

2017 Consumer Confidence Report

Water System Name: Sonoma Mountain County Water Dist. Report Date: June 13, 2018

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 - December 31, 2017 and may include earlier monitoring data.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo ó hable con alguien que lo entienda bien.

Type of water source(s) in use: Groundwater

Name & general location of source(s): Well #4 located at 226 Venado Court protected inside of a secured fence enclosure. Well #1 is in standby status.

Drinking Water Source Assessment information: _____

Time and place of regularly scheduled board meetings for public participation: The second Tuesday in January, March, May, July, September and November at 5627 Inverness Avenue starting at 7:00 PM

For more information, contact: Chris Hansen Phone: 707-318-0617

TERMS USED IN THIS REPORT

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).

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.

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.

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.

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

Variances and Exemptions: State Board permission to exceed an MCL or not comply with a treatment technique under certain conditions.

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.

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)

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.

In order to ensure that tap water is safe to drink, the U.S. EPA and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

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 mo.)	0	1 positive monthly sample	0	Naturally present in the environment
Fecal Coliform or <i>E. coli</i> (state Total Coliform Rule)	(In the year)	0	A routine sample and a repeat sample are total coliform positive, and one of these is also fecal coliform or <i>E. coli</i> positive		Human and animal fecal waste
<i>E. coli</i> (federal Revised Total Coliform Rule)	(In the year)	0	(a)	0	Human and animal fecal waste
(a) Routine and repeat samples are total coliform-positive and either is <i>E. coli</i> -positive or system fails to take repeat samples following <i>E. coli</i> -positive routine sample or system fails to analyze total coliform-positive repeat sample for <i>E. coli</i> .					

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	90 th Percentile Level Detected	No. Sites Exceeding AL	AL	PHG	No. of Schools Requesting Lead Sampling	Typical Source of Contaminant
Lead (ppb)	8/29/16	5	6.4	0	15	0.2	0	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	8/29/16	5	.610	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

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm) Well 1 Well 4	2/23/2016 7/19/2016	21 mg/L 20 mg/L	20-21 mg/L	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm) Well 1 Well 4	2/23/2016 7/19/2016	99 mg/L 54 mg/L	54-99 mg/L	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

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
See Attachment 1						

TABLE 5 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Aluminum Well 1	2/23/2016	<50.00 ug/L		200 ug/L		Erosion of natural deposits; residual from some surface water treatment processes
Well 4	7/19/2016	51.00 ug/L				
Chloride Well 1	2/23/2016	20 mg/L		500 mg/L		Runoff/leaching from natural deposits; seawater influence
Well 4	7/19/2016	12 mg/L				
Color Well 1	2/23/2016	50 units		15 units		Naturally-occurring organic materials
Well 4	7/19/2016	5 units				
Copper Well 1	2/23/2016	<50.00 ug/L		1000 ug/L		Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Well 4	7/19/2016	<50.00 ug/L				
Foaming Agents (MBAS) Well 1	2/23/2016	<0.05 mg/L		0.50 mg/L		Municipal and industrial waste discharges
Well 4	7/19/2016	<0.05 mg/L				
Iron Well 1	6/13/17	6400 ug/L	1500-2000	300 ug/L		Leaching from natural deposits; industrial wastes. The notification level for iron is used to protect consumers from unpleasant aesthetic effects (e.g., color, taste, and odor) and the staining of fixtures and clothing while washing.
Well 4	Quarterly	1725 ug/L				
MTBE(Secondary) Well 1	3/17/15	<0.5 ug/L		5 ug/L		Leaking underground storage tanks; discharge from petroleum and chemical factories
Well 4	7/19/16	<0.3 ug/L				
Manganese Well 1	6/13/17	650 ug/L	160-300	50 ug/l		Leaching from natural deposits. The notification level for manganese is used to protect consumers from neurological effects. High levels of manganese in people have been shown to result in effects of the nervous system.
Well 4	Quarterly	205 ug/L				
Odor Well 1	2/23/2016	2.00 ton		3 units		Naturally-occurring organic materials
Well 4	7/19/2016	1.00 ton				

