2023 Consumer Confidence Report

Water System Information

Water System Name: Lhoist North America

Report Date: June 30, 2023

Type of Water Source(s) in Use: Ground Water Well

Name and General Location of Source(s): Company Owned Well – ID No. PW-6

Drinking Water Source Assessment Information: N/A

Time and Place of Regularly Scheduled Board Meetings for Public Participation: N/A

For More Information, Contact: Riley Gustafson (831) 455-6198

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, 2023 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 Lhoist North America a 11771 Old Stage Road Salinas, CA 93908, (831) 455-6198 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 Lhoist North America：11771 Old Stage Road Salinas, CA 93908, (831) 455-6198.

Language in Tagalog: Ang pag-uulat na ito ay naglalaman ng mahalagang impormasyon tungkol sa inyong inuming tubig. Mangyaring makipag-ugnayan sa Lhoist North America 11771 Old Stage Road Salinas, CA 93908 o tumawag sa (831) 455-6198 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 Lhoist North America tại 11771 Old Stage Road Salinas, CA 93908, (831) 455-6198 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 Lhoist North America ntawm 11771 Old Stage Road Salinas, CA 93908, (831) 455-6198 rau kev pab hauv lus Askiv.

Terms Used in This Report

Term	Definition
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, 6, and 8 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

Complete if bacteria are detected.

Microbiological Contaminants	Highest No. of Detections	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
E. coli	(In the year) 0	0	(a)	0	Human and animal fecal waste

(a) 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

Complete if lead or copper is detected in the last sample set.

Lead and Copper	Sample Date	No. of Samples Collected	90th Percentile Level Detected	No. Sites Exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb)	See Attached Table 1 – Summary of Source Well Analytical Results				15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)					1.3	0.3	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)	See Attached Table 1 – Summary of Source Well Analytical Results			None	None	Salt present in the water and is generally naturally occurring
Hardness (ppm)				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 Attached Table 1 – Summary of Source Well Analytical Results						

Table 5. Detection of Contaminants with a Secondary Drinking Water Standard

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	SMCL	PHG (MCLG)	Typical Source of Contaminant
See Attached Table 1 – Summary of Source Well Analytical Results						

Table 6. Detection of Unregulated Contaminants

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Health Effects
See Attached Table 1 – Summary of Source Well Analytical Results					

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. Lhoist North America 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. 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.

Additional Special Language for Nitrate, Arsenic, Lead, Radon, and *Cryptosporidium*: N/A

State Revised Total Coliform Rule (RTCR): N/A

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

Table 7. Violation of a MCL, MRDL, AL, TT or Monitoring Reporting Requirement

Violation	Explanation	Duration	Actions Taken to Correct Violation	Health Effects Language
Nitrate (4 out of 4 quarterly samples were in violation for 2023)	Nitrate in local groundwater and the systems water source (well 6) has been increasing for at least 8 years, most likely due to the local agricultural industry	Ongoing – First violation was 5/26/2020. Since then, 13 out of 16 quarterly samples have been in violation.	Posting monthly notices, Providing bottled water, developing bid packages for improvement projects, preparing an area for installation of a water treatment system, working with vendors and the county to finalize design and begin installation.	Water containing nitrates in excess of 10 mg/l as nitrogen presents a risk to the health of humans when used for drinking or culinary purposes. Pregnant woman and children under the age of 6 months run the greatest risk of experiencing possible health problems, i.e. "Blue Baby Syndrome". The presence of nitrates in the blood reduces its oxygen-carrying capacity. Accordingly, you are advised not to use water from this system in the preparation of food, juices or baby formulas. Be advised that boiling the water will not eliminate the problem but rather increases the concentration of nitrate. Pregnant women are also at risk of developing the symptoms of methemoglobinemia due to the presence of nitrate in

				their drinking water. During pregnancy, it is common for methemoglobin levels to increase from the normal range (0.5 to 2.5% of the total hemoglobin) to a maximum of 10% in the 30th week of pregnancy, and then decline to normal levels after delivery. Therefore, pregnant women are particularly susceptible to methemoglobinemia and should be sure that their drinking water does not exceed safe levels for nitrate. There is, however, no clear evidence that nitrate can be transmitted to the fetus from the pregnant woman.

