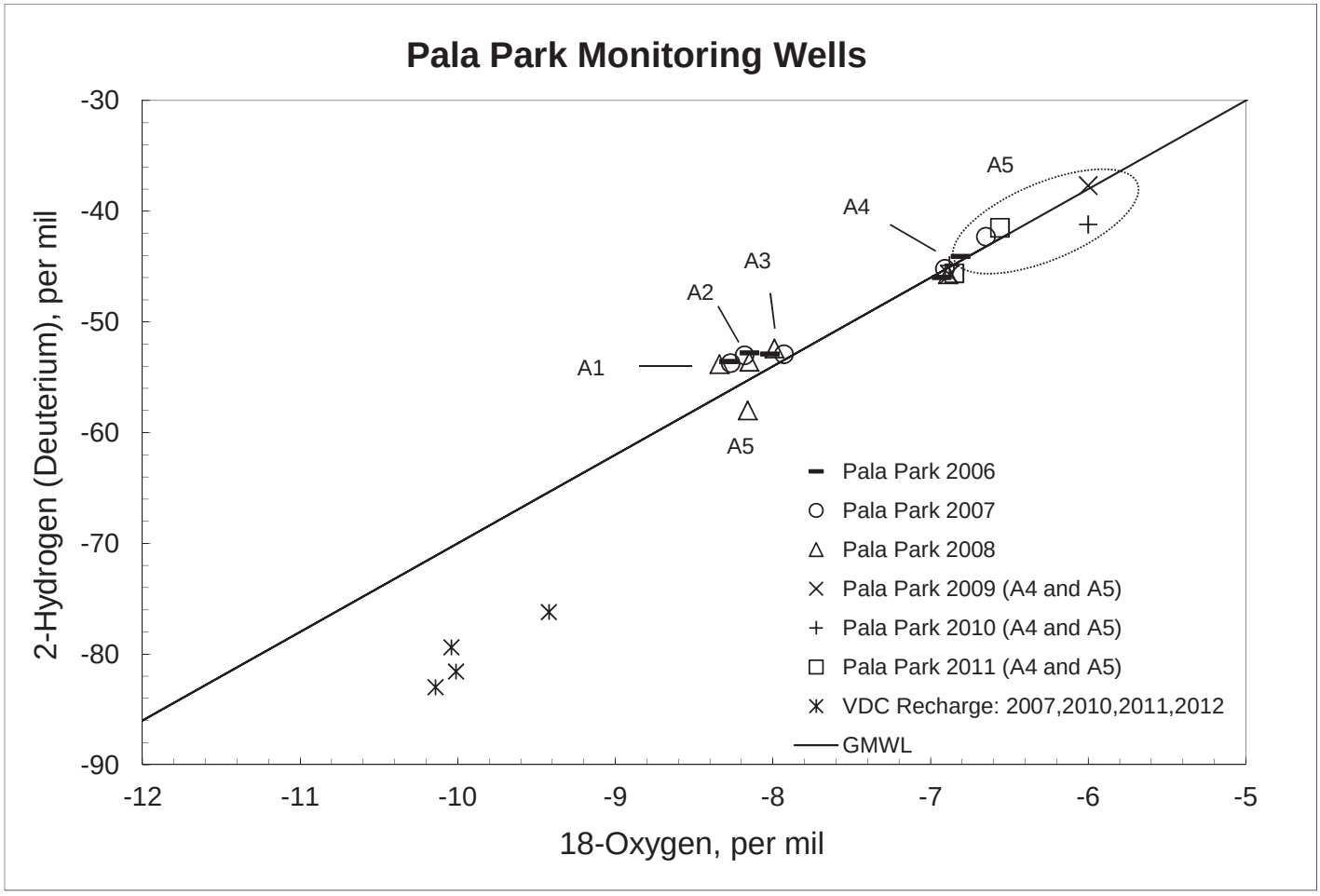
Source: USGS California Water Science Center.

Tri-Linear Diagram
Pala Park Well (8S/2W-19A1-6)



Source: USGS California Water Science Center.

Stable Isotope Diagram



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	Well A2	Well A3	Well A4	Well A5
	Sampling date		11/8/2006	11/2/2006	11/1/2006	11/6/2006	11/8/2006
3	Sampling depth, feet						
10	Temperature, water, degrees Celsius		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	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						
915	Calcium, water, filtered, milligrams per liter		3.14	3.32	2.62	18.7	44.9
925	Magnesium, water, filtered, milligrams per liter		0.106	0.058	0.288	2.45	12.1
930	Sodium, water, filtered, milligrams per liter		127	152	138	145	81.4
931	Sodium adsorption ratio, water, number		19	23	22	8.4	2.8
932	Sodium fraction of cations, water, percent in equivalents of major cations		97	97	97	84	52
935	Potassium, water, filtered, milligrams per liter		0.62	0.96	1.26	2.39	2.10
940	Chloride, water, filtered, milligrams per liter	600	138	131	112	87.1	40.1
945	Sulfate, water, filtered, milligrams per liter	600	34.1	95.3	84.7	102	110
950	Fluoride, water, filtered, milligrams per liter	2 (b)	4.56	4.18	1.09	0.38	0.42
955	Silica, water, filtered, milligrams per liter		17.3	19.0	14.6	17.2	28.3
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	50 (o)					

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	Well A2	Well A3	Well A4	Well A5
	Sampling date		11/8/2006	11/2/2006	11/1/2006	11/6/2006	11/8/2006
4022	Terbuthylazine, water, filtered, recoverable, micrograms per liter					< 0.01	< 0.01
4025	Hexazinone, water, filtered, recoverable, micrograms per liter					< 0.026	< 0.026
4029	Bromacil, water, filtered, recoverable, micrograms per liter						
4035	Simazine, water, filtered, recoverable, micrograms per liter					< 0.006	0.036
4036	Prometryn, water, filtered, recoverable, micrograms per liter					< 0.006	< 0.006
4037	Prometon, water, filtered, recoverable, micrograms per liter					< 0.01	< 0.01
4040	2-Chloro-4-isopropylamino-6-amino-s-triazine, water, filtered, recoverable, micrograms per liter					< 0.014	< 0.014
4095	Fonofos, water, filtered, recoverable, micrograms per liter					< 0.006	< 0.006
7000	Tritium, water, unfiltered, picocuries per liter		-0.19	0.35	0.45	0.58	11.14
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	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
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	Tetrachloroethene, 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					< 0.04	< 0.04
34571	1,4-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter	5				< 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

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	Well A2	Well A3	Well A4	Well A5
	Sampling date		11/8/2006	11/2/2006	11/1/2006	11/6/2006	11/8/2006
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
34704	cis-1,3-Dichloropropene, water, unfiltered, recoverable, micrograms per liter	0.5				< 0.06	< 0.06
38454	Dicrotophos, 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					< 0.09	< 0.09
49933	C-14, water, filtered, percent modern			17.27	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	Metalaxyl, 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	Metalaxyl, 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-methylaniline, 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 monoxon, 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

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	Well A2	Well A3	Well A4	Well A5
	Sampling date		11/8/2006	11/2/2006	11/1/2006	11/6/2006	11/8/2006
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	< 0.016
62167	Fipronil sulfide, water, filtered, recoverable, micrograms per liter					< 0.013	< 0.013
62168	Fipronil sulfone, water, filtered, recoverable, micrograms per liter					< 0.024	< 0.024
62169	Desulfinylfipronil amide, water, filtered, recoverable, micrograms per liter					< 0.029	0.008 E
62170	Desulfinylfipronil, water, filtered, recoverable, micrograms per liter					< 0.012	< 0.012
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	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						
71846	Ammonia, water, filtered, milligrams per liter as NH4		0.04	0.05	0.06	0.05	
71851	Nitrate, water, filtered, milligrams per liter	45 (q)			0.184 E	0.174 E	11.5

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	Well A2	Well A3	Well A4	Well A5
	Sampling date		11/8/2006	11/2/2006	11/1/2006	11/6/2006	11/8/2006
71856	Nitrite, water, filtered, milligrams per liter			0.032	0.038	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
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	0.58	0.58	0.58	0.70
76002	Rn-222, 2-sigma combined uncertainty, water, unfiltered, picocuries per liter						
77041	Carbon disulfide, water, unfiltered, micrograms per liter					0.10	< 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					< 0.06	< 0.06
77173	1,3-Dichloropropane, water, unfiltered, recoverable, micrograms per liter					< 0.1	< 0.1
77220	2-Ethyltoluene, water, unfiltered, recoverable, micrograms per liter					< 0.04	< 0.04
77221	1,2,3-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter					< 0.1	< 0.1
77222	1,2,4-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter					< 0.04	< 0.04
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	1,1,2-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					< 0.2	< 0.2
81552	Acetone, water, unfiltered, recoverable, micrograms per liter					< 6	< 6
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					< 0.4	< 0.4
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			-16.29	-16.37	-10.71	
82082	Deuterium/Protium ratio, water, unfiltered, per mil		-53.60	-52.80	-52.90	-46.00	-44.10
82085	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil		-8.28	-8.15	-8.02	-6.93	-6.81
82303	Rn-222, water, unfiltered, picocuries per liter						
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

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	Well A2	Well A3	Well A4	Well A5
	Sampling date		11/8/2006	11/2/2006	11/1/2006	11/6/2006	11/8/2006
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
82670	Tebuthiuron, 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	Propyzamide, 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	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					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. 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 verifed 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.

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	Well A2	Well A3	Well A4	Well A5
	Sampling date		9/27/2007	9/20/2007	9/25/2007	9/25/2007	9/20/2007
3	Sampling depth, feet						
10	Temperature, water, degrees Celsius		25.5	21.0	21.1	21.1	21.0
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		653	789	786	686	685
191	Hydrogen ion, water, unfiltered, calculated, milligrams per liter		M	M	M	0.00001	0.00001
300	Dissolved oxygen, water, unfiltered, milligrams per liter		< 0.2	< 0.2	0.1	0.1	5.7
400	pH, water, unfiltered, field, standard units		9.5	9.4	9.1	8.3	7.9
403	pH, water, unfiltered, laboratory, 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						
915	Calcium, water, filtered, milligrams per liter		3.87	2.87	3.64	29.5	38.0
925	Magnesium, water, filtered, milligrams per liter		0.029	0.078	0.337	3.56	9.29
930	Sodium, water, filtered, milligrams per liter		132	151	169	116	90.7
931	Sodium adsorption ratio, water, number		18	24	23	5.3	3.4
932	Sodium fraction of cations, water, percent in equivalents of major cations		97	97	97	73	59
935	Potassium, water, filtered, milligrams per liter		0.33	0.76	1.39	2.32	2.58
940	Chloride, water, filtered, milligrams per liter	600	133	131	121	80.8	44.1
945	Sulfate, water, filtered, milligrams per liter	600	33.3	95.2	101	79.9	108
950	Fluoride, water, filtered, milligrams per liter	2 (b)	4.42	3.44	0.92	0.28	0.31
955	Silica, water, filtered, milligrams per liter		18.2	17.6	14.8	17.7	24.3
1000	Arsenic, water, filtered, micrograms per liter	10 (c)	31.3	18.7	13.1	4.5	4.0
1005	Barium, water, filtered, micrograms per liter	1000 (d)	4	3	3	14	22
1010	Beryllium, micrograms per liter	4 (e)	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
1020	Boron, water, filtered, micrograms per liter		102	158	147	153	143
1025	Cadmium, micrograms per liter	5 (f)	0.35	0.49	0.31	0.03 E	0.02 E
1030	Chromium, micrograms per liter	50 (g)	0.09 E	0.31	0.2	0.21	1.10
1035	Cobalt, micrograms per liter		< 0.04	< 0.04	0.04 E	0.03 E	0.08
1040	Copper, micrograms per liter	1000 (h)	< 0.4	0.22 E	0.70	0.87	1.70
1046	Iron, water, filtered, micrograms per liter	300	3 E	< 6	10	4 E	< 6
1049	Lead, micrograms per liter		< 0.12	< 0.12	0.08 E	< 0.12	< 0.12
1056	Manganese, water, filtered, micrograms per liter	50	0.4	0.9	2.8	12.4	0.7
1057	Thallium, micrograms per liter	2 (i)	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
1060	Molybdenum, micrograms per liter		208	251	208	11.5	6.8
1065	Nickel, micrograms per liter	100 (j)	0.07	0.19	0.46	0.26	0.73
1075	Silver, micrograms per liter	100 (k)	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1080	Strontium, water, filtered, micrograms per liter		28.1	17.3	20.3	257	201
1085	Vanadium, micrograms per liter		78.6	32.2	7.3	1.1	21.5
1090	Zinc, micrograms per liter	5000 (l)	< 0.6	0.70	0.70	1.0	2.8
1095	Antimony, micrograms per liter	6 (m)	0.06 E	0.11	0.17	0.04 E	0.07
1106	Aluminum, water, filtered, micrograms per liter	1000 (n)	43.1	100	139	27.0	3.3
1130	Lithium, water, filtered, micrograms per liter		2.0	4.0	2.7	6.8	5.1
1145	Selenium, micrograms per liter	50 (o)	< 0.08	0.08	0.09	0.05 E	7.5

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	Well A2	Well A3	Well A4	Well A5
	Sampling date		9/27/2007	9/20/2007	9/25/2007	9/25/2007	9/20/2007
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		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	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 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	5	< 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	Tetrachloroethene, water, unfiltered, recoverable, micrograms per liter	5	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
34476	Tetrachloroethene, 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	5	< 0.02	< 0.04	< 0.04	< 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	< 0.14	< 0.14	< 0.14

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	Well A2	Well A3	Well A4	Well A5
	Sampling date		9/27/2007	9/20/2007	9/25/2007	9/25/2007	9/20/2007
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
34704	cis-1,3-Dichloropropene, water, unfiltered, recoverable, micrograms per liter	0.5	< 0.10	< 0.06	< 0.06	< 0.06	< 0.06
38454	Dicrotophos, 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		< 0.1	< 0.1	< 0.1	< 0.1	< 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		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	Metalaxyl, 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	Metalaxyl, 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						

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	Well A2	Well A3	Well A4	Well A5
	Sampling date		9/27/2007	9/20/2007	9/25/2007	9/25/2007	9/20/2007
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		0.04 E	0.06	0.11	0.04 E	2.21
63790	Perchlorate, water, filtered, recoverable, micrograms per liter	6	< 0.1	0.7	0.26	< 0.1	0.23
70300	Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter	1500	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	45 (q)					9.37

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	Well A2	Well A3	Well A4	Well A5
	Sampling date		9/27/2007	9/20/2007	9/25/2007	9/25/2007	9/20/2007
71856	Nitrite, water, filtered, milligrams per liter						0.008
71865	Iodide, water, filtered, milligrams per liter						
71870	Bromide, water, filtered, milligrams per liter		0.31	0.40	0.36	0.26	0.12
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		< 0.1	< 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		< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
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		< 0.6	< 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		< 0.1	< 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
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		< 0.4	< 0.2	< 0.2	< 0.2	< 0.2
81552	Acetone, water, unfiltered, recoverable, micrograms per liter		< 4	< 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	< 0.77	< 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						
82625	1,2-Dibromo-3-chloropropane, water, unfiltered, recoverable, micrograms per liter		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
82630	Metribuzin, water, filtered, 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)
September 2007

Code	Parameter	MCL	Well A1	Well A2	Well A3	Well A4	Well A5
	Sampling date		9/27/2007	9/20/2007	9/25/2007	9/25/2007	9/20/2007
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		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. 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 verifed 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.

Source: USGS California Water Science Center.

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

Code	Parameter	MCL	Well A1	Well A2	Well A3	Well A4	Well A5
	Sampling date		4/22/2008	4/23/2008	4/23/2008	4/23/2008	4/23/2008
3	Sampling depth, feet						
10	Temperature, water, degrees Celsius		22.4	24.9	24.4	22.5	20.1
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		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	50 (o)					

Source: USGS California Water Science Center.

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

Code	Parameter	MCL	Well A1	Well A2	Well A3	Well A4	Well A5
	Sampling date		4/22/2008	4/23/2008	4/23/2008	4/23/2008	4/23/2008
4022	Terbuthylazine, water, filtered, recoverable, micrograms per liter						
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	Benzo[a]pyrene, water, filtered, recoverable, micrograms per liter	0.2 (p)				< 0.1	< 0.1
34288	Tribromomethane, water, filtered, recoverable, micrograms per liter					< 0.1	< 0.1
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				< 0.04	< 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	5				< 0.04	< 0.04
34443	Naphthalene, water, filtered, recoverable, micrograms per liter					< 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	Tetrachloroethene, 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

Source: USGS California Water Science Center.

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

Code	Parameter	MCL	Well A1	Well A2	Well A3	Well A4	Well A5
	Sampling date		4/22/2008	4/23/2008	4/23/2008	4/23/2008	4/23/2008
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
34704	cis-1,3-Dichloropropene, water, unfiltered, recoverable, micrograms per liter	0.5				< 0.10	< 0.10
38454	Dicrotophos, 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					< 0.1	< 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		2.91	14.29		69.32	88.12
49934	C-14, counting error, water, filtered, percent modern		0.11	0.21		0.35	0.41
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	Metalaxyl, 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	Metalaxyl, 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						

Source: USGS California Water Science Center.

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

Code	Parameter	MCL	Well A1	Well A2	Well A3	Well A4	Well A5
	Sampling date		4/22/2008	4/23/2008	4/23/2008	4/23/2008	4/23/2008
61705	Diethoxyoctylphenol, water, filtered, recoverable, micrograms per liter					< 1	< 1
61706	Monoethoxyoctylphenol, water, filtered, recoverable, micrograms per liter					< 1	< 1
62005	Cotinine, water, filtered, recoverable, micrograms per liter					< 0.400	< 0.400
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-Stigmastanol, 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	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	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	45 (q)					

Source: USGS California Water Science Center.

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

Code	Parameter	MCL	Well A1	Well A2	Well A3	Well A4	Well A5
	Sampling date		4/22/2008	4/23/2008	4/23/2008	4/23/2008	4/23/2008
71856	Nitrite, water, filtered, milligrams per liter				0.006 E		
71865	Iodide, water, filtered, milligrams per liter		0.399	0.666	0.489	0.025	0.005
71870	Bromide, water, filtered, milligrams per liter		0.33	0.40	0.38	0.27	0.06
72019	Depth to water level, feet below land surface		53.42	72.96	83.30	86.32	66.09
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	0.58	0.58	0.58	0.64
76002	Rn-222, 2-sigma combined uncertainty, water, unfiltered, picocuries per liter						
77041	Carbon disulfide, water, unfiltered, micrograms per liter					< 0.06	< 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					< 0.6	< 0.6
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					< 0.06	< 0.06
77173	1,3-Dichloropropane, water, unfiltered, recoverable, micrograms per liter					< 0.1	< 0.1
77220	2-Ethyltoluene, water, unfiltered, recoverable, micrograms per liter					< 0.04	< 0.04
77221	1,2,3-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter					< 0.1	< 0.1
77222	1,2,4-Trimethylbenzene, water, unfiltered, recoverable, micrograms per liter					< 0.04	< 0.04
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	1,1,2-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	-52.40	-45.70	-58.00
82085	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil		-8.34	-8.15	-7.99	-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						

Source: USGS California Water Science Center.

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

Code	Parameter	MCL	Well A1	Well A2	Well A3	Well A4	Well A5
	Sampling date		4/22/2008	4/23/2008	4/23/2008	4/23/2008	4/23/2008
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					< 1	< 1
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
90095	Specific conductance, water, unfiltered, laboratory, microsiemens per centimeter at 25 degrees Celsius		645	757	732	668	631
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					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. 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 verifed 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.

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	8/4/2009
3	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					660	601
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					8.1	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				20.3	< 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					343	257
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)				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					8/4/2009	8/4/2009
1145	Selenium, micrograms per liter	50 (o)					
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						
29801	Alkalinity, water, filtered, fixed endpoint (pH 4.5) titration, laboratory, milligrams per liter as calcium carbonate					129	127
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					
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-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						

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	8/4/2009
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	Dicrotophos, 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	121
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	Metalaxyl, 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	Metalaxyl, 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						
61705	Diethoxyoctylphenol, water, filtered, 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	8/4/2009
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	6					
70300	Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter	1500				389	396
70301	Residue, water, filtered, sum of constituents, milligrams per liter					381	368 E
70303	Residue, water, filtered, tons per acre-foot						
71846	Ammonia, water, filtered, milligrams per liter as NH4					0.03	0.01 E
71851	Nitrate, water, filtered, milligrams per liter	45 (q)					
71856	Nitrite, water, filtered, milligrams per liter						
71865	Iodide, water, filtered, milligrams per liter					0.035	0.004

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	8/4/2009
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						
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	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					-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-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						

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	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	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 verifed 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.

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	7/26/2010
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					7/26/2010	7/26/2010
1130	Lithium, water, filtered, micrograms per liter					7	7
1145	Selenium, micrograms per liter	50 (o)					
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						
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	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	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-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						

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	7/26/2010
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	Dicrotophos, 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						
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	Metalaxyl, 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	Metalaxyl, 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						

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	7/26/2010
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	6					
70300	Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter	1500				379	465
70301	Residue, water, filtered, sum of constituents, milligrams per liter					395 E	466 E
70303	Residue, water, filtered, tons per acre-foot						
71846	Ammonia, water, filtered, milligrams per liter as NH4					0.032	< 0.026
71851	Nitrate, water, filtered, milligrams per liter	45 (q)				< 0.173	16.2 E
71856	Nitrite, water, filtered, milligrams per liter					0.003 E	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					7/26/2010	7/26/2010
71865	Iodide, water, filtered, milligrams per liter					0.025	0.002
71870	Bromide, water, filtered, milligrams per liter					0.26	0.09
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	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					-44.90	-41.20
82085	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil					-6.86	-6.76
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						

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	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, recoverable, micrograms per liter						
90095	Specific conductance, water, unfiltered, laboratory, microsiemens per centimeter at 25 degrees Celsius					679	737
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. 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 verifed 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.

Source: USGS California Water Science Center.

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
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)					
1106	Aluminum, water, filtered, micrograms per liter	1000 (n)				5.5	1.8

Source: USGS California Water Science Center.

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
1130	Lithium, water, filtered, micrograms per liter					8.15	7.16
1145	Selenium, micrograms per liter	50 (o)					
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						
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	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	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-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						

Source: USGS California Water Science Center.

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
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	Dicrotophos, 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					122	161
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	Metalaxyl, 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	Metalaxyl, 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						

Source: USGS California Water Science Center.

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
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	6					
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
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 (q)				< 0.089	15.6
71856	Nitrite, water, filtered, milligrams per liter					< 0.003	< 0.003

Source: USGS California Water Science Center.

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
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	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					-45.61	-41.48
82085	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil					-6.85	-6.56
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						

Source: USGS California Water Science Center.

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
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					653	634
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. 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 verifed 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.

Source: USGS California Water Science Center.

ANNUAL REPORT

COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT

CALENDAR YEAR 2019

APPENDIX C-2

WOLF VALLEY GROUNDWATER MONITORING WELL

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

LOCATION: Latitude 33º 27' 47.53", longitude 117º 06' 15.58" (NAD83) in Riverside County, California. Well is located southeast of Temecula in Wolf Valley, adjacent to the north side of Wolf Valley Road, approximately 1,670 feet east of Pala-Temecula Highway.

SITE INFORMATION: Land-surface altitude is 1078.78 feet above mean sea level (NAVD88).

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/.

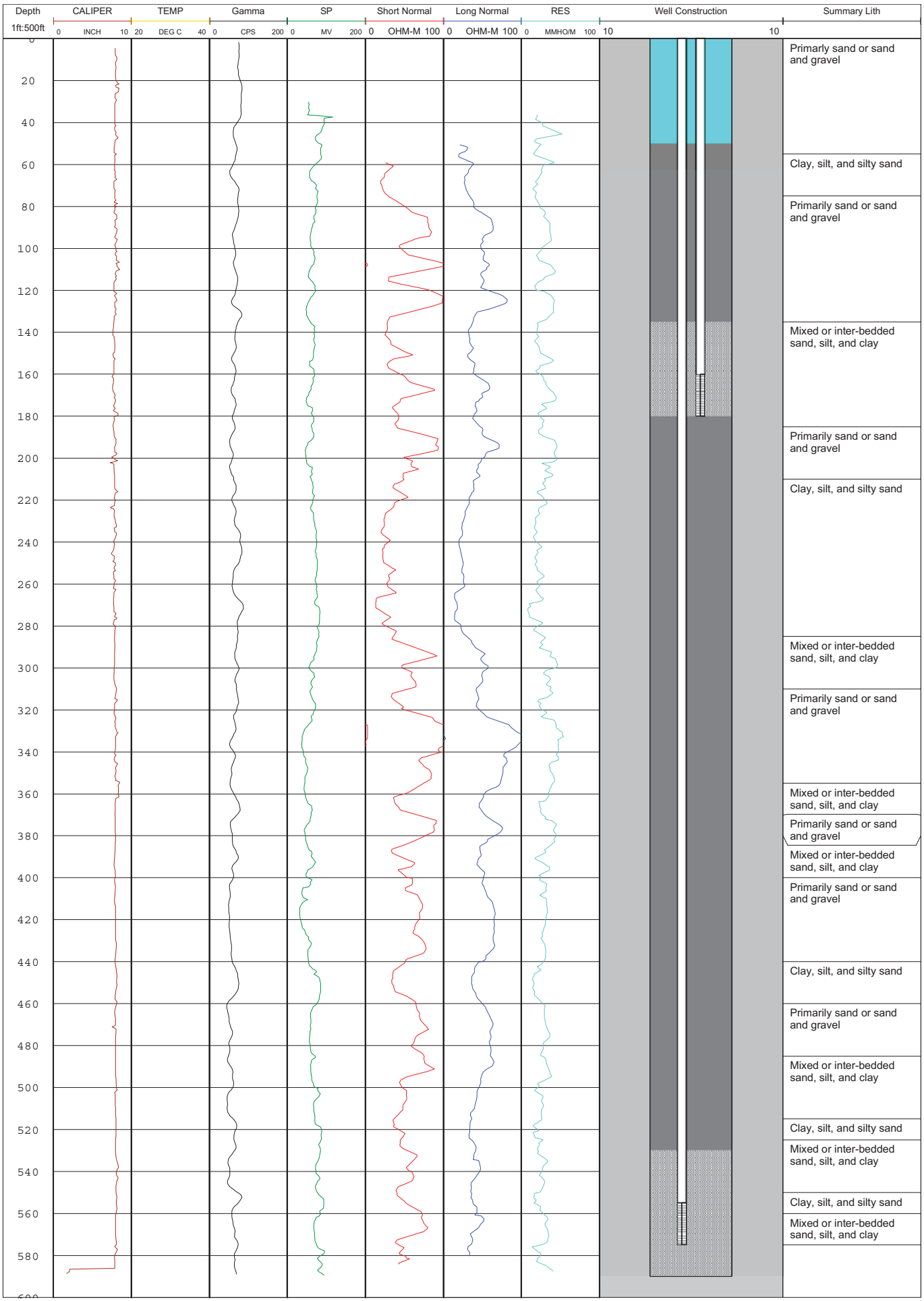
WELL CONSTRUCTION
MONITORING WELLS WV5-20J1 and WV5-20J2

View of vault located in grass, looking West.

View of wells inside vault.

Drill method: hydraulic mud rotary

Source: USGS California Water Science Center.