Silver	Well 1	2/23/2016	<10.00 ug/L		100 ug/L	Industrial discharges
	Well 4	7/19/2016	<10.00 ug/L			
Specific Conductance	Well 1	2/23/2016	340 uS/cm		1600 uS/cm	Substances that form ions when in water; seawater influence
	Well 4	7/19/2016	210 uS/cm			
Sulfate	Well 1	2/23/2016	38 mg/L		500 mg/L	Runoff/leaching from natural deposits; industrial wastes
	Well 4	7/19/2016	11 mg/L			
Total Dissolved Solids	Well 1	2/23/2016	280 mg/L		1000 mg/L	Runoff/leaching from natural deposits
	Well 4	7/19/2016	190 mg/L			
Zinc	Well 1	2/23/2016	66 ug/L		5000 ug/L	Runoff/leaching from natural deposits; industrial wastes
	Well 4	7/19/2016	<50 ug/L			

TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS

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

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 for Community Water Systems: 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. [INSERT NAME OF UTILITY] 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 (1-800-426-4701) or at <http://www.epa.gov/lead>.

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

VIOLATION OF A MCL, MRDL, AL, TT, OR MONITORING AND REPORTING REQUIREMENT				
Violation	Explanation	Duration	Actions Taken to Correct the Violation	Health Effects Language

For Water Systems Providing Groundwater as a Source of Drinking Water

**TABLE 7 – SAMPLING RESULTS SHOWING
FECAL INDICATOR-POSITIVE GROUNDWATER SOURCE SAMPLES**

Microbiological Contaminants (complete if fecal-indicator detected)	Total No. of Detections	Sample Dates	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
<i>E. coli</i>	(In the year)		0	(0)	Human and animal fecal waste
Enterococci	(In the year)		TT	n/a	Human and animal fecal waste
Coliphage	(In the year)		TT	n/a	Human and animal fecal waste

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

SPECIAL NOTICE OF FECAL INDICATOR-POSITIVE GROUNDWATER SOURCE SAMPLE				
N/A				
SPECIAL NOTICE FOR UNCORRECTED SIGNIFICANT DEFICIENCIES				
N/A				
VIOLATION OF GROUNDWATER TT				
TT Violation	Explanation	Duration	Actions Taken to Correct the Violation	Health Effects Language
N/A				

For Systems Providing Surface Water as a Source of Drinking Water

TABLE 8 - SAMPLING RESULTS SHOWING TREATMENT OF SURFACE WATER SOURCES

Treatment Technique ^(a) (Type of approved filtration technology used)	
Turbidity Performance Standards ^(b) (that must be met through the water treatment process)	Turbidity of the filtered water must: 1 – Be less than or equal to ____ NTU in 95% of measurements in a month. 2 – Not exceed ____ NTU for more than eight consecutive hours. 3 – Not exceed ____ NTU at any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	
Highest single turbidity measurement during the year	
Number of violations of any surface water treatment requirements	

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

(b) Turbidity (measured in NTU) is a measurement of the cloudiness of water and is a good indicator of water quality and filtration performance. Turbidity results which meet performance standards are considered to be in compliance with filtration requirements.

Summary Information for Violation of a Surface Water TT

VIOLATION OF A SURFACE WATER TT				
TT Violation	Explanation	Duration	Actions Taken to Correct the Violation	Health Effects Language

Summary Information for Operating Under a Variance or Exemption

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

Level 1 or Level 2 Assessment Requirement not Due to an *E. coli* MCL Violation

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 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.

During the past year we were required to conduct [INSERT NUMBER OF LEVEL 1 ASSESSMENTS] Level 1 assessment(s). [INSERT NUMBER OF LEVEL 1 ASSESSMENTS] Level 1 assessment(s) were completed. In addition, we were required to take [INSERT NUMBER OF CORRECTIVE ACTIONS] corrective actions and we completed [INSERT NUMBER OF CORRECTIVE ACTIONS] of these actions.

During the past year [INSERT NUMBER OF LEVEL 2 ASSESSMENTS] Level 2 assessments were required to be completed for our water system. [INSERT NUMBER OF LEVEL 2 ASSESSMENTS] Level 2 assessments were completed. In addition, we were required to take [INSERT NUMBER OF CORRECTIVE ACTIONS] corrective actions and we completed [INSERT NUMBER OF CORRECTIVE ACTIONS] of these actions.

Level 2 Assessment Requirement Due to an *E. coli* MCL Violation

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. We found *E. coli* bacteria, indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) identify problems and to correct any problems that were found during these assessments.

We were required to complete a Level 2 assessment because we found *E. coli* in our water system. In addition, we were required to take [INSERT NUMBER OF CORRECTIVE ACTIONS] corrective actions and we completed [INSERT NUMBER OF CORRECTIVE ACTIONS] of these actions.

