APPENDIX B: eCCR Certification Form (Suggested Format)

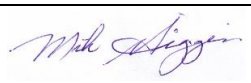
Consumer Confidence Report Certification Form

(To be submitted with a copy of the CCR)

Water System Name:	Valley Estates POA
Water System Number:	CA1500478

The water system named above hereby certifies that its Consumer Confidence Report was distributed on April 1, 2021 to customers (and appropriate notices of availability have been given). Further, the system certifies that the information contained in the report is correct and consistent with the compliance monitoring data previously submitted to the State Water Resources Control Board, Division of Drinking Water (DDW).

Certified by:

Name: Michael A Higgins	Title:CFO/Watermaster
Signature: 	Date:April 1, 2021
Phone number: (760) 378-1028	blank

To summarize report delivery used and good-faith efforts taken, please complete this page by checking all items that apply and fill-in where appropriate:

☒ CCR was distributed by mail or other direct delivery methods (attach description of other direct delivery methods used). On Modified Billing Notice

☒ CCR was distributed using electronic delivery methods described in the Guidance for Electronic Delivery of the Consumer Confidence Report (water systems utilizing electronic delivery methods must complete the second page).

☒ "Good faith" efforts were used to reach non-bill paying consumers. Those efforts included the following methods:

- ☒ Posting the CCR at the following URL: www.ValleyEstatesPOA.org/ccr/
- ☐ Mailing the CCR to postal patrons within the service area (attach zip codes used)
- ☐ Advertising the availability of the CCR in news media (attach copy of press release)
- ☐ Publication of the CCR in a local newspaper of general circulation (attach a copy of the published notice, including name of newspaper and date published)
- ☐ Posted the CCR in public places (attach a list of locations)

- ☐ Delivery of multiple copies of CCR to single-billed addresses serving several persons, such as apartments, businesses, and schools
- ☐ Delivery to community organizations (attach a list of organizations)
- ☐ Publication of the CCR in the electronic city newsletter or electronic community newsletter or listserv (attach a copy of the article or notice)
- ☐ Electronic announcement of CCR availability via social media outlets (attach list of social media outlets utilized)
- ☒ Other (attach a list of other methods used): Notice on Community Bulletin Board

☐ *For systems serving at least 100,000 persons*: Posted CCR on a publicly-accessible internet site at the following URL: www._____

☐ *For privately-owned utilities*: Delivered the CCR to the California Public Utilities Commission

Consumer Confidence Report Electronic Delivery Certification

Water systems utilizing electronic distribution methods for CCR delivery must complete this page by checking all items that apply and fill-in where appropriate.

☒ Water system mailed a notification that the CCR is available and provides a direct URL to the CCR on a publicly available website where it can be viewed (attach a copy of the mailed CCR notification). URL: www.ValleyEstatesPOA.org/ccr/

☒ Water system emailed a notification that the CCR is available and provides a direct URL to the CCR on a publicly available site on the Internet where it can be viewed (attach a copy of the emailed CCR notification). URL: www.ValleyEstatesPOA.org/ccr/

☐ Water system emailed the CCR as an electronic file email attachment.

☐ Water system emailed the CCR text and tables inserted or embedded into the body of an email, not as an attachment (attach a copy of the emailed CCR).

☐ *Requires prior DDW review and approval.* Water system utilized other electronic delivery method that meets the direct delivery requirement.

Provide a brief description of the water system's electronic delivery procedures and include how the water system ensures delivery to customers unable to receive electronic delivery.

Our monthly association dues billing was modified to include a direct link to the CCR
On our website: ValleyEstatesPOA,org/ccr/
A full copy was emailed to those accounts with an email address on file.
A phone number was provided for anyone wishing to obtain a paper copy.

This form is provided as a convenience and may be used to meet the certification requirement of
section 64483(c) of the California Code of Regulations.

Valley Estates POA, Inc.

PO Box 328
Weldon, CA 93283-0328
(760) 378-1028

The annual Consumer Confidence Report (water quality) for the year 2020 is now available at the link shown below. If you do not have internet access and desire a printed copy please call (760) 378-1028 or enclose a note with your dues payment:

http://valleyestatespoa.org/ccr/

The next Board Meeting is 6PM April 20, 2021 at the Community Center, 14213 Allen Ave., Weldon, CA 93283.

2021 Member Directories are available upon request. Email valleyestates@mchsi.com or enclose a note with your payment.

«FNAME» «LNAME» («LOTNUMBER»)
«ADDRESS»
«CITY», «STATE» «ZIP»

Association Dues Billing

April 1, 2021

Amount Due: «New_Bal»

Payments received the last 4 days of the previous month may not be reflected on this billing.

Water Used Last Month: «CONSUMED» gallons

Last Meter Reading: «METERREAD»

All accounts are due and payable on the first of each month. Base water fee is $27.50 per month plus $12.50 road fee per month. Tier fees apply for water usage over 200,000 gallons per meter cycle (2 months). Go to www.ValleyEstatesPOA.org for full details

Accounts with more than 1 payment due are subject to the following fees and actions that are checked:

☐ **Late Fee $10.00**

A late fee is due on the 10th of the month when your account has 2 or more payments due and you do not have active water service.

☐ **Final Notice Fee $25.00**

This is your required notice that your account is subject to having your water service disconnected if the account is not brought current in the next 15 days. The fee will accrue when the Final Notice is issued at least 13 days from the date of this billing.

- -

[Detach here and return with your check or money order OR just write your lot number on the memo line of your check or money order]

Checks should be made payable to Valley Estates POA. Your check (or money order) may be mailed to PO Box 328, Weldon, CA 93283-0328, or it may be dropped in the black payment box on the Bass Avenue side of 5413 Marjorie St. The box is located near the double driveway gates. If you need to pay using cash please call (760) 378-1028 and make arrangements with Mike to make your payment in person. Cash left in the drop box is your responsibility. This stub (if used) is for lot number «LOTNUMBER» and $__________ is enclosed.

2020 Consumer Confidence Report

Water System Information

Water System Name: Valley Estates POA, Inc.

Report Date: March 1, 2021

Water in Use: Groundwater

Name and General Location of Source(s): Marjorie Well and Hanning Well

Drinking Water Source Assessment Information: Prepared August 2002 by California Department of Health. Report is available by contacting Mike Higgins (760) 378-1028. See attachments for report summaries

Time and Place of Regularly Scheduled Board Meetings for Public Participation: 6PM 3rd Tuesday of each month except June, July, August and December at the Valley Estates Community Center, 14213 Allen Ave., Weldon, CA 93283

For More Information, Contact: Mike Higgins (760) 378-1028

About This Report

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 to December 31, 2020 and may include earlier monitoring data.

Importance of This Report Statement in Five Non-English Languages (Spanish, Mandarin, Tagalog, Vietnamese, and Hmong)

Language in Spanish: Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse Valley Estates POA a (760) 378-1028 para asistirlo en español.

Language in Mandarin: 这份报告含有关于您的饮用水的重要讯息。请用以下地址和电话联系 Valley Estates POA以获得中文的帮助: (760) 378-1028.

Langauge in Tagalog: Ang pag-uulat na ito ay naglalaman ng mahalagang impormasyon tungkol sa inyong inuming tubig. Mangyaring makipag-ugnayan sa Valley Estates POA o tumawag sa (760) 378-1028 para matulungan sa wikang Tagalog.

Language in Vietnamese: Báo cáo này chứa thông tin quan trọng về nước uống của bạn. Xin vui lòng liên hệ Valley Estates POA tại (760) 378-1028 để được hỗ trợ giúp bằng tiếng Việt.

Language in Hmong: Tsab ntawv no muaj cov ntsiab lus tseem ceeb txog koj cov dej haus. Thov hu rau Valley Estates POS ntawm (760) 378-1028 rau kev pab hauv lus Askiv.

Terms Used in This Report

Level 1 Assessment: A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment: A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency (U.S. EPA).

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Primary Drinking Water Standards (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Regulatory Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Variances and Exemptions: Permissions from the State Water Resources Control Board (State Board) to exceed an MCL or not comply with a treatment technique under certain conditions.

ND: not detectable at testing limit

ppm: parts per million or milligrams per liter (mg/L)

ppb: parts per billion or micrograms per liter (µg/L)

ppt: parts per trillion or nanograms per liter (ng/L)

ppq: parts per quadrillion or picogram per liter (pg/L)

pCi/L: picocuries per liter (a measure of radiation)

Sources of Drinking Water and Contaminants that May Be Present in Source Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- Radioactive contaminants, that can be naturally-occurring or be the result of oil and gas production and mining activities.

Regulation of Drinking Water and Bottled Water Quality

In order to ensure that tap water is safe to drink, the U.S. EPA and the State Board prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health.