Depth
1ft:500ft
CALIPER
0 INCH 10
TEMP
20 DEG C 40
Gamma
0 CPS 200
SP
0 MV 200
Short Normal
0 OHM-M 100
Long Normal
0 OHM-M 100
RES
0 MMHO/M 100
Well Construction
10
10
Summary Lith
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
320
340
360
380
400
420
440
460
480
500
520
540
560
580
Primarly sand or sand and gravel
Clay, silt, and silty sand
Primarily sand or sand and gravel
Mixed or inter-bedded sand, silt, and clay
Primarily sand or sand and gravel
Clay, silt, and silty sand
Mixed or inter-bedded sand, silt, and clay
Primarily sand or sand and gravel
Mixed or inter-bedded sand, silt, and clay
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Mixed or inter-bedded sand, silt, and clay
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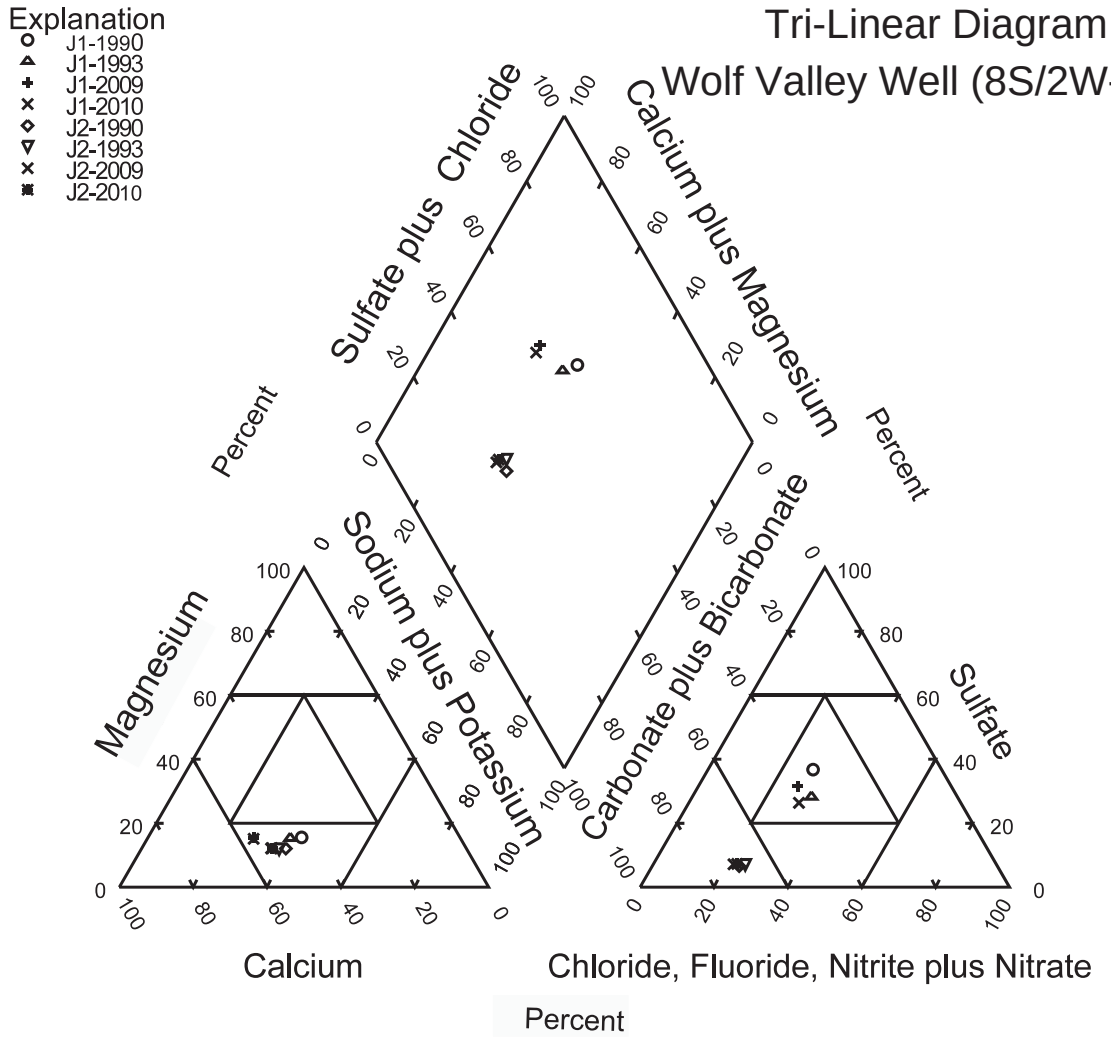
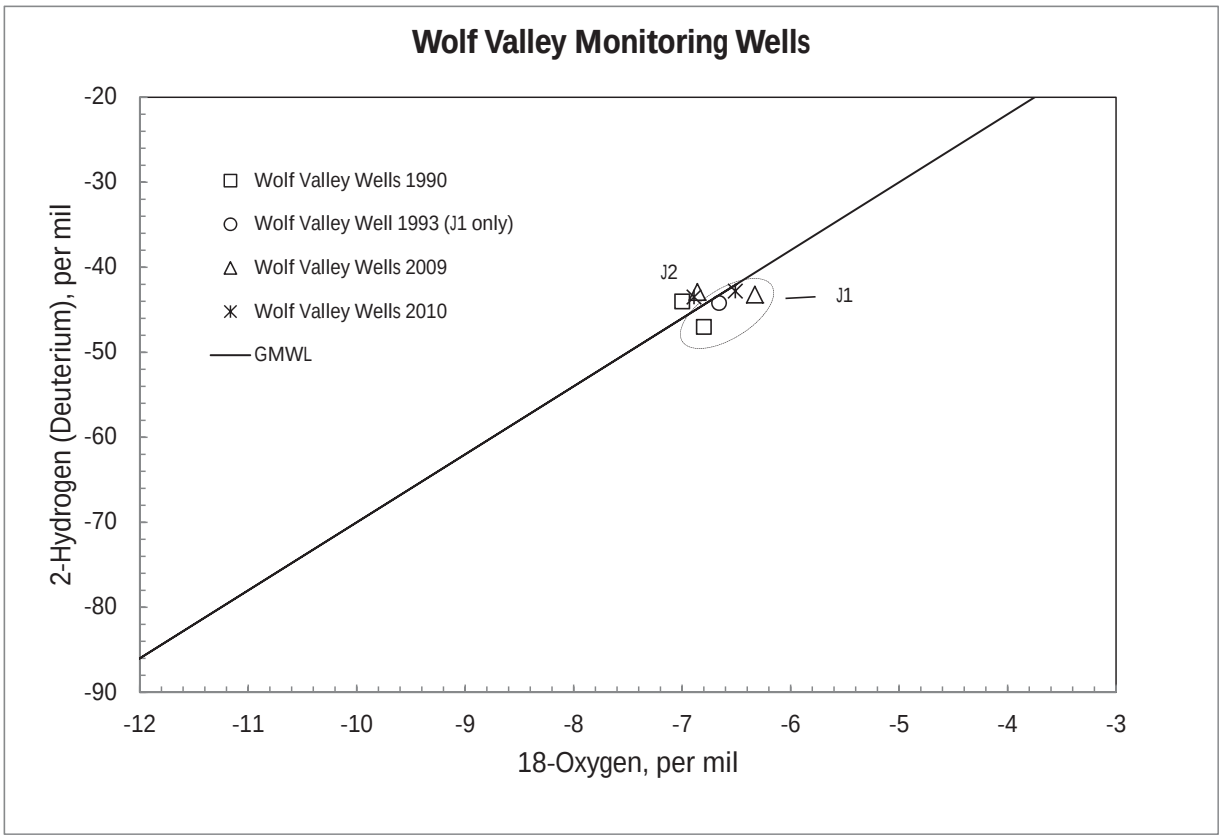
Clay, silt, and silty sand
Mixed or inter-bedded sand, silt, and clay



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 2019

Well 20J1			Well 20J2		
Date	Depth (feet)	Elevation (feet, MSL)	Date	Depth (feet)	Elevation (feet, MSL)
Mar 5 1990	73.70	1005.08	Mar 5 1990	62.47	1016.31
Mar 15 1990	73.93	1004.85	Mar 15 1990	62.41	1016.37
May 3 1990			May 3 1990	62.21	1016.57
May 18 1990	72.93	1005.85			
Jul 3 1990	72.52	1006.26	Jul 3 1990	61.88	1016.90
Aug 2 1990	72.44	1006.34	Aug 2 1990	61.80	1016.98
Aug 15 1990	72.28	1006.50	Aug 15 1990	61.65	1017.13
Oct 31 1990	72.03	1006.75	Oct 31 1990	61.32	1017.46
Nov 14 1990	71.86	1006.92	Nov 14 1990	61.23	1017.55
Nov 29 1990	71.84	1006.94	Nov 29 1990	61.20	1017.58
Dec 10 1990	71.69	1007.09	Dec 10 1990	61.13	1017.65
Dec 19 1990			Dec 19 1990	61.12	1017.66
Jan 18 1991	71.48	1007.30	Jan 18 1991	61.06	1017.72
Jan 22 1991	71.43	1007.35	Jan 22 1991	61.05	1017.73
Jan 24 1991			Jan 24 1991	61.09	1017.69
Feb 6 1991	71.43	1007.35	Feb 6 1991	61.03	1017.75
Feb 22 1991	71.47	1007.31	Feb 22 1991	61.05	1017.73
Mar 6 1991	70.81	1007.97	Mar 6 1991	61.03	1017.75
Apr 12 1991	69.62	1009.16	Apr 12 1991	60.64	1018.14
Apr 26 1991			Apr 26 1991	60.50	1018.28
May 24 1991	69.40	1009.38	May 24 1991	60.43	1018.35
May 30 1991	69.43	1009.35	May 30 1991	60.38	1018.40
Jun 13 1991	69.62	1009.16	Jun 13 1991	60.40	1018.38
Jul 31 1991	69.76	1009.02	Jul 31 1991	60.35	1018.43
Aug 20 1991	69.76	1009.02	Aug 20 1991	60.29	1018.49
Nov 8 1991	70.15	1008.63	Nov 8 1991	60.49	1018.29
Nov 26 1991	70.17	1008.61	Nov 26 1991	60.57	1018.21
Dec 12 1991	70.28	1008.50	Dec 12 1991	60.67	1018.11
Jan 10 1992	70.03	1008.75	Jan 10 1992	60.68	1018.10
Jan 27 1992	70.01	1008.77	Jan 27 1992	60.74	1018.04
Feb 7 1992	69.81	1008.97	Feb 7 1992	60.73	1018.05
Feb 23 1992			Feb 23 1992	60.65	1018.13
Feb 28 1992	68.56	1010.22	Feb 28 1992		
Mar 13 1992	69.30	1009.48	Mar 13 1992	60.61	1018.17
Apr 10 1992	68.90	1009.88	Apr 10 1992	60.47	1018.31
May 1 1992	68.87	1009.91	May 1 1992	60.39	1018.39
May 28 1992	68.84	1009.94	May 28 1992	60.33	1018.45
Jun 19 1992	69.05	1009.73	Jun 19 1992	60.33	1018.45
Jul 15 1992	69.44	1009.34	Jul 15 1992	60.42	1018.36
Jul 23 1992	69.41	1009.37	Jul 23 1992	60.46	1018.32
Sep 1 1992	69.77	1009.01	Sep 1 1992	60.61	1018.17
Sep 17 1992	69.86	1008.92	Sep 17 1992	60.67	1018.11
Oct 15 1992	70.26	1008.52	Oct 15 1992	60.93	1017.85
Nov 17 1992	70.08	1008.70	Nov 17 1992	60.85	1017.93
Dec 30 1992	69.85	1008.93	Dec 30 1992	60.95	1017.83
Mar 16 1993	63.73	1015.05	Mar 16 1993	58.84	1019.94
Mar 22 1993	63.61	1015.17	Mar 22 1993	58.58	1020.20
Apr 13 1993	63.65	1015.13	Apr 13 1993	57.55	1021.23

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

March 1990 through December 2019

Well 20J1			Well 20J2		
Date	Depth (feet)	Elevation (feet, MSL)	Date	Depth (feet)	Elevation (feet, MSL)
Apr 22 1993	63.74	1015.04	Apr 22 1993	57.15	1021.63
Jul 1 1994	62.34	1016.44	Jul 1 1994		
Jul 28 1994	62.55	1016.23	Jul 28 1994		
Aug 17 1994	65.62	1013.16	Aug 17 1994		
Sep 1 1994	66.45	1012.33	Sep 1 1994		
Oct 3 1994	65.90	1012.88	Oct 3 1994		
Nov 1 1994	66.99	1011.79	Nov 1 1994		
Dec 6 1994	63.50	1015.28	Dec 6 1994		
Jan 4 1995	64.40	1014.38	Jan 4 1995		
Feb 7 1995	64.18	1014.60	Feb 7 1995		
Jul 21 1995	72.10	1006.68	Jul 21 1995		
Aug 11 1995	73.65	1005.13	Aug 11 1995		
Sep 5 1995	73.00	1005.78	Sep 5 1995		
Oct 3 1995	72.00	1006.78	Oct 3 1995		
Nov 3 1995	74.02	1004.76	Nov 3 1995		
Dec 4 1995	67.87	1010.91	Dec 4 1995		
Jan 3 1996	69.95	1008.83	Jan 3 1996		
Feb 8 1996	67.85	1010.93	Feb 8 1996		
Mar 18 1996	66.94	1011.84	Mar 18 1996		
Apr 15 1996	72.15	1006.63	Apr 15 1996		
May 1 1996	73.02	1005.76	May 1 1996		
Jun 3 1996	74.82	1003.96	Jun 3 1996		
Jul 10 1996	68.73	1010.05	Jul 10 1996		
Aug 2 1996	71.06	1007.72	Aug 2 1996		
Sep 3 1996	76.29	1002.49	Sep 3 1996		
Oct 18 1996	70.85	1007.93	Oct 18 1996	48.14	1030.64
Nov 4 1996	71.23	1007.55	Nov 4 1996	48.35	1030.43
Dec 3 1996	75.12	1003.66	Dec 3 1996	48.21	1030.57
Jan 24 1997	69.65	1009.13	Jan 24 1997	48.72	1030.06
Feb 19 1997	75.90	1002.88	Feb 19 1997	48.63	1030.15
Mar 13 1997	81.92	996.86	Mar 13 1997	48.99	1029.79
Apr 9 1997	83.98	994.80	Apr 9 1997	49.62	1029.16
May 5 1997	87.42	991.36	May 5 1997	50.33	1028.45
Jun 2 1997	81.72	997.06	Jun 2 1997	51.06	1027.72
Jul 21 1997	86.62	992.16	Jul 21 1997	51.95	1026.83
Aug 15 1997	91.15	987.63	Aug 15 1997	52.58	1026.20
Sep 9 1997	87.44	991.34	Sep 9 1997	52.67	1026.11
Oct 16 1997	84.70	994.08	Oct 16 1997	53.58	1025.20
Nov 7 1997	91.69	987.09	Nov 7 1997	53.87	1024.91
Dec 12 1997	86.83	991.95	Dec 12 1997	54.82	1023.96
Jan 23 1998	92.59	986.19	Jan 23 1998	55.23	1023.55
Mar 2 1998	86.91	991.87	Mar 2 1998	55.80	1022.98
Apr 8 1998	80.32	998.46	Apr 8 1998	55.09	1023.69
May 1 1998	91.32	987.46	May 1 1998	54.99	1023.79
Jun 2 1998	86.85	991.93	Jun 2 1998	55.38	1023.40
Jul 2 1998	87.34	991.44	Jul 2 1998	55.59	1023.19
Aug 11 1998	95.88	982.90	Aug 11 1998	56.08	1022.70
Sep 10 1998	92.12	986.66	Sep 10 1998	56.83	1021.95

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

March 1990 through December 2019

Well 20J1			Well 20J2		
Date	Depth (feet)	Elevation (feet, MSL)	Date	Depth (feet)	Elevation (feet, MSL)
Oct 16 1998	92.14	986.64	Oct 16 1998	57.39	1021.39
Nov 23 1998	100.48	978.30	Nov 23 1998	57.68	1021.10
Dec 7 1998	103.96	974.82	Dec 7 1998	57.95	1020.83
Jan 5 1999	107.46	971.32	Jan 5 1999	58.41	1020.37
Feb 1 1999	111.16	967.62	Feb 1 1999	59.07	1019.71
Mar 1 1999	102.08	976.70	Mar 1 1999	59.73	1019.05
Apr 8 1999	111.12	967.66	Apr 8 1999	60.67	1018.11
May 3 1999	119.83	958.95	May 3 1999		
Jun 10 1999	106.93	971.85	Jun 10 1999	62.43	1016.35
Jul 1 1999	111.31	967.47	Jul 1 1999	62.71	1016.07
Aug 3 1999	113.81	964.97	Aug 3 1999	63.75	1015.03
Sep 8 1999	113.84	964.94	Sep 8 1999	65.02	1013.76
Oct 15 1999	119.21	959.57	Oct 15 1999	65.73	1013.05
Nov 12 1999	116.71	962.07	Nov 12 1999	66.63	1012.15
Dec 14 1999	108.04	970.74	Dec 14 1999	66.94	1011.84
Jan 6 2000	109.89	968.89	Jan 6 2000	67.48	1011.30
Feb 9 2000	132.67	946.11	Feb 9 2000	67.99	1010.79
Mar 13 2000	121.62	957.16	Mar 13 2000	68.27	1010.51
Apr 3 2000	129.77	949.01	Apr 3 2000	68.94	1009.84
May 9 2000	143.04	935.74	May 9 2000	69.66	1009.12
Jun 5 2000	150.23	928.55	Jun 5 2000	70.35	1008.43
Jul 6 2000	134.48	944.30	Jul 6 2000	71.36	1007.42
Aug 1 2000	135.96	942.82	Aug 1 2000	71.74	1007.04
Sep 6 2000	135.44	943.34	Sep 6 2000	72.77	1006.01
Oct 4 2000	134.43	944.35	Oct 4 2000	72.36	1006.42
Nov 7 2000	153.91	924.87	Nov 7 2000	73.74	1005.04
Dec 6 2000	146.64	932.14	Dec 6 2000	74.68	1004.10
Jan 4 2001	143.95	934.83	Jan 4 2001	75.26	1003.52
Feb 1 2001	132.28	946.50	Feb 1 2001	75.66	1003.12
Mar 13 2001	124.13	954.65	Mar 13 2001	75.94	1002.84
Apr 6 2001	129.01	949.77	Apr 6 2001	76.32	1002.46
May 4 2001	130.43	948.35	May 4 2001	76.64	1002.14
Jun 7 2001	135.71	943.07	Jun 7 2001	76.81	1001.97
Jul 3 2001	137.36	941.42	Jul 3 2001	77.23	1001.55
Aug 2 2001	140.92	937.86	Aug 2 2001	77.96	1000.82
Sep 6 2001	158.00	920.78	Sep 6 2001	78.55	1000.23
Oct 3 2001	152.81	925.97	Oct 3 2001	78.94	999.84
Nov 1 2001	151.35	927.43	Nov 1 2001	79.48	999.30
Dec 5 2001	143.25	935.53	Dec 5 2001	80.14	998.64
Jan 4 2002	143.98	934.80	Jan 4 2002	80.69	998.09
Feb 13 2002	150.03	928.75	Feb 13 2002	81.22	997.56
Mar 5 2002	147.77	931.01	Mar 5 2002	81.47	997.31
Apr 2 2002	152.97	925.81	Apr 2 2002	82.04	996.74
May 1 2002	150.81	927.97	May 1 2002	82.23	996.55
Jun 3 2002	155.46	923.32	Jun 3 2002	82.63	996.15
Jul 2 2002	158.38	920.40	Jul 2 2002	83.15	995.63
Aug 1 2002	162.28	916.50	Aug 1 2002	83.44	995.34
Sep 3 2002	159.45	919.33	Sep 3 2002	83.88	994.90

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

March 1990 through December 2019

Well 20J1			Well 20J2		
Date	Depth (feet)	Elevation (feet, MSL)	Date	Depth (feet)	Elevation (feet, MSL)
Oct 3 2002	160.66	918.12	Oct 3 2002	84.35	994.43
Nov 1 2002	162.89	915.89	Nov 1 2002	84.83	993.95
Dec 2 2002	156.42	922.36	Dec 2 2002	85.20	993.58
Jan 10 2003	155.53	923.25	Jan 10 2003	85.75	993.03
Feb 4 2003	164.96	913.82	Feb 4 2003	86.02	992.76
Mar 3 2003	155.96	922.82	Mar 3 2003	86.33	992.45
Apr 2 2003	159.33	919.45	Apr 2 2003	86.72	992.06
May 1 2003	158.53	920.25	May 1 2003	86.98	991.80
Jun 2 2003	149.29	929.49	Jun 2 2003	87.22	991.56
Jul 7 2003	143.93	934.85	Jul 7 2003	87.60	991.18
Aug 1 2003	141.10	937.68	Aug 1 2003	87.79	990.99
Sep 2 2003	136.78	942.00	Sep 2 2003	88.02	990.76
Oct 3 2003	134.60	944.18	Oct 3 2003	88.15	990.63
Nov 3 2003	133.73	945.05	Nov 3 2003	88.33	990.45
Dec 5 2003	139.10	939.68	Dec 5 2003	88.40	990.38
Jan 15 2004	129.79	948.99	Jan 15 2004	88.51	990.27
Feb 12 2004	125.73	953.05	Feb 12 2004	88.70	990.08
Mar 8 2004	123.92	954.86	Mar 8 2004	88.62	990.16
Apr 13 2004	123.18	955.60	Apr 13 2004	88.61	990.17
May 10 2004	141.40	937.38	May 10 2004	88.82	989.96
Jun 1 2004	150.23	928.55	Jun 1 2004	88.68	990.10
Jul 1 2004	149.29	929.49	Jul 1 2004	88.93	989.85
Aug 2 2004	158.11	920.67	Aug 2 2004	89.15	989.63
Sep 1 2004	165.49	913.29	Sep 1 2004	89.40	989.38
Oct 1 2004	166.51	912.27	Oct 1 2004	89.69	989.09
Nov 3 2004	161.96	916.82	Nov 3 2004	89.87	988.91
Dec 8 2004	156.68	922.10	Dec 8 2004	90.29	988.49
Jan 4 2005	152.09	926.69	Jan 4 2005	90.31	988.47
Feb 4 2005	147.52	931.26	Feb 4 2005	90.28	988.50
Mar 2 2005	137.32	941.46	Mar 2 2005	90.02	988.76
Apr 8 2005	143.64	935.14	Apr 8 2005	89.22	989.56
May 9 2005	145.00	933.78	May 9 2005	88.24	990.54
Jun 9 2005	168.88	909.90	Jun 9 2005	87.40	991.38
Jul 11 2005	161.44	917.34	Jul 11 2005	86.73	992.05
Aug 2 2005	161.15	917.63	Aug 2 2005	86.31	992.47
Sep 2 2005	144.41	934.37	Sep 2 2005	85.83	992.95
Oct 7 2005	145.01	933.77	Oct 7 2005	85.22	993.56
Nov 4 2005	140.62	938.16	Nov 4 2005	84.82	993.96
Dec 9 2005	132.75	946.03	Dec 9 2005	84.31	994.47
Jan 11 2006	128.07	950.71	Jan 11 2006	83.96	994.82
Feb 10 2006	141.72	937.06	Feb 10 2006	83.74	995.04
Mar 7 2006	129.78	949.00	Mar 7 2006	83.45	995.33
Apr 7 2006	123.89	954.89	Apr 7 2006	83.21	995.57
May 5 2006	133.10	945.68	May 5 2006	82.92	995.86
Jun 1 2006	126.68	952.10	Jun 1 2006	82.56	996.22
Jul 6 2006	142.38	936.40	Jul 6 2006	82.18	996.60
Aug 3 2006	145.94	932.84	Aug 3 2006	82.01	996.77
Sep 7 2006	156.98	921.80	Sep 7 2006	81.75	997.03

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

March 1990 through December 2019

Well 20J1			Well 20J2		
Date	Depth (feet)	Elevation (feet, MSL)	Date	Depth (feet)	Elevation (feet, MSL)
Sep 26 2006	157.61	921.17	Sep 26 2006		
Oct 13 2006	157.53	921.25	Oct 13 2006	81.70	997.08
Nov 7 2006	158.94	919.84	Nov 7 2006	81.71	997.07
Nov 17 2006	160.83	917.95	Nov 17 2006		
Dec 7 2006	178.24	900.54	Dec 7 2006	81.81	996.97
Dec 21 2006	161.13	917.65	Dec 21 2006		
Jan 3 2007	158.33	920.45	Jan 3 2007	81.96	996.82
Feb 2 2007	167.16	911.62	Feb 2 2007	82.13	996.65
Mar 7 2007	159.04	919.74	Mar 7 2007	82.21	996.57
Apr 5 2007	170.12	908.66	Apr 5 2007	82.21	996.57
Apr 5 2007	169.77	909.01	Apr 5 2007		
Apr 6 2007	167.92	910.86	Apr 6 2007		
Apr 9 2007	167.88	910.90	Apr 9 2007		
May 1 2007	171.87	906.91	May 1 2007	82.20	996.58
Jun 1 2007	156.08	922.70	Jun 1 2007	82.21	996.57
Jul 10 2007	164.26	914.52	Jul 10 2007		
Jul 11 2007			Jul 11 2007	82.19	996.59
Aug 6 2007	168.06	910.72	Aug 6 2007	82.12	996.66
Sep 14 2007	174.97	903.81	Sep 14 2007	82.37	996.41
Oct 3 2007	173.28	905.50	Oct 3 2007	82.36	996.42
Nov 7 2007	180.53	898.25	Nov 7 2007	82.63	996.15
Dec 4 2007	179.45	899.33	Dec 4 2007	82.67	996.11
Jan 15 2008	163.43	915.35	Jan 15 2008	82.97	995.81
Feb 21 2008	164.67	914.11	Feb 21 2008		
Mar 12 2008	169.01	909.77	Mar 12 2008	83.08	995.70
Apr 9 2008	167.88	910.90	Apr 9 2008		
Apr 18 2008	178.07	900.71	Apr 18 2008	83.16	995.62
May 1 2008	177.39	901.39	May 1 2008	83.22	995.56
May 6 2008	169.97	908.81	May 6 2008		
May 28 2008	175.04	903.74	May 28 2008		
May 30 2008	174.62	904.16	May 30 2008		
Jun 2 2008	165.15	913.63	Jun 2 2008		
Jun 3 2008	173.91	904.87	Jun 3 2008	83.14	995.64
Jun 12 2008	174.22	904.56	Jun 12 2008		
Jul 2 2008	166.87	911.91	Jul 2 2008	83.29	995.49
Jul 30 2008	168.32	910.46	Jul 30 2008	83.37	995.41
Aug 8 2008	171.04	907.74	Aug 8 2008		
Sep 4 2008	171.07	907.71	Sep 4 2008	83.43	995.35
Oct 2 2008	172.10	906.68	Oct 2 2008	83.54	995.24
Nov 4 2008	173.31	905.47	Nov 4 2008	83.69	995.09
Dec 3 2008	169.48	909.30	Dec 3 2008	83.80	994.98
Jan 6 2009	159.51	919.27	Jan 6 2009	83.94	994.84
Jan 29 2009	157.55	921.23	Jan 29 2009	83.97	994.81
Mar 4 2009	157.14	921.64	Mar 4 2009	84.12	994.66
Apr 2 2009	165.09	913.69	Apr 2 2009	84.08	994.70
May 6 2009	169.97	908.81	May 6 2009	84.10	994.68
Jun 2 2009	165.15	913.63	Jun 2 2009	84.10	994.68
Jun 24 2009	177.81	900.97	Jun 24 2009	84.44	994.34