ATTACHMENT 1

Regulated Contaminants with PRIMARY DRINKING WATER STANDARDS

Contaminant	Unit Measure -ment	MCL (AL) [MRDL] TT, as noted	PHG (MCLG) [MRDLG]	Typical Source of Contaminant	Health Effects Language
Radioactive Contaminants					
Gross Alpha Particle Activity	pCi/L	50 ^(b)	(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.
1/26/16 Well 1 10/8/13 Well 4	.398 .843				
(b) Effective 6/11/2006, 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.					
Inorganic Contaminants Well #4 was tested on 7/9/16 and Well #1 was tested on 2/23/16, unless otherwise noted					
Aluminum Well 1 Well 4	ppm < .05 < .05	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 Well 1 Well 4	ppb < 6 < 6	6	1	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder	Some people who drink water containing antimony in excess of the MCL over many years may experience increases in blood cholesterol and decreases in blood sugar.
Arsenic Well 1 Well 4	ppb < 2 < 2	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 12/28/12 7/30/13 Well 1 Well 4	MFL < .0000 < .0000	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 Well 1 Well 4	ppm .043 < .01	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 Well 1 Well 4	ppb < 1 < 1	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.

Contaminant	Unit Measure -ment	MCL (AL) [MRDL] TT, as noted	PHG (MCLG) [MRDLG]	Typical Source of Contaminant	Health Effects Language
Cadmium Well 1 Well 4	ppb < 1 < 1	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.
Chromium Well 1 Well 4	ppb < 1 < 1	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 Well 1 Well 4	Ppm <.05 <.05	(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 Well 1 Well 4	ppb	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 Well 1 Well 4	ppm .24 .29	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.
Hexavalent Chromium ¹ Well 1 Well 4	Ppb <.000 <.000	1	0.02	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits.	Some people who drink water containing hexavalent chromium in excess of the MCL over many years may have an increased risk of getting cancer.
Mercury (inorganic) Well 1 Well 4	ppb < 1 < 1	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.

¹ There is currently no MCL for hexavalent chromium. The previous MCL of 0.010 mg/L was withdrawn on September 11, 2017. Refer to Attachment 3.

Contaminant	Unit Measure -ment	MCL (AL) [MRDL] TT, as noted	PHG (MCLG) [MRDLG]	Typical Source of Contaminant	Health Effects Language
Nickel Well 1 Well 4	ppb < 10 < 10	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) 7/17/17 7/17/17	ppm < 0.4 < 0.4	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) 7/17/17 7/17/17	ppm < .04 < .04	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.
Perchlorate 4/25/17 1/26/16	ppb < 4 < 4	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 Well 1 Well 4	ppb < 5 < 5	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 Well 1 Well 4	ppb < 1 < 1	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.

Contaminant	Unit Measure -ment	MCL (AL) [MRDL] TT, as noted	PHG (MCLG) [MRDLG]	Typical Source of Contaminant	Health Effects Language
Synthetic Organic Contaminants including Pesticides and Herbicides Well #4 was tested on 7/19/16 and Well #1 was tested on 2/23/16, none detected					
1,2,3-Trichloropropane ²	ppt	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 Well 1 tested 3/16/12 Well 4 tested 7/30/13 none detected except MTBE					
Methyl- <i>tert</i> -butyl ether 3/17/15 Well 1 7/19/16 Well 4	Ppb < .5 < 3	13	13	Leaking underground storage tanks; discharges from petroleum and chemical factories	Some people who use water containing methyl- <i>tert</i> -butyl ether in excess of the MCL over many years may have an increased risk of getting cancer.
Disinfection Byproducts, Disinfectant Residuals, and Disinfection Byproduct Precursors					
TTHMs (Total Trihalomethanes) 8/29/16 End of the Inverness Line	Ppb 9.8	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.
Haloacetic Acids 8/29/16 End of the Inverness Line	Ppb None detected	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.

² 1,2,3-trichloropropane (1,2,3-TCP) had a notification level (NL) of 5 ppt until December 14, 2017, when the MCL of 5 ppt became effective.