About Your Drinking Water Quality

Drinking Water Contaminants Detected

Tables 1, 2, 3, 4, 5, and 6 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The State Board allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old. Any violation of an AL, MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

Table 1. Sampling Results Showing the Detection of Coliform Bacteria

Microbiological Contaminants (complete if bacteria detected)	Highest No. of Detections	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria (state Total Coliform Rule)	(In a month) 0	blank	1 positive monthly sample [(a)]	0	Naturally present in the environment
Fecal Coliform or *E. coli* (state Total Coliform Rule)	(In the year) 0	blank	A routine sample and a repeat sample are total coliform positive, and one of these is also fecal coliform or *E. coli* positive	blank	Human and animal fecal waste
E. coli (federal Revised Total Coliform Rule)	(In the year) 0	blank	(b)	0	Human and animal fecal waste

(a) Two or more positive monthly samples is a violation of the MCL
(b) Routine and repeat samples are total coliform-positive and either is *E. coli*-positive or system fails to take repeat samples following *E. coli*-positive routine sample or system fails to analyze total coliform-positive repeat sample for *E. coli*.

Table 2. Sampling Results Showing the Detection of Lead and Copper

Lead and Copper (complete if lead or copper detected in the last sample set)	Sample Date	No. of Samples Collected	90th Percentile Level Detected	No. Sites Exceed-ing AL	AL	PHG	No. of Schools Request-ing Lead Sampling	Typical Source of Contaminant
Lead (ppb)	9/14/20	5	0.002	0	15	0.2	0	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

Lead and Copper (complete if lead or copper detected in the last sample set)	Sample Date	No. of Samples Collected	90th Percentile Level Detected	No. Sites Exceed-ing AL	AL	PHG	No. of Schools Request-ing Lead Sampling	Typical Source of Contaminant
Copper (ppm)	9/14/20	5	0.175	0	1.3	0.3	Not applicable	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Table 3. Sampling Results for Sodium and Hardness [Refer to Attachments for results]

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	blank	blank	blank	None	None	Salt present in the water and is generally naturally occurring
Hardness (ppm)	blank	blank	blank	None	None	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

Table 4. Detection of Contaminants with a Primary Drinking Water Standard [Refer to Attachments for results]

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
blank	blank	blank	blank	blank	blank	blank
blank	blank	blank	blank	blank	blank	blank
blank	blank	blank	blank	blank	blank	blank

Table 5. Detection of Contaminants with a Secondary Drinking Water Standard [Refer to Attachments for results]

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	SMCL	PHG (MCLG)	Typical Source of Contaminant
blank	blank	blank	blank	blank	blank	blank
blank	blank	blank	blank	blank	blank	blank
blank	blank	blank	blank	blank	blank	blank

Table 6. Detection of Unregulated Contaminants [Refer to Attachments for results]

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Health Effects Language
blank	blank	blank	blank	blank	blank
blank	blank	blank	blank	blank	blank
blank	blank	blank	blank	blank	blank

Additional General Information on Drinking Water

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. U.S. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Lead-Specific Language: If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Valley Estates POA is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. [Optional: If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.] If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at http://www.epa.gov/lead.

Summary Information for Violation of a MCL, MRDL, AL, TT, or Monitoring and Reporting Requirement

Violation: None

Explanation: N/A

Duration: N/A

Actions Taken to Correct the Violation: N/A

Health Effects Language: N/A

For Water Systems Providing Groundwater as a Source of Drinking Water

Table 7. Sampling Results Showing Fecal Indicator-Positive Groundwater Source Samples

None

Summary Information for Fecal Indicator-Positive Groundwater Source Samples, Uncorrected Significant Deficiencies, or Violation of a Groundwater TT

Special Notice of Fecal Indicator-Positive Groundwater Source Sample: None

Special Notice for Uncorrected Significant Deficiencies: None

Groundwater TT Violation: None

Explanation: N/A

Duration: N/A

Actions Taken to Correct the Violation: N/A

Health Effects Language: N/A

Summary Information for Operating Under a Variance or Exemption

N/A

Summary Information for Federal Revised Total Coliform Rule Level 1 and Level 2 Assessment Requirements

N/A

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Marjorie Well Test Results as of 12/31/2020

LAST SAMPLE DATE AND MONITORING SCHEDULE						
Storet	Analyte Name	Result	Unit	MCL	DLR	Last Sampled
00440	BICARBONATE ALKALINITY	230	MG/L	0	0	03-07-2018
00916	CALCIUM	57	MG/L	0	0	03-07-2018
00445	CARBONATE ALKALINITY	2.5	MG/L	0	0	03-07-2018
00940	CHLORIDE	14	MG/L	500	0	03-07-2018
00081	COLOR	1	UNITS	15	0	03-07-2018
01042	COPPER	10	UG/L	1000	50	03-07-2018
38260	FOAMING AGENTS (MBAS)	0.10	MG/L	0.5	0	03-07-2018
00900	HARDNESS (TOTAL) AS CACO3	180	MG/L	0	0	03-07-2018
71830	HYDROXIDE ALKALINITY	1.4	MG/L	0	0	03-07-2018
01045	IRON	69	UG/L	300	100	03-07-2018
00927	MAGNESIUM	9.4	MG/L	0	0	03-07-2018
01055	MANGANESE	10	UG/L	50	20	03-07-2018
00086	ODOR THRESHOLD @ 60 C	0000000000	TON	3	1	03-20-2019
00403	PH, LABORATORY	8.01		0	0	03-07-2018
01077	SILVER	10	UG/L	100	10	03-07-2018
00929	SODIUM	36	MG/L	0	0	03-07-2018
00095	SPECIFIC CONDUCTANCE	499	US	1600	0	03-07-2018
00945	SULFATE	46	MG/L	500	0.5	03-07-2018
70300	TOTAL DISSOLVED SOLIDS	350	MG/L	1000	0	03-07-2018
82079	TURBIDITY, LABORATORY	0.34	NTU	5	0.1	03-07-2018
01092	ZINC	120	UG/L	5000	50	03-07-2018
01105	ALUMINUM	50	UG/L	1000	50	03-07-2018
01097	ANTIMONY	2	UG/L	6	6	03-07-2018
01002	ARSENIC	2	UG/L	10	2	03-07-2018
81855	ASBESTOS	.0000	MFL	7	0.2	04-11-2013
01007	BARIUM	66	UG/L	1000	100	03-07-2018
01012	BERYLLIUM	1	UG/L	4	1	03-07-2018
01027	CADMIUM	1	UG/L	5	1	03-07-2018
01034	CHROMIUM (TOTAL)	10	UG/L	50	10	03-07-2018
00951	FLUORIDE (F) (NATURAL-SOURCE)	0.85	MG/L	2	0.1	03-07-2018
71900	MERCURY	0.20	UG/L	2	1	03-07-2018
01067	NICKEL	10	UG/L	100	10	03-07-2018
A-031	PERCHLORATE	4	UG/L	6	4	12-16-2020
01147	SELENIUM	2	UG/L	50	5	03-07-2018
01059	THALLIUM	1	UG/L	2	1	03-07-2018
00618	NITRATE (AS N)	0.76	mg/L	10	0.4	03-18-2020
00620	NITRITE (AS N)	0.05	mg/L	1	0.4	03-07-2018

01501	GROSS ALPHA	9.77	PCI/L	15	3	06-17-2020
28012	URANIUM (PCI/L)	5.39	PCI/L	20	1	06-17-2020
34506	1,1,1-TRICHLOROETHANE	0.50	UG/L	200	0.5	11-07-2018
34516	1,1,2,2-TETRACHLOROETHANE	0.50	UG/L	1	0.5	11-07-2018
34511	1,1,2-TRICHLOROETHANE	0.50	UG/L	5	0.5	11-07-2018
34496	1,1-DICHLOROETHANE	0.50	UG/L	5	0.5	11-07-2018
34501	1,1-DICHLOROETHYLENE	0.50	UG/L	6	0.5	11-07-2018
34551	1,2,4-TRICHLOROBENZENE	0.50	UG/L	5	0.5	11-07-2018
34536	1,2-DICHLOROBENZENE	0.50	UG/L	600	0.5	11-07-2018
34531	1,2-DICHLOROETHANE	0.50	UG/L	0.5	0.5	11-07-2018
34541	1,2-DICHLOROPROPANE	0.50	UG/L	5	0.5	11-07-2018
34561	1,3-DICHLOROPROPENE (TOTAL)	0.50	UG/L	0.5	0.5	11-07-2018
34571	1,4-DICHLOROBENZENE	0.50	UG/L	5	0.5	11-07-2018
34030	BENZENE	0.50	UG/L	1	0.5	11-07-2018
32102	CARBON TETRACHLORIDE	0.50	UG/L	0.5	0.5	11-07-2018
77093	CIS-1,2-DICHLOROETHYLENE	0.50	UG/L	6	0.5	11-07-2018
34423	DICHLOROMETHANE	0.50	UG/L	5	0.5	11-07-2018
34371	ETHYL BENZENE	0.50	UG/L	300	0.5	11-07-2018
46491	METHYL-TERT-BUTYL-ETHER (MTBE)	0.50	UG/L	13	3	11-07-2018
34301	MONOCHLOROBENZENE	0.50	UG/L	70	0.5	11-07-2018
77128	STYRENE	0.50	UG/L	100	0.5	11-07-2018
34475	TETRACHLOROETHYLENE	0.50	UG/L	5	0.5	11-07-2018
34010	TOLUENE	0.50	UG/L	150	0.5	11-07-2018
34546	TRANS-1,2-DICHLOROETHYLENE	0.50	UG/L	10	0.5	11-07-2018
39180	TRICHLOROETHYLENE	0.50	UG/L	5	0.5	11-07-2018
34488	TRICHLOROFLUOROMETHANE FREON 11	0.50	UG/L	150	5	11-07-2018
81611	TRICHLOROTRIFLUOROETHANE (FREON 113)	0.50	UG/L	1200	10	11-07-2018
39175	VINYL CHLORIDE	0.50	UG/L	0.5	0.5	11-07-2018
81551	XYLENES (TOTAL)	0.50	UG/L	1750	0.5	11-07-2018
77443	1,2,3-TRICHLOROPROPANE (1,2,3-TCP)	0.005	UG/L	0.005	0.005	11-07-2018
39033	ATRAZINE	0.30	UG/L	1	0.5	12-16-2020
39055	SIMAZINE	0.30	UG/L	4	1	12-16-2020