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

March 1990 through December 2019

Well 20J1			Well 20J2		
Date	Depth (feet)	Elevation (feet, MSL)	Date	Depth (feet)	Elevation (feet, MSL)
Aug 4 2009	167.70	911.08	Aug 4 2009	84.61	994.17
Aug 4 2009	167.36	911.42	Aug 4 2009		
Aug 27 2009	165.44	913.34	Aug 27 2009	84.65	994.13
Oct 2 2009	158.97	919.81	Oct 2 2009	84.82	993.96
Nov 3 2009	152.46	926.32	Nov 3 2009	84.76	994.02
Nov 30 2009	148.13	930.65	Nov 30 2009		
Jan 5 2010	141.72	937.06	Jan 5 2010	84.66	994.12
Feb 4 2010	135.75	943.03	Feb 4 2010	84.56	994.22
Mar 2 2010	129.56	949.22	Mar 2 2010	84.19	994.59
Mar 31 2010	135.54	943.24	Mar 31 2010	83.83	994.95
May 5 2010	135.05	943.73	May 5 2010	83.51	995.27
Jun 2 2010	136.83	941.95	Jun 2 2010	83.25	995.53
Jun 30 2010	136.29	942.49	Jun 30 2010	83.00	995.78
Jul 28 2010	138.64	940.14	Jul 28 2010	82.96	995.82
Aug 23 2010	138.86	939.92	Aug 23 2010	82.81	995.97
Sep 30 2010	141.18	937.60	Sep 30 2010	82.69	996.09
Oct 31 2010	131.83	946.95	Oct 31 2010	82.59	996.19
Nov 30 2010	128.89	949.89	Nov 30 2010	82.51	996.27
Dec 31 2010	122.00	956.78	Dec 31 2010	82.40	996.38
Jan 31 2011	122.34	956.44	Jan 31 2011	81.96	996.82
Feb 28 2011	115.97	962.81	Feb 28 2011	81.59	997.19
Mar 31 2011	111.73	967.05	Mar 31 2011	80.81	997.97
Apr 30 2011	114.10	964.68	Apr 30 2011	80.14	998.64
May 31 2011	108.96	969.82	May 31 2011	79.43	999.35
Jun 30 2011	115.91	962.87	Jun 30 2011	78.67	1000.11
Jul 31 2011	126.74	952.04	Jul 31 2011	78.31	1000.47
Aug 31 2011	121.32	957.46	Aug 31 2011	78.02	1000.76
Sep 30 2011	112.47	966.31	Sep 30 2011	77.45	1001.33
Oct 28 2011	106.64	972.14	Oct 28 2011	76.89	1001.89
Nov 30 2011	99.89	978.89	Nov 30 2011	75.83	1002.95
Dec 31 2011	95.89	982.89	Dec 31 2011	75.06	1003.72
Jan 31 2012	100.27	978.51	Jan 31 2012	74.45	1004.33
Feb 29 2012	102.56	976.22	Feb 29 2012	74.12	1004.66
Mar 31 2012	95.82	982.96	Mar 31 2012	73.43	1005.35
Apr 30 2012	94.62	984.16	Apr 30 2012	72.93	1005.85
May 31 2012	97.42	981.36	May 31 2012	72.19	1006.59
Jun 30 2012	95.64	983.14	Jun 30 2012	71.72	1007.06
Jul 31 2012	100.16	978.62	Jul 31 2012	71.40	1007.38
Aug 31 2012	100.80	977.98	Aug 31 2012	71.21	1007.57
Sep 30 2012	101.82	976.96	Sep 30 2012	71.09	1007.69
Oct 28 2012	101.44	977.34	Oct 28 2012	70.97	1007.81
Nov 30 2012	93.16	985.62	Nov 30 2012	70.50	1008.28
Dec 31 2012	94.90	983.88	Dec 31 2012	70.45	1008.33
Jan 31 2013	96.72	982.06	Jan 31 2013	70.07	1008.71
Feb 28 2013	101.55	977.23	Feb 28 2013	70.07	1008.71
Mar 31 2013	95.07	983.71	Mar 31 2013	69.56	1009.22
Apr 30 2013	91.12	987.66	Apr 30 2013	68.86	1009.92
May 31 2013	100.46	978.32	May 31 2013	68.99	1009.79

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

March 1990 through December 2019

Well 20J1			Well 20J2		
Date	Depth (feet)	Elevation (feet, MSL)	Date	Depth (feet)	Elevation (feet, MSL)
Jun 30 2013	92.76	986.02	Jun 30 2013	68.48	1010.30
Jul 31 2013	103.60	975.18	Jul 31 2013	69.06	1009.72
Aug 31 2013	106.38	972.40	Aug 31 2013	69.37	1009.41
Sep 30 2013	100.63	978.15	Sep 30 2013	69.42	1009.36
Oct 28 2013	100.75	978.03	Oct 28 2013	69.66	1009.12
Nov 30 2013	97.40	981.38	Nov 30 2013	69.73	1009.05
Dec 31 2013	92.44	986.34	Dec 31 2013	69.57	1009.21
Jan 31 2014	91.68	987.10	Jan 31 2014	69.36	1009.42
Feb 28 2014	88.53	990.25	Feb 28 2014	68.94	1009.84
Mar 31 2014	85.27	993.51	Mar 31 2014	68.56	1010.22
Apr 30 2014	88.08	990.70	Apr 30 2014	68.29	1010.49
May 31 2014	97.71	981.07	May 31 2014	68.74	1010.04
Jun 30 2014	91.32	987.46	Jun 30 2014	68.57	1010.21
Jul 31 2014	104.65	974.13	Jul 31 2014	69.42	1009.36
Aug 31 2014	101.14	977.64	Aug 31 2014	69.88	1008.90
Sep 30 2014	105.86	972.92	Sep 30 2014	70.38	1008.40
Oct 31 2014	101.55	977.23	Oct 31 2014	70.81	1007.97
Nov 30 2014	98.06	980.72	Nov 30 2014	70.99	1007.79
Dec 31 2014	92.03	986.75	Dec 31 2014	70.63	1008.15
Jan 31 2015	92.82	985.96	Jan 31 2015	70.43	1008.35
Feb 28 2015	91.05	987.73	Feb 28 2015	70.19	1008.59
Mar 31 2015	91.23	987.55	Mar 31 2015	70.31	1008.47
Apr 30 2015	96.81	981.97	Apr 30 2015	70.44	1008.34
May 31 2015	103.71	975.07	May 31 2015	70.82	1007.96
Jun 30 2015	97.77	981.01	Jun 30 2015	70.94	1007.84
Jul 31 2015	112.23	966.55	Jul 31 2015	71.70	1007.08
Aug 31 2015	110.43	968.35	Aug 31 2015	72.12	1006.66
Sep 30 2015	102.79	975.99	Sep 30 2015	72.45	1006.33
Oct 31 2015	96.19	982.59	Oct 31 2015	72.49	1006.29
Nov 30 2015	92.48	986.30	Nov 30 2015	72.26	1006.52
Dec 31 2015	90.73	988.05	Dec 31 2015	72.03	1006.75
Jan 31 2016	87.41	991.37	Jan 31 2016	71.47	1007.31
Feb 29 2016	87.33	991.45	Feb 29 2016	71.19	1007.59
Mar 31 2016	93.73	985.05	Mar 31 2016	71.78	1007.00
Apr 30 2016	98.41	980.37	Apr 30 2016	71.74	1007.04
May 31 2016	103.08	975.70	May 31 2016	72.15	1006.63
Jun 30 2016	107.66	971.12	Jun 30 2016	72.54	1006.24
Jul 31 2016	112.88	965.90	Jul 31 2016	73.43	1005.35
Aug 31 2016	109.49	969.29	Aug 31 2016	73.96	1004.82
Sep 30 2016	106.14	972.64	Sep 30 2016	74.43	1004.35
Oct 31 2016	106.48	972.30	Oct 31 2016	74.81	1003.97
Nov 30 2016	102.72	976.06	Nov 30 2016	74.99	1003.79
Dec 31 2016	93.38	985.40	Dec 31 2016	74.87	1003.91
Jan 31 2017	88.60	990.18	Jan 31 2017	74.25	1004.53
Feb 28 2017	88.19	990.59	Feb 28 2017	73.72	1005.06
Mar 31 2017	86.76	992.02	Mar 31 2017	72.98	1005.80
Apr 30 2017	89.10	989.68	Apr 30 2017	72.88	1005.90
May 31 2017	98.84	979.94	May 31 2017	72.31	1006.47

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

March 1990 through December 2019

Well 20J1			Well 20J2		
Date	Depth (feet)	Elevation (feet, MSL)	Date	Depth (feet)	Elevation (feet, MSL)
Jun 30 2017	97.82	980.96	Jun 30 2017	72.60	1006.18
Jul 31 2017	106.56	972.22	Jul 31 2017	73.08	1005.70
Aug 31 2017	94.27	984.51	Aug 31 2017	72.86	1005.92
Sep 30 2017	113.84	964.94	Sep 30 2017	73.46	1005.32
Oct 31 2017	115.45	963.33	Oct 31 2017	74.38	1004.40
Nov 30 2017	104.71	974.07	Nov 30 2017	74.76	1004.02
Dec 31 2017	101.32	977.46	Dec 31 2017	75.05	1003.73
Jan 31 2018	96.40	982.38	Jan 31 2018	74.81	1003.97
Feb 28 2018	94.74	984.04	Feb 28 2018	74.65	1004.13
Mar 31 2018	99.06	979.72	Mar 31 2018	74.61	1004.17
Apr 30 2018	98.60	980.18	Apr 30 2018	74.80	1003.98
May 31 2018	106.40	972.38	May 31 2018	75.10	1003.68
Jun 30 2018	112.51	966.27	Jun 30 2018	75.34	1003.44
Jul 31 2018	118.90	959.88	Jul 31 2018	76.00	1002.78
Aug 31 2018	114.35	964.43	Aug 31 2018	76.34	1002.44
Sep 30 2018	118.45	960.33	Sep 30 2018	76.71	1002.07
Oct 31 2018	112.34	966.44	Oct 31 2018	77.09	1001.69
Nov 30 2018	103.66	975.12	Nov 30 2018	76.93	1001.85
Dec 31 2018	95.48	983.30	Dec 31 2018	76.39	1002.39
Jan 31 2019	92.82	985.96	Jan 31 2019	75.91	1002.87
Feb 28 2019	87.85	990.93	Feb 28 2019	74.92	1003.86
Mar 31 2019	92.30	986.48	Mar 31 2019	73.91	1004.87
Apr 30 2019	101.80	976.98	Apr 30 2019	73.33	1005.45
May 31 2019	103.49	975.29	May 31 2019	73.10	1005.68
Jun 30 2019	96.62	982.16	Jun 30 2019	73.37	1005.41
Jul 31 2019	96.13	982.65	Jul 31 2019	73.44	1005.34
Aug 31 2019	96.07	982.71	Aug 31 2019	73.85	1004.93
Sep 30 2019	97.60	981.18	Sep 30 2019	74.47	1004.31
Oct 31 2019	89.62	989.16	Oct 31 2019	74.40	1004.38
Nov 30 2019	89.46	989.32	Nov 30 2019	74.26	1004.52
Dec 31 2019	94.90	983.88	Dec 31 2019	74.48	1004.30

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.

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

Code	Parameter	MCL	Well J1			
	Sampling date		8/15/1990	12/20/1993	8/4/2009	7/26/2010
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
191	Hydrogen ion, water, unfiltered, calculated, milligrams per liter		0.00002	0.00002		0.00003
300	Dissolved oxygen, water, unfiltered, milligrams per liter					
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	100 (j)		< 10		
1075	Silver, micrograms per liter	100 (k)		1		
1080	Strontium, water, filtered, micrograms per liter			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
1145	Selenium, micrograms per liter	50 (o)		< 1		

Source: USGS California Water Science Center.

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

Code	Parameter	MCL	Well J1			
	Sampling date		8/15/1990	12/20/1993	8/4/2009	7/26/2010
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				4.0	3.9
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	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	
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	5			< 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	
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-Dichloroethene, 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	
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	

Source: USGS California Water Science Center.

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

Code	Parameter	MCL	Well J1			
	Sampling date		8/15/1990	12/20/1993	8/4/2009	7/26/2010
38454	Dicrotophos, 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		
39086	Alkalinity, water, filtered, incremental titration, field, milligrams per liter as calcium carbonate				207	184
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				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	Metalaxyl, 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	Metalaxyl, 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					
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					

Source: USGS California Water Science Center.

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

Code	Parameter	MCL	Well J1			
	Sampling date		8/15/1990	12/20/1993	8/4/2009	7/26/2010
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	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			
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					

Source: USGS California Water Science Center.

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

Code	Parameter	MCL	Well J1			
	Sampling date		8/15/1990	12/20/1993	8/4/2009	7/26/2010
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				< 0.6	
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				< 0.02	
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		-47	-44.2	-43.20	-42.80
82085	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil		-6.8	-6.66	-6.33	-6.51
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				< 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					
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					

Source: USGS California Water Science Center.

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

Code	Parameter	MCL	Well J1			
	Sampling date		8/15/1990	12/20/1993	8/4/2009	7/26/2010
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	
90095	Specific conductance, water, unfiltered, laboratory, microsiemens per centimeter at 25 degrees Celsius		1130	868	911	787
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				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 verifed 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.

Source: USGS California Water Science Center.

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

Code	Parameter	MCL	Well J2			
	Sampling date		8/15/1990	12/20/1993	8/4/2009	7/26/2010
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	600	27	29	24.4	25.9
945	Sulfate, water, filtered, milligrams per liter	600	12	12	13.0	13.2
950	Fluoride, water, filtered, milligrams per liter	2 (b)	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	10 (c)		1	1.0	0.96
1005	Barium, water, filtered, micrograms per liter	1000 (d)		40	42.8	42.5
1010	Beryllium, micrograms per liter	4 (e)		< 0.5		
1020	Boron, water, filtered, micrograms per liter		60	50	37	37
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	< 4	< 6
1049	Lead, micrograms per liter			< 10		
1056	Manganese, water, filtered, micrograms per liter	50	< 1	< 1	0.2 E	0.1 E
1057	Thallium, micrograms per liter	2 (i)				
1060	Molybdenum, micrograms per liter			< 10		
1065	Nickel, micrograms per liter	100 (j)		< 10		
1075	Silver, micrograms per liter	100 (k)		< 1		
1080	Strontium, water, filtered, micrograms per liter			170	175	183
1085	Vanadium, micrograms per liter			15		
1090	Zinc, micrograms per liter	5000 (l)		4		
1095	Antimony, micrograms per liter	6 (m)				
1106	Aluminum, water, filtered, micrograms per liter	1000 (n)			< 4.0	6.3
1130	Lithium, water, filtered, micrograms per liter			5	5	6
1145	Selenium, micrograms per liter	50 (o)		< 1		

Source: USGS California Water Science Center.

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

Code	Parameter	MCL	Well J2			
	Sampling date		8/15/1990	12/20/1993	8/4/2009	7/26/2010
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				5.5	5.2
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	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	
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	5			< 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	
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-Dichloroethene, 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	
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	

Source: USGS California Water Science Center.

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

Code	Parameter	MCL	Well J2			
	Sampling date		8/15/1990	12/20/1993	8/4/2009	7/26/2010
38454	Dicrotophos, 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		
39086	Alkalinity, water, filtered, incremental titration, field, milligrams per liter as calcium carbonate				158	159
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				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	Metalaxyl, 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	Metalaxyl, 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					
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					

Source: USGS California Water Science Center.

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

Code	Parameter	MCL	Well J2			
	Sampling date		8/15/1990	12/20/1993	8/4/2009	7/26/2010
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	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	45 (q)				6.94 E
71856	Nitrite, water, filtered, milligrams per liter					0.003 E
71865	Iodide, water, filtered, milligrams per liter				0.001 E	< 0.002
71870	Bromide, water, filtered, milligrams per liter				0.09	0.09
72019	Depth to water level, feet below land surface		61.65			
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					

Source: USGS California Water Science Center.

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

Code	Parameter	MCL	Well J2			
	Sampling date		8/15/1990	12/20/1993	8/4/2009	7/26/2010
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				< 0.6	
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				< 0.02	
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		-44		-42.90	-43.50
82085	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil		-7		-6.86	-6.89
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				< 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					
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					

Source: USGS California Water Science Center.

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

Code	Parameter	MCL	Well J2			
	Sampling date		8/15/1990	12/20/1993	8/4/2009	7/26/2010
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	
90095	Specific conductance, water, unfiltered, laboratory, microsiemens per centimeter at 25 degrees Celsius		404	408	433	422
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				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. 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 verifed 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.

Source: USGS California Water Science Center.

ANNUAL REPORT

COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT

CALENDAR YEAR 2019

APPENDIX C-3

TEMECULA CREEK GROUNDWATER MONITORING WELL

Site Description
Temecula Creek Groundwater Monitoring Well
(8S/2W-15F1-5)

LOCATION: Latitude 33º 28' 57.8", longitude 117º 04' 33.2" (NAD83) in SE1/4 SE1/4 NW1/4 Section 15,T8S, R2W, Riverside County, California. Well is located off Butterfield Stage Road on Channel Street near Temecula Creek Trail Park in Temecula, California.

SITE INFORMATION: Land-surface altitude is 1110.53 feet above mean sea level (NAVD88).

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-15F1	332857117043301	7/11/2013 to present	9/28/2013 to present
8S/2W-15F2	332857117043302	7/11/2013 to present	10/1/2013 to present
8S/2W-15F3	332857117043303	7/11/2013 to present	10/19/2013 to present
8S/2W-15F4	332857117043304	7/11/2013 to present	9/28/2013 to present
8S/2W-15F5	332857117043305	7/11/2013 to present	10/1/2013 to present

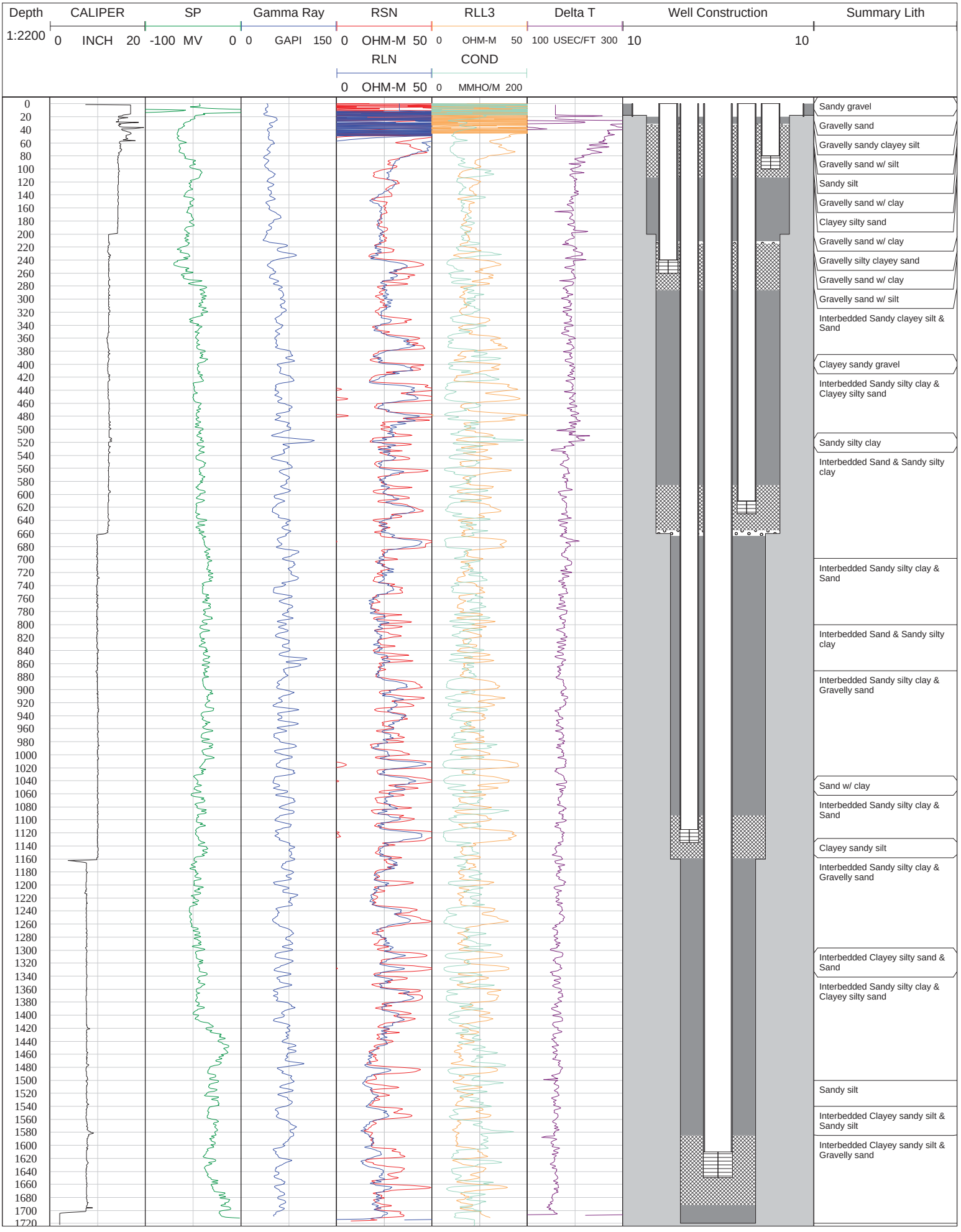
TOPOGRAPHIC MAP: USGS Pechanga, California, 7.5 minute series.

WELL SUMMARY INFORMATION:

State well number	USGS station number	Hole depth (ft)	Perforation depth (ft)	Casing size and type	Date drilled
8S/2W-15F1	332857117043301	1720	1610-1650	3" PVC	4/2/13
8S/2W-15F2	332857117043302	1720	1115-1135	2" PVC	4/2/13
8S/2W-15F3	332857117043303	1720	610-630	2" PVC	4/2/13
8S/2W-15F4	332857117043304	1720	240-260	2" PVC	4/2/13
8S/2W-15F5	332857117043305	1720	80-100	2" PVC	4/2/13

ADDITIONAL INFORMATION:

Additional information can also be found at the following web site: http://ca.water.usgs.gov/temecula/.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CALIPER
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SP
-100 MV 0
Gamma Ray
0 GAPI 150
RSN
0 OHM-M 50
RLL3
0 OHM-M 50
Delta T
100 USEC/FT 300
Well Construction
10
10
RLN
0 OHM-M 50
COND
0 MMHO/M 200
0
20
40
60
80
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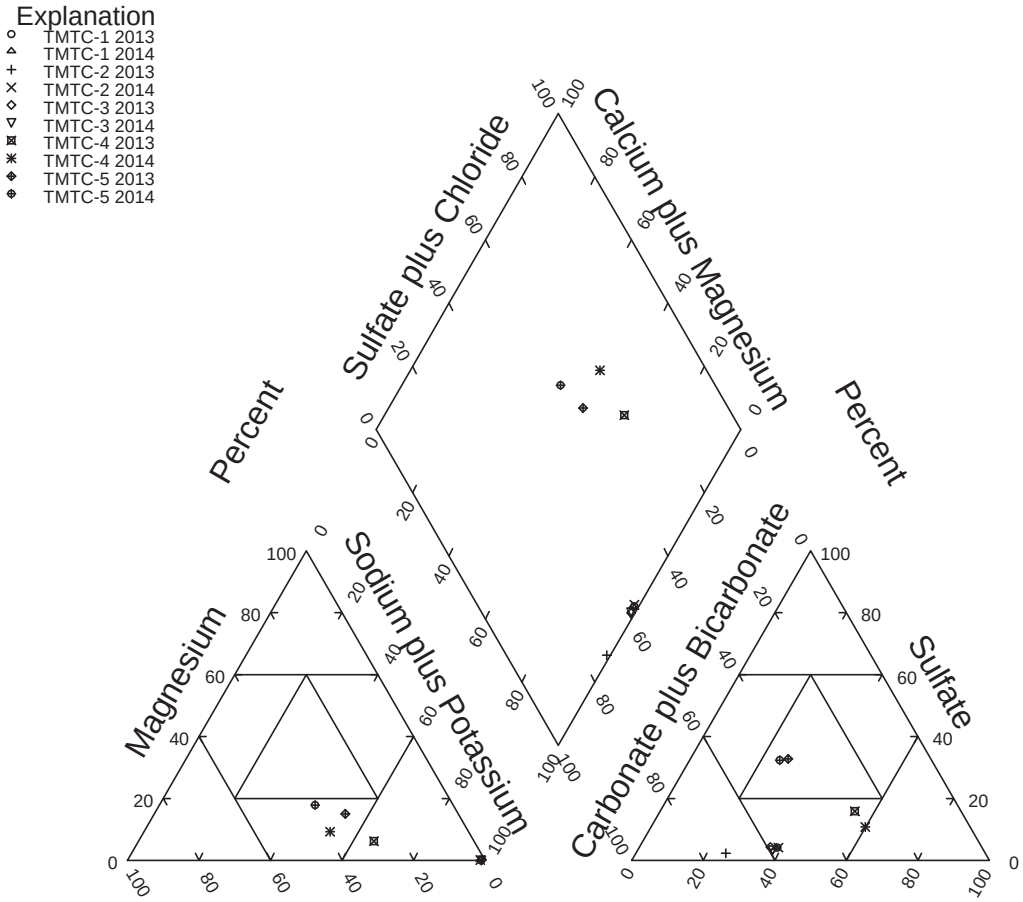
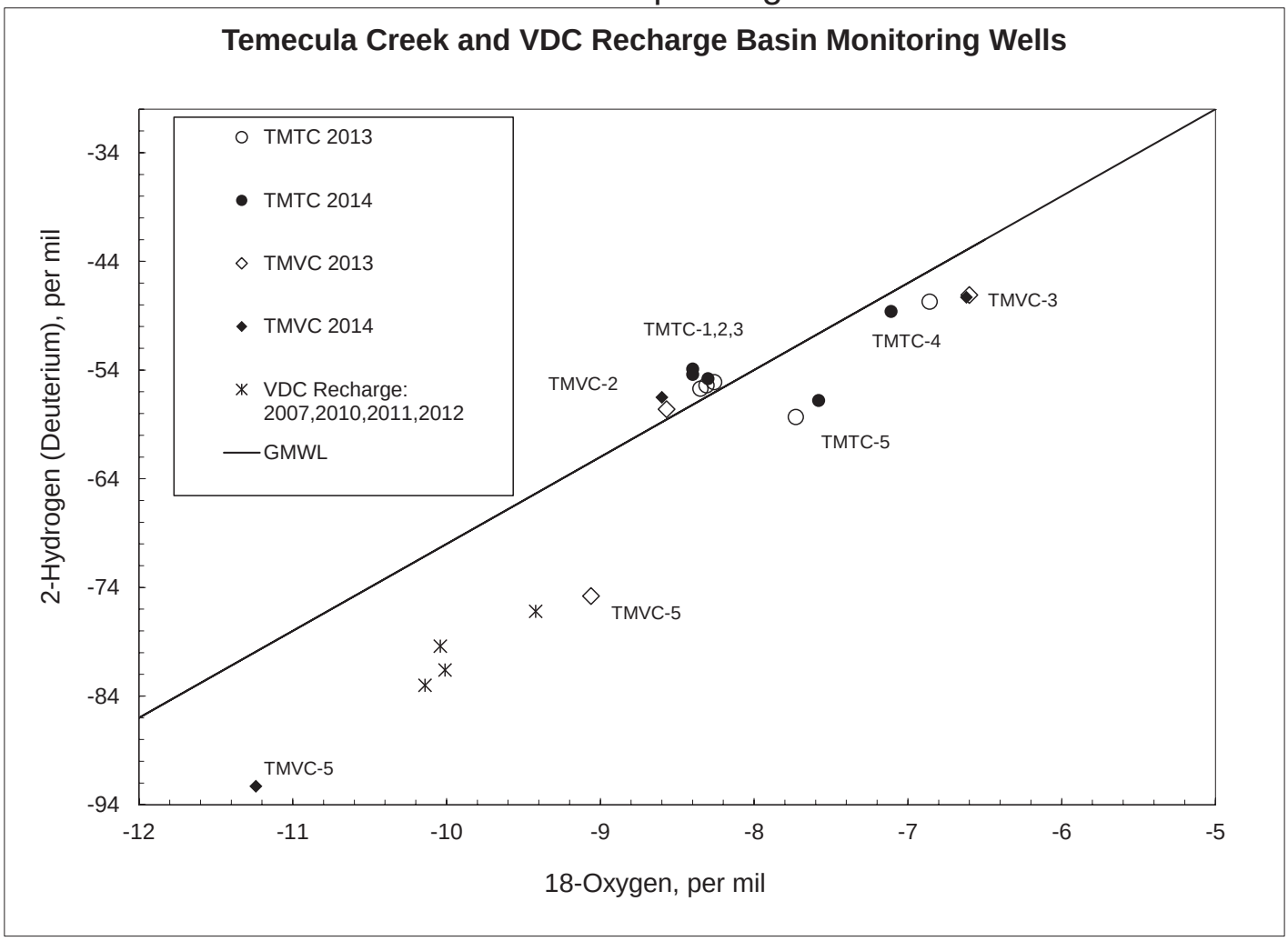
1700
1720
Sandy gravel
Gravelly sand
Gravelly sandy clayey silt
Gravelly sand w/ silt
Sandy silt
Gravelly sand w/ clay
Clayey silty sand
Gravelly sand w/ clay
Gravelly silty clayey sand
Gravelly sand w/ clay
Gravelly sand w/ silt
Interbedded Sandy clayey silt & Sand
Clayey sandy gravel
Interbedded Sandy silty clay & Clayey silty sand
Sandy silty clay
Interbedded Sand & Sandy silty clay
Interbedded Sandy silty clay & Sand
Interbedded Sand & Sandy silty clay
Interbedded Sandy silty clay & Gravelly sand
Sand w/ clay
Interbedded Sandy silty clay & Sand
Clayey sandy silt
Interbedded Sandy silty clay & Gravelly sand
Interbedded Clayey silty sand & Sand
Interbedded Sandy silty clay & Clayey silty sand
Sandy silt
Interbedded Clayey sandy silt & Sandy silt
Interbedded Clayey sandy silt & Gravelly sand

Tri-Linear Diagram
Temecula Creek Monitoring Well (8S/2W-15F1-5)



Source: USGS California Water Science Center.

Stable Isotope Diagram



Source: USGS California Water Science Center.