ATTACHMENT 2

Regulated Contaminants with SECONDARY DRINKING WATER STANDARDS ^(a)

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

Contaminant	Unit Measurement	MCL	Typical Source of Contaminant
Aluminum	ppb	200	Erosion of natural deposits; residual from some surface water treatment processes
Color	Units	15	Naturally-occurring organic materials
Copper	ppm	1.0	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Foaming Agents (MBAS)	ppb	500	Municipal and industrial waste discharges
Iron	ppb	300	Leaching from natural deposits; industrial wastes
Manganese	ppb	50	Leaching from natural deposits
Methyl-tert-butyl ether (MTBE)	ppb	5	Leaking underground storage tanks; discharge from petroleum and chemical factories
Odor-- Threshold	Units	3	Naturally-occurring organic materials
Silver	ppb	100	Industrial discharges
Thiobencarb	ppb	1	Runoff/leaching from rice herbicide
Turbidity	Units	5	Soil runoff
Zinc	ppm	5.0	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS)	ppm	1000	Runoff/leaching from natural deposits
Specific Conductance	µS/cm	1600	Substances that form ions when in water; seawater influence
Chloride	ppm	500	Runoff/leaching from natural deposits; seawater influence
Sulfate	ppm	500	Runoff/leaching from natural deposits; industrial wastes

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

ATTACHMENT 3

State Regulated Contaminants with No Maximum Contaminant Levels (i.e., Unregulated Chemicals)

Monitoring Formerly Required by Repealed Section 64450, Chapter 15, Title 22, California Code of Regulations

Section 64450 (State UCMR) was repealed effective October 18, 2007, but from time to time, the State Board may request water systems to monitor for specific contaminants per section 116375(b) of the Health and Safety Code. Water systems that continue to monitor for State UCMR contaminants are encouraged to include the information in the CCR to keep their customers informed.

Inclusion of the notification level and health effects language for levels above the notification level is recommended, not required.

Chemicals	Notification Level	Health Effects Language (Optional)
Boron	1 ppm	The babies of some pregnant women who drink water containing boron in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals.
Dichlorodifluoromethane (Freon 12)	1 ppm	Some people who drink water containing dichlorodifluoromethane far in excess of the notification level may experience neurological and cardiac effects. Long- term exposures to dichlorodifluoromethane resulted in smaller body weight in laboratory animals.
Ethyl-tert-butyl ether (ETBE)	n/a	n/a
Hexavalent chromium ³	n/a	Some people who drink water containing hexavalent chromium in excess of the MCL over many years may have an increased risk of getting cancer.
tert-Amyl-1-methyl ether (TAME)	n/a	n/a
tert-Butyl alcohol (TBA)	12 ppb	Some people who use water containing tert-butyl alcohol in excess of the notification level over many years may have an increased risk of getting cancer, based on studies in laboratory animals.
1,2,3-Trichloropropane ⁴ (1,2,3-TCP)	5 ppt	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.
Vanadium	50 ppb	The babies of some pregnant women who drink water containing vanadium in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals.

³ There is currently no MCL for hexavalent chromium. The previous MCL of 0.010 mg/L (10 ppb) was withdrawn on September 11, 2017. However, any hexavalent chromium results above the detection limit of 1 ppb should be reported.

⁴ 1,2,3-trichloropropane (1,2,3-TCP) had a notification level (NL) of 5 ppt until December 14, 2017, when the MCL of 5 ppt became effective.

ATTACHMENT 4

Federal Regulated Contaminants with No Maximum Contaminant Levels (i.e., Federal UCMR 1, UCMR 2, and UCMR 3)

Background

The 1996 Amendments to the Safe Drinking Water Act required the U.S. EPA to establish criteria for a monitoring program for unregulated contaminants and to publish a list of contaminants to be monitored.

UCMR 1 (2001 – 2003 Monitoring)

In 1999, U.S. EPA revised the Unregulated Contaminant Monitoring Rule to incorporate a tiered monitoring approach. UCMR 1 had assessment monitoring (List 1) and screening survey (List 2) components.

Assessment monitoring was conducted by large public water systems (PWS) serving more than 10,000 people and 800 representative small PWS serving 10,000 or fewer people for List 1 contaminants. Assessment monitoring was conducted by each PWS over a 12-month period between 2001 and 2003.

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

List 1 Assessment Monitoring	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	<i>Aeromonas</i>
EPTC	Alachlor ESA
Molinate	Diazinon
MTBE	Disulfoton
Nitrobenzene	Diuron
Perchlorate	Fonofos
Terbacil	Linuron
	Nitrobenzene
	Prometon
	RDX
	Terbufos

UCMR 2 (2008 – 2010 Monitoring)

In 2007, U.S. EPA revised the Unregulated Contaminant Monitoring Rule to establish a new set of unregulated contaminants.

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 – December 2010.