Hanning Well Test Results as of 12/31/2020

LAST SAMPLE DATE AND MONITORING SCHEDULE						
Storet	Analyte Name	Result	Unit	MCL	DLR	Last Sampled
00440	BICARBONATE ALKALINITY	210	MG/L	0	0	03-07-2018
00916	CALCIUM	53	MG/L	0	0	03-07-2018
00445	CARBONATE ALKALINITY	2.5	MG/L	0	0	03-07-2018
00940	CHLORIDE	13	MG/L	500	0	03-07-2018
00081	COLOR	1	UNITS	15	0	03-07-2018
01042	COPPER	10	UG/L	1000	50	03-07-2018
38260	FOAMING AGENTS (MBAS)	0.20	MG/L	0.5	0	03-07-2018
00900	HARDNESS (TOTAL) AS CACO3	170	MG/L	0	0	03-07-2018
71830	HYDROXIDE ALKALINITY	1.4	MG/L	0	0	03-07-2018
01045	IRON	58	UG/L	300	100	03-07-2018
00927	MAGNESIUM	9.4	MG/L	0	0	03-07-2018
01055	MANGANESE	10	UG/L	50	20	03-07-2018
00086	ODOR THRESHOLD @ 60 C	0000000000	TON	3	1	03-07-2018
00403	PH, LABORATORY	8.12		0	0	03-07-2018
01077	SILVER	10	UG/L	100	10	03-07-2018
00929	SODIUM	36	MG/L	0	0	03-07-2018
00095	SPECIFIC CONDUCTANCE	479	US	1600	0	03-07-2018
00945	SULFATE	45	MG/L	500	0.5	03-07-2018
70300	TOTAL DISSOLVED SOLIDS	360	MG/L	1000	0	03-07-2018
82079	TURBIDITY, LABORATORY	0.55	NTU	5	0.1	03-07-2018
01092	ZINC	50	UG/L	5000	50	03-07-2018
01105	ALUMINUM	50	UG/L	1000	50	03-07-2018
01097	ANTIMONY	2	UG/L	6	6	03-07-2018
01002	ARSENIC	2	UG/L	10	2	03-07-2018
81855	ASBESTOS	.0000	MFL	7	0.2	10-10-2012
01007	BARIUM	47	UG/L	1000	100	03-07-2018
01012	BERYLLIUM	1	UG/L	4	1	03-07-2018
01027	CADMIUM	1	UG/L	5	1	03-07-2018
01034	CHROMIUM (TOTAL)	10	UG/L	50	10	03-07-2018
00951	FLUORIDE (F) (NATURAL-SOURCE)	0.89	MG/L	2	0.1	03-07-2018
71900	MERCURY	0.20	UG/L	2	1	03-07-2018
01067	NICKEL	10	UG/L	100	10	03-07-2018
A-031	PERCHLORATE	4	UG/L	6	4	12-16-2020
01147	SELENIUM	2	UG/L	50	5	03-07-2018
01059	THALLIUM	1	UG/L	2	1	03-07-2018
00618	NITRATE (AS N)	2.7	mg/L	10	0.4	03-18-2020
00620	NITRITE (AS N)	0.05	mg/L	1	0.4	03-07-2018
01501	GROSS ALPHA	7.42	PCI/L	15	3	06-17-2020
28012	URANIUM (PCI/L)	5.50	PCI/L	20	1	06-17-2020

34506	1,1,1-TRICHLOROETHANE	0.50	UG/L	200	0.5	11-07-2018
34516	1,1,2,2-TETRACHLOROETHANE	0.50	UG/L	1	0.5	11-07-2018
34511	1,1,2-TRICHLOROETHANE	0.50	UG/L	5	0.5	11-07-2018
34496	1,1-DICHLOROETHANE	0.50	UG/L	5	0.5	11-07-2018
34501	1,1-DICHLOROETHYLENE	0.50	UG/L	6	0.5	11-07-2018
34551	1,2,4-TRICHLOROBENZENE	0.50	UG/L	5	0.5	11-07-2018
34536	1,2-DICHLOROBENZENE	0.50	UG/L	600	0.5	11-07-2018
34531	1,2-DICHLOROETHANE	0.50	UG/L	0.5	0.5	11-07-2018
34541	1,2-DICHLOROPROPANE	0.50	UG/L	5	0.5	11-07-2018
34561	1,3-DICHLOROPROPENE (TOTAL)	0.50	UG/L	0.5	0.5	11-07-2018
34571	1,4-DICHLOROBENZENE	0.50	UG/L	5	0.5	11-07-2018
34030	BENZENE	0.50	UG/L	1	0.5	11-07-2018
32102	CARBON TETRACHLORIDE	0.50	UG/L	0.5	0.5	11-07-2018
77093	CIS-1,2-DICHLOROETHYLENE	0.50	UG/L	6	0.5	11-07-2018
34423	DICHLOROMETHANE	0.50	UG/L	5	0.5	11-07-2018
34371	ETHYL BENZENE	0.50	UG/L	300	0.5	11-07-2018
46491	METHYL-TERT-BUTYL-ETHER (MTBE)	0.50	UG/L	13	3	11-07-2018
34301	MONOCHLOROBENZENE	0.50	UG/L	70	0.5	11-07-2018

77128	STYRENE	0.50	UG/L	100	0.5	11-07-2018
34475	TETRACHLOROETHYLENE	0.50	UG/L	5	0.5	11-07-2018
34010	TOLUENE	0.50	UG/L	150	0.5	11-07-2018
34546	TRANS-1,2-DICHLOROETHYLENE	0.50	UG/L	10	0.5	11-07-2018
39180	TRICHLOROETHYLENE	0.50	UG/L	5	0.5	11-07-2018
34488	TRICHLOROFLUOROMETHANE FREON 11	0.50	UG/L	150	5	11-07-2018
81611	TRICHLOROTRIFLUOROETHANE (FREON 113)	0.50	UG/L	1200	10	11-07-2018
39175	VINYL CHLORIDE	0.50	UG/L	0.5	0.5	11-07-2018
81551	XYLENES (TOTAL)	0.50	UG/L	1750	0.5	11-07-2018
77443	1,2,3-TRICHLOROPROPANE (1,2,3-TCP)	0.005	UG/L	0.005	0.005	11-07-2018
39033	ATRAZINE	0.30	UG/L	1	0.5	12-16-2020
39055	SIMAZINE	0.30	UG/L	4	1	12-16-2020

California Drinking Water Source Assessment and Protection (DWSAP) Program

Vulnerability Summary

District Name DHS Tehachapi District **District No.** 19 **County** Kern

System Name VALLEY ESTATES POA, INC. **System No.** 1500478

Source Name WELL 01 - MARJORIE (OLD) **Source No.** 002 **PS Code** 1500478-002

Completed by DHS Tehachapi District **Date** August, 2002

According to DHS records, this Source is Groundwater. This Assessment was done using the Default Groundwater System Method.

A source water assessment was conducted for the **WELL 01 - MARJORIE (OLD)**

of the **VALLEY ESTATES POA, INC.** water system in **August, 2002**

The source is considered most vulnerable to the following activities associated with contaminants detected in the water supply:

Septic systems - high density [>1/acre]
Grazing [> 5 large animals or equivalent per acre]
Housing - high density [>1 house/0.5 acres]

The source is considered most vulnerable to the following activities not associated with any detected contaminants:

Transportation corridors - Roads/Streets
Wells - Water supply

Discussion of Vulnerability

Concentrations of arsenic, radiation and nitrate greater than the detection limit for purposes of reporting (DLR) but less than the primary drinking water standard have been detected in water produced by this source.

A copy of the complete assessment may be viewed at:

Valley Estates POA
PO Box 328
14213 Allen Ave.
Weldon, CA 93283

You may request a summary of the assessment be sent to you by contacting:

Mike Higgins - Water Master
5413 Marjorie St.
Weldon, CA 93283
(760) 378-1028

California Drinking Water Source Assessment and Protection (DWSAP) Program

Vulnerability Summary

District Name DHS Tehachapi District **District No.** 19 **County** Kern

System Name VALLEY ESTATES POA, INC. **System No.** 1500478

Source Name WELL 02 - HANNING (NEW) **Source No.** 001 **PS Code** 1500478-001

Completed by DHS Tehachapi District **Date** August, 2002

According to DHS records, this Source is Groundwater. This Assessment was done using the Default Groundwater System Method.