End-of Month Piezometric Head for Multiple Depth Monitoring Well
Temecula Creek Well (8S/2W-15F1-5)
(elevation in feet, MSL)

September 2013 through December 2019

Month	Well F1	Well F2	Well F3	Well F4	Well F5
Jan 13	---	---	---	---	---
Feb	---	---	---	---	---
Mar	---	---	---	---	---
Apr	---	---	---	---	---
May	---	---	---	---	---
Jun	---	---	---	---	---
Jul	---	---	---	---	---
Aug	---	---	---	---	---
Sep	822.19	---	---	1021.91	---
Oct	820.46	784.40	788.85	1020.74	1065.59
Nov	821.41	792.71	812.22	1020.69	1065.36
Dec	823.06	797.23	772.46	1020.07	1065.21
Jan 14	823.71	793.07	771.38	1019.72	1064.92
Feb	822.19	792.53	799.75	1019.48	1064.81
Mar	820.85	800.28	837.25	1020.12	1064.55
Apr	819.56	801.09	843.54	1019.75	1064.38
May	818.59	802.22	850.94	1020.04	1064.20
Jun	818.29	803.56	821.98	1020.99	1064.02
Jul	817.53	798.31	772.47	1020.86	1063.83
Aug	816.73	790.42	757.13	1019.66	1063.63
Sep	815.67	783.98	746.93	1019.39	1063.40
Oct	814.43	782.65	755.14	1021.15	1063.25
Nov	813.25	788.38	786.82	1020.53	1062.97
Dec	814.85	798.97	836.89	1022.24	1062.93
Jan 15	813.87	798.69	829.96	1020.63	1062.97
Feb	813.57	790.07	783.60	1019.66	1062.85
Mar	813.89	788.12	756.86	1020.06	1062.81
Apr	811.97	785.97	789.51	1019.11	1062.64
May	811.28	785.63	776.32	1017.84	1062.42
Jun	810.25	782.50	754.94	1016.68	1062.27
Jul	808.87	781.65	796.33	1014.28	1062.06
Aug	807.86	781.57	790.97	1014.37	1061.86
Sep	807.40	782.21	770.46	1014.73	1061.68
Oct	806.55	785.05	782.19	1013.40	1061.33
Nov	805.81	782.95	797.00	1012.36	1061.15
Dec	805.90	787.74	823.31	1013.51	1060.97
Jan 16	806.82	789.65	806.22	1014.11	1061.01
Feb	806.44	789.81	803.72	1014.61	1060.76
Mar	806.99	791.03	791.46	1014.73	1060.60
Apr	808.63	791.09	775.12	1014.73	1060.60
May	809.85	789.45	763.31	1013.82	1060.36
Jun	809.73	786.72	766.72	1014.26	1060.11
Jul	810.33	789.06	792.33	1014.37	1059.84
Aug	811.23	791.71	784.09	1014.58	1059.64
Sep	812.04	791.43	780.75	1013.49	1059.36
Oct	813.01	793.25	773.50	1012.82	1059.09
Nov	813.35	795.08	812.64	1012.75	1058.88
Dec	813.21	800.80	830.48	1013.72	1058.77

End-of Month Piezometric Head for Multiple Depth Monitoring Well
Temecula Creek Well (8S/2W-15F1-5)
(elevation in feet, MSL)

September 2013 through December 2019

Month	Well F1	Well F2	Well F3	Well F4	Well F5
Jan 17	814.25	806.49	829.07	1014.89	1058.81
Feb	815.05	809.21	838.93	1015.33	1058.86
Mar	815.42	807.66	813.81	1015.67	1059.47
Apr	815.00	806.40	820.07	1015.36	1059.35
May	814.67	804.60	820.72	1015.05	1059.29
Jun	814.23	803.22	814.63	1014.88	1059.04
Jul	813.79	802.84	815.64	1014.71	1058.85
Aug	813.91	802.79	815.81	1014.99	1058.62
Sep	813.25	801.71	814.33	1014.55	1058.39
Oct	812.78	800.45	812.72	1014.08	1058.14
Nov	812.30	800.18	812.66	1013.59	1057.87
Dec	812.19	797.80	815.52	1012.89	1057.68
Jan 18	811.95	796.77	818.72	1013.36	1057.58
Feb	811.44	796.58	813.11	1014.04	1057.30
Mar	811.82	800.81	823.88	1013.95	1057.36
Apr	811.31	798.77	814.07	1013.06	1057.27
May	810.85	797.12	812.79	1013.03	1057.22
Jun	809.77	795.37	817.43	1012.12	1056.97
Jul	809.44	794.29	811.05	1011.94	1056.78
Aug	809.07	791.61	809.24	1012.01	1056.63
Sep	808.34	789.11	809.57	1012.43	1056.39
Oct	807.42	788.46	804.30	1012.92	1056.19
Nov	806.68	785.56	802.02	1012.91	1056.05
Dec	806.87	790.53	817.26	1013.25	1056.14
Jan 19	---	793.62	814.77	1013.63	1056.06
Feb	808.35	798.40	828.13	1014.22	1056.39
Mar	808.75	798.67	818.05	1014.38	1056.98
Apr	808.03	792.57	808.12	1014.46	1057.12
May	807.59	790.92	803.41	1014.98	1057.27
Jun	806.64	785.18	790.79	1013.94	1057.10
Jul	806.42	784.04	785.65	1013.53	1056.79
Aug	805.77	785.54	805.65	1012.81	1056.55
Sep	805.38	---	---	1012.92	1056.24
Oct	804.59	784.23	804.67	1012.68	1055.90
Nov	804.84	787.80	817.95	1012.67	1055.52
Dec	805.74	794.07	828.71	1013.42	1055.57

Notes:
(1) Data reported as daily median value for period of record.

Source: USGS California Water Science Center.

Water Quality Data for Multiple Depth Monitoring Well
Temecula Creek Well (8S/2W-15F1-5)
May 2013

Code	Parameter	MCL	Well F1	Well F2	Well F3	Well F4	Well F5
	Sampling date		5/16/2013	5/14/2013	5/13/2013	5/14/2013	5/14/2013
3	Sampling depth, feet						
10	Temperature, water, degrees Celsius		22.0	21.9	24.8	23.4	21.2
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		480	483	504	717	1060
191	Hydrogen ion, water, unfiltered, calculated, milligrams per liter					0.00001	0.00003
300	Dissolved oxygen, water, unfiltered, milligrams per liter		0.9	2.4	2.4	3.1	3.1
400	pH, water, unfiltered, field, standard units		9.6	9.5	9.5	8.0	7.5
403	pH, water, unfiltered, laboratory, standard units		9.5	9.5	9.5	8.2	7.9
405	Carbon dioxide, water, unfiltered, milligrams per liter		M	0.1	0.1	2.1	12
452	Carbonate, water filtered, inflection-point titration method, field, milligrams per liter						
453	Bicarbonate, water, filtered, incremental titration, field, milligrams per liter						
602	Total nitrogen, water, filtered, milligrams per liter		< 0.12	0.71	< 0.16	3.5	5.4
607	Organic nitrogen, water, filtered, milligrams per liter		0.05	0.37	0.10	0.10	0.52
608	Ammonia, water, filtered, milligrams per liter as nitrogen		0.04	0.05	0.01	0.02	0.01
613	Nitrite, water, filtered, milligrams per liter as nitrogen	1 (a)	0.003	< 0.001	< 0.001	0.148	0.014
618	Nitrate, water, filtered, milligrams per liter as nitrogen		< 0.037	0.3	< 0.040	3.26	4.82
623	Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen		0.09	0.41	0.12	0.12	0.53
631	Nitrate plus nitrite, water, filtered, milligrams per liter as nitrogen		< 0.040	0.30	< 0.040	3.41	4.84
660	Orthophosphate, water, filtered, milligrams per liter		0.117	0.502	1.12	0.409	1.07
666	Phosphorus, water, filtered, milligrams per liter		0.03	0.15	0.47	0.14	0.35
671	Orthophosphate, water, filtered, milligrams per liter as phosphorus		0.038	0.164	0.366	0.133	0.350
681	Organic carbon, water, filtered, milligrams per liter		0.58	1.12	0.83	0.85	1.82
900	Hardness, water, milligrams per liter as calcium carbonate					116	242
904	Noncarb hardness, water filtered field, milligrams per liter as calcium carbonate					17	38
905	Noncarb hardness, water filtered lab, milligrams per liter as calcium carbonate					9	18
915	Calcium, water, filtered, milligrams per liter		1.03	0.924	0.777	37.8	65.6
925	Magnesium, water, filtered, milligrams per liter						
930	Sodium, water, filtered, milligrams per liter		100	102	105	100	125
931	Sodium adsorption ratio, water, number					4.06	3.50
932	Sodium fraction of cations, water, percent in equivalents of major cations					65	52
935	Potassium, water, filtered, milligrams per liter		0.34	0.50	0.55	2.95	4.19
940	Chloride, water, filtered, milligrams per liter	600	48.2	48.4	48.1	120	86.2
945	Sulfate, water, filtered, milligrams per liter	600	8.91	8.18	10.0	50.9	161
950	Fluoride, water, filtered, milligrams per liter	2 (b)	7.56	7.94	7.89	0.14	0.49
955	Silica, water, filtered, milligrams per liter		22.4	19.5	15.1	22.3	27.0
1000	Arsenic, water, filtered, micrograms per liter	10 (c)	41.2	53.6	42.3	1.4	3.5
1005	Barium, water, filtered, micrograms per liter	1000 (d)		2.4		126	32.5
1010	Beryllium, micrograms per liter	4 (e)					
1020	Boron, water, filtered, micrograms per liter		2080	1860	1900	91	201
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	10.2	46.3	22.4	< 4.0	5.8
1049	Lead, micrograms per liter						
1056	Manganese, water, filtered, micrograms per liter	50		1.46	2.31	5.56	4.97
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		6.9	7.6	8.7	511	366
1085	Vanadium, micrograms per liter						
1090	Zinc, micrograms per liter	5000 (l)					

Source: USGS California Water Science Center.

Water Quality Data for Multiple Depth Monitoring Well
Temecula Creek Well (8S/2W-15F1-5)
May 2013

Code	Parameter	MCL	Well F1	Well F2	Well F3	Well F4	Well F5
	Sampling date		5/16/2013	5/14/2013	5/13/2013	5/14/2013	5/14/2013
1095	Antimony, micrograms per liter	6 (m)					
1106	Aluminum, water, filtered, micrograms per liter	1000 (n)	69.0	181	88.6	5.2	11.6
1130	Lithium, water, filtered, micrograms per liter		E6.19	E3.73	E2.99	E5.99	E4.35
1145	Selenium, micrograms per liter	50 (o)					
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		R -0.2	R 0.0	R 0.2	R 0.2	6.5
22703	Uranium, natural, micrograms per liter						
29801	Alkalinity, water, filtered, fixed endpoint (pH 4.5) titration, laboratory, milligrams per liter as calcium carbonate		138	136	148	107	224
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					
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-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						

Source: USGS California Water Science Center.

Water Quality Data for Multiple Depth Monitoring Well
Temecula Creek Well (8S/2W-15F1-5)
May 2013

Code	Parameter	MCL	Well F1	Well F2	Well F3	Well F4	Well F5
	Sampling date		5/16/2013	5/14/2013	5/13/2013	5/14/2013	5/14/2013
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						
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	Dicrotophos, 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		132	262	145	99	204
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		0.66	3.17	2.11	55.26	94.5
49934	C-14, counting error, water, filtered, percent modern		0.05	0.07	0.06	0.23	0.29
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	Metalaxyl, 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	Metalaxyl, 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						

Source: USGS California Water Science Center.

Water Quality Data for Multiple Depth Monitoring Well
Temecula Creek Well (8S/2W-15F1-5)
May 2013

Code	Parameter	MCL	Well F1	Well F2	Well F3	Well F4	Well F5
	Sampling date		5/16/2013	5/14/2013	5/13/2013	5/14/2013	5/14/2013
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	6					
70300	Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter	1500	293	267	299	422	658
70301	Residue, water, filtered, sum of constituents, milligrams per liter					E 415	E 634
70303	Residue, water, filtered, tons per acre-foot						
71846	Ammonia, water, filtered, milligrams per liter as NH4		0.047	0.058	0.019	0.021	0.016

Source: USGS California Water Science Center.

Water Quality Data for Multiple Depth Monitoring Well
Temecula Creek Well (8S/2W-15F1-5)
May 2013

Code	Parameter	MCL	Well F1	Well F2	Well F3	Well F4	Well F5
	Sampling date		5/16/2013	5/14/2013	5/13/2013	5/14/2013	5/14/2013
71851	Nitrate, water, filtered, milligrams per liter	45 (q)	< 0.162	1.33	< 0.177	14.4	21.4
71856	Nitrite, water, filtered, milligrams per liter		0.011	< 0.003	< 0.003	0.485	0.047
71865	Iodide, water, filtered, milligrams per liter		0.078	0.085	0.075	0.013	0.008
71870	Bromide, water, filtered, milligrams per liter		0.108	0.129	0.131	0.401	0.308
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	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		-9.44	-10.68	-10.94	-14.91	-13.49
82082	Deuterium/Protium ratio, water, unfiltered, per mil		-55.40	-55.70	-55.10	-47.70	-58.30
82085	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil		-8.31	-8.35	-8.26	-6.86	-7.73
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						

Source: USGS California Water Science Center.

Water Quality Data for Multiple Depth Monitoring Well
Temecula Creek Well (8S/2W-15F1-5)
May 2013

Code	Parameter	MCL	Well F1	Well F2	Well F3	Well F4	Well F5
	Sampling date		5/16/2013	5/14/2013	5/13/2013	5/14/2013	5/14/2013
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		472	450	496	720	1040
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. 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 verifed 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.

Source: USGS California Water Science Center.

Water Quality Data for Multiple Depth Monitoring Well
Temecula Creek Well (8S/2W-15F1-5)
October 2014

Code	Parameter	MCL	Well F1	Well F2	Well F3	Well F4	Well F5
	Sampling date		10/14/2014	10/15/2014	10/15/2014	10/14/2014	10/14/2014
3	Sampling depth, feet						
10	Temperature, water, degrees Celsius		23.9	23.2		22.2	20.9
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		442	451	442	638	1160
191	Hydrogen ion, water, unfiltered, calculated, milligrams per liter					0.00003	0.00008
300	Dissolved oxygen, water, unfiltered, milligrams per liter		1.1	0.2	0.2	1.1	1.4
400	pH, water, unfiltered, field, standard units		9.4	9.5	9.6	7.6	7.1
403	pH, water, unfiltered, laboratory, standard units		9.3	9.4	9.4	7.9	7.5
405	Carbon dioxide, water, unfiltered, milligrams per liter		0.1	0.1	M	4.4	39
452	Carbonate, water filtered, inflection-point titration method, field, milligrams per liter		19	24	24.2	0.4	0.3
453	Bicarbonate, water, filtered, incremental titration, field, milligrams per liter		124	122	116	109	306
602	Total nitrogen, water, filtered, milligrams per liter		< 0.20	< 0.23	< 0.11	3.8	4.8
607	Organic nitrogen, water, filtered, milligrams per liter		0.12	0.15	< 0.05	< 0.07	< 0.07
608	Ammonia, water, filtered, milligrams per liter as nitrogen		0.04	0.04	0.02	< 0.01	< 0.01
613	Nitrite, water, filtered, milligrams per liter as nitrogen	1 (a)	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
618	Nitrate, water, filtered, milligrams per liter as nitrogen		< 0.040	< 0.040	< 0.040	3.73	4.73
623	Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen		0.15	0.19	< 0.07	0.07	0.07
631	Nitrate plus nitrite, water, filtered, milligrams per liter as nitrogen		< 0.040	< 0.040	< 0.040	3.73	4.73
660	Orthophosphate, water, filtered, milligrams per liter		0.095	0.496	0.169	0.238	0.304
666	Phosphorus, water, filtered, milligrams per liter		0.04	0.16	0.06	0.09	0.10
671	Orthophosphate, water, filtered, milligrams per liter as phosphorus		0.031	0.162	0.055	0.078	0.099
681	Organic carbon, water, filtered, milligrams per liter						
900	Hardness, water, milligrams per liter as calcium carbonate		3.28	3.51	2.66	149	358
904	Noncarb hardness, water filtered field, milligrams per liter as calcium carbonate					59	106
905	Noncarb hardness, water filtered lab, milligrams per liter as calcium carbonate					56	101
915	Calcium, water, filtered, milligrams per liter		1.26	1.26	0.986	48.0	97.8
925	Magnesium, water, filtered, milligrams per liter		0.032	0.085	0.043	6.92	27.4
930	Sodium, water, filtered, milligrams per liter		108	112	108	72.0	124
931	Sodium adsorption ratio, water, number		26.1	26.1	28.8	2.57	2.84
932	Sodium fraction of cations, water, percent in equivalents of major cations		98	98	99	51	43
935	Potassium, water, filtered, milligrams per liter		0.33	0.48	0.31	3.08	4.54
940	Chloride, water, filtered, milligrams per liter	600	50.5	53.3	48.4	121	93.2
945	Sulfate, water, filtered, milligrams per liter	600	8.99	9.65	7.37	32.0	184
950	Fluoride, water, filtered, milligrams per liter	2 (b)	6.67	7.85	7.00	0.14	0.40
955	Silica, water, filtered, milligrams per liter		20.5	18.7	14.0	20.6	26.8
1000	Arsenic, water, filtered, micrograms per liter	10 (c)	33.1	44.3	41.0	0.7	1.1
1005	Barium, water, filtered, micrograms per liter	1000 (d)	1.8	1.9	1.7	193	46.7
1010	Beryllium, micrograms per liter	4 (e)					
1020	Boron, water, filtered, micrograms per liter		2230	2050	2080	92	202
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	10.5	32.4	< 4.0	< 4.0	< 4.0
1049	Lead, micrograms per liter						
1056	Manganese, water, filtered, micrograms per liter	50	0.68	1.21	0.60	0.63	< 0.20
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		8.2	9.0	18.5	702	529
1085	Vanadium, micrograms per liter						
1090	Zinc, micrograms per liter	5000 (l)					

Source: USGS California Water Science Center.

Water Quality Data for Multiple Depth Monitoring Well
Temecula Creek Well (8S/2W-15F1-5)
October 2014

Code	Parameter	MCL	Well F1	Well F2	Well F3	Well F4	Well F5
	Sampling date		10/14/2014	10/15/2014	10/15/2014	10/14/2014	10/14/2014
1095	Antimony, micrograms per liter	6 (m)					
1106	Aluminum, water, filtered, micrograms per liter	1000 (n)	53.9	163	36.2	3.2	< 3.0
1130	Lithium, water, filtered, micrograms per liter		5.93	3.80	3.11	5.30	3.92
1145	Selenium, micrograms per liter	50 (o)					
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		0.2	R 0.1	0.2	0.3	6.8
22703	Uranium, natural, micrograms per liter						
29801	Alkalinity, water, filtered, fixed endpoint (pH 4.5) titration, laboratory, milligrams per liter as calcium carbonate		138	135	142	93.3	256
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					
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-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						

Source: USGS California Water Science Center.

Water Quality Data for Multiple Depth Monitoring Well
Temecula Creek Well (8S/2W-15F1-5)
October 2014

Code	Parameter	MCL	Well F1	Well F2	Well F3	Well F4	Well F5
	Sampling date		10/14/2014	10/15/2014	10/15/2014	10/14/2014	10/14/2014
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						
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	Dicrotophos, 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		135	141	137	90.2	251
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		1.740	4.230	1.200	44.25	94.53
49934	C-14, counting error, water, filtered, percent modern		0.050	0.050	0.050	0.190	0.330
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	Metalaxyl, 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	Metalaxyl, 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						

Source: USGS California Water Science Center.

Water Quality Data for Multiple Depth Monitoring Well
Temecula Creek Well (8S/2W-15F1-5)
October 2014

Code	Parameter	MCL	Well F1	Well F2	Well F3	Well F4	Well F5
	Sampling date		10/14/2014	10/15/2014	10/15/2014	10/14/2014	10/14/2014
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	6					
70300	Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter	1500	289	287	288	371	751
70301	Residue, water, filtered, sum of constituents, milligrams per liter		280	290	269	376	731
70303	Residue, water, filtered, tons per acre-foot						
71846	Ammonia, water, filtered, milligrams per liter as NH4		0.047	0.048	0.021	< 0.013	< 0.013

Source: USGS California Water Science Center.

Water Quality Data for Multiple Depth Monitoring Well
Temecula Creek Well (8S/2W-15F1-5)
October 2014

Code	Parameter	MCL	Well F1	Well F2	Well F3	Well F4	Well F5
	Sampling date		10/14/2014	10/15/2014	10/15/2014	10/14/2014	10/14/2014
71851	Nitrate, water, filtered, milligrams per liter	45 (q)	< 0.177	< 0.177	< 0.177	16.5	20.9
71856	Nitrite, water, filtered, milligrams per liter		< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
71865	Iodide, water, filtered, milligrams per liter		0.081	0.088	0.067	0.001	0.008
71870	Bromide, water, filtered, milligrams per liter		0.104	0.133	0.125	0.401	0.322
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	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		-9.78	-11.09	-10.98	-15.09	-15.03
82082	Deuterium/Protium ratio, water, unfiltered, per mil		-53.90	-54.40	-54.80	-48.60	-56.80
82085	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil		-8.40	-8.40	-8.30	-7.11	-7.58
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						

Source: USGS California Water Science Center.

Water Quality Data for Multiple Depth Monitoring Well
Temecula Creek Well (8S/2W-15F1-5)
October 2014

Code	Parameter	MCL	Well F1	Well F2	Well F3	Well F4	Well F5
	Sampling date		10/14/2014	10/15/2014	10/15/2014	10/14/2014	10/14/2014
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		489	502	491	673	1190
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. 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 verifed 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.

Source: USGS California Water Science Center.

ANNUAL REPORT

COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT

CALENDAR YEAR 2019

APPENDIX C-4

VDC RECHARGE BASIN GROUNDWATER MONITORING WELL

Site Description
VDC Recharge Basin Groundwater Monitoring Well (8S/1W-6R1-6)

LOCATION: Latitude 33º 30' 01.7", longitude 117º 00' 57.8" (NAD83) in NW1/4 SE1/4 SE1/4 Section 6,T8S, R1W, Riverside County, California. Well is located off Pauba Road on Winner's Circle near Rancho California Water District VDC Recharge Basin in Temecula, California.

SITE INFORMATION: Land-surface altitude is 1252.78 feet above mean sea level (NAVD88).

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/1W-6R1	333001117005701	1/28/2014 to present	4/24/2014 to present
8S/1W-6R2	333001117005702	1/28/2014 to present	4/24/2014 to present
8S/1W-6R3	333001117005703	1/28/2014 to present	4/24/2014 to present
8S/1W-6R4	333001117005704	1/28/2014 to present	___
8S/1W-6R5	333001117005705	1/28/2014 to present	4/24/2014 to present
8S/1W-6R6	333001117005706	1/28/2014 to present	___

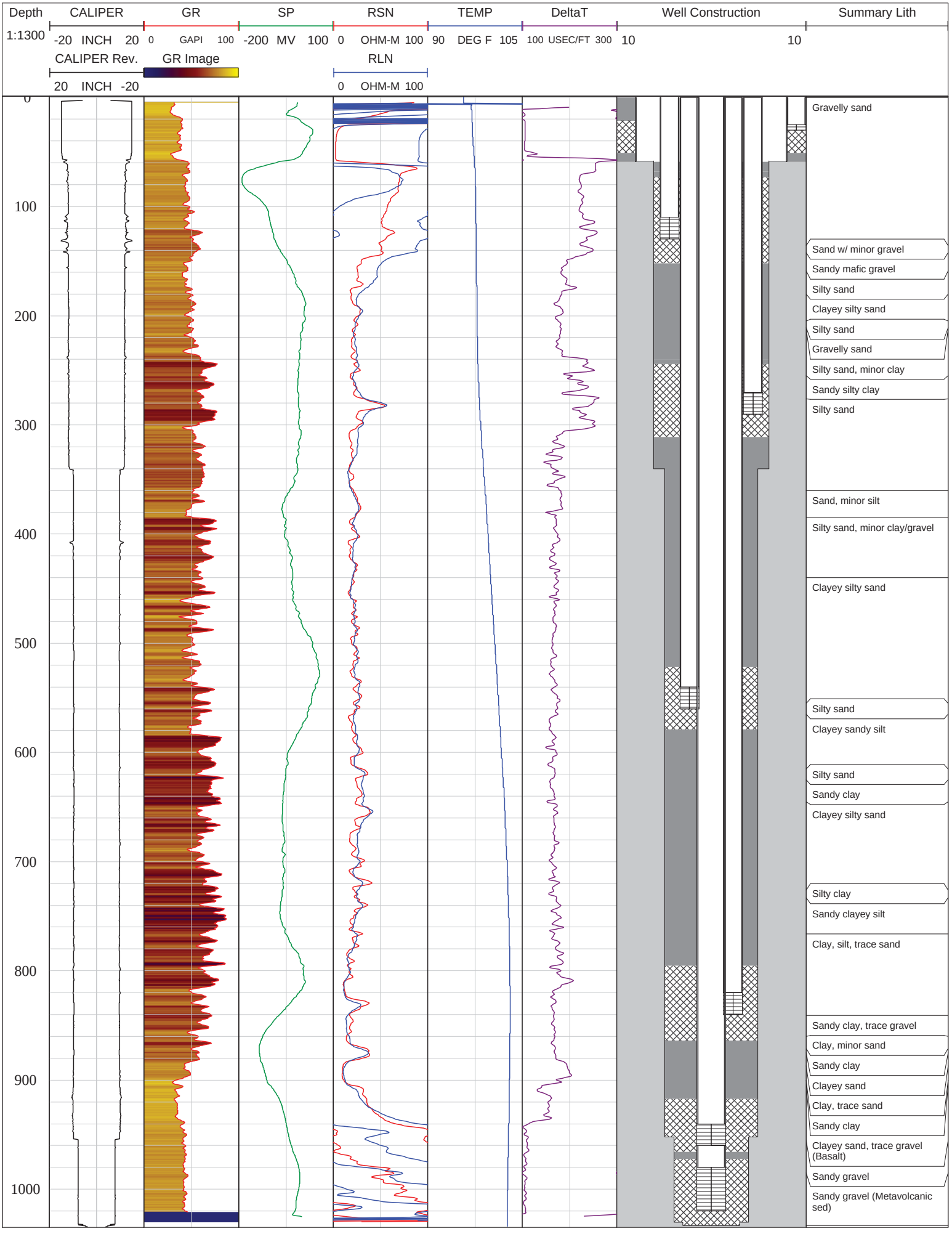
TOPOGRAPHIC MAP: USGS Bachelor Mountain, California, 7.5 minute series.