Screening monitoring 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 monitoring was required of each PWS during a 12-month period from January 2008 – December 2010.

List 1 Assessment Monitoring	List 2 Screening Survey
Dimethoate	Acetochlor ethane sulfonic acid
Terbufos sulfone	Acetochlor oxanilic acid
2,2',4,4'-tetrabromodiphenyl ether	Alachlor ethane sulfonic acid
2,2',4,4',5-pentabromodiphenyl ether	Alachlor oxanilic acid
2,2',4,4',5,5'-hexabromobiphenyl	Metolachlor ethane sulfonic acid
2,2',4,4',5,5'-hexabromodiphenyl ether	Metolachlor oxanilic acid
2,2',4,4',6-pentabromodiphenyl ether	
1,3-dinitrobenzene	Acetochlor
2,4,6-trinitrotoluene (TNT)	Alachlor
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	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)

UCMR 3 (2008 – 2010 Monitoring)

In 2012, U.S. EPA revised the Unregulated Contaminant Monitoring Rule to establish a new set of unregulated contaminants.

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 – December 2015.

Screening monitoring (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 monitoring was required of each PWS during a 12-month period from January 2013 – December 2015.

Pre-screen testing (List 3 Contaminants) was required of select 800 representative PWS serving 1,000 or fewer people that do not disinfect. These PWS with wells that were located in areas of karst or fractured bedrock monitored during a 12-month period from January 2013 – December 2015.

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 data older than 5 years need not be reported. As a result, the State Board recommends systems to report the data for 5 years.

List 1 Assessment Monitoring	List 2 Screening Survey
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	17- β -estradiol 17- α -ethynylestradiol (ethinyl estradiol) 16- α -hydroxyestradiol (estriol) Equilin Estrone Testosterone 4-androstene-3,17-dione
Perfluorooctanesulfonate acid (PFOS) Perfluorooctanoic acid (PFOA) Perfluorononanoic acid (PFNA) Perfluorohexanesulfonic acid (PFHxS) Perfluorheptanoic acid (PFHpA) Perfluorobutanesulfonic acid (PFBS)	List 3 Pre-Screen Testing Enteroviruses Noroviruses

ATTACHMENT 5

State Contaminants with Notification Levels

Inclusion of the notification level and health effects language for levels above the notification level is recommended, not required.

Chemical	Notification Level	Health Effects Language (Optional)
Boron	1 ppm	See Attachment 3
n-Butylbenzene	260 ppb	n/a
sec-Butylbenzene	260 ppb	n/a
tert-Butylbenzene	260 ppb	n/a
Carbon disulfide	160 ppb	n/a
Chlorate	800 ppb	n/a
2-Chlorotoluene	140 ppb	n/a
4-Chlorotoluene	140 ppb	n/a
Diazinon	1.2 ppb	n/a
Dichlorodifluoromethane (Freon 12)	1 ppm	See Attachment 3
1,4-Dioxane	1 ppb	Some people who use water containing 1,4-dioxane in excess of the Notification Level over many years may experience liver or kidney problems and may have an increased risk of getting cancer, based on studies in laboratory animals.
Ethylene glycol	14 ppm	n/a
Formaldehyde	100 ppb	n/a
HMX	350 ppb	n/a
Isopropylbenzene	770 ppb	n/a
Manganese	500 ppb	The notification level for manganese is used to protect consumers from neurological effects. High levels of manganese in people have been shown to result in effects of the nervous system.
Methyl isobutyl ketone (MIBK)	120 ppb	n/a
Naphthalene	17 ppb	n/a
N-Nitrosodiethylamine (NDEA)	10 ppt	n/a
N-Nitrosodimethylamine (NDMA)	10 ppt	n/a
N-Nitrosodi-n-propylamine (NDPA)	10 ppt	n/a
Propachlor	90 ppb	n/a
n-Propylbenzene	260 ppb	n/a
RDX	300 ppt	n/a
Tertiary butyl alcohol (TBA)	12 ppb	See Attachment 3
1,2,3-Trichloropropane (1,2,3-TCP) [§]	5 ppt	See Attachment 3
1,2,4-Trimethylbenzene	330 ppb	n/a
1,3,5-Trimethylbenzene	330 ppb	n/a
2,4,6-Trinitrotoluene (TNT)	1 ppb	n/a
Vanadium	50 ppb	See Attachment 3

[§] 1,2,3-trichloropropane (1,2,3-TCP) had a notification level (NL) of 5 ppt until December 14, 2017, when the MCL of 5 ppt became effective

ATTACHMENT 6

Special Language for Nitrate, Arsenic, Lead, Radon, Cryptosporidium, Ground Water Systems, and Surface Water Systems

- (A) **Nitrate:** For systems that detect nitrate (as nitrogen) above 5 mg/L, but below 10 mg/L, the following language is REQUIRED:

Nitrate in drinking water at levels above 10 mg/L is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 10 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider.