A source water assessment was conducted for the **WELL 02 - HANNING (NEW)**

of the **VALLEY ESTATES POA, INC.** water system in **August, 2002**

The source is considered most vulnerable to the following activities associated with contaminants detected in the water supply:

Septic systems - high density [>1/acre]
Grazing [> 5 large animals or equivalent per acre]
Housing - high density [>1 house/0.5 acres]

The source is considered most vulnerable to the following activities not associated with any detected contaminants:

Wells - Water supply

Discussion of Vulnerability

In addition to the PCA's listed in the vulnerability summary this source is also considered to be vulnerable to the following activities:

Transportation corridors - Roads/Streets

Concentrations of nitrate and radiation greater than the detection limit for purposes of reporting (DLR) but less than the primary drinking water standard have been detected in water produced by this source.

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APPENDIX A: Regulated Contaminants with Primary Drinking Water Standards

Microbiological Contaminants

Contaminant	Unit Measurement	MCL TT, as noted	PHG (MCLG)	Major Sources of Contamination	Health Effects Language
Total Coliform Bacteria (state Total Coliform Rule)		Footnote [1]	(0)	Naturally present in the environment	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.
Fecal coliform and *E. coli* (state Total Coliform Rule)		Footnote [2]	(0)	Human and animal fecal waste	Fecal coliforms and *E. coli* are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems.
Total Coliform Bacteria (federal Revised Total Coliform Rule)		TT	N/A	Naturally present in the environment	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment

[1] Systems that collect 40 or more samples per month: 5.0% of monthly samples are positive. Systems that collect less than 40 samples per month:
1 positive monthly sample.

[2] A routine sample and a repeat sample are total coliform positive, and one of these is also fecal coliform or *E. coli* positive.

Contaminant	Unit Measurement	MCL TT, as noted	PHG (MCLG)	Major Sources of Contamination	Health Effects Language
					or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

Contaminant	Unit Measurement	MCL TT, as noted	PHG (MCLG)	Major Sources of Contamination	Health Effects Language
E. coli (federal Revised Total Coliform Rule)		Footnote [3]	(0)	Human and animal fecal waste	*E. coli* are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely-compromised immune systems. *For the consumer confidence report, if a water system detects* E. coli *and has violated the* E. coli *MCL, the water system shall include the following statements, as appropriate.* • We had an *E. coli*-positive repeat sample following a total coliform-positive routine sample. • We had a total coliform-positive repeat sample following an *E. coli*-positive routine sample. • We failed to take all required repeat samples following an *E. coli*-positive routine sample. • We failed to test for *E. coli* when any re repeat sample tests positive for total coliform. *If the E. coli MCL was not violated, the water system may include a statement that explains that although* E. coli *was detected, the water system is not in violation of the* E. coli *MCL*.

[3]A system is in compliance with the *E.coli* MCL unless any of the following conditions occurs: routine and repeat samples are total coliform-positive or routine and repeat samples are *E. coli*-positive or system fails to take repeat samples following *E. coli*-positive routine sample or system fails to analyze total coliform-positive repeat sample for *E. coli*.

Contaminant	Unit Measurement	MCL TT, as noted	PHG (MCLG)	Major Sources of Contamination	Health Effects Language
E. coli (federal Revised Total Coliform Rule)		TT	N/A	Human and animal fecal waste	*E. coli* are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely-compromised immune systems.
Fecal Indicator *(E. coli)* (Ground Water Rule)		0	(0)	Human and animal fecal waste	Fecal coliforms and *E. coli* are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems.
Fecal Indicators (enterococci or coliphage) (Ground Water Rule)		TT	N/A	Human and animal fecal waste	Fecal indicators are microbes whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems.
Turbidity		TT	N/A	Soil runoff	Turbidity has no health effects. However, high levels of turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

Contaminant	Unit Measurement	MCL TT, as noted	PHG (MCLG)	Major Sources of Contamination	Health Effects Language
Giardia lamblia, Viruses, Heterotrophic Plate Count Bacteria, *Legionella*, *Cryptosporidium*		TT	HPC = N/A; Others = (0)	Naturally present in the environment	Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

Radioactive Contaminants

Contaminant	Unit Measure-ment	MCL TT, as noted	PHG (MCLG)	Major Sources of Contamination	Health Effects Language
Gross Beta Particle Activity	pCi/L	50[4]	(0)	Decay of natural and man-made deposits	Certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing beta and photon emitters in excess of the MCL over many years may have an increased risk of getting cancer.
Strontium-90	pCi/L	8	0.35	Decay of natural and man-made deposit	Some people who drink water containing strontium-90 in excess of the MCL over many years may have an increased risk of getting cancer.
Tritium	pCi/L	20,000	400	Decay of natural and man-made deposits	Some people who drink water containing tritium in excess of the MCL over many years may have an increased risk of getting cancer.

[4] Effective June 11, 2006, the gross beta particle activity MCL is 4 millirems/year annual dose equivalent to the total body or any internal organ. 50 pCi/L is used as a screening level.

Contaminant	Unit Measure-ment	MCL TT, as noted	PHG (MCLG)	Major Sources of Contamination	Health Effects Language
Gross Alpha Particle Activity	pCi/L	15	(0)	Erosion of natural deposits	Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
Combined Radium 226 & 228	pCi/L	5	(0)[5]	Erosion of natural deposits	Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.
Total Radium (for nontransient-noncommunity water systems)	pCi/L	5	N/A	Erosion of natural deposits	Some people who drink water containing radium 223, 224, or 226 in excess of the MCL over many years may have an increased risk of getting cancer.
Uranium	pCi/L	20	0.43	Erosion of natural deposits	Some people who drink water containing uranium in excess of the MCL over many years may have kidney problems or an increased risk of getting cancer.

Inorganic Contaminants

Contaminant	Unit Measurement	MCL (AL) TT, as noted	PHG (MCLG)	Major Sources of Contamination	Health Effects Language
Aluminum	mg/L	1	0.6	Erosion of natural deposits; residue from some surface water treatment processes	Some people who drink water containing aluminum in excess of the MCL over many years may experience short-term gastrointestinal tract effects.
Antimony	µg/L	6	1	Discharge from petroleum refineries; fire	Some people who drink water containing antimony in excess of the MCL over many

[5] If reporting results for Ra-226 and Ra-228 as individual constituents, the PHG is 0.05 pCi/L for Ra-226 and 0.019 pCi/L for Ra-228.

Contaminant	Unit Measurement	MCL (AL) TT, as noted	PHG (MCLG)	Major Sources of Contamination	Health Effects Language
				retardants; ceramics; electronics; solder	years may experience increases in blood cholesterol and decreases in blood sugar.
Arsenic	µg/L	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes	Some people who drink water containing arsenic in excess of the MCL over many years may experience skin damage or circulatory system problems, and may have an increased risk of getting cancer.
Asbestos	MFL	7	7	Internal corrosion of asbestos cement water mains; erosion of natural deposits	Some people who drink water containing asbestos in excess of the MCL over many years may have an increased risk of developing benign intestinal polyps.
Barium	mg/L	1	2	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits	Some people who drink water containing barium in excess of the MCL over many years may experience an increase in blood pressure.
Beryllium	µg/L	4	1	Discharge from metal refineries, coal-burning factories, and electrical, aerospace, and defense industries	Some people who drink water containing beryllium in excess of the MCL over many years may develop intestinal lesions.
Cadmium	µg/L	5	0.04	Internal corrosion of galvanized pipes; erosion of natural deposits; discharge from electroplating and industrial chemical factories, and metal refineries; runoff from waste batteries and paints	Some people who drink water containing cadmium in excess of the MCL over many years may experience kidney damage.

Contaminant	Unit Measurement	MCL (AL) TT, as noted	PHG (MCLG)	Major Sources of Contamination	Health Effects Language
Chromium (Total)	µg/L	50	(100)	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits	Some people who use water containing chromium in excess of the MCL over many years may experience allergic dermatitis.
Copper	mg/L	(AL=1.3)	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time may experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years may suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.
Cyanide	µg/L	150	150	Discharge from steel/metal, plastic and fertilizer factories	Some people who drink water containing cyanide in excess of the MCL over many years may experience nerve damage or thyroid problems.
Fluoride	mg/L	2.0	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories	Some people who drink water containing fluoride in excess of the federal MCL of 4 mg/L over many years may get bone disease, including pain and tenderness of the bones. Children who drink water containing fluoride in excess of the state MCL of 2 mg/L may get mottled teeth.
Lead	µg/L	(AL=15)	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits	Infants and children who drink water containing lead in excess of the action level may experience delays in their physical or mental development. Children may show slight deficits in attention span and learning abilities. Adults who drink this water over

Contaminant	Unit Measurement	MCL (AL) TT, as noted	PHG (MCLG)	Major Sources of Contamination	Health Effects Language
					many years may develop kidney problems or high blood pressure.
Mercury (Inorganic)	µg/L	2	1.2	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills and cropland	Some people who drink water containing mercury in excess of the MCL over many years may experience mental disturbances, or impaired physical coordination, speech and hearing.
Nickel	µg/L	100	12	Erosion of natural deposits; discharge from metal factories	Some people who drink water containing nickel in excess of the MCL over many years may experience liver and heart effects.
Nitrate (as Nitrogen, N)	mg/L	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits	Infants below the age of six months who drink water containing nitrate in excess of the MCL may quickly become seriously ill and, if untreated, may die because high nitrate levels can interfere with the capacity of the infant's blood to carry oxygen. Symptoms include shortness of breath and blueness of the skin. High nitrate levels may also affect the oxygen-carrying ability of the blood of pregnant women.
Nitrite (as nitrogen, N)	mg/L	1	1	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits	Infants below the age of six months who drink water containing nitrite in excess of the MCL may quickly become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blueness of the skin.