WELL SUMMARY INFORMATION:

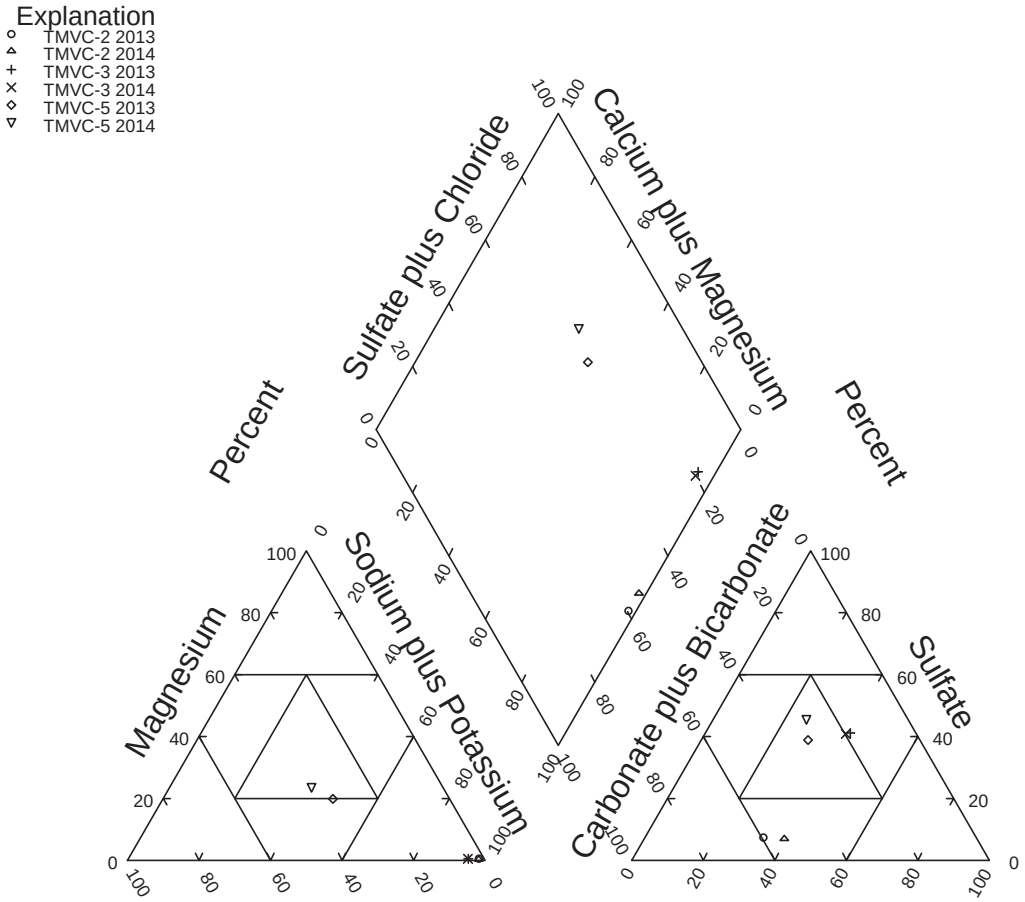
State well number	USGS station number	Hole depth (ft)	Perforation depth (ft)	Casing size and type	Date drilled
8S/1W-6R1	333001117005701	1033	940-960, 980-1020	3" PVC	8/31/13
8S/1W-6R2	333001117005702	1033	820-840	2" PVC	8/31/13
8S/1W-6R3	333001117005703	1033	540-560	2" PVC	8/31/13
8S/1W-6R4	333001117005704	1033	270-290	2" PVC	8/31/13
8S/1W-6R5	333001117005705	1033	110-130	2" PVC	8/31/13
8S/1W-6R6	333001117005706	1033	25-30	2" PVC	8/31/13

ADDITIONAL INFORMATION:

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

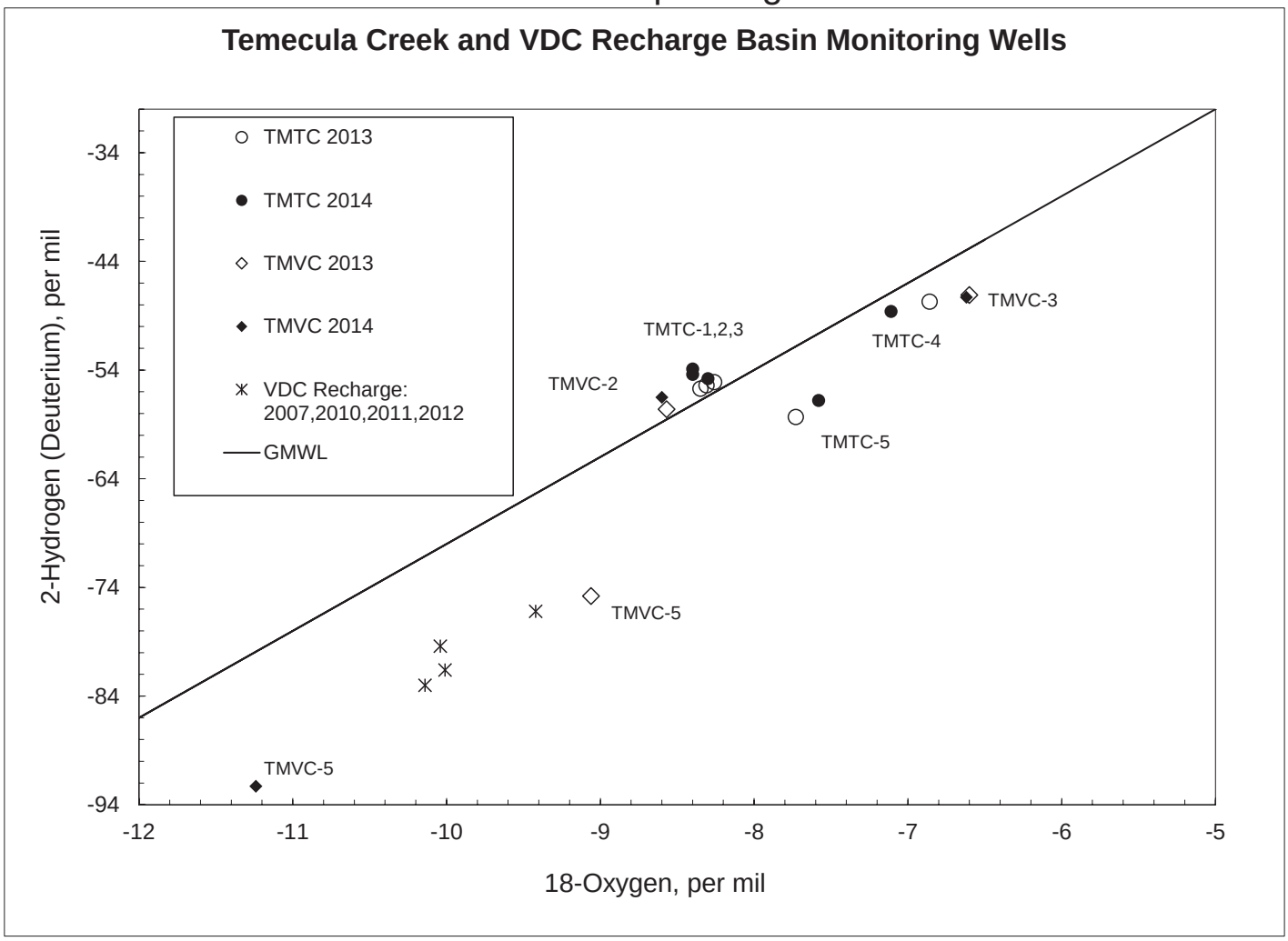

Depth
1:1300
CALIPER
-20 INCH 20
CALIPER Rev.
20 INCH -20
GR
0 GAPI 100
GR Image
SP
-200 MV 100
RSN
0 OHM-M 100
RLN
0 OHM-M 100
TEMP
90 DEG F 105
DeltaT
100 USEC/FT 300
Well Construction
10
10
Summary Lith
0
100
200
300
400
500
600
700
800
900
1000
Gravelly sand
Sand w/ minor gravel
Sandy mafic gravel
Silty sand
Clayey silty sand
Silty sand
Gravelly sand
Silty sand, minor clay
Sandy silty clay
Silty sand
Sand, minor silt
Silty sand, minor clay/gravel
Clayey silty sand
Silty sand
Clayey sandy silt
Silty sand
Sandy clay
Clayey silty sand
Silty clay
Sandy clayey silt
Clay, silt, trace sand
Sandy clay, trace gravel
Clay, minor sand
Sandy clay
Clayey sand
Clay, trace sand
Sandy clay
Clayey sand, trace gravel (Basalt)
Sandy gravel
Sandy gravel (Metavolcanic sed)

Tri-Linear Diagram
VDC Recharge Basin Monitoring Well (8S/1W-6R1-6)



Source: USGS California Water Science Center.

Stable Isotope Diagram



Source: USGS California Water Science Center.

End-of Month Piezometric Head for Multiple Depth Monitoring Well
VDC Recharge Basin Well (8S/1W-6R1-6)
(elevation in feet, MSL)

April 2014 through December 2019

Month	Well R1	Well R2	Well R3	Well R4	Well R5	Well R6
Jan 14	---	---	---	---	---	---
Feb	---	---	---	---	---	---
Mar	---	---	---	---	---	---
Apr	939.73	929.94	929.69	---	1173.48	---
May	937.49	927.42	934.85	---	1171.89	---
Jun	935.77	925.67	936.91	---	1171.42	---
Jul	934.24	924.06	933.43	---	1171.62	---
Aug	932.84	922.66	934.05	---	1171.64	---
Sep	931.73	921.45	932.01	---	1171.26	---
Oct	931.08	920.88	935.28	---	1170.65	---
Nov	931.08	920.79	934.89	---	1172.75	---
Dec	931.13	920.92	948.71	---	1170.52	---
Jan 15	932.55	922.67	956.25	---	1169.29	---
Feb	933.94	923.95	953.88	---	1166.84	---
Mar	935.04	925.05	952.80	---	1166.63	---
Apr	935.14	924.92	943.37	---	1166.14	---
May	934.99	924.91	946.23	---	1166.53	---
Jun	934.91	924.71	933.17	---	1167.14	---
Jul	934.05	923.60	932.61	---	1167.88	---
Aug	932.59	921.96	932.07	---	1166.79	---
Sep	932.09	921.74	936.75	---	1164.85	---
Oct	932.41	922.12	930.72	---	1166.33	---
Nov	933.04	922.64	934.03	---	1172.76	---
Dec	933.91	923.36	944.94	---	1183.69	---
Jan 16	934.61	924.30	952.46	---	1184.30	---
Feb	935.00	924.77	945.34	---	1179.89	---
Mar	935.60	925.36	946.98	---	1178.29	---
Apr	935.78	925.47	950.56	---	1174.93	---
May	935.74	925.43	941.40	---	1173.72	---
Jun	935.29	925.08	939.42	---	1174.88	---
Jul	935.01	924.71	944.09	---	1178.05	---
Aug	934.30	923.95	940.87	---	1177.54	---
Sep	933.32	922.88	938.03	---	1177.28	---
Oct	932.55	922.09	942.87	---	1177.64	---
Nov	931.88	921.37	953.00	---	1175.88	---
Dec	932.00	921.69	966.78	971.38	1174.55	---
Jan 17	933.94	924.27	976.82	979.08	1175.22	---
Feb	936.52	926.74	981.50	982.26	1174.06	---
Mar	939.22	929.75	963.97	966.84	1173.40	---
Apr	941.61	931.89	955.30	---	1173.92	---
May	943.31	933.54	953.03	---	1175.35	---
Jun	943.92	933.80	951.81	---	1175.17	---
Jul	943.76	933.65	966.54	971.03	1178.78	---
Aug	944.01	934.09	977.79	978.38	1184.53	---
Sep	944.98	935.17	979.59	977.83	1181.31	---
Oct	946.05	936.39	979.57	977.77	1178.10	---
Nov	947.60	937.95	979.26	978.13	1182.04	---
Dec	949.13	939.48	985.26	985.35	1186.77	---

End-of Month Piezometric Head for Multiple Depth Monitoring Well
VDC Recharge Basin Well (8S/1W-6R1-6)
(elevation in feet, MSL)

April 2014 through December 2019

Month	Well R1	Well R2	Well R3	Well R4	Well R5	Well R6
Jan 18	951.23	941.77	984.83	988.98	1191.46	--
Feb	952.14	942.57	980.33	990.04	1186.74	--
Mar	953.52	944.08	977.85	983.51	1181.70	--
Apr	954.74	945.26	965.33	974.28	1176.38	--
May	955.31	945.70	969.41	981.79	1173.97	--
Jun	956.54	946.86	968.95	980.94	1171.18	--
Jul	957.90	948.38	971.10	982.35	1172.12	--
Aug	959.14	949.59	968.69	980.20	1172.28	--
Sep	959.82	950.27	968.00	979.92	1170.87	--
Oct	961.18	951.47	961.78	971.83	1170.29	--
Nov	961.43	951.74	959.11	970.08	1168.91	--
Dec	962.03	952.38	961.90	968.08	1169.51	--
Jan 19	962.28	952.53	970.38	974.95	1167.19	--
Feb	963.41	953.72	988.83	990.93	1167.16	--
Mar	965.11	955.64	986.58	989.10	1175.18	--
Apr	966.56	956.85	976.44	986.26	1176.95	--
May	966.84	957.06	968.58	981.08	1179.53	--
Jun	965.35	954.96	950.47	964.95	1181.74	--
Jul	962.11	951.30	958.46	977.06	1186.72	--
Aug	960.40	949.87	959.80	975.31	1192.36	--
Sep	960.07	949.74	958.72	972.20	1200.10	--
Oct	958.72	948.32	955.44	969.35	1196.68	--
Nov	956.92	946.26	971.20	1068.54	1195.14	--
Dec	957.00	946.90	993.18	1053.80	1201.24	--

Notes:
(1) Data reported as daily median value for period of record.

Source: USGS California Water Science Center.

Water Quality Data for Multiple Depth Monitoring Well
VDC Recharge Basin Well (8S/1W-6R1-6)
November 2013

Code	Parameter	MCL	Well R1	Well R2	Well R3	Well R4	Well R5	Well R6
	Sampling date			**11/6/2013**	**11/7/2013**		**11/5/2013**	
3	Sampling depth, feet							
10	Temperature, water, degrees Celsius			20.1	21.7		19.7	
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			418	764		803	
191	Hydrogen ion, water, unfiltered, calculated, milligrams per liter			M	M		0.00002	
300	Dissolved oxygen, water, unfiltered, milligrams per liter			< 0.2	0.4		1.0	
400	pH, water, unfiltered, field, standard units			9.8	8.9		7.7	
403	pH, water, unfiltered, laboratory, standard units			9.8	8.8		8.0	
405	Carbon dioxide, water, unfiltered, milligrams per liter			M	0.2		4.8	
452	Carbonate, water, filtered, inflection-point titration method, milligrams per liter							
453	Bicarbonate, water, filtered, incremental titration, field, milligrams per liter							
602	Total nitrogen, water, filtered, milligrams per liter			< 0.19	< 0.11		0.32	
607	Organic nitrogen, water, filtered, milligrams per liter			0.12	< 0.07		< 0.08	
608	Ammonia, water, filtered, milligrams per liter as nitrogen			0.02	< 0.01		< 0.01	
613	Nitrite, water, filtered, milligrams per liter as nitrogen	1 (a)		< 0.001	< 0.001		< 0.001	
618	Nitrate, water, filtered, milligrams per liter as nitrogen			< 0.040	< 0.040		0.236	
623	Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen			0.15	< 0.07		0.08	
631	Nitrate plus nitrite, water, filtered, milligrams per liter as nitrogen			< 0.040	< 0.040		0.236	
660	Orthophosphate, water, filtered, milligrams per liter			6.91	0.094		0.46	
666	Phosphorus, water, filtered, milligrams per liter			2.45	0.03		0.17	
671	Orthophosphate, water, filtered, milligrams per liter as phosphorus			2.25	0.031		0.15	
681	Organic carbon, water, filtered, milligrams per liter			0.61	0.60		1.16	
900	Hardness, water, milligrams per liter as calcium carbonate			3.85	16.9		211	
904	Noncarb hardness, water filtered field, milligrams per liter as calcium carbonate						88	
905	Noncarb hardness, water filtered lab, milligrams per liter as calcium carbonate						76	
915	Calcium, water, filtered, milligrams per liter			1.13	5.99		52.5	
925	Magnesium, water, filtered, milligrams per liter			0.246	0.448		19.4	
930	Sodium, water, filtered, milligrams per liter			86.8	146		85.2	
931	Sodium adsorption ratio, water, number			19.3	15.6		2.55	
932	Sodium fraction of cations, water, percent in equivalents of major cations			98	95		46	
935	Potassium, water, filtered, milligrams per liter			0.50	1.14		4.14	
940	Chloride, water, filtered, milligrams per liter	600		37.5	96.6		82.1	
945	Sulfate, water, filtered, milligrams per liter	600		12.7	137		147	
950	Fluoride, water, filtered, milligrams per liter	2 (b)		2.26	1.57		0.34	
955	Silica, water, filtered, milligrams per liter			21.4	9.02		13.8	
1000	Arsenic, water, filtered, micrograms per liter	10 (c)		40.8	1.9		1.1	
1005	Barium, water, filtered, micrograms per liter	1000 (d)		3.5	22.4		14.6	
1010	Beryllium, micrograms per liter	4 (e)						
1020	Boron, water, filtered, micrograms per liter			1050	848		123	
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		334	38.2		< 4.0	
1049	Lead, micrograms per liter							
1056	Manganese, water, filtered, micrograms per liter	50		7.25	1.73		3.40	
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			5.7	109		524	
1085	Vanadium, micrograms per liter							
1090	Zinc, micrograms per liter	5000 (l)						

Source: USGS California Water Science Center.

Water Quality Data for Multiple Depth Monitoring Well
VDC Recharge Basin Well (8S/1W-6R1-6)
November 2013

Code	Parameter	MCL	Well R1	Well R2	Well R3	Well R4	Well R5	Well R6
	Sampling date			11/6/2013	11/7/2013		11/5/2013	
1095	Antimony, micrograms per liter	6 (m)						
1106	Aluminum, water, filtered, micrograms per liter	1000 (n)		432	79.3		8.8	
1130	Lithium, water, filtered, micrograms per liter			1.03	0.94		7.55	
1145	Selenium, micrograms per liter	50 (o)						
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			R -0.1	2.3		16	
22703	Uranium, natural, micrograms per liter							
29801	Alkalinity, water, filtered, fixed endpoint (pH 4.5) titration, laboratory, milligrams per liter as calcium carbonate			121	69		136	
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						
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-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							

Source: USGS California Water Science Center.

Water Quality Data for Multiple Depth Monitoring Well
VDC Recharge Basin Well (8S/1W-6R1-6)
November 2013

Code	Parameter	MCL	Well R1	Well R2	Well R3	Well R4	Well R5	Well R6
	Sampling date			11/6/2013	11/7/2013		11/5/2013	
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							
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	Dicrotophos, 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			109	64		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	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			5.37	27.33		92.75	
49934	C-14, counting error, water, filtered, percent modern			0.09	0.15		0.21	
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	Metalaxyl, 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	Metalaxyl, 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							

Source: USGS California Water Science Center.

Water Quality Data for Multiple Depth Monitoring Well
VDC Recharge Basin Well (8S/1W-6R1-6)
November 2013

Code	Parameter	MCL	Well R1	Well R2	Well R3	Well R4	Well R5	Well R6
	Sampling date			11/6/2013	11/7/2013		11/5/2013	
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	6						
70300	Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter	1500		253	442		481	
70301	Residue, water, filtered, sum of constituents, milligrams per liter			237	438		481	
70303	Residue, water, filtered, tons per acre-foot							
71846	Ammonia, water, filtered, milligrams per liter as NH4			0.03	< 0.013		< 0.013	

Source: USGS California Water Science Center.

Water Quality Data for Multiple Depth Monitoring Well
VDC Recharge Basin Well (8S/1W-6R1-6)
November 2013

Code	Parameter	MCL	Well R1	Well R2	Well R3	Well R4	Well R5	Well R6
	Sampling date			11/6/2013	11/7/2013		11/5/2013	
71851	Nitrate, water, filtered, milligrams per liter	45 (q)		< 0.177	< 0.177		1.04	
71856	Nitrite, water, filtered, milligrams per liter			< 0.003	< 0.003		< 0.003	
71865	Iodide, water, filtered, milligrams per liter			0.028	0.011		0.015	
71870	Bromide, water, filtered, milligrams per liter			0.096	0.352		0.151	
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	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			-13.51	-13.13		-8.61	
82082	Deuterium/Protium ratio, water, unfiltered, per mil			-57.60	-47.10		-74.80	
82085	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil			-8.57	-6.60		-9.06	
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							

Source: USGS California Water Science Center.

Water Quality Data for Multiple Depth Monitoring Well
VDC Recharge Basin Well (8S/1W-6R1-6)
November 2013

Code	Parameter	MCL	Well R1	Well R2	Well R3	Well R4	Well R5	Well R6
	Sampling date			11/6/2013	11/7/2013		11/5/2013	
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			395	739		770	
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. 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 verifed 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.

Source: USGS California Water Science Center.

Water Quality Data for Multiple Depth Monitoring Well
VDC Recharge Basin Well (8S/1W-6R1-6)
October 2014

Code	Parameter	MCL	Well R1	Well R2	Well R3	Well R4	Well R5	Well R6
	Sampling date			10/15/2014	10/15/2014		10/15/2014	
3	Sampling depth, feet							
10	Temperature, water, degrees Celsius			21.1	21.2		20.2	
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			328	586		882	
191	Hydrogen ion, water, unfiltered, calculated, milligrams per liter			M	M		0.00004	
300	Dissolved oxygen, water, unfiltered, milligrams per liter			0.2	0.2		1.9	
400	pH, water, unfiltered, field, standard units			9.8	8.9		7.4	
403	pH, water, unfiltered, laboratory, standard units			9.7	8.8		7.8	
405	Carbon dioxide, water, unfiltered, milligrams per liter			M	0.2		10	
452	Carbonate, water, filtered, inflection-point titration method, milligrams per liter			22.5	3.9		0.3	
453	Bicarbonate, water, filtered, incremental titration, field, milligrams per liter			62.4	75.9		158	
602	Total nitrogen, water, filtered, milligrams per liter			< 0.12	< 0.11		0.37	
607	Organic nitrogen, water, filtered, milligrams per liter			0.07	< 0.07		< 0.08	
608	Ammonia, water, filtered, milligrams per liter as nitrogen			0.02	< 0.01		< 0.01	
613	Nitrite, water, filtered, milligrams per liter as nitrogen	1 (a)		< 0.001	< 0.001		< 0.001	
618	Nitrate, water, filtered, milligrams per liter as nitrogen			< 0.040	< 0.040		0.291	
623	Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen			0.09	< 0.07		0.08	
631	Nitrate plus nitrite, water, filtered, milligrams per liter as nitrogen			< 0.040	< 0.040		0.291	
660	Orthophosphate, water, filtered, milligrams per liter			0.289	0.031		0.189	
666	Phosphorus, water, filtered, milligrams per liter			0.10	0.02		0.06	
671	Orthophosphate, water, filtered, milligrams per liter as phosphorus			0.094	0.010		0.062	
681	Organic carbon, water, filtered, milligrams per liter							
900	Hardness, water, milligrams per liter as calcium carbonate			3.29	18.2		277	
904	Noncarb hardness, water filtered field, milligrams per liter as calcium carbonate						147	
905	Noncarb hardness, water filtered lab, milligrams per liter as calcium carbonate						141	
915	Calcium, water, filtered, milligrams per liter			1.20	6.48		67.7	
925	Magnesium, water, filtered, milligrams per liter			0.067	0.446		26.1	
930	Sodium, water, filtered, milligrams per liter			77.4	153		80.8	
931	Sodium adsorption ratio, water, number			18.6	15.7		2.11	
932	Sodium fraction of cations, water, percent in equivalents of major cations			98	94		38	
935	Potassium, water, filtered, milligrams per liter			0.36	1.11		4.84	
940	Chloride, water, filtered, milligrams per liter	600		41.4	94.6		83.4	
945	Sulfate, water, filtered, milligrams per liter	600		10.7	137		199	
950	Fluoride, water, filtered, milligrams per liter	2 (b)		2.29	1.54		0.33	
955	Silica, water, filtered, milligrams per liter			17.6	8.03		11.6	
1000	Arsenic, water, filtered, micrograms per liter	10 (c)		36.3	1.8		0.54	
1005	Barium, water, filtered, micrograms per liter	1000 (d)		1.1	29.8		27.2	
1010	Beryllium, micrograms per liter	4 (e)						
1020	Boron, water, filtered, micrograms per liter			1270	887		96	
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		49.6	< 4.0		< 4.0	
1049	Lead, micrograms per liter							
1056	Manganese, water, filtered, micrograms per liter	50		1.86	0.66		< 0.20	
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			5.3	122		732	
1085	Vanadium, micrograms per liter							
1090	Zinc, micrograms per liter	5000 (l)						

Source: USGS California Water Science Center.

Water Quality Data for Multiple Depth Monitoring Well
VDC Recharge Basin Well (8S/1W-6R1-6)
October 2014

Code	Parameter	MCL	Well R1	Well R2	Well R3	Well R4	Well R5	Well R6
	Sampling date			10/15/2014	10/15/2014		10/15/2014	
1095	Antimony, micrograms per liter	6 (m)						
1106	Aluminum, water, filtered, micrograms per liter	1000 (n)		170	12.9		3.3	
1130	Lithium, water, filtered, micrograms per liter			0.96	1.12		8.30	
1145	Selenium, micrograms per liter	50 (o)						
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			0.4	1.9		18	
22703	Uranium, natural, micrograms per liter							
29801	Alkalinity, water, filtered, fixed endpoint (pH 4.5) titration, laboratory, milligrams per liter as calcium carbonate			93.7	70.4		136	
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						
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-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							

Source: USGS California Water Science Center.

Water Quality Data for Multiple Depth Monitoring Well
VDC Recharge Basin Well (8S/1W-6R1-6)
October 2014

Code	Parameter	MCL	Well R1	Well R2	Well R3	Well R4	Well R5	Well R6
	Sampling date			10/15/2014	10/15/2014		10/15/2014	
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							
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	Dicrotophos, 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			91.4	69.1		130	
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			5.420	31.95		88.31	
49934	C-14, counting error, water, filtered, percent modern			0.080	0.120		0.210	
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	Metalaxyl, 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	Metalaxyl, 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							

Source: USGS California Water Science Center.

Water Quality Data for Multiple Depth Monitoring Well
VDC Recharge Basin Well (8S/1W-6R1-6)
October 2014

Code	Parameter	MCL	Well R1	Well R2	Well R3	Well R4	Well R5	Well R6
	Sampling date			10/15/2014	10/15/2014		10/15/2014	
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	6						
70300	Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter	1500		221	447		577	
70301	Residue, water, filtered, sum of constituents, milligrams per liter			206	445		554	
70303	Residue, water, filtered, tons per acre-foot							
71846	Ammonia, water, filtered, milligrams per liter as NH4			0.022	< 0.013		< 0.013	

Source: USGS California Water Science Center.

Water Quality Data for Multiple Depth Monitoring Well
VDC Recharge Basin Well (8S/1W-6R1-6)
October 2014

Code	Parameter	MCL	Well R1	Well R2	Well R3	Well R4	Well R5	Well R6
	Sampling date			10/15/2014	10/15/2014		10/15/2014	
71851	Nitrate, water, filtered, milligrams per liter	45 (q)		< 0.117	< 0.117		1.29	
71856	Nitrite, water, filtered, milligrams per liter			< 0.003	< 0.003		< 0.003	
71865	Iodide, water, filtered, milligrams per liter			0.029	0.009		0.001	
71870	Bromide, water, filtered, milligrams per liter			0.097	0.326		0.074	
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	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			-14.91	-13.32		-7.81	
82082	Deuterium/Protium ratio, water, unfiltered, per mil			-56.50	-47.30		-92.30	
82085	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil			-8.60	-6.62		-11.24	
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							

Source: USGS California Water Science Center.

Water Quality Data for Multiple Depth Monitoring Well
VDC Recharge Basin Well (8S/1W-6R1-6)
October 2014

Code	Parameter	MCL	Well R1	Well R2	Well R3	Well R4	Well R5	Well R6
	Sampling date			10/15/2014	10/15/2014		10/15/2014	
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			365	782		911	
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. 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 verifed 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.

Source: USGS California Water Science Center.