If a utility cannot demonstrate to the State Board with at least five years of the most current monitoring data that its nitrate levels are stable, it must also add the following language to the preceding statement on nitrate:

Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity.

- (B) **Arsenic:** For systems that detect arsenic above 5 ppb, but below or equal to 10 ppb, the following language is REQUIRED:

While your drinking water meets the federal and state standard for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. The U.S. Environmental Protection Agency continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

- (C) **Lead:** For systems that detect lead above 15 ppb in more than 5%, and up to and including 10%, of sites sampled (or if your system samples fewer than 20 sites and has even one sample above the AL), the following language is REQUIRED:

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and/or flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the U.S. EPA Safe Drinking Water Hotline (1-800-426-4791).

(D) Radon: Systems that performed monitoring that indicates the presence of radon in the finished water MUST include the results of the monitoring and an explanation of the significance of the results. The following language MAY be used:

We constantly monitor the water supply for various contaminants. We have detected radon in the finished water supply in _____ out of _____ samples tested. There is no federal regulation for radon levels in drinking water. Exposure over a long period of time to air transmitting radon may cause adverse health effects.

The language below MAY be included if the level of information is helpful.

Radon is a radioactive gas that you cannot see, taste, or smell. It is found throughout the U.S. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will in most cases be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. You should pursue radon removal for your home if the level of radon in your air is 4 picocuries per liter of air (pCi/L) or higher. There are simple ways to fix a radon problem that are not too costly. For additional information, call your State radon program (1-800-745-7236, the U.S. EPA Safe Drinking Water Act Hotline (1-800-426-4791), or the National Safe Council Radon Hotline (1-800-767-7236).

(E) Cryptosporidium: Systems that have performed any monitoring for *Cryptosporidium* that indicates that *Cryptosporidium* may be present in the source water or finished water MUST include the results of the monitoring and an explanation of the significance of the results. The following language MAY be used:

*Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes *Cryptosporidium*, the most commonly-used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of these organisms in our source water and/or finished water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of *Cryptosporidium* may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people, infants, and small children, and the elderly are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. *Cryptosporidium* must be ingested to cause disease, and it may be spread through means other than drinking water.*

(F) Additional Special Language for Lead: For community water systems, the following language is REQUIRED:

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. [INSERT NAME OF UTILITY] 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 or at <http://www.epa.gov/lead>.

(G) Groundwater Systems: For ground water systems that had a TT violation described in Item S of the SWS CCR Form Instructions, the following language MAY be used to describe the potential health effects. U.S. EPA did not provide standard health effect language for these TT violations in the Ground Water Rule; U.S. EPA provided the language in their guidance to water systems.

Inadequately protected or treated water may contain disease-causing organisms. These organisms can cause symptoms such as diarrhea, nausea, cramps, and associated headaches.

(H) Surface Water Systems: For surface water systems that had a TT violation under the **SWTR, IESWTR, FBRR, or LT1ESWTR**, as described in Item U of the SWS CCR Form Instructions, the following language is REQUIRED to describe the potential health effects:

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.

For surface water systems that had a TT violation under the **LT2ESWTR**, as described in Item U of the SWS CCR Form Instructions, the following language MAY be used to describe the potential health effects. U.S. EPA did not provide standard health effect language for these TT violations in the LT2ESWTR; U.S. EPA provided the language in their guidance to water systems.

LT2ESWTR TT Violation	Health Effect Language
Uncovered and Untreated Finished Water Reservoir	<i>Inadequately protected water may contain disease-causing organisms. These organisms can cause symptoms such as diarrhea, nausea, cramps, and associated headaches.</i>
Determine and Report Bin Classification	<i>Inadequately treated water may contain disease-causing organisms. These organisms can cause symptoms such as diarrhea, nausea, cramps, and associated headaches.</i>
Provide or Install an Additional Level of Treatment	<i>Inadequately treated water may contain disease-causing organisms. These organisms can cause symptoms such as diarrhea, nausea, cramps, and associated headaches.</i>