Contaminant	Unit Measurement	MCL (AL) TT, as noted	PHG (MCLG)	Major Sources of Contamination	Health Effects Language
Perchlorate	µg/L	6	1	Perchlorate is an inorganic chemical used in solid rocket propellant, fireworks, explosives, flares, matches, and a variety of industries. It usually gets into drinking water as a result of environmental contamination from historic aerospace or other industrial operations that used or use, store, or dispose of perchlorate and its salts.	Perchlorate has been shown to interfere with uptake of iodide by the thyroid gland, and to thereby reduce the production of thyroid hormones, leading to adverse affects associated with inadequate hormone levels. Thyroid hormones are needed for normal prenatal growth and development of the fetus, as well as for normal growth and development in the infant and child. In adults, thyroid hormones are needed for normal metabolism and mental function.
Selenium	µg/L	50	30	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)	Selenium is an essential nutrient. However, some people who drink water containing selenium in excess of the MCL over many years may experience hair or fingernail losses, numbness in fingers or toes, or circulation system problems.
Thallium	µg/L	2	0.1	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories	Some people who drink water containing thallium in excess of the MCL over many years may experience hair loss, changes in their blood, or kidney, intestinal, or liver problems.

Synthetic Organic Contaminants including Pesticides and Herbicides

Contaminant	Unit Measure-ment	MCL TT, as noted	PHG (MCLG)	Major Sources of Contamination	Health Effects Language
2,4-D	µg/L	70	20	Runoff from herbicide used on row crops, range land, lawns, and aquatic weeds	Some people who use water containing the weed killer 2,4-D in excess of the MCL over many years may experience kidney, liver, or adrenal gland problems.
2,4,5-TP (Silvex)	µg/L	50	3	Residue of banned herbicide	Some people who drink water containing Silvex in excess of the MCL over many years may experience liver problems.
Acrylamide		TT	(0)	Added to water during sewage/wastewater treatment	Some people who drink water containing high levels of acrylamide over a long period of time may experience nervous system or blood problems, and may have an increased risk of getting cancer.
Alachlor	µg/L	2	4	Runoff from herbicide used on row crops	Some people who use water containing alachlor in excess of the MCL over many years may experience eye, liver, kidney, or spleen problems, or experience anemia, and may have an increased risk of getting cancer.
Atrazine	µg/L	1	0.15	Runoff from herbicide used on row crops and along railroad and highway right-of-ways	Some people who use water containing atrazine in excess of the MCL over many years may experience cardiovascular system problems or reproductive difficulties.
Bentazon	µg/L	18	200	Runoff/leaching from herbicide used on beans, peppers, corn, peanuts, rice, and ornamental grasses	Some people who drink water containing bentazon in excess of the MCL over many year may experience prostate and gastrointestinal effects.
Benzo(a)pyrene (PAH)	ng/L	200	7	Leaching from linings of water storage tanks and distribution mains	Some people who use water containing benzo(a)pyrene in excess of the MCL over many years may experience reproductive

Contaminant	Unit Measure-ment	MCL TT, as noted	PHG (MCLG)	Major Sources of Contamination	Health Effects Language
					difficulties and may have an increased risk of getting cancer.
Carbofuran	µg/L	18	0.7	Leaching of soil fumigant used on rice and alfalfa, and grape vineyards	Some people who use water containing carbofuran in excess of the MCL over many years may experience problems with their blood, or nervous or reproductive system problems.
Chlordane	ng/L	100	30	Residue of banned insecticide	Some people who use water containing chlordane in excess of the MCL over many years may experience liver or nervous system problems, and may have an increased risk of getting cancer.
Dalapon	µg/L	200	790	Runoff from herbicide used on rights-of-ways, and crops and landscape maintenance	Some people who drink water containing dalapon in excess of the MCL over many years may experience minor kidney changes.
Di(2-ethylhexyl) adipate	µg/L	400	200	Discharge from chemical factories	Some people who drink water containing di(2-ethylhexyl) adipate in excess of the MCL over many years may experience weight loss, liver enlargement, or possible reproductive difficulties.
Di(2-ethylhexyl) phthalate	µg/L	4	12	Discharge from rubber and chemical factories; inert ingredient in pesticides	Some people who use water containing di(2-ethylhexyl) phthalate in excess of the MCL over many years may experience liver problems or reproductive difficulties, and may have an increased risk of getting cancer.
Dibromochloropropane (DBCP)	ng/L	200	1.7	Banned nematocide that may still be present in soils due to runoff/leaching from former use on soybeans,	Some people who use water containing DBCP in excess of the MCL over many years may experience reproductive difficulties and may have an increased risk of getting cancer.

Contaminant	Unit Measure-ment	MCL TT, as noted	PHG (MCLG)	Major Sources of Contamination	Health Effects Language
				cotton, vineyards, tomatoes, and tree fruit	
Dinoseb	µg/L	7	14	Runoff from herbicide used on soybeans, vegetables, and fruits	Some people who drink water containing dinoseb in excess of the MCL over many years may experience reproductive difficulties.
Dioxin (2,3,7,8-TCDD)	pg/L	30	0.05	Emissions from waste incineration and other combustion; discharge from chemical factories	Some people who use water containing dioxin in excess of the MCL over many years may experience reproductive difficulties and may have an increased risk of getting cancer.
Diquat	µg/L	20	6	Runoff from herbicide use for terrestrial and aquatic weeds	Some people who drink water containing diquat in excess of the MCL over many years may get cataracts.
Endothall	µg/L	100	94	Runoff from herbicide use for terrestrial and aquatic weeds; defoliant	Some people who drink water containing endothall in excess of the MCL over many years may experience stomach or intestinal problems.
Endrin	µg/L	2	0.3	Residue of banned insecticide and rodenticide	Some people who drink water containing endrin in excess of the MCL over many years may experience liver problems.
Epichlorohydrin		TT	(0)	Discharge from industrial chemical factories; impurity of some water treatment chemicals	Some people who drink water containing high levels of epichlorohydrin over a long period of time may experience stomach problems, and may have an increased risk of getting cancer.
Ethylene dibromide (EDB)	ng/L	50	10	Discharge from petroleum refineries; underground gas tank leaks; banned nematocide that may still be present in soils due	Some people who use water containing ethylene dibromide in excess of the MCL over many years may experience liver, stomach, reproductive system, or kidney problems, and may have an increased risk of getting cancer.

Contaminant	Unit Measure-ment	MCL TT, as noted	PHG (MCLG)	Major Sources of Contamination	Health Effects Language
				to runoff and leaching from grain and fruit crops	
Glyphosate	µg/L	700	900	Runoff from herbicide use	Some people who drink water containing glyphosate in excess of the MCL over many years may experience kidney problems or reproductive difficulties.
Heptachlor	ng/L	10	8	Residue of banned insecticide	Some people who use water containing heptachlor in excess of the MCL over many years may experience liver damage and may have an increased risk of getting cancer.
Heptachlor epoxide	ng/L	10	6	Breakdown of heptachlor	Some people who use water containing heptachlor epoxide in excess of the MCL over many years may experience liver damage, and may have an increased risk of getting cancer.
Hexachlorobenzene	µg/L	1	0.03	Discharge from metal refineries and agricultural chemical factories; byproduct of chlorination reactions in wastewater	Some people who drink water containing hexachlorobenzene in excess of the MCL over many years may experience liver or kidney problems, or adverse reproductive effects, and may have an increased risk of getting cancer.
Hexachlorocyclopentadiene	µg/L	50	2	Discharge from chemical factories	Some people who use water containing hexachlorocyclopentadiene in excess of the MCL over many years may experience kidney or stomach problems.
Lindane	ng/L	200	32	Runoff/leaching from insecticide used on cattle, lumber, and gardens	Some people who drink water containing lindane in excess of the MCL over many years may experience kidney or liver problems.
Methoxychlor	µg/L	30	0.09	Runoff/leaching from insecticide used on	Some people who drink water containing methoxychlor in excess of the MCL over