For Water Systems Providing Groundwater as a Source of Drinking Water

Table 8. 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
E. coli	0		0	(0)	Human and animal fecal waste
Enterococci	0		TT	N/A	Human and animal fecal waste
Coliphage	0		TT	N/A	Human and animal fecal waste

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: N/A

Special Notice for Uncorrected Significant Deficiencies: N/A

Table 9. Violation of Groundwater TT

Violation	Explanation	Duration	Actions Taken to Correct Violation	Health Effects Language
N/A				

For Systems Providing Surface Water as a Source of Drinking Water

Table 10. Sampling Results Showing Treatment of Surface Water Sources

Treatment Technique [(a)] (Type of approved filtration technology used)	N/A
Turbidity Performance Standards [(b)] (that must be met through the water treatment process)	N/A
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	N/A
Highest single turbidity measurement during the year	N/A
Number of violations of any surface water treatment requirements	N/A

(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

Table 11. Violation of Surface Water TT

Violation	Explanation	Duration	Actions Taken to Correct Violation	Health Effects Language
N/A				

Summary Information for Operating Under a Variance or Exemption

N/A

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

N/A

APPENDIX A: Regulated Contaminants with Primary Drinking Water Standards

Key

Acronym	Definition
AL	Regulatory Action Level
MCL	Maximum Contaminant Level
MCLG	Maximum Contaminant Level Goal
MFL	Million fibers per liter
MRDL	Maximum Residual Disinfectant Level
MRDLG	Maximum Residual Disinfectant Level Goal
Mrem/year	millirems per year (a measure of radiation absorbed by the body
N/A	Not applicable
NTU	Nephelometric Turbidity Units
PHG	Public Health Goal
pCi/L	picocuries per liter (a measure of radioactivity)
ppb	parts per billion, or micrograms per liter (µg/L)
ppq	parts per quadrillion, or picograms per liter (pg/L)
ppm	parts per million, or milligrams per liter (mg/L)
ppt	parts per trillion, or nanograms per liter (ng/L)
TT	Treatment Technique

Microbiological Contaminants

Contaminant (CCR units)	Traditional MCL	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG) in CCR units	Major sources in Drinking Water	Health Effects Language
E. coli (state Revised Total Coliform Rule)	0	N/A		(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, some of the elderly, and people with severely-compromised immune systems.
Coliform Assessment and/or Corrective Action Violations	TT	N/A	TT	N/A	N/A	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.
E. coli Assessment and/or Corrective Action Violations	0	N/A	0	(0)	N/A	*E. coli* are bacteria whose presence indicates that the water may be contaminated with human or animal

Contaminant (CCR units)	Traditional MCL	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG) in CCR units	Major sources in Drinking Water	Health Effects Language
						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 violated the standard for *E. coli*, indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct a detailed assessment to identify problems and to correct any problems that are found.
Fecal Indicator *E. coli* (Ground Water Rule)	0	N/A	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	TT	N/A	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

Contaminant (CCR units)	Traditional MCL	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG) in CCR units	Major sources in Drinking Water	Health Effects Language
coliphage) (Ground Water Rule)						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.
Season System Treatment Technique Violations	TT	N/A	TT	N/A	N/A	When this violation includes failure to monitor for total coliforms or *E. coli* prior to serving water to the public, the mandatory language found at 22 California Code of Regulations section 64465(a)(11) shall be used. When the violation includes failure to complete other actions, the appropriate elements found in sections 64465(a)(1) through (10) to describe the violation shall be used.
Turbidity	TT	N/A	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,

Contaminant (CCR units)	Traditional MCL	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG) in CCR units	Major sources in Drinking Water	Health Effects Language
						cramps, diarrhea, and associated headaches.
Giardia lamblia, Viruses, Heterotrophic Plate Count Bacteria, *Legionella, Cryptosporidium* Surface water treatment = TT	TT	TT	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 (CCR units)	Traditional MCL	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG) in CCR units	Major Sources in Drinking Water	Health Effects Language
Gross Beta Particle Activity (pCi/L)	50[1]	N/A	50	(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	N/A	8	0.35	Decay of natural and man-made deposits	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	N/A	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.
Gross Alpha Particle Activity (pCi/L)	15	N/A	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.