ANNUAL REPORT

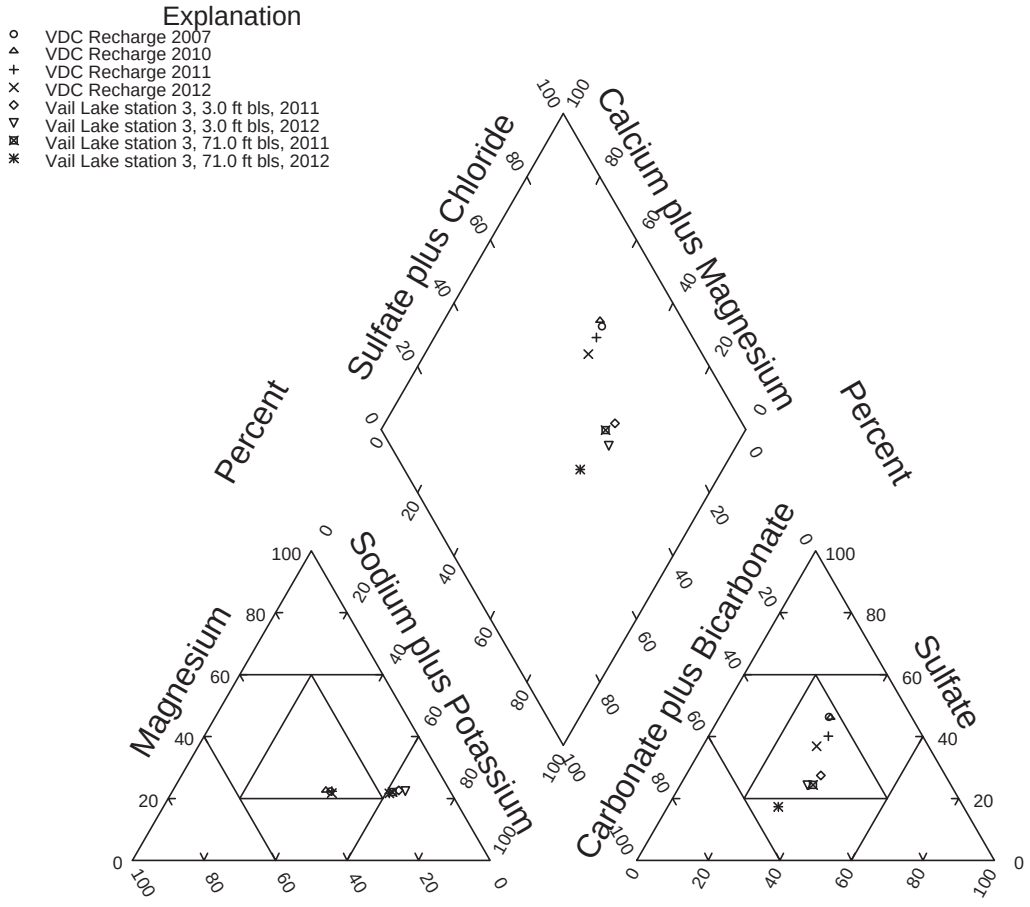
COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT

CALENDAR YEAR 2019

APPENDIX D-1

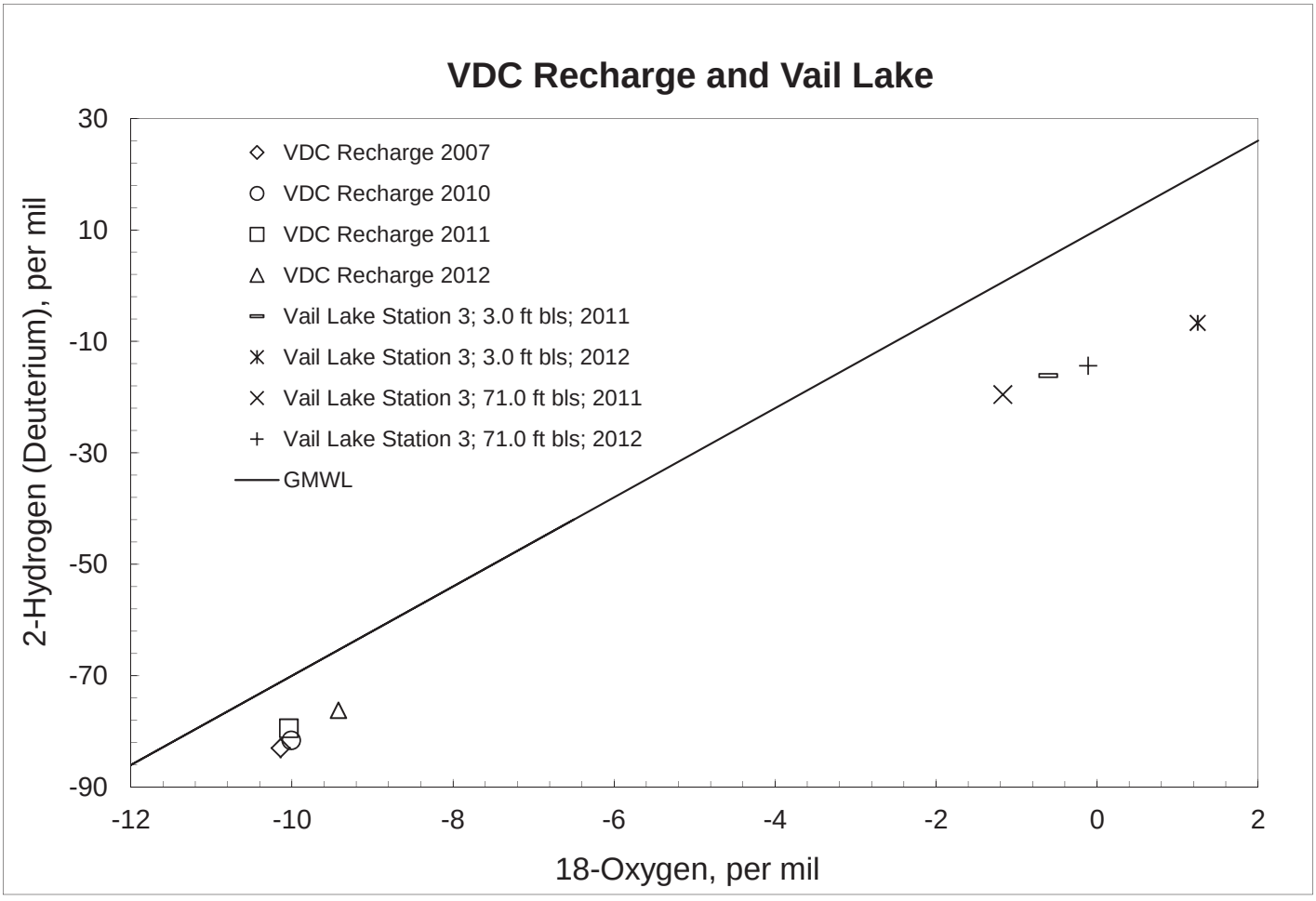
WATER QUALITY DATA FOR IMPORTED WATER DELIVERED TO RCWD UPPER VDC RECHARGE BASINS

Tri-Linear Diagram
VDC Recharge and Vail Lake



Source: USGS California Water Science Center.

Stable Isotope Diagram



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	Pond 5	Pond 5	Pond 5	
	Sampling date		9/17/2007	7/28/2010	8/22/2011	8/21/2012	
	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 field, milligrams per liter as calcium carbonate			141	66	80	
905	Noncarb hardness, water filtered lab, milligrams per liter as calcium carbonate		120	138	69	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 adsorption ratio, water, number		2.33	2.33	1.90	2.09	
932	Sodium fraction of cations, water, percent in equivalents of major cations		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				
1020	Boron, water, filtered, micrograms per liter		138	147	122	133	
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	1000 (h)	4.9				
1046	Iron, water, filtered, micrograms per liter	300	6	4 E	7.3	< 3.2	
1049	Lead, micrograms per liter		0.62				
1056	Manganese, water, filtered, micrograms per liter	50	1.1	0.4	2.26	1.94	
1057	Thallium, micrograms per liter	2 (i)	< 0.04				
1060	Molybdenum, micrograms per liter		4.7				
1065	Nickel, micrograms per liter	100 (j)	1.2				
1075	Silver, micrograms per liter	100 (k)	< 0.10				
1080	Strontium, water, filtered, micrograms per liter		820	871	472	513	
1085	Vanadium, micrograms per liter		3				
1090	Zinc, micrograms per liter	5000 (l)	5				
1095	Antimony, micrograms per liter	6 (m)	0.29				

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	Pond 5	Pond 5	Pond 5	
	Sampling date		9/17/2007	7/28/2010	8/22/2011	8/21/2012	
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	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		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	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				
34311	Chloroethane, water, unfiltered, recoverable, micrograms per liter		< 0.1				
34371	Ethylbenzene, water, unfiltered, recoverable, micrograms per liter	300	< 0.02				
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	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	Tetrachloroethene, 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				
34566	1,3-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter		< 0.04				
34571	1,4-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter	5	< 0.04				

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	Pond 5	Pond 5	Pond 5	
	Sampling date		9/17/2007	7/28/2010	8/22/2011	8/21/2012	
34572	1,4-Dichlorobenzene, water, filtered, recoverable, micrograms per liter						
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	Dicrotophos, 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	Metalaxyl, 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	Metalaxyl, 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						

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	Pond 5	Pond 5	Pond 5	
	Sampling date		9/17/2007	7/28/2010	8/22/2011	8/21/2012	
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		0.41				
63790	Perchlorate, water, filtered, recoverable, micrograms per liter	6	1.11				
70300	Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter	1500	526	516	362	384	
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 (q)	< 1.00	0.623	0.872	0.708	

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	Pond 5	Pond 5	Pond 5	
	Sampling date		9/17/2007	7/28/2010	8/22/2011	8/21/2012	
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		0.06	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-Dichloroethene, 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	-81.6	-79.4	-76.2	
82085	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil		-10.14	-10.01	-10.04	-9.42	
82303	Rn-222, water, unfiltered, picocuries per liter		0				
82346	Ethion, water, filtered, recoverable, micrograms per liter						
82625	1,2-Dibromo-3-chloropropane, water, unfiltered, recoverable, micrograms per liter		< 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						

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	Pond 5	Pond 5	Pond 5	
	Sampling date		9/17/2007	7/28/2010	8/22/2011	8/21/2012	
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				
90095	Specific conductance, water, unfiltered, laboratory, microsiemens per centimeter at 25 degrees Celsius		859	868	568	625	
90851	Triholomehtanes, water, unfiltered, calcd, micrograms per liter		50.2				
90867	Triholomehtanes, water, unfiltered, calcd, micrograms per liter		50.2				
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 verifed 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.

Source: USGS California Water Science Center.

ANNUAL REPORT

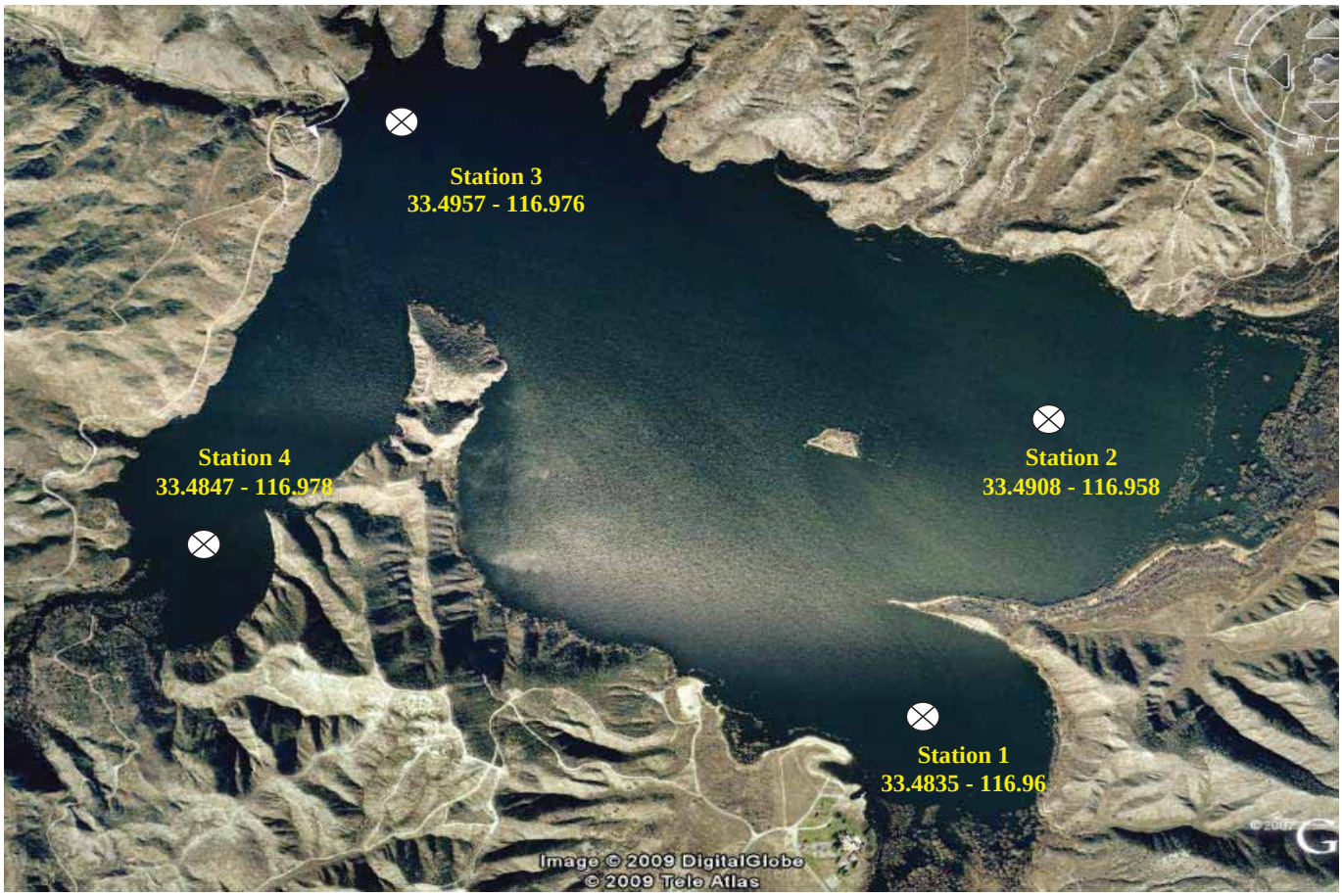
COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT

CALENDAR YEAR 2019

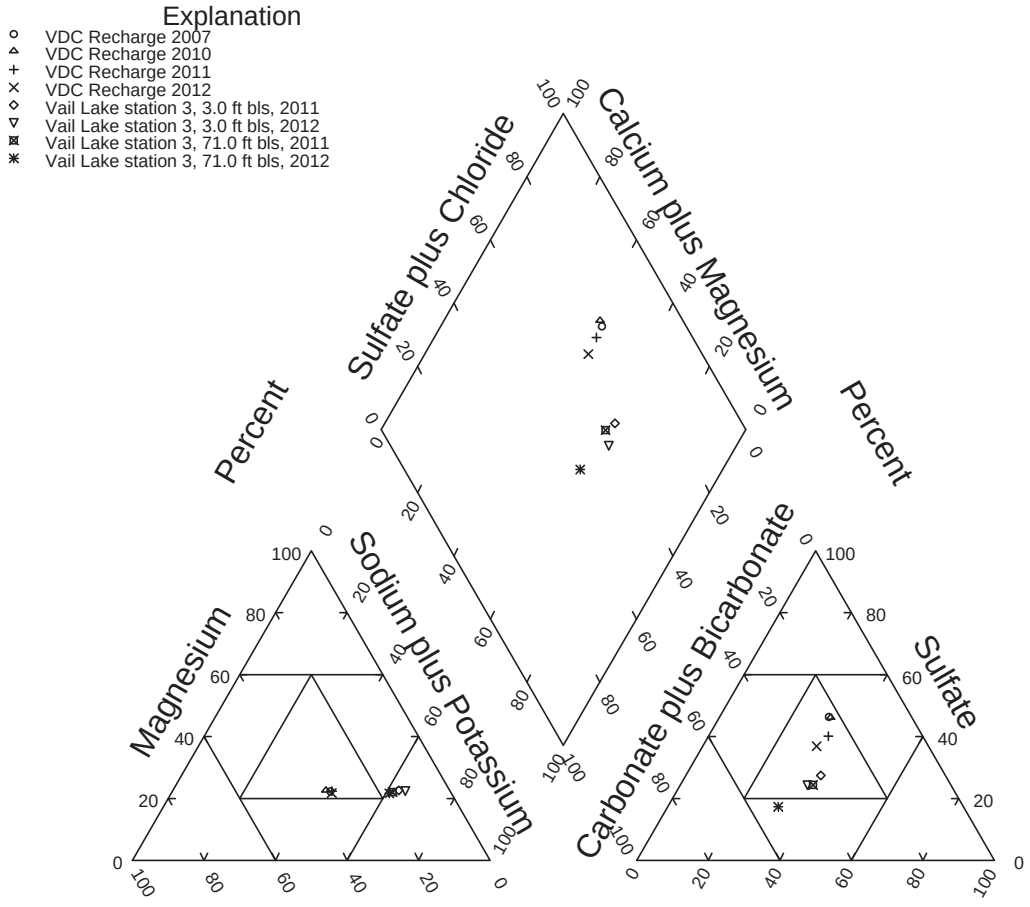
APPENDIX D-2

WATER QUALITY DATA FOR VAIL LAKE

Vail Lake Water Quality Sampling Locations

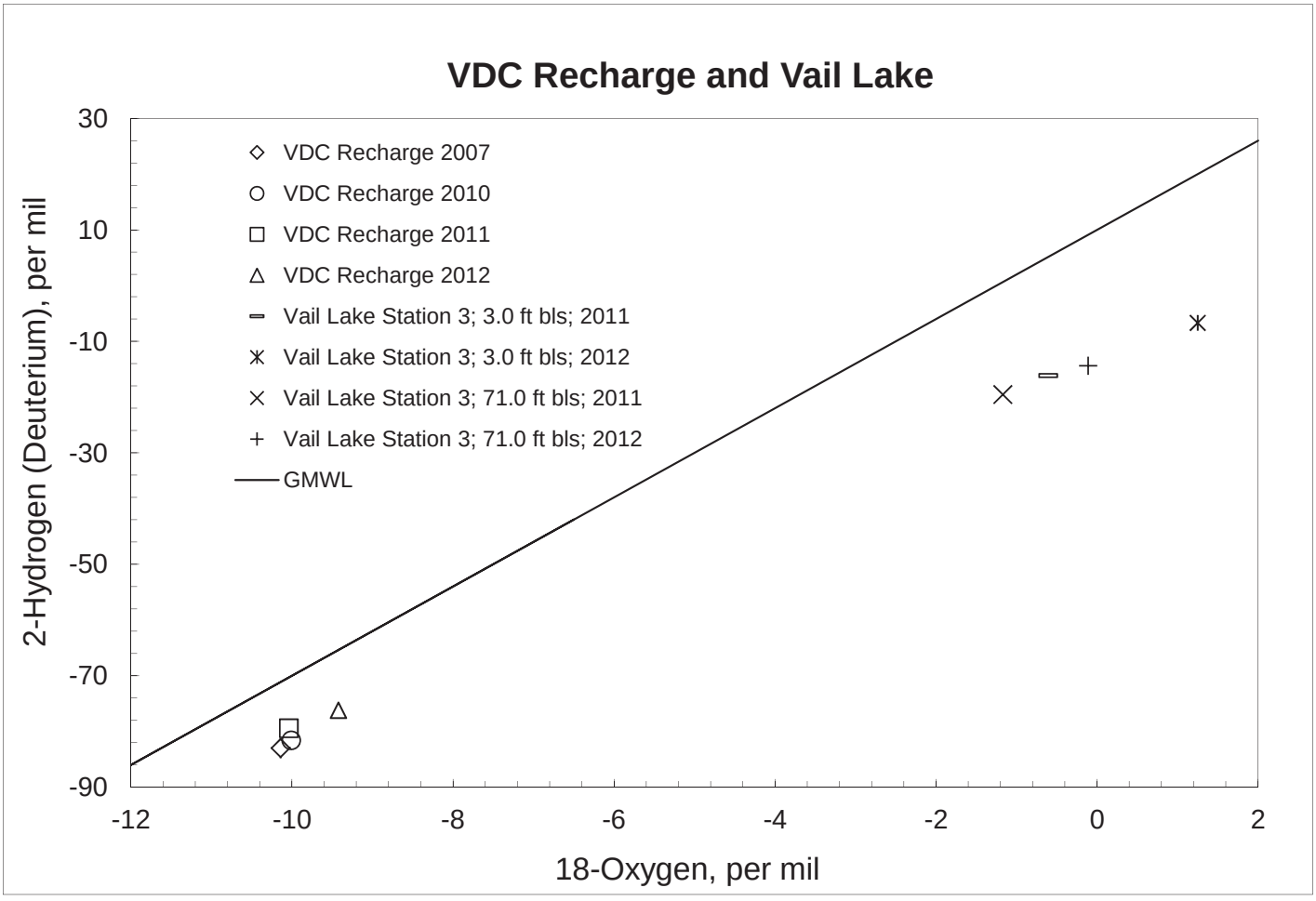


Tri-Linear Diagram
VDC Recharge and Vail Lake



Source: USGS California Water Science Center.

Stable Isotope Diagram



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	3 Vail 1M	3 Vail 1M	3 Vail 1M	3 Vail 1M	3 Vail 1M
Sampling Date	**9/22/2009**	**10/21/2009**	**11/18/2009**	**5/26/2010**	**6/17/2010**	**9/18/2010**
Reservoir Storage Content, acre feet	22,030	21,630	21,230	25,790	25,490	24,000
Reservoir Storage Content, percent full	44.6%	43.8%	43.0%	52.2%	51.6%	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	1,441.71
Water Surface Elevation, feet above bottom of lowest outlet	86.42	85.84	85.26	91.63	91.24	89.21
Sampling Depth, meters below water surface	1.0	1.0	1.0	1.0	1.0	1.0
Dissolved Oxygen, milligrams per liter			10.7	7.98	8.54	
pH, standard units		8.98	8.72	9.11	9.29	
Total Dissolved Solids, milligrams per liter						
Specific Conductance, microsiemens per centimeter at 25 degrees Celsius		1274	1058	1172	1174	1210
Temperature, water, degrees Celsius		19.84	16.02	19.90	22.84	22.51
Aluminum, micrograms per liter						ND
Ammonia, milligrams per liter as nitrogen	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		180
Carbonate as CO3, milligrams per liter	12	ND	ND	14		34
Chloride, milligrams per liter	180		180	130		160
Cyanide, milligrams per liter						ND
Fluoride, milligrams per liter						0.5
Hydroxide as OH, milligrams per liter	ND	ND	ND	ND		ND
Inorganic Nitrogen, milligrams per liter	ND	ND	ND	ND		ND
Kjeldahl Nitrogen, milligrams per liter						
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
Nitrite Nitrogen, milligrams per liter	ND	ND	ND	ND		ND
Ortho Phosphate Phosphorus, milligrams per liter	ND	ND	0.053	ND		ND
Perchlorate, micrograms per liter						ND
Selenium, micrograms per liter						ND
Silver, micrograms per liter						ND
Sulfate, milligrams per liter	180		180	140		170
Thalium, micrograms per liter						ND
Total Alkalinity as CaCO3, milligrams per liter	230	240	250	220		200
Total Chromium, micrograms per liter						ND
Total Suspended Solids, milligrams per liter	ND	ND	7	8		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	3 Vail 1M	3 Vail 1M	3 Vail 1M	3 Vail 1M	3 Vail 1M
Sampling Date	**10/9/2010**	**11/13/2010**	**12/11/2010**	**1/8/2011**	**2/12/2011**	**4/16/2011**
Reservoir Storage Content, acre feet	23,640	22,510	21,960	27,740	28,060	32,120
Reservoir Storage Content, percent full	47.9%	45.6%	44.5%	56.2%	56.8%	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	1,452.03
Water Surface Elevation, feet above bottom of lowest outlet	88.71	87.11	86.32	94.18	94.58	99.53
Sampling Depth, meters below water surface	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
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
Carbonate as CO3, milligrams per liter	ND	ND	ND	ND	ND	12
Chloride, milligrams per liter	150	160	160	130	120	110
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	0.3	0.4	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
Nitrite Nitrogen, milligrams per liter	ND	ND	ND	ND	ND	ND
Ortho Phosphate Phosphorus, milligrams per liter	ND	ND	ND	0.088	ND	ND
Perchlorate, micrograms per liter						
Selenium, micrograms per liter						
Silver, micrograms per liter						
Sulfate, milligrams per liter	160	150	160	130	120	110
Thalium, micrograms per liter						
Total Alkalinity as CaCO3, milligrams per liter	210	220	220	180	190	180
Total Chromium, micrograms per liter						
Total Suspended Solids, milligrams per liter	6	10	12	8	10	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	3 Vail 1M	3 Vail 1M	3 Vail 1M	3 Vail 1M	3 Vail 1M
Sampling Date	**5/14/2011**	**6/18/2011**	**7/23/2011**	**8/20/2011**	**9/17/2011**	**11/5/2011**
Reservoir Storage Content, acre feet	31,990	31,550	30,730	30,120	29,590	28,880
Reservoir Storage Content, percent full	64.8%	63.9%	62.2%	61.0%	59.9%	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	1,448.11
Water Surface Elevation, feet above bottom of lowest outlet	99.38	98.86	97.88	97.14	96.49	95.61
Sampling Depth, meters below water surface	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
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	0.14
Antimony, micrograms per liter						
Arsenic, micrograms per liter						
Barium, micrograms per liter						
Beryllium, micrograms per liter						
Bicarbonate as HCO3, milligrams per liter	170	160		200	220	240
Carbonate as CO3, milligrams per liter	22	30		13	8.4	ND
Chloride, milligrams per liter	100	110		120	120	130
Cyanide, milligrams per liter						
Fluoride, milligrams per liter						
Hydroxide as OH, milligrams per liter	ND	ND		ND	ND	ND
Inorganic Nitrogen, milligrams per liter	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
Nitrite Nitrogen, milligrams per liter	ND	ND		ND	ND	ND
Ortho Phosphate Phosphorus, milligrams per liter	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	110
Thalium, micrograms per liter						
Total Alkalinity as CaCO3, milligrams per liter	180	180		190	190	190
Total Chromium, micrograms per liter						
Total Suspended Solids, milligrams per liter	16	18		ND	6	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.

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	3 Vail 1M	3 Vail 1M	3 Vail 1M	3 Vail 1M	3 Vail 1M
Sampling Date	**12/3/2011**	**1/28/2012**	**2/25/2012**	**3/10/2012**	**4/28/2012**	**6/16/2012**
Reservoir Storage Content, acre feet	28,790	28,740	28,800	28,870	29,360	28,570
Reservoir Storage Content, percent full	58.3%	58.2%	58.3%	58.5%	59.5%	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	1,447.72
Water Surface Elevation, feet above bottom of lowest outlet	95.50	95.44	95.51	95.60	96.21	95.22
Sampling Depth, meters below water surface	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	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
Antimony, micrograms per liter						
Arsenic, micrograms per liter						
Barium, micrograms per liter						
Beryllium, micrograms per liter						
Bicarbonate as HCO3, milligrams per liter	240	260	220	250	240	240
Carbonate as CO3, milligrams per liter	ND	ND	18	3.6	11	7.7
Chloride, milligrams per liter	130	120	130	120	130	130
Cyanide, milligrams per liter						
Fluoride, milligrams per liter						
Hydroxide as OH, milligrams per liter	ND	ND	ND	ND	< 3.0	< 3.0
Inorganic Nitrogen, milligrams per liter	0.2	ND	ND	ND	< 0.20	< 0.20
Kjeldahl Nitrogen, milligrams per liter		2.1			1.5	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
Nitrite Nitrogen, milligrams per liter	ND	ND	ND	ND	< 0.10	< 0.10
Ortho Phosphate Phosphorus, milligrams per liter	ND	ND	ND	ND	< 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
Thalium, micrograms per liter						
Total Alkalinity as CaCO3, milligrams per liter	200	210	210	210	210	210
Total Chromium, micrograms per liter						
Total Suspended Solids, milligrams per liter	11	25	14	9	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.