Contaminant	Unit Measure-ment	MCL TT, as noted	PHG (MCLG)	Major Sources of Contamination	Health Effects Language
				fruits, vegetables, alfalfa, and livestock	many years may experience reproductive difficulties.
Molinate (Ordram)	µg/L	20	1	Runoff/leaching from herbicide used on rice	Some people who use water containing molinate in excess of the MCL over many years may experience reproductive effects.
Oxamyl (Vydate)	µg/L	50	26	Runoff/leaching from insecticide used on field crops, fruits and ornamentals, especially apples, potatoes, and tomatoes	Some people who drink water containing oxamyl in excess of the MCL over many years may experience slight nervous system effects.
PCBs (Polychlorinated biphenyls)	ng/L	500	90	Runoff from landfills; discharge of waste chemicals	Some people who drink water containing PCBs in excess of the MCL over many years may experience changes in their skin, thymus gland problems, immune deficiencies, or reproductive or nervous system difficulties, and may have an increased risk of getting cancer.
Pentachlorophenol	µg/L	1	0.3	Discharge from wood preserving factories, cotton and other insecticidal/herbicidal uses	Some people who use water containing pentachlorophenol in excess of the MCL over many years may experience liver or kidney problems, and may have an increased risk of getting cancer.
Picloram	µg/L	500	166	Herbicide runoff	Some people who drink water containing picloram in excess of the MCL over many years may experience liver problems.
Simazine	µg/L	4	4	Herbicide runoff	Some people who use water containing simazine in excess of the MCL over many years may experience blood problems.
Thiobencarb	µg/L	70	42	Runoff/leaching from herbicide used on rice	Some people who use water containing thiobencarb in excess of the MCL over many

Contaminant	Unit Measure-ment	MCL TT, as noted	PHG (MCLG)	Major Sources of Contamination	Health Effects Language
					years may experience body weight and blood effects.
Toxaphene	µg/L	3	0.03	Runoff/leaching from insecticide used on cotton and cattle	Some people who use water containing toxaphene in excess of the MCL over many years may experience kidney, liver, or thyroid problems, and may have an increased risk of getting cancer.
1,2,3-Trichloropropane	ng/L	5	0.7	Discharge from industrial and agricultural chemical factories; leaching from hazardous waste sites; used as cleaning and maintenance solvent, paint and varnish remover, and cleaning and degreasing agent; byproduct during the production of other compounds and pesticides.	Some people who drink water containing 1,2,3-trichloropropane in excess of the MCL over many years may have an increased risk of getting cancer.

Volatile Organic Contaminants

Contaminant	Unit Measure-ment	MCL TT, as noted	PHG (MCLG)	Major Sources of Contamination	Health Effects Language
Benzene	µg/L	1	0.15	Discharge from plastics, dyes and nylon factories; leaching from gas storage tanks and landfills	Some people who use water containing benzene in excess of the MCL over many years may experience anemia or a decrease in blood platelets, and may have an increased risk of getting cancer.

Contaminant	Unit Measure-ment	MCL TT, as noted	PHG (MCLG)	Major Sources of Contamination	Health Effects Language
Carbon tetrachloride	ng/L	500	100	Discharge from chemical plants and other industrial activities	Some people who use water containing carbon tetrachloride in excess of the MCL over many years may experience liver problems and may have an increased risk of getting cancer.
1,2-Dichlorobenzene	µg/L	600	600	Discharge from industrial chemical factories	Some people who drink water containing 1,2-dichlorobenzene in excess of the MCL over many years may experience liver, kidney, or circulatory system problems.
1,4-Dichlorobenzene	µg/L	5	6	Discharge from industrial chemical factories	Some people who use water containing 1.4-dichlorobenzene in excess of the MCL over many years may experience anemia, liver, kidney, or spleen damage, or changes in their blood.
1,1-Dichloroethane	µg/L	5	3	Extraction and degreasing solvent; used in the manufacture of pharmaceuticals, stone, clay, and glass products; fumigant	Some people who use water containing 1,1-dichloroethane in excess of the MCL over many years may experience nervous system or respiratory problems.
1,2-Dichloroethane	ng/L	500	400	Discharge from industrial chemical factories	Some people who use water containing 1,2-dichloroethane in excess of the MCL over many years may have an increased risk of getting cancer.
1,1-Dichloroethylene	µg/L	6	10	Discharge from industrial chemical factories	Some people who use water containing 1,1-dichloroethylene in excess of the MCL over many years may experience liver problems.
cis-1,2-Dichloroethylene	µg/L	6	100	Discharge from industrial chemical factories; major biodegradation byproduct of TCE and	Some people who use water containing cis-1,2-dichloroethylene in excess of the MCL over many years may experience liver problems.

Contaminant	Unit Measure-ment	MCL TT, as noted	PHG (MCLG)	Major Sources of Contamination	Health Effects Language
				PCE groundwater contamination	
trans-1,2-Dichloroethylene	µg/L	10	60	Discharge from industrial chemical factories; minor biodegradation byproduct of TCE and PCE groundwater contamination	Some people who drink water containing trans-1,2-dichloroethylene in excess of the MCL over many years may experience liver problems.
Dichloromethane	µg/L	5	4	Discharge from pharmaceutical and chemical factories; insecticide	Some people who drink water containing dichloromethane in excess of the MCL over many years may experience liver problems and may have an increased risk of getting cancer.
1,2-Dichloropropane	µg/L	5	0.5	Discharge from industrial chemical factories; primary component of some fumigants	Some people who use water containing 1,2-dichloropropane in excess of the MCL over many years may have an increased risk of getting cancer.
1,3-Dichloropropene	ng/L	500	200	Runoff/leaching from nematocide used on croplands	Some people who use water containing 1,3-dichloropropene in excess of the MCL over many years may have an increased risk of getting cancer.
Ethylbenzene	µg/L	300	300	Discharge from petroleum refineries; industrial chemical factories	Some people who use water containing ethylbenzene in excess of the MCL over many years may experience liver or kidney problems.
Methyl-*tert*-butyl ether	µg/L	13	13	Leaking underground storage tanks; discharges from petroleum and chemical factories	Some people who use water containing methyl-*tert*-butyl ether in excess of the MCL over many years may have an increased risk of getting cancer.
Monochlorobenzene	µg/L	70	70	Discharge from industrial and agricultural chemical	Some people who use water containing monochlorobenzene in excess of the MCL

Contaminant	Unit Measure-ment	MCL TT, as noted	PHG (MCLG)	Major Sources of Contamination	Health Effects Language
				factories and dry cleaning facilities	over many years may experience liver or kidney problems.
Styrene	µg/L	100	0.5	Discharge from rubber and plastic factories; leaching from landfills	Some people who drink water containing styrene in excess of the MCL over many years may experience liver, kidney, or circulatory system problems.
1,1,2,2-Tetrachloroethane	µg/L	1	0.1	Discharge from industrial and agricultural chemical factories; solvent used in production of TCE, pesticides, varnish and lacquers	Some people who drink water containing 1,1,2,2-tetrachloroethane in excess of the MCL over many years may experience liver or nervous system problems.
Tetrachloroethylene (PCE)	µg/L	5	0.06	Discharge from factories, dry cleaners, and auto shops (metal degreaser)	Some people who use water containing tetrachloroethylene in excess of the MCL over many years may experience liver problems, and may have an increased risk of getting cancer.
1,2,4-Trichlorobenzene	µg/L	5	5	Discharge from textile-finishing factories	Some people who use water containing 1,2,4-trichlorobenzene in excess of the MCL over many years may experience adrenal gland changes.
1,1,1-Trichloroethane	µg/L	200	1000	Discharge from metal degreasing sites and other factories; manufacture of food wrappings	Some people who use water containing 1,1,1-trichloroethane in excess of the MCL over many years may experience liver, nervous system, or circulatory system problems.
1,1,2-Trichloroethane	µg/L	5	0.3	Discharge from industrial chemical factories	Some people who use water containing 1,1,2- trichloroethane in excess of the MCL over many years may experience liver, kidney, or immune system problems.

Contaminant	Unit Measure-ment	MCL TT, as noted	PHG (MCLG)	Major Sources of Contamination	Health Effects Language
Trichloroethylene (TCE)	µg/L	5	1.7	Discharge from metal degreasing sites and other factories	Some people who use water containing trichloroethylene in excess of the MCL over many years may experience liver problems and may have an increased risk of getting cancer.
Toluene	µg/L	150	150	Discharge from petroleum and chemical factories; underground gas tank leaks	Some people who use water containing toluene in excess of the MCL over many years may experience nervous system, kidney, or liver problems.
Trichlorofluoromethane	µg/L	150	1300	Discharge from industrial factories; degreasing solvent; propellant and refrigerant	Some people who use water containing trichlorofluoromethane in excess of the MCL over many years may experience liver problems.
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/L	1.2	4	Discharge from metal degreasing sites and other factories; dry cleaning solvent; refrigerant	Some people who use water containing 1,1,2-trichloro-1,2,2-trifloroethane in excess of the MCL over many years may experience liver problems.
Vinyl chloride	ng/L	500	50	Leaching from PVC piping; discharge from plastics factories; biodegradation byproduct of TCE and PCE groundwater contamination	Some people who use water containing vinyl chloride in excess of the MCL over many years may have an increased risk of getting cancer.
Xylenes	mg/L	1.750	1.8	Discharge from petroleum and chemical factories; fuel solvent	Some people who use water containing xylenes in excess of the MCL over many years may experience nervous system damage.