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

Contaminant (CCR units)	Traditional MCL	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG) in CCR units	Major Sources in Drinking Water	Health Effects Language
Combined Radium (pCi/L)	5	N/A	5	(0)[2]	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 (pCi/L) (for nontransient-noncommunity water systems)	5	N/A	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	N/A	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.

[2] 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.

Inorganic Contaminants

Contaminant (CCR units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG) in CCR units	Major Sources in Drinking Water	Health Effects Language
Aluminum (mg/L)	1	-	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)	0.006	1,000	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 (µg/L)	0.010	1,000	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 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	-	1	2	Discharges of oil drilling wastes and	Some people who drink water containing barium in excess of the

Contaminant (CCR units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG) in CCR units	Major Sources in Drinking Water	Health Effects Language
					from metal refineries; erosion of natural deposits	MCL over many years may experience an increase in blood pressure.
Beryllium (µg/L)	0.004	1,000	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)	0.005	1,000	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 [Total] (µg/L)	0.05	1,000	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	-	AL = 1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits;	Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short

Contaminant (CCR units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG) in CCR units	Major Sources in Drinking Water	Health Effects Language
					leaching from wood preservatives	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)	0.15	1,000	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	-	2.0	1	Erosion of natural deposits; water additive that 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 = 0.015	1,000	AL = 15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers;	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

Contaminant (CCR units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG) in CCR units	Major Sources in Drinking Water	Health Effects Language
					erosion of natural deposits	learning abilities. Adults who drink this water over many years may develop kidney problems or high blood pressure.
Mercury [Inorganic] (µg/L)	0.002	1,000	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)	0.1	1,000	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 (mg/L)	10 (as N)	-	10 (as N)	10 (as N)	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.

Contaminant (CCR units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG) in CCR units	Major Sources in Drinking Water	Health Effects Language
Nitrite (mg/L)	1 (as N)	-	1 (as N)	1 (as N)	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 (µg/L)	0.006	1,000	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 effects 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)	0.05	1,000	50	30	Discharge from petroleum, glass, and	Selenium is an essential nutrient. However, some people who drink

Contaminant (CCR units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG) in CCR units	Major Sources in Drinking Water	Health Effects Language
					metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)	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)	0.002	1,000	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 (CCR units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG) in CCR units	Major Sources in Drinking Water	Health Effects Language
2,4-D (µg/L)	0.07	1,000	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)	0.05	1,000	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	-	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)	0.002	1,000	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)	0.001	1,000	1	0.15	Runoff from herbicide used on row crops and along railroad	Some people who use water containing atrazine in excess of the MCL over many years may

Contaminant (CCR units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG) in CCR units	Major Sources in Drinking Water	Health Effects Language
					and highway right-of-ways	experience cardiovascular system problems or reproductive difficulties.
Bentazon (µg/L)	0.018	1,000	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 years may experience prostate and gastrointestinal effects.
Benzo(a)pyrene [PAH] (ng/L)	0.0002	1,000,000	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 difficulties and may have an increased risk of getting cancer.
Carbofuran (µg/L)	0.018	1,000	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)	0.0001	1,000,000	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.

Contaminant (CCR units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG) in CCR units	Major Sources in Drinking Water	Health Effects Language
Dalapon (µg/L)	0.2	1,000	200	790	Runoff from herbicide used on rights-of-way, 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)	0.4	1,000	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)	0.004	1,000	4	12	Discharge from rubber and chemical factories; inert ingredient in pesticides	Some people who use water containing di(2-ethylhexyl) phthalate well 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)	0.0002	1,000,000	200	3	Banned nematocide that may still be present in soils due to runoff/leaching from former use on soybeans, cotton