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	3 Vail 1M	3 Vail 1M	3 Vail 1M	3 Vail 1M	3 Vail 1M
Sampling Date	**7/14/2012**	**8/11/2012**	**9/15/2012**	**10/20/2012**	**11/17/2012**	**1/19/2013**
Reservoir Storage Content, acre feet	28,000	27,490	26,880	26,110	25,020	23,970
Reservoir Storage Content, percent full	56.7%	55.7%	54.4%	52.9%	50.7%	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	1,441.68
Water Surface Elevation, feet above bottom of lowest outlet	94.51	93.85	93.06	92.05	90.61	89.18
Sampling Depth, meters below water surface	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	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	< 0.10
Antimony, micrograms per liter						
Arsenic, micrograms per liter						
Barium, micrograms per liter						
Beryllium, micrograms per liter						
Bicarbonate as HCO3, milligrams per liter	240	230	230	240	270	290
Carbonate as CO3, milligrams per liter	12	13	16	11	< 3.0	< 3.0
Chloride, milligrams per liter	130	130	140	140	140	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	< 3.0
Inorganic Nitrogen, milligrams per liter	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Kjeldahl Nitrogen, milligrams per liter	1.3	2.0	3.2	2.2	1.7	1.5
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
Nitrite Nitrogen, milligrams per liter	< 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	< 0.050
Perchlorate, micrograms per liter						
Selenium, micrograms per liter						
Silver, micrograms per liter						
Sulfate, milligrams per liter	120	120	120	140	120	130
Thalium, micrograms per liter						
Total Alkalinity as CaCO3, milligrams per liter	220	210	220	220	230	240
Total Chromium, micrograms per liter						
Total Suspended Solids, milligrams per liter	7	12	6	11	9	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	3 Vail 1M	3 Vail 1M	3 Vail 1M	3 Vail 1M	3 Vail 1M
Sampling Date	**2/23/2013**	**3/23/2013**	**4/20/2013**	**5/4/2013**	**6/22/2013**	**10/31/2015**
Reservoir Storage Content, acre feet	23,790	23,610	23,410	23,280	22,530	14,110
Reservoir Storage Content, percent full	48.2%	47.8%	47.4%	47.2%	45.6%	28.6%
Water Surface Elevation, feet above mean sea level	1,441.43	1,441.17	1,440.90	1,440.17	1,439.64	1,425.80
Water Surface Elevation, feet above bottom of lowest outlet	88.93	88.67	88.40	87.67	87.14	73.30
Sampling Depth, meters below water surface	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	700	690	680	690	840
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	0.28
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	360
Carbonate as CO3, milligrams per liter	3.6	9.6	< 3.0	< 3.0	11	17
Chloride, milligrams per liter	140	140	150	150	150	230
Cyanide, milligrams per liter						
Fluoride, milligrams per liter						
Hydroxide as OH, milligrams per liter	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	<1.7
Inorganic Nitrogen, milligrams per liter	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	0.28
Kjeldahl Nitrogen, milligrams per liter	2.1	1.5	0.77	1.1	1.6	1.8
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	< 0.11
Nitrite Nitrogen, milligrams per liter	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	<0.046
Ortho Phosphate Phosphorus, milligrams per liter	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.0028
Perchlorate, micrograms per liter						
Selenium, micrograms per liter						
Silver, micrograms per liter						
Sulfate, milligrams per liter	130	130	130	140	130	180
Thalium, micrograms per liter						
Total Alkalinity as CaCO3, milligrams per liter	210	240	240	230	260	330
Total Chromium, micrograms per liter						
Total Suspended Solids, milligrams per liter	8	9	< 5	< 5	< 5	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	3 Vail 1M	3 Vail 1M	3 Vail 1M	3 Vail 1M	3 Vail 1M
Sampling Date	**5/16/2017**					
Reservoir Storage Content, acre feet	13,080					
Reservoir Storage Content, percent full	26.5%					
Water Surface Elevation, feet above mean sea level	1,423.71					
Water Surface Elevation, feet above bottom of lowest outlet	71.21					
Sampling Depth, meters below water surface	1.0					
Dissolved Oxygen, milligrams per liter						
pH, standard units						
Total Dissolved Solids, milligrams per liter	780					
Specific Conductance, microsiemens per centimeter at 25 degrees Celsius						
Temperature, water, degrees Celsius						
Aluminum, micrograms per liter						
Ammonia, milligrams per liter as nitrogen	< 0.048					
Antimony, micrograms per liter						
Arsenic, micrograms per liter						
Barium, micrograms per liter						
Beryllium, micrograms per liter						
Bicarbonate as HCO3, milligrams per liter	220					
Carbonate as CO3, milligrams per liter	50					
Chloride, milligrams per liter	190					
Cyanide, milligrams per liter						
Fluoride, milligrams per liter						
Hydroxide as OH, milligrams per liter	<1.7					
Inorganic Nitrogen, milligrams per liter	< 0.055					
Kjeldahl Nitrogen, milligrams per liter	2.4					
Lead, micrograms per liter						
Mercury, micrograms per liter						
Nickel, micrograms per liter						
Nitrate Nitrogen, milligrams per liter	< 0.055					
Nitrite Nitrogen, milligrams per liter	< 0.042					
Ortho Phosphate Phosphorus, milligrams per liter	< 0.024					
Perchlorate, micrograms per liter						
Selenium, micrograms per liter						
Silver, micrograms per liter						
Sulfate, milligrams per liter	170					
Thalium, micrograms per liter						
Total Alkalinity as CaCO3, milligrams per liter	270					
Total Chromium, micrograms per liter						
Total Suspended Solids, milligrams per liter	10					

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	3 Vail 1MAB	3 Vail 1MAB	3 Vail 1MAB	3 Vail 1MAB	3 Vail 1MAB	3 Vail 1MAB
Sampling Date	**9/22/2009**	**10/21/2009**	**11/18/2009**	**5/26/2010**	**6/17/2010**	**8/14/2010**	**9/18/2010**
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						840	
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		0.28	1.80
Antimony, micrograms per liter							
Arsenic, micrograms per liter							
Barium, micrograms per liter							
Beryllium, micrograms per liter							
Bicarbonate as HCO3, milligrams per liter	370	360	300	300		360	420
Carbonate as CO3, milligrams per liter	ND	ND	ND	ND		17	ND
Chloride, milligrams per liter	160		180	150		230	160
Cyanide, milligrams per liter							
Fluoride, milligrams per liter							
Hydroxide as OH, milligrams per liter	ND	ND	ND	ND		<1.7	ND
Inorganic Nitrogen, milligrams per liter	4.10	5.50	ND	1.90		<0.28	1.80
Kjeldahl Nitrogen, milligrams per liter						1.80	
Lead, micrograms per liter							
Mercury, micrograms per liter							
Nickel, micrograms per liter							
Nitrate Nitrogen, milligrams per liter	ND	ND	ND	ND		<0.11	ND
Nitrite Nitrogen, milligrams per liter	ND	ND	ND	ND		<0.046	ND
Ortho Phosphate Phosphorus, milligrams per liter	0.78	1.10	0.053	0.470		<0.0028	1.400
Perchlorate, micrograms per liter							
Selenium, micrograms per liter							
Silver, micrograms per liter							
Sulfate, milligrams per liter	110		190	140		180	69
Thalium, micrograms per liter							
Total Alkalinity as CaCO3, milligrams per liter	300	300	250	250		330	340
Total Chromium, micrograms per liter							
Total Suspended Solids, milligrams per liter	ND	ND	6	5		6	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.

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	3 Vail 1MAB	3 Vail 1MAB	3 Vail 1MAB	3 Vail 1MAB	3 Vail 1MAB	3 Vail 1MAB
Sampling Date	**10/9/2010**	**11/13/2010**	**12/11/2010**	**1/8/2011**	**2/12/2011**	**3/19/2011**	**4/16/2011**
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						840	
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	0.28	0.45
Antimony, micrograms per liter							
Arsenic, micrograms per liter							
Barium, micrograms per liter							
Beryllium, micrograms per liter							
Bicarbonate as HCO3, milligrams per liter	390	430	270	220	230	360	230
Carbonate as CO3, milligrams per liter	ND	ND	ND	ND	ND	17	ND
Chloride, milligrams per liter	150	150	160	130	120	230	120
Cyanide, milligrams per liter							
Fluoride, milligrams per liter							
Hydroxide as OH, milligrams per liter	ND	ND	ND	ND	ND	<1.7	ND
Inorganic Nitrogen, milligrams per liter	7.80	9.10	0.30	0.6	ND	<0.28	0.50
Kjeldahl Nitrogen, milligrams per liter						1.8	
Lead, micrograms per liter							
Mercury, micrograms per liter							
Nickel, micrograms per liter							
Nitrate Nitrogen, milligrams per liter	ND	ND	ND	0.34	ND	<0.11	ND
Nitrite Nitrogen, milligrams per liter	ND	ND	ND	ND	ND	<0.046	ND
Ortho Phosphate Phosphorus, milligrams per liter	1.000	0.660	ND	0.09	ND	<0.0028	0.170
Perchlorate, micrograms per liter							
Selenium, micrograms per liter							
Silver, micrograms per liter							
Sulfate, milligrams per liter	60	45	160	130	120	180	120
Thalium, micrograms per liter							
Total Alkalinity as CaCO3, milligrams per liter	320	360	220	180	190	330	180
Total Chromium, micrograms per liter							
Total Suspended Solids, milligrams per liter	6	ND	14	8	8	6	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.

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	3 Vail 1MAB	3 Vail 1MAB	3 Vail 1MAB	3 Vail 1MAB	3 Vail 1MAB	3 Vail 1MAB
Sampling Date	5/14/2011	6/18/2011	7/23/2011	8/20/2011	9/17/2011	10/15/2011	11/5/2011
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	840	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	0.3	0.13
Antimony, micrograms per liter							
Arsenic, micrograms per liter							
Barium, micrograms per liter							
Beryllium, micrograms per liter							
Bicarbonate as HCO3, milligrams per liter	240	240		300	330	360	230
Carbonate as CO3, milligrams per liter	ND	ND		ND	ND	17	ND
Chloride, milligrams per liter	110	130		120	120	230	130
Cyanide, milligrams per liter							
Fluoride, milligrams per liter							
Hydroxide as OH, milligrams per liter	ND	ND		ND	ND	<1.7	ND
Inorganic Nitrogen, milligrams per liter	0.8	1.4		3.6	5	<0.28	ND
Kjeldahl Nitrogen, milligrams per liter						1.8	
Lead, micrograms per liter							
Mercury, micrograms per liter							
Nickel, micrograms per liter							
Nitrate Nitrogen, milligrams per liter	ND	ND		ND	ND	<0.11	ND
Nitrite Nitrogen, milligrams per liter	ND	ND		ND	ND	<0.046	ND
Ortho Phosphate Phosphorus, milligrams per liter	0.26	0.49		0.36	0.65	<0.0028	0.45
Perchlorate, micrograms per liter							
Selenium, micrograms per liter							
Silver, micrograms per liter							
Sulfate, milligrams per liter	110	100		74	60	180	110
Thalium, micrograms per liter							
Total Alkalinity as CaCO3, milligrams per liter	190	200		240	270	330	190
Total Chromium, micrograms per liter							
Total Suspended Solids, milligrams per liter	6	ND		ND	ND	6	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.

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	3 Vail 1MAB	3 Vail 1MAB	3 Vail 1MAB	3 Vail 1MAB	3 Vail 1MAB	3 Vail 1MAB
Sampling Date	**12/3/2011**	**1/28/2012**	**2/25/2012**	**3/10/2012**	**4/28/2012**	**5/12/2012**	**6/16/2012**
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	840	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	0.28	2.7
Antimony, micrograms per liter							
Arsenic, micrograms per liter							
Barium, micrograms per liter							
Beryllium, micrograms per liter							
Bicarbonate as HCO3, milligrams per liter	240	260	260	260	280	360	280
Carbonate as CO3, milligrams per liter	ND	ND	ND	ND	< 3.0	17	< 3.0
Chloride, milligrams per liter	130	120	130	120	130	230	120
Cyanide, milligrams per liter							
Fluoride, milligrams per liter							
Hydroxide as OH, milligrams per liter	ND	ND	ND	ND	< 3.0	<1.7	< 3.0
Inorganic Nitrogen, milligrams per liter	0.2	ND	0.4	0.6	1.7	<0.28	2.7
Kjeldahl Nitrogen, milligrams per liter		1.8			3.1	1.8	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	<0.11	< 0.20
Nitrite Nitrogen, milligrams per liter	ND	ND	ND	ND	< 0.10	<0.046	< 0.10
Ortho Phosphate Phosphorus, milligrams per liter	ND	ND	ND	0.13	0.31	<0.0028	0.45
Perchlorate, micrograms per liter							
Selenium, micrograms per liter							
Silver, micrograms per liter							
Sulfate, milligrams per liter	120	110	120	110	110	180	87
Thalium, micrograms per liter							
Total Alkalinity as CaCO3, milligrams per liter	200	210	210	210	230	330	230
Total Chromium, micrograms per liter							
Total Suspended Solids, milligrams per liter	12	23	12	11	6	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.

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	3 Vail 1MAB	3 Vail 1MAB	3 Vail 1MAB	3 Vail 1MAB	3 Vail 1MAB	3 Vail 1MAB
Sampling Date	7/14/2012	8/11/2012	9/15/2012	10/20/2012	11/17/2012	12/15/2012	1/19/2013
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	840	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	0	0.15
Antimony, micrograms per liter							
Arsenic, micrograms per liter							
Barium, micrograms per liter							
Beryllium, micrograms per liter							
Bicarbonate as HCO3, milligrams per liter	280	300	340	390	270	360	290
Carbonate as CO3, milligrams per liter	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	17	< 3.0
Chloride, milligrams per liter	120	120	120	120	130	230	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	<1.7	< 3.0
Inorganic Nitrogen, milligrams per liter	2.5	4.0	4.1	8.6	0.20	<0.28	0.31
Kjeldahl Nitrogen, milligrams per liter	3.4	6.2	6.0	10	1.9	2	2.1
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	<0.11	< 0.20
Nitrite Nitrogen, milligrams per liter	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	<0.046	0.16
Ortho Phosphate Phosphorus, milligrams per liter	0.40	< 0.14	0.49	1.1	< 0.050	<0.0028	< 0.050
Perchlorate, micrograms per liter							
Selenium, micrograms per liter							
Silver, micrograms per liter							
Sulfate, milligrams per liter	87	72	63	42	120	180	130
Thalium, micrograms per liter							
Total Alkalinity as CaCO3, 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	6	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.

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	3 Vail 1MAB	3 Vail 1MAB	3 Vail 1MAB	3 Vail 1MAB	3 Vail 1MAB	3 Vail 1MAB
Sampling Date	**2/23/2013**	**3/23/2013**	**4/20/2013**	**5/4/2013**	**6/22/2013**	**10/31/2015**	**5/16/2017**
Reservoir Storage Content, acre feet	23,790	23,610	23,410	23,280	22,530	14,110	13,080
Reservoir Storage Content, percent full	48.2%	47.8%	47.4%	47.2%	45.6%	28.6%	26.5%
Water Surface Elevation, feet above mean sea level	1,441.43	1,441.17	1,440.90	1,440.17	1,439.64	1,425.80	1,423.71
Water Surface Elevation, feet above bottom of lowest outlet	88.93	88.67	88.40	87.67	87.14	73.30	71.21
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							
pH, standard units							
Total Dissolved Solids, milligrams per liter	680	680	650	700	690	860	-
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	10	1.7
Antimony, micrograms per liter							
Arsenic, micrograms per liter							
Barium, micrograms per liter							
Beryllium, micrograms per liter							
Bicarbonate as HCO3, milligrams per liter	290	300	290	290	310	580	320
Carbonate as CO3, milligrams per liter	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	<1.7	<1.7
Chloride, milligrams per liter	140	130	140	150	140	200	210
Cyanide, milligrams per liter							
Fluoride, milligrams per liter							
Hydroxide as OH, milligrams per liter	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	<1.7	<1.7
Inorganic Nitrogen, milligrams per liter	0.20	0.91	1.6	2.1	3.9	10	1.7
Kjeldahl Nitrogen, milligrams per liter	1.4	2.0	2.9	3.2	4.7	15	4
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	<0.11	< 0.055
Nitrite Nitrogen, milligrams per liter	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	<0.046	< 0.042
Ortho Phosphate Phosphorus, milligrams per liter	< 0.050	0.18	0.30	0.36	0.48	0.49	0.36
Perchlorate, micrograms per liter							
Selenium, micrograms per liter							
Silver, micrograms per liter							
Sulfate, milligrams per liter	130	120	130	120	96	43	150
Thalium, micrograms per liter							
Total Alkalinity as CaCO3, milligrams per liter	240	240	240	240	260	470	320
Total Chromium, micrograms per liter							
Total Suspended Solids, milligrams per liter	6	6	7	6	< 5	<15	36

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.

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 USGS

Code	Parameter	MCL	3 Vail 1M			
	Sampling date		8/20/2011	9/15/2012		
	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			8.7		
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 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		26.1	28.8		
925	Magnesium, water, filtered, milligrams per liter		25.1	31.2		
930	Sodium, water, filtered, milligrams per liter		128	165		
931	Sodium adsorption ratio, water, number		4.31	5.06		
932	Sodium fraction of cations, water, percent in equivalents of major cations		61	63		
935	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		

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 USGS

Code	Parameter	MCL	3 Vail 1M			
	Sampling date		8/20/2011	9/15/2012		
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)				
1080	Strontium, water, filtered, micrograms per liter		254	315		
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)	3.7	7.2		
1130	Lithium, water, filtered, micrograms per liter		10	7.44		
1145	Selenium, micrograms per liter	50 (o)				
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					
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	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				
34443	Naphthalene, water, filtered, recoverable, micrograms per liter					

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 USGS

Code	Parameter	MCL	3 Vail 1M			
	Sampling date		8/20/2011	9/15/2012		
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-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					
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	Dicrotophos, 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	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					

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 USGS

Code	Parameter	MCL	3 Vail 1M			
	Sampling date		8/20/2011	9/15/2012		
50359	Metalaxyl, 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	Metalaxyl, 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					
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					

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 USGS

Code	Parameter	MCL	3 Vail 1M			
	Sampling date		8/20/2011	9/15/2012		
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	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					
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					

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 USGS

Code	Parameter	MCL	3 Vail 1M			
	Sampling date		8/20/2011	9/15/2012		
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	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		-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					
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					

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 USGS

Code	Parameter	MCL	3 Vail 1M			
	Sampling date		8/20/2011	9/15/2012		
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		925	1080		
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: 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 verifed 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.

Source: USGS California Water Science Center.

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			
	Sampling date		8/20/2011	9/15/2012		
	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			0.4		
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		

Source: USGS California Water Science Center.

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			
	Sampling date		8/20/2011	9/15/2012		
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)				
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	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					
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	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				
34443	Naphthalene, water, filtered, recoverable, micrograms per liter					

Source: USGS California Water Science Center.

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			
	Sampling date		8/20/2011	9/15/2012		
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-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					
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	Dicrotophos, 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					
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					

Source: USGS California Water Science Center.

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			
	Sampling date		8/20/2011	9/15/2012		
50359	Metalaxyl, 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	Metalaxyl, 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					
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					

Source: USGS California Water Science Center.

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			
	Sampling date		8/20/2011	9/15/2012		
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	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					
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					

Source: USGS California Water Science Center.

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			
	Sampling date		8/20/2011	9/15/2012		
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	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		-19.5	-14.4		
82085	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil		-1.17	-0.11		
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					
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					

Source: USGS California Water Science Center.

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			
	Sampling date		8/20/2011	9/15/2012		
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		974	1070		
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: 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 verifed 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.

Source: USGS California Water Science Center.

ANNUAL REPORT

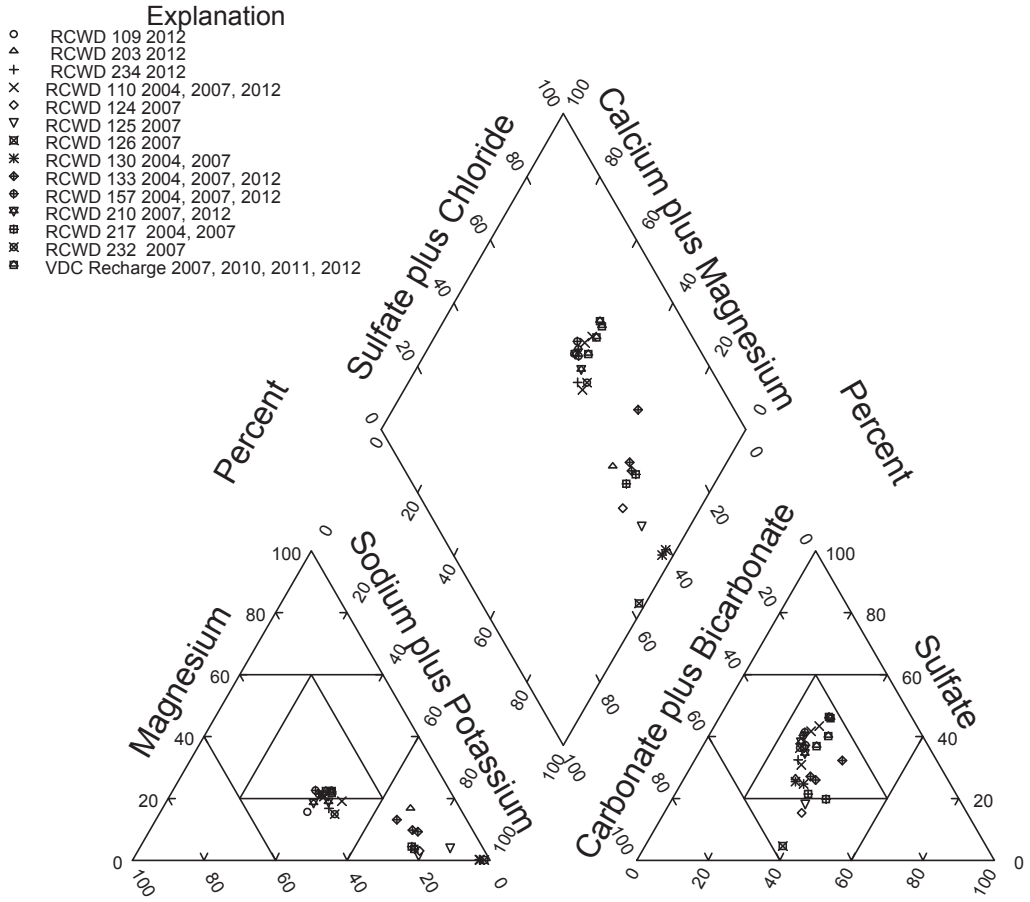
COOPERATIVE WATER RESOURCE MANAGEMENT AGREEMENT

CALENDAR YEAR 2019

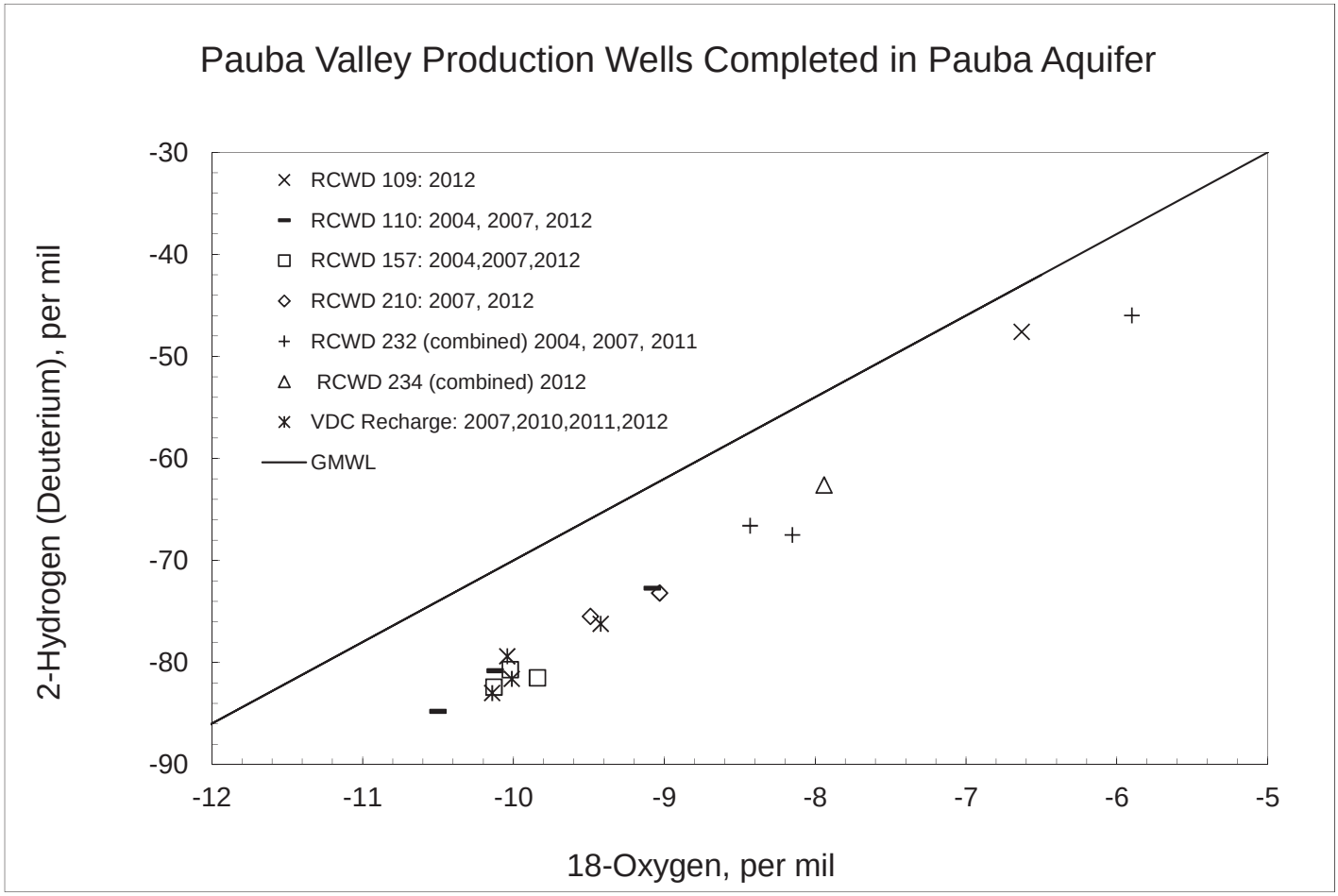
APPENDIX E

WATER QUALITY DATA FOR SELECTED RCWD PRODUCTION WELLS

Tri-Linear Diagram
RCWD Production Wells

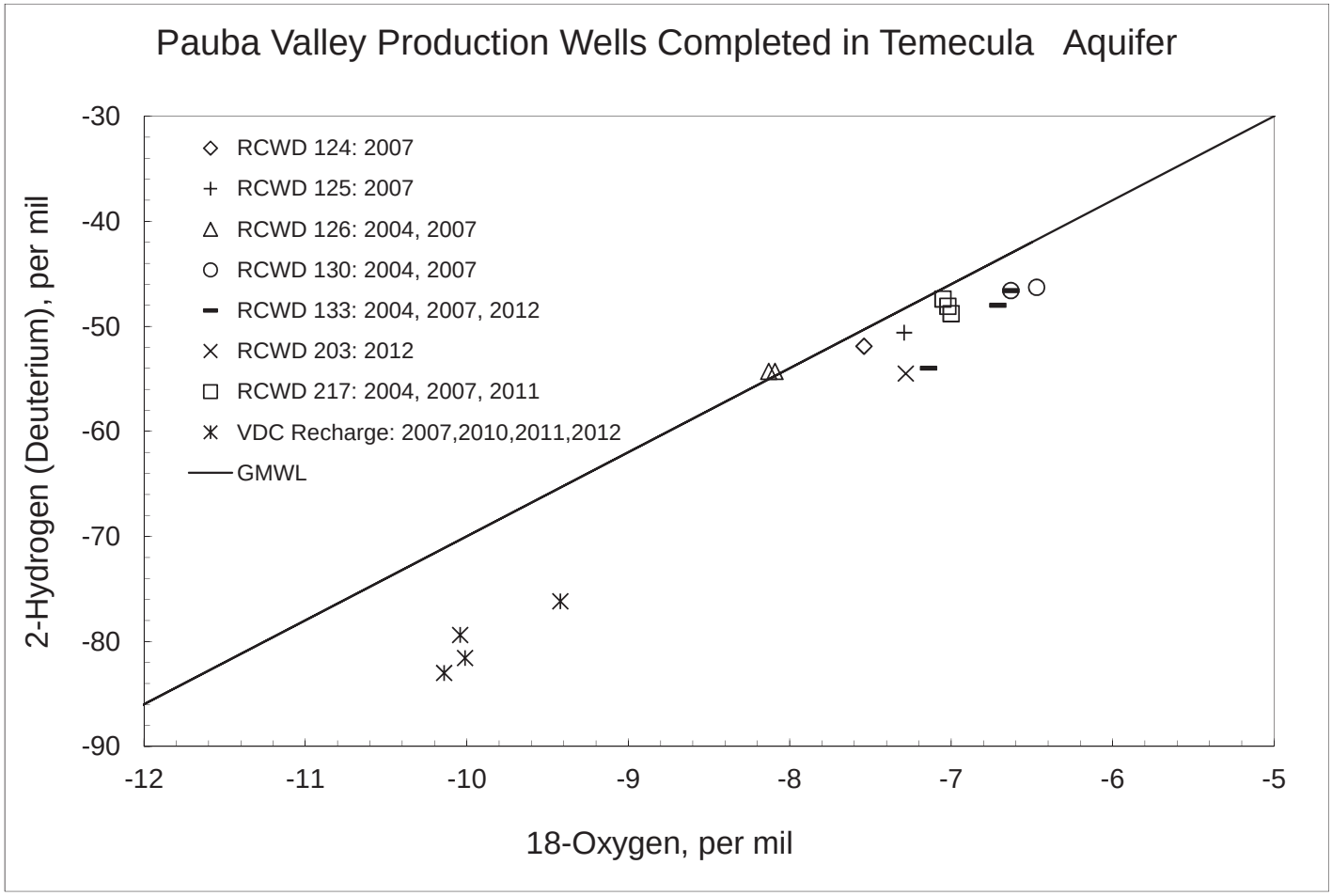


Stable Isotope Diagram



Source: USGS California Water Science Center

Stable Isotope Diagram



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	No. 126	No. 130	No. 133	
	Sampling date		6/15/2004	5/27/2004	6/14/2004	5/20/2004	
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		< 0.03		< 0.03	< 0.02	
608	Ammonia, water, filtered, milligrams per liter as nitrogen		< 0.04		< 0.04	< 0.04	
613	Nitrite, water, filtered, milligrams per liter as nitrogen	1 (a)	< 0.008		< 0.008	< 0.008	
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	