Disinfection Byproducts, Disinfectant Residuals, and Disinfection Byproduct Precursors

Contaminant	Unit Measure-ment	MCL [MRDL] TT, as noted	PHG (MCLG) [MRDLG]	Major Sources of Contamination	Health Effects Language
TTHMs (Total Trihalomethanes)	µg/L	80	N/A	Byproduct of drinking water disinfection	Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer.
HAA5 (Sum of 5 Haloacetic Acids)	µg/L	60	N/A	Byproduct of drinking water disinfection	Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.
Bromate	µg/L	10	0.1	Byproduct of drinking water disinfection	Some people who drink water containing bromate in excess of the MCL over many years may have an increased risk of getting cancer.
Chloramines	mg/L	[MRDL = 4.0 (as Cl_2)]	[MRDLG = 4 (as Cl_2)]	Drinking water disinfectant added for treatment	Some people who use water containing chloramines well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chloramines well in excess of the MRDL could experience stomach discomfort or anemia.
Chlorine	mg/L	[MRDL = 4.0 (as Cl_2)]	[MRDLG = 4 (as Cl_2)	Drinking water disinfectant added for treatment	Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.
Chlorite	mg/L	1.0	0.05	Byproduct of drinking water disinfection	Some infants and young children who drink water containing chlorite in excess of the MCL could experience nervous system

Contaminant	Unit Measure-ment	MCL [MRDL] TT, as noted	PHG (MCLG) [MRDLG]	Major Sources of Contamination	Health Effects Language
					effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorite in excess of the MCL. Some people may experience anemia.
Chlorine Dioxide	µg/L	[MRDL = 800 (as ClO_2)]	[MRDLG = 800 (as ClO_2)]	Drinking water disinfectant added for treatment	Some infants and young children who drink water containing chlorine dioxide in excess of the MRDL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorine dioxide in excess of the MRDL. Some people may experience anemia.
Control of DBP precursors (TOC)		TT	N/A	Various natural and man-made sources	Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of cancer.

APPENDIX B: Regulated Contaminants with Secondary Drinking Water Standards

Monitoring Required by Section 64449, Chapter 15, Title 22, California Code of Regulations

Contaminant	Unit Measurement	MCL	Typical Source of Contaminant
Aluminum	µg/L	200	Erosion of natural deposits; residual from some surface water treatment processes
Color	Units	15	Naturally-occurring organic materials
Copper	mg/L	1.0	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Foaming Agents (MBAS)	µg/L	500	Municipal and industrial waste discharges
Iron	µg/L	300	Leaching from natural deposits; industrial wastes
Manganese	µg/L	50	Leaching from natural deposits
Methyl-tert-butyl ether (MTBE)	µg/L	5	Leaking underground storage tanks; discharge from petroleum and chemical factories
Odor--Threshold	Units	3	Naturally-occurring organic materials
Silver	µg/L	100	Industrial discharges
Thiobencarb	µg/L	1	Runoff/leaching from rice herbicide
Turbidity	Units	5	Soil runoff
Zinc	mg/L	5.0	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS)	mg/L	1,000	Runoff/leaching from natural deposits
Specific Conductance	µS/cm	1,600	Substances that form ions when in water; seawater influence
Chloride	mg/L	500	Runoff/leaching from natural deposits; seawater influence
Sulfate	mg/L	500	Runoff/leaching from natural deposits; industrial wastes

There are no PHGs, MCLGs, or mandatory standard health effects language for these constituents because secondary MCLs are set on the basis of aesthetics.

APPENDIX C: Monitored Contaminants with No MCLs

Background

The 1996 Amendments to the SDWA required the U.S. EPA to establish criteria for a monitoring program for unregulated contaminants, and to publish, once every five years, a list of no more than 30 contaminants to be monitored by public water systems (PWS).

Section 64450 of the California Code of Regulations also required certain water systems to monitor a number of unregulated contaminants, with contaminant lists that were published or revised in 1990, 1996, 2000, and 2003. This section of the California Code of Regulations was repealed effective October 18, 2007. Water systems that continued to monitor for state unregulated contaminants are encouraged, but not required, to include the information regarding detected contaminants in the CCR.

Although Section 64450 of the California Code of Regulations was repealed, the State Water Board may request water systems to monitor for specific contaminants per HSC section 116375(b).

Federal UCMR 1 (2001 – 2003 Monitoring)

The U.S. EPA published the first list of contaminants to monitor as part of the UCMR in September 1999. Contaminants were divided into two lists: Assessment Monitoring (List 1), and Screening Survey (List 2).

Assessment Monitoring of List 1 contaminants was conducted by large PWS serving more than 10,000 people and 800 representative small PWS serving 10,000 or fewer people. Assessment Monitoring was conducted by each PWS over a 12-month period between 2001 and 2003.

Screening Survey was conducted by a randomly selected set of 300 large and small PWSs for List 2 contaminants. Screening Survey for chemical contaminants was conducted in 2001 and 2002 for small and large PWS, respectively. Screening Survey for *Aeromonas* was conducted in 2003 for small and large PWS.

UCMR 1 List 1 – Assessment Monitoring	UCMR 1 List 2 – Screening Survey
✓ 2,4-dinitrotoluene	✓ 1,2-diphenylhydrazine
✓ 2,6-dinitrotoluene	✓ 2-methyl-phenol
✓ Acetochlor	✓ 2,4-dichlorophenol
✓ DCPA mono-acid degradate	✓ 2,4-dinitrophenol
✓ DCPA di-acid degradate	✓ 2,4,6-trichlorophenol
✓ 4,4'-DDE	✓ *Aeromonas*
✓ EPTC	✓ Alachlor ESA
✓ Molinate	✓ Diazinon
✓ MTBE	✓ Disulfoton
✓ Nitrobenzene	✓ Diuron
✓ Perchlorate	✓ Fonofos

UCMR 1 List 1 – Assessment Monitoring	UCMR 1 List 2 – Screening Survey
✓ Terbacil	✓ Linuron ✓ Nitrobenzene ✓ Prometon ✓ Hexahydro-1,3,5-trinitro-1-3-5-triazine [RDX] ✓ Terbufos

Federal UCMR 2 (2008 – 2010 Monitoring)

The U.S. EPA published the second list of contaminants to monitor as part of the UCMR in January 2007.

Assessment Monitoring was required of all PWS serving more than 10,000 people and 800 representative PWS serving 10,000 or fewer people for List 1 contaminants. Assessment Monitoring was required of each PWS during a 12-month period from January 2008 to December 2010.

Screening Survey was required of all PWS serving more than 100,000 people, 320 representative PWS serving 10,001 to 100,000 people, and 480 representative PWS serving 10,000 or fewer people for List 2 contaminants. Screening Survey was required of each PWS during a 12-month period from January 2008 to December 2010.

UCMR 2 List 1 – Assessment Monitoring	UCMR 2 List 2 – Screening Survey
✓ Dimethoate ✓ Terbufos sulfone ✓ 2,2',4,4'-tetrabromodiphenyl ether ✓ 2,2',4,4',5-pentabromodiphenyl ether ✓ 2,2',4,4',5,5'-hexabromobiphenyl ✓ 2,2',4,4',5,5'-hexabromodiphenyl ether ✓ 2,2',4,4',6-pentabromodiphenyl ether ✓ 1,3-dinitrobenzene ✓ 2,4,6-trinitrotoluene (TNT) ✓ Hexahydro-1,3,5-trinitro-1,3,5-trazine (RDX)	✓ Acetochlor ethane sulfonic acid ✓ Acetochlor oxanilic acid ✓ Alachlor ethane sulfonic acid ✓ Alachlor oxanilic acid ✓ Metolachlor ethane sulfonic acid ✓ Metolachlor oxanilic acid ✓ Acetochlor ✓ Alachlor ✓ Metolachlor ✓ N-nitrosodiethylamine (NDEA) ✓ N-nitrosodimethylamine (NDMA) ✓ N-nitroso-di-n-butylamine (NDBA) ✓ N-nitroso-di-n-propylamine (NDPA) ✓ N-nitrosomethylethylamine (NMEA) ✓ N-nitrosopyrrolidine (NPYR)

Federal UCMR 3 (2013 – 2015 Monitoring)

The third UCMR list of contaminants was published in May 2012.

Assessment Monitoring (List 1 Contaminants) was required of all PWS serving more than 10,000 people and 800 representative PWS serving 10,000 or fewer people. Assessment Monitoring was required of each PWS during a 12-month period from January 2013 to December 2015.

Screening Survey (List 2 Contaminants) was required of all PWS serving more than 100,000 people, 320 representative PWS serving 10,001 to 100,000 people, and 480 representative PWS serving 10,000 or fewer people. Screening Survey was required of each PWS during a 12-month period from January 2013 to December 2015.

Pre-screen Testing (List 3 Contaminants) was required from a selection of 800 representative PWS serving 1,000 or fewer people that do not disinfect. These PWS were selected because they have groundwater wells that were located in areas of karst or fractured bedrock. Monitored lasted 12 months between January 2013 and December 2015.

UCMR 3 List 1 – Assessment Monitoring	UCMR 3 List 2 – Screening Survey	UCMR 3 List 3 – Pre-Screen Testing
✓ 1,2,3-trichloropropane ✓ 1,3-butadiene ✓ Chloromethane (methyl chloride) ✓ 1,2-dichloroethane ✓ Bromomethane (methyl bromide) ✓ Chlorodifluoromethane (HCFC-22) ✓ Bromochloromethane (halon 1011) ✓ 1,4-dioxane ✓ Vanadium ✓ Molybdenum ✓ Cobalt ✓ Strontium ✓ Chromium (total) ✓ Chromium-6 ✓ Chlorate ✓ Perfluorooctanesulfonate acid (PFOS) ✓ Perfluorooctanoic acid (PFOA) ✓ Perfluorononanoic acid (PFNA) ✓ Perfluorohexanesulfonic acid (PFHxS)	✓ 17-β-estradiol ✓ 17-α-ethynylestradiol (ethinyl estradiol) ✓ 16-α-hydroxyestradiol (estriol) ✓ Equilin ✓ Estrone ✓ Testosterone ✓ 4-anderostene-3,17-dione	✓ Enteroviruses ✓ Noroviruses

✓ Perfluoroheptanoic acid (PFHpA) ✓ Perfluorobutanesulfonic acid (PFBS)		

Federal UCMR 4 (2018 – 2020 Monitoring)

The fourth list of contaminants to monitor as part of the UCMR was published by the U.S. EPA in December 2016.

PWSs are required to monitor for 10 cyanotoxins at the entry point to the distribution system during a 4-consecutive month period from March 2018 through November 2020, according to the table below. PWSs are also required to monitor for 20 additional chemical contaminants and indicators during a 12-month period from January 2018 through December 2020. The sampling site for these additional chemicals is the entry point to the distribution system, except for HAAs that need to be monitored at the Stage 2 D/DBPR sampling sites. The two indicators, *i.e.*, TOC and bromide, need to be monitored at source water intakes.

System Size (Population Served)	10 Cyanotoxins	20 Chemicals
Small Systems (25 – 10,000)	800 randomly selected surface water or ground water under the direct influence of surface water (GWUDI) systems	A different group of 800 randomly selected surface water systems, GWUDI and groundwater systems
Large Systems (10,001 or more)	All surface water and GWUDI systems	All surface water, groundwater and GWUDI systems

The 10 cyanotoxins and 20 additional chemical contaminants and indicators are listed in the table below.

UCMR 4 Chemical Contaminants and Indicators

Cyanotoxins	Minimum Reporting Level
Total Microcystin	0.3 µg/L
Microcystin-LA	0.008 µg/L
Microcystin-LF	0.006 µg/L
Microcystin-LR	0.02 µg/L
Microcystin-LY	0.009 µg/L
Microcystin-RR	0.006 µg/L

Microcystin-YR	0.02 µg/L
Nodularin	0.005 µg/L
Anatoxin-a	0.03 µg/L
Cylindrospermopsin	0.09 µg/L

Additional Chemicals	Minimum Reporting Level
Germanium	0.3 µg/L
Manganese	0.4 µg/L
Alpha-hexachlorocyclohexane	0.01 µg/L
Chlorpyrifos	0.03 µg/L
Dimethipin	0.2 µg/L
Ethoprop	0.03 µg/L
Oxyfluorfen	0.05 µg/L
Profenofos	0.3 µg/L
Tebuconazole	0.2 µg/L
Total Permethrin (cis- & trans-)	0.04 µg/L
Tribufos	0.07 µg/L
HAA5	N/A
HAA6Br[1]	N/A
HAA9[2]	N/A
1-butanol	2.0 µg/L
2-methoxyethanol	0.4 µg/L
2-propen-1-ol	0.5 µg/L
butylated hydroxyanisole	0.03 µg/L
o-toluidine	0.007 µg/L
quinoline	0.02 µg/L
Total Organic Carbon (TOC)	N/A
Bromide	N/A

[1] HAA6Br: Bromochloroacetic acid, bromodichloroacetic acid, dibromoacetic acid, dibromochloroacetic acid, monobromoacetic acid, and tribromoacetic acid.

[2] HAA9: Bromochloroacetic acid, bromodichloroacetic acid, chlorodibromoacetic acid, dibromoacetic acid, dichloroacetic acid, monobromoacetic acid, monochloroacetic acid, tribromoacetic acid, and trichloroacetic acid.

Reporting

U.S. EPA is essentially silent on the issue of reporting federal UCMR contaminants beyond the previous calendar year's detections, other than to say it is not required and that data older than five years need not be reported. As a result, the State Water Board recommends systems to report data for five years from the date of the last sampling.

APPENDIX D: State Contaminants with Notification Levels

Inclusion of the Notification Level (NL) and health effects language for contaminant concentrations detected above the NL is recommended, but not required.

Chemical	Notification Level	Health Effects Language (Optional)
Boron	1 mg/L	Boron exposures resulted in decreased fetal weight (developmental effects) in newborn rats.
n-Butylbenzene	260 µg/L	Exposures to cumene (isopropylbenzene), a surrogate for n-, sec-, and tert-butylbenzene, resulted in increased kidney weight in rats.
sec-Butylbenzene	260 µg/L	Exposures to cumene (isopropylbenzene), a surrogate for n-, sec-, and tert-butylbenzene, resulted in increased kidney weight in rats.
tert-Butylbenzene	260 µg/L	Exposures to cumene (isopropylbenzene), a surrogate for n-, sec-, and tert-butylbenzene, resulted in increased kidney weight in rats.
Carbon Disulfide	160 µg/L	Carbon disulfide exposures resulted in decreased motor conduction velocity in people.
Chlorate	800 µg/L	Animal studies demonstrated that chlorate exposure in rats caused adverse effects to the pituitary and thyroid glands.
2-Chlorotoluene	140 µg/L	2-Chlorotoluene exposures resulted in decrease in body weight gain in rats.
4-Chlorotoluene	140 µg/L	4-Chlorotoluene is expected to have health effects similar to those of 2-chlorotoluene.
Diazinon	1.2 µg/L	Diazinon exposures may result in neurotoxic effects.
Dichlodifluoromethane [Freon 12]	1 mg/L	Dichlorodifluoromethane exposures resulted in reduced body weight in rats.
1,4-Dioxane	1 µg/L	1,4-Dioxane exposures resulted in cancer, based on studies in laboratory animals.
Ethylene Glycol	14 mg/L	Ethylene glycol exposures resulted in kidney toxicity in rats.
Formaldehyde	100 µg/L	Formaldehyde exposures resulted in reduced weight gain and histopathology in rats.
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine [HMX]	350 µg/L	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine exposures resulted in liver lesions in rats.
Isopropylbenzene	770 µg/L	Isopropylbenzene exposures resulted in increased kidney weight in rats.

Chemical	Notification Level	Health Effects Language (Optional)
Manganese	500 µg/L	Manganese exposures resulted in neurological effects. High levels of manganese in people have been shown to result in adverse effects to the nervous system.
Methyl Isobutyl Ketone [MIBK]	120 µg/L	Methyl isobutyl ketone exposures resulted in increased kidney and liver weight, and kidney pathology in rats.
Naphthalene	17 µg/L	Naphthalene exposures resulted in decreased body weight in rats.
N-Nitrosodiethylamine [NDEA]	10 ng/L	N-nitrosodiethylamine exposures resulted in cancer in a variety of laboratory animals.
N-Nitrosodimethylamine [NDMA]	10 ng/L	N-nitrosodimethylamine exposures resulted in cancer in a variety of laboratory animals.
N-Nitrosodi-n-propylamine [NDPA]	10 ng/L	N-nitrosodi-n-propylamine exposures resulted in cancer in a variety of laboratory animals.
Perfluorooctanoic Acid [PFOA]	5.1 ng/L**	Perfluorooctanoic acid exposures resulted in increased liver weight and cancer in laboratory animals.
Perfluorooctanesulfonic Acid [PFOS]	6.5 ng/L**	Perfluorooctanesulfonic acid exposures resulted in immune suppression and cancer in laboratory animals.
Propachlor	90 µg/L	Propachlor exposures resulted in decrease in weight gain, decrease in food intake, and relative liver weight increase in rats.
n-Propylbenzene	260 µg/L	Exposures to cumene (isopropylene), a surrogate for n-propylbenzene, resulted in increased kidney weight in rats.
Hexahydro-1,3,5-trinitro-1-3-5-triazine [RDX]	300 ng/L	Hexahydro-1,3,5-trinitro-1-3-5-triazine exposures resulted in liver carcinomas and adenomas in female mice.
Tertiary Butyl Alcohol [TBA]	12 µg/L	Tert-butyl alcohol exposures resulted in cancer in laboratory animals.
1,2,4-Trimethylbenzene	330 µg/L	1,2,4-Trimethylbenzene exposures resulted in increased serum phosphorus levels in rats.
1,3,5-Trimethylbenzene	330 µg/L	1,3,5-Trimethylbenzene exposures resulted in increased serum phosphorus levels in rats.

Chemical	Notification Level	Health Effects Language (Optional)
2,4,6-Trinitrotoluene [TNT]	1 µg/L	2,4,6-Trinitrotoluene exposures resulted in urinary bladder transitional cell papillomas and squamous cell carcinomas in female rats.
Vanadium	50 µg/L	Vanadium exposures resulted in developmental and reproductive effects in rats.

** The July 2018 notification levels for PFOA of 14 ng/L and PFOS of 13 ng/L were superseded on August 22, 2019 by new notification levels of 5.1 ng/L for PFOA and 6.5 ng/L for PFOS. S