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

Code	Parameter	MCL	No. 110	No. 126	No. 130	No. 133	
	Sampling date		6/15/2004	5/27/2004	6/14/2004	5/20/2004	
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	
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	Terbuthylazine, 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	
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	3.5	
22703	Uranium, natural, micrograms per liter		1.09		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	
34248	Benzo[a]pyrene, water, filtered, recoverable, micrograms per liter	0.2 (p)	< 0.05		< 0.05	< 0.05	
34288	Tribromomethane, water, filtered, recoverable, micrograms per liter		< 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	
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	
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	
34462	Phenanthrene, water, filtered, recoverable, micrograms per liter		< 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	
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	
34488	Trichlorofluoromethane, water, unfiltered, recoverable, micrograms per liter	150	< 0.16	< 0.16	< 0.16	< 0.16	

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

Code	Parameter	MCL	No. 110	No. 126	No. 130	No. 133	
	Sampling date		6/15/2004	5/27/2004	6/14/2004	5/20/2004	
34496	1,1-Dichloroethane, water, unfiltered, recoverable, micrograms per liter	5	< 0.035	< 0.035	< 0.035	< 0.035	
34501	1,1-Dichloroethene, 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	
34571	1,4-Dichlorobenzene, water, unfiltered, recoverable, micrograms per liter	5	< 0.034	< 0.034	< 0.034	< 0.034	
34572	1,4-Dichlorobenzene, water, filtered, recoverable, micrograms per liter		< 0.05		< 0.05	< 0.05	
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	Dicrotophos, water, filtered, recoverable, micrograms per liter		< 0.08	< 0.08	< 0.08	< 0.08	
38775	Dichlorvos, 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		< 0.0882	< 0.0882	< 0.0882	< 0.0882	
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 ethyl 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	
50359	Metalaxyl, water, filtered, recoverable, micrograms per liter		< 0.02		< 0.02	< 0.02	
61209	Perchlorate, water, unfiltered, recoverable, micrograms per liter	6	2.2		0.49	< 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	Iprodione, 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	Metalaxyl, water, filtered, recoverable, micrograms per liter		< 0.005	< 0.005	< 0.005	< 0.005	

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

Code	Parameter	MCL	No. 110	No. 126	No. 130	No. 133	
	Sampling date		6/15/2004	5/27/2004	6/14/2004	5/20/2004	
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-methylaniline, 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 monoxon, 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 sulfoxide, 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	
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				< 0.053	< 0.053	
61674	Terbufos oxygen analog sulfone, water, filtered, recoverable, micrograms per liter		< 0.068	< 0.068	< 0.068	< 0.068	
61705	Diethoxyoctylphenol, water, filtered, recoverable, micrograms per liter		< 1		< 1	< 1	
61706	Monoethoxyoctylphenol, water, filtered, recoverable, micrograms per liter		< 1		< 1	< 1	
62005	Cotinine, water, filtered, recoverable, micrograms per liter		< 0.019		< 0.019	< 0.019	
62054	1-Methylnaphthalene, water, filtered, recoverable, micrograms per liter		< 0.5		< 0.5	< 0.5	
62055	2,6-Dimethylnaphthalene, water, filtered, recoverable, micrograms per liter		< 0.5		< 0.5	< 0.5	
62056	2-Methylnaphthalene, water, filtered, recoverable, micrograms per liter		< 0.5		< 0.5	< 0.5	
62057	3-beta-Coprostanol, water, filtered, recoverable, micrograms per liter		< 2		< 2	< 2	
62058	3-Methyl-1H-indole, water, filtered, recoverable, micrograms per liter		< 1		< 1	< 1	
62059	3-tert-Butyl-4-hydroxyanisole, water, filtered, recoverable, micrograms per liter		< 5		< 5	< 5	
62060	4-Cumylphenol, water, filtered, recoverable, micrograms per liter		< 1		< 1	< 1	
62061	4-Octylphenol, water, filtered, recoverable, micrograms per liter		< 1		< 1	< 1	
62062	4-tert-Octylphenol, water, filtered, recoverable, micrograms per liter		< 1		< 1	< 1	
62063	5-Methyl-1H-benzotriazole, water, filtered, recoverable, micrograms per liter		< 2		< 2	< 2	
62064	Acetophenone, water, filtered, recoverable, micrograms per liter		< 0.5		< 0.5	< 0.5	
62065	Acetyl hexamethyl tetrahydro naphthalene, water, filtered, recoverable, micrograms per liter		< 0.5		< 0.5	< 0.5	
62066	9,10-Anthraquinone, water, filtered, recoverable, micrograms per liter		< 0.5		< 0.5	< 0.5	
62067	Benzophenone, water, filtered, recoverable, micrograms per liter		< 0.5		< 0.5	< 0.5	
62068	beta-Sitosterol, water, filtered, recoverable, micrograms per liter		< 2		< 2	< 2	
62070	Camphor, water, filtered, recoverable, micrograms per liter		< 0.5		< 0.5	< 0.5	
62071	Carbazole, water, filtered, recoverable, micrograms per liter		< 0.5		< 0.5	< 0.5	
62072	Cholesterol, water, filtered, recoverable, micrograms per liter		< 2		< 2	< 2	
62073	D-Limonene, water, filtered, recoverable, micrograms per liter		< 0.5		< 0.5	< 0.5	
62075	Hexahydrohexamethyl cyclopentabenzopyran, water, filtered, recoverable, micrograms per liter		< 0.5		< 0.5	< 0.5	
62076	Indole, water, filtered, recoverable, micrograms per liter		< 0.5		< 0.5	< 0.5	
62077	Isoborneol, water, filtered, recoverable, micrograms per liter		< 0.5		< 0.5	< 0.5	
62078	Isopropylbenzene, water, filtered, recoverable, micrograms per liter		< 0.5		< 0.5	< 0.5	
62079	Isoquinoline, water, filtered, recoverable, micrograms per liter		< 0.5		< 0.5	< 0.5	
62080	Menthol, water, filtered, recoverable, micrograms per liter		< 0.5		< 0.5	< 0.5	
62081	Methyl salicylate, water, filtered, recoverable, micrograms per liter		< 0.5		< 0.5	< 0.5	
62082	DEET, water, filtered, recoverable, micrograms per liter		E 0.06		< 0.5	< 0.5	

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

Code	Parameter	MCL	No. 110	No. 126	No. 130	No. 133	
	Sampling date		6/15/2004	5/27/2004	6/14/2004	5/20/2004	
62083	Diethoxynonylphenol, water, filtered, recoverable, micrograms per liter		< 5		< 5	< 5	
62084	p-Cresol, water, filtered, recoverable, micrograms per liter		< 1		< 1	< 1	
62085	4-Nonylphenol, water, filtered, recoverable, micrograms per liter		< 5		< 5	< 5	
62086	beta-Stigmastanol, water, filtered, recoverable, micrograms per liter		< 2		< 2	< 2	
62087	Tris(2-chloroethyl) phosphate, water, filtered, recoverable, micrograms per liter		< 0.5		< 0.5	< 0.5	
62088	Tris(dichloroisopropyl) phosphate, water, filtered, recoverable, micrograms per liter		< 0.5		< 0.5	< 0.5	
62089	Tributyl phosphate, water, filtered, recoverable, micrograms per liter		< 0.5		< 0.5	< 0.5	
62090	Triclosan, water, filtered, recoverable, micrograms per liter		< 1		< 1	< 1	
62091	Triethyl citrate, water, filtered, recoverable, micrograms per liter		< 0.5		< 0.5	< 0.5	
62092	Triphenyl phosphate, water, filtered, recoverable, micrograms per liter		< 0.5		< 0.5	< 0.5	
62093	Tris(2-butoxyethyl) phosphate, water, filtered, recoverable, micrograms per liter		< 0.5		< 0.5	< 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		0.53		1.31	0.54	
63790	Perchlorate, water, filtered, recoverable, micrograms per liter	6					
70300	Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter	1500	532		478	494	
70301	Residue, water, filtered, sum of constituents, milligrams per liter		E 508		V 460	V 473	
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	

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

Code	Parameter	MCL	No. 110	No. 126	No. 130	No. 133	
	Sampling date		6/15/2004	5/27/2004	6/14/2004	5/20/2004	
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	-54.3	-46.6	-46	
82085	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil		-10.5	-8.13	-6.63	-6.4	
82303	Rn-222, water, unfiltered, picocuries per liter		210		420	310	
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	
82667	Methyl parathion, water, filtered (0.7 micron glass fiber filter), recoverable, micrograms per liter		< 0.015	< 0.015	< 0.015	< 0.015	
82670	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						

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

Code	Parameter	MCL	No. 110	No. 126	No. 130	No. 133	
	Sampling date		6/15/2004	5/27/2004	6/14/2004	5/20/2004	
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 verifed 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 2019

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	WR-34	WR-34	WR-34	WR-34	WR-34	WR-34
Sampling Date	5/30/2012	7/12/2012	8/28/2012	9/18/2012	11/1/2012	12/21/2012	1/24/2013
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							
Ammonia, milligrams per liter as nitrogen	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 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	130		100		100	96	100
Carbonate as CO3, 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		< 3.0		< 3.0	< 3.0	< 3.0
Inorganic Nitrogen, milligrams per liter		< 0.2	< 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							
Thalium, micrograms per liter							
Total Alkalinity as CaCO3, milligrams per liter	100		84		82	79	85
Total Chromium, micrograms per liter							
Total Suspended Solids, milligrams per liter							

Source: Rancho California Water District.

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	WR-34	WR-34	WR-34	WR-34	WR-34	WR-34
Sampling Date	2/11/2013	3/5/2013	4/12/2013	5/15/2013	6/12/2013	7/11/2013	8/6/2013
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 HCO3, milligrams per liter	110	110	130	130	140	140	59
Carbonate as CO3, 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							
Thalium, micrograms per liter							
Total Alkalinity as CaCO3, milligrams per liter	90	87	110	110	110	110	48
Total Chromium, micrograms per liter							
Total Suspended Solids, milligrams per liter							

Source: Rancho California Water District.

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	WR-34	WR-34	WR-34	WR-34	WR-34	WR-34
Sampling Date	9/11/2013	10/3/2013	11/14/2013	12/12/2013	2/7/2014	3/14/2014	4/16/2014
Dissolved Oxygen, milligrams per liter							
pH, standard units							
Total Dissolved Solids, milligrams per liter	630	550	540	580	540	480	540
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	< 0.10	0.11	0.15
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	160	140	160
Carbonate as CO3, milligrams per liter	< 3.0	< 1.7	< 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	< 1.7	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Inorganic Nitrogen, milligrams per liter	< 0.20	< 0.11	< 0.20	< 0.20	0.23	0.35	0.57
Kjeldahl Nitrogen, milligrams per liter	0.26	0.28	0.36	0.28	0.52	0.16	0.36
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	0.23	0.24	0.42
Nitrite Nitrogen, milligrams per liter	< 0.10	< 0.017	< 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	< 0.0028	< 0.050	< 0.050	< 0.050	0.12	< 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							
Thalium, micrograms per liter							
Total Alkalinity as CaCO3, milligrams per liter	110	73	120	120	130	120	130
Total Chromium, micrograms per liter							
Total Suspended Solids, milligrams per liter							

Source: Rancho California Water District.

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	WR-34	WR-34	WR-34	WR-34	WR-34	WR-34
Sampling Date	5/29/2014	6/10/2014	8/13/2014	9/16/2014	10/14/2014	11/14/2014	12/11/2014
Dissolved Oxygen, milligrams per liter							
pH, standard units							
Total Dissolved Solids, milligrams per liter	480	570	440	550	680	620	610
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	0.47	< 0.10	< 0.10	< 0.10	0.14	< 0.059
Antimony, micrograms per liter							
Arsenic, micrograms per liter							
Barium, micrograms per liter							
Beryllium, micrograms per liter							
Bicarbonate as HCO3, milligrams per liter	140	150	120	140	140	150	150
Carbonate as CO3, milligrams per liter	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 1.7
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	< 1.7
Inorganic Nitrogen, milligrams per liter	0.24	0.47	< 0.20	< 0.20	< 0.20	< 0.20	< 0.11
Kjeldahl Nitrogen, milligrams per liter	0.37	0.41	0.38	0.26	0.29	0.39	0.20
Lead, micrograms per liter							
Mercury, micrograms per liter							
Nickel, micrograms per liter							
Nitrate Nitrogen, milligrams per liter	0.24	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.11
Nitrite Nitrogen, milligrams per liter	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.046
Nitrogen (Total), milligrams per liter							
Organic Nitrogen, milligrams per liter							
Ortho Phosphate Phosphorus, milligrams per liter	< 0.050	0.055	0.068	< 0.050	< 0.050	< 0.050	< 0.0028
Perchlorate, micrograms per liter							
Phosphorus (Total), milligrams per liter							
Selenium, micrograms per liter							
Silver, micrograms per liter							
Sulfate, milligrams per liter							
Thalium, micrograms per liter							
Total Alkalinity as CaCO3, milligrams per liter	110	120	98	120	120	120	130
Total Chromium, micrograms per liter							
Total Suspended Solids, milligrams per liter							

Source: Rancho California Water District.

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	WR-34	WR-34	WR-34	WR-34	WR-34	WR-34
Sampling Date	1/13/2015	3/12/2015	4/15/2015	5/19/2015	6/10/2015	7/16/2015	8/13/2015
Dissolved Oxygen, milligrams per liter							
pH, standard units							
Total Dissolved Solids, milligrams per liter	600	680	660	510	500	600	640
Specific Conductance, microsiemens per centimeter at 25 degrees Celsius							
Temperature, water, degrees Celsius							
Aluminum, micrograms per liter							
Ammonia, milligrams per liter as nitrogen	< 0.059	< 0.059	< 0.059	< 0.059	< 0.059	< 0.059	< 0.059
Antimony, micrograms per liter							
Arsenic, micrograms per liter							
Barium, micrograms per liter							
Beryllium, micrograms per liter							
Bicarbonate as HCO3, milligrams per liter	160	150	150	150	140	140	150
Carbonate as CO3, milligrams per liter	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7
Chloride, milligrams per liter							
Cyanide, milligrams per liter							
Fluoride, milligrams per liter							
Hydroxide as OH, milligrams per liter	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7
Inorganic Nitrogen, milligrams per liter	0.22	< 0.11	0.32	0.26	< 0.11	< 0.11	< 0.2
Kjeldahl Nitrogen, milligrams per liter	0.32	0.31	0.37	0.53	0.39	0.35	0.24
Lead, micrograms per liter							
Mercury, micrograms per liter							
Nickel, micrograms per liter							
Nitrate Nitrogen, milligrams per liter	0.22	< 0.11	0.32	0.26	< 0.11	< 0.11	< 0.11
Nitrite Nitrogen, milligrams per liter	< 0.046	< 0.046	< 0.046	< 0.046	< 0.046	< 0.046	< 0.046
Nitrogen (Total), milligrams per liter							
Organic Nitrogen, milligrams per liter							
Ortho Phosphate Phosphorus, milligrams per liter	< 0.0028	< 0.0028	< 0.0028	< 0.0028	< 0.0028	< 0.0028	< 0.0028
Perchlorate, micrograms per liter							
Phosphorus (Total), milligrams per liter							
Selenium, micrograms per liter							
Silver, micrograms per liter							
Sulfate, milligrams per liter							
Thalium, micrograms per liter							
Total Alkalinity as CaCO3, milligrams per liter	130	120	120	120	110	120	120
Total Chromium, micrograms per liter							
Total Suspended Solids, milligrams per liter							

Source: Rancho California Water District.

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	WR-34	WR-34	WR-34	WR-34	WR-34	WR-34
Sampling Date	9/16/2015	10/9/2015	11/19/2015	12/10/2015	1/17/2017	1/18/2018	2/20/2018
Dissolved Oxygen, milligrams per liter							
pH, standard units							
Total Dissolved Solids, milligrams per liter	640	620	690	610	640	290	350
Specific Conductance, microsiemens per centimeter at 25 degrees Celsius							
Temperature, water, degrees Celsius							
Aluminum, micrograms per liter							
Ammonia, milligrams per liter as nitrogen	< 0.059	< 0.059	< 0.059	< 0.072	< 0.048	< 0.048	0.27
Antimony, micrograms per liter							
Arsenic, micrograms per liter							
Barium, micrograms per liter							
Beryllium, micrograms per liter							
Bicarbonate as HCO3, milligrams per liter	160	140	150	150	150	80	92
Carbonate as CO3, milligrams per liter	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 5.0	< 5.0
Chloride, milligrams per liter							
Cyanide, milligrams per liter							
Fluoride, milligrams per liter							
Hydroxide as OH, milligrams per liter	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 5.0	< 5.0
Inorganic Nitrogen, milligrams per liter	< 0.2	< 0.2	0.2	0.2	0.2	0.4	0.55
Kjeldahl Nitrogen, milligrams per liter	0.23	0.43	0.39	0.33	0.34	0.25	0.67
Lead, micrograms per liter							
Mercury, micrograms per liter							
Nickel, micrograms per liter							
Nitrate Nitrogen, milligrams per liter	< 0.11	< 0.11	< 0.11	0.2	0.24	0.36	0.28
Nitrite Nitrogen, milligrams per liter	< 0.046	< 0.046	< 0.046	< 0.017	< 0.042	< 0.10	< 0.10
Nitrogen (Total), milligrams per liter							
Organic Nitrogen, milligrams per liter							
Ortho Phosphate Phosphorus, milligrams per liter	< 0.0028	< 0.0028	< 0.0028	< 0.0028	< 0.0024	0.068	0.051
Perchlorate, micrograms per liter							
Phosphorus (Total), milligrams per liter							
Selenium, micrograms per liter							
Silver, micrograms per liter							
Sulfate, milligrams per liter							
Thalium, micrograms per liter							
Total Alkalinity as CaCO3, milligrams per liter	130	120	120	120	120	80	92
Total Chromium, micrograms per liter							
Total Suspended Solids, milligrams per liter							

Source: Rancho California Water District.

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	WR-34	WR-34	WR-34	WR-34	WR-34	WR-34
Sampling Date	3/7/2018	4/17/2018	5/22/2018	6/7/2018	7/18/2018	8/29/2018	1/24/2019
Dissolved Oxygen, milligrams per liter							
pH, standard units							
Total Dissolved Solids, milligrams per liter	290	530	580	600	480	480	560
Specific Conductance, microsiemens per centimeter at 25 degrees Celsius							
Temperature, water, degrees Celsius							
Aluminum, micrograms per liter							
Ammonia, milligrams per liter as nitrogen	< 0.048	< 0.048	< 0.048	< 0.048	ND	< 0.048	< 0.048
Antimony, micrograms per liter							
Arsenic, micrograms per liter							
Barium, micrograms per liter							
Beryllium, micrograms per liter							
Bicarbonate as HCO3, milligrams per liter	81	120	140	140	120	120	130
Carbonate as CO3, milligrams per liter	< 5.0	< 5.0	< 5.0	< 5.0	ND	< 5.0	< 5.1
Chloride, milligrams per liter							
Cyanide, milligrams per liter							
Fluoride, milligrams per liter							
Hydroxide as OH, milligrams per liter	< 5.0	< 5.0	< 5.0	< 5.0	ND	< 5.0	< 5.1
Inorganic Nitrogen, milligrams per liter	0.22	0.25	0.24	0.23	ND	<0.10	0.4
Kjeldahl Nitrogen, milligrams per liter	0.39	0.35	0.31	0.24	0.21	0.39	0.20
Lead, micrograms per liter							
Mercury, micrograms per liter							
Nickel, micrograms per liter							
Nitrate Nitrogen, milligrams per liter	0.22	0.25	0.24	0.23	ND	< 0.055	< 0.056
Nitrite Nitrogen, milligrams per liter	< 0.10	< 0.10	< 0.10	< 0.10	ND	< 0.10	<0.059
Nitrogen (Total), milligrams per liter							
Organic Nitrogen, milligrams per liter							
Ortho Phosphate Phosphorus, milligrams per liter	0.065	< 0.024	< 0.024	< 0.024	ND	< 0.024	<0.016
Perchlorate, micrograms per liter							
Phosphorus (Total), milligrams per liter							
Selenium, micrograms per liter							
Silver, micrograms per liter							
Sulfate, milligrams per liter							
Thalium, micrograms per liter							
Total Alkalinity as CaCO3, milligrams per liter	81	120	140	140	120	120	130
Total Chromium, micrograms per liter							
Total Suspended Solids, milligrams per liter							

Source: Rancho California Water District.

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	WR-34	WR-34	WR-34	WR-34	WR-34	WR-34
Sampling Date	3/19/2019	4/4/2019	5/9/2019	6/5/2019	7/25/2019	8/27/2018	9/12/2019
Dissolved Oxygen, milligrams per liter							
pH, standard units							
Total Dissolved Solids, milligrams per liter	600	480	270	360	290	310	310
Specific Conductance, microsiemens per centimeter at 25 degrees Celsius							
Temperature, water, degrees Celsius							
Aluminum, micrograms per liter							
Ammonia, milligrams per liter as nitrogen	<0.044	<0.044	0.10	0.14	0.15	<0.044	<0.044
Antimony, micrograms per liter							
Arsenic, micrograms per liter							
Barium, micrograms per liter							
Beryllium, micrograms per liter							
Bicarbonate as HCO3, milligrams per liter	120	120					
Carbonate as CO3, milligrams per liter	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chloride, milligrams per liter							
Cyanide, milligrams per liter							
Fluoride, milligrams per liter							
Hydroxide as OH, milligrams per liter	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Inorganic Nitrogen, milligrams per liter	0.6	0.2	0.5	0.3	0.2	0.3	0.2
Kjeldahl Nitrogen, milligrams per liter	0.3	0.39					
Lead, micrograms per liter							
Mercury, micrograms per liter							
Nickel, micrograms per liter							
Nitrate Nitrogen, milligrams per liter	0.28	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16
Nitrite Nitrogen, milligrams per liter	<0.059	<0.091	<0.091	<0.091	<0.091	<0.091	<0.091
Nitrogen (Total), milligrams per liter							
Organic Nitrogen, milligrams per liter							
Ortho Phosphate Phosphorus, milligrams per liter	<0.016	<0.016	<0.016	0.068	0.071	<0.016	0.059
Perchlorate, micrograms per liter							
Phosphorus (Total), milligrams per liter							
Selenium, micrograms per liter							
Silver, micrograms per liter							
Sulfate, milligrams per liter							
Thalium, micrograms per liter							
Total Alkalinity as CaCO3, milligrams per liter	120	120	85	94	89	88	91
Total Chromium, micrograms per liter							
Total Suspended Solids, milligrams per liter							

Source: Rancho California Water District.

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	WR-34	WR-34	WR-34	WR-34	WR-34	WR-34
Sampling Date	10/10/2019	11/19/2019	12/16/2019				
Dissolved Oxygen, milligrams per liter							
pH, standard units							
Total Dissolved Solids, milligrams per liter	290	300	290				
Specific Conductance, microsiemens per centimeter at 25 degrees Celsius							
Temperature, water, degrees Celsius							
Aluminum, micrograms per liter							
Ammonia, milligrams per liter as nitrogen	<0.044	<0.044	<0.044				
Antimony, micrograms per liter							
Arsenic, micrograms per liter							
Barium, micrograms per liter							
Beryllium, micrograms per liter							
Bicarbonate as HCO3, milligrams per liter							
Carbonate as CO3, milligrams per liter	< 5.0	< 5.0	< 5.0				
Chloride, milligrams per liter							
Cyanide, milligrams per liter							
Fluoride, milligrams per liter							
Hydroxide as OH, milligrams per liter	< 5.0	< 5.0	< 5.0				
Inorganic Nitrogen, milligrams per liter	<0.16	<0.16	0.22				
Kjeldahl Nitrogen, milligrams per liter							
Lead, micrograms per liter							
Mercury, micrograms per liter							
Nickel, micrograms per liter							
Nitrate Nitrogen, milligrams per liter	<0.16	<0.16	0.22				
Nitrite Nitrogen, milligrams per liter	<0.091	<0.091	<0.091				
Nitrogen (Total), milligrams per liter							
Organic Nitrogen, milligrams per liter							
Ortho Phosphate Phosphorus, milligrams per liter	0.058	0.074	0.063				
Perchlorate, micrograms per liter							
Phosphorus (Total), milligrams per liter							
Selenium, micrograms per liter							
Silver, micrograms per liter							
Sulfate, milligrams per liter							
Thalium, micrograms per liter							
Total Alkalinity as CaCO3, milligrams per liter	89	91	91				
Total Chromium, micrograms per liter							
Total Suspended Solids, milligrams per liter							

Source: Rancho California Water District.

Santa Margarita River Watershed
Major Water Purveyors

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Lake Elsinore
LAKE ELSINORE
Elsinore Valley Municipal Water District
ORANGE COUNTY
Western Municipal Water District Murrieta Division
Wildomar
DIAMOND VALLEY LAKE
Warm Springs Creek
Rawson Creek
Eastern Municipal Water District
Tucalota Creek
LAKE SKINNER
Sage
Ramona Village
Anza
Cahuilla Creek
Cahuilla Reservation
LAKE RIVERSIDE
Wilson Creek
Tule Creek
Cole Creek
Murrieta
Murrieta Creek
11042800
11042900
Santa Gertrudis Creek
Rancho California Water District
Temecula
Sandia Creek
Temecula Creek
VAIL LAKE
11043000
11044000
11042631
De Luz Creek
Cottonwood Creek
Santa Margarita River
Pechanga Creek
Pechanga Reservation
11042400
Aguanga
RIVERSIDE COUNTY
Rainbow Creek
Fallbrook Public Utilities District
11044800
11044350
11044300
11044250
11044500
Camp Pendleton
Fallbrook
Fallbrook Creek
Rainbow Municipal Water District
Pauma and Yuima Reservation
SAN DIEGO COUNTY
Chihuahua Creek
11045300
LAKE O'NEILL
11046000
Oceanside

Legend

- RCWD Service Area
- EMWD Service Area
- MCB-Camp Pendleton
- FPUD Service Area
- WMWD Service Area
- EVMWD Service Area
- Rainbow MWD Service Area
- USGS Station ID
- Santa Margarita River Watershed Boundary
- Indian Reservations

0 2 4 6 8 10 12 mi

N

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 the Rancho California Water District and Murrieta Division of the Western Municipal Water District.

Prepared by: Robert Heather Date: 2020-05-29

CWRMA Location Map

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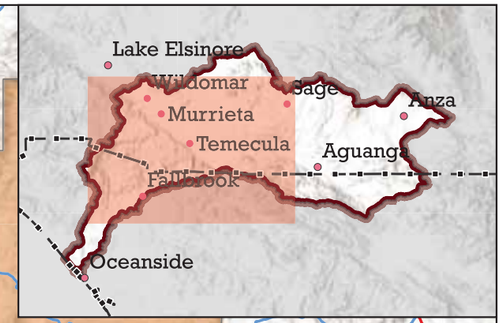

Wildomar Precipitation Gage

Wildomar

Warm Springs Creek

Rawson Creek

Tucalota Creek

LAKE SKINNER

Murrieta

Murrieta Creek

Santa Gertrudis Creek

Cole Creek

Rancho California Water District

154
161
164
236
203
VDC Upper
152
158
124
130
126
109
TMVC
157
VAIL LAKE
Wilson Creek
131
153
WR-34
VDC Lower
133
TMTC
149
USGS Gage 11044000
143
TMPP
TMWV
USGS Gage 11042400
Pechanga Creek
Pechanga Reservation
Arroyo Seco Creek
RIVERSIDE COUNTY
SAN DIEGO CO

De Luz Creek

Sandia Creek

Cottonwood Creek

Santa Margarita River

Rainbow Creek

Fallbrook

Fallbrook Creek

Camp Pendleton

LAKE O'NEILL

Legend

- RCWD Production Wells
- USGS Multilevel Monitoring Well
- USGS Gaging Station
- WR-34 Outlet
- Wildomar Precipitation Gage
- CDV Recharge Facilities
- Highways
- Santa Margarita River Watershed
- River/Creek
- Indian Reservation

0 2 4 6 8 10 12 mi

N

Prepared by: Robert Heather Date: 2020-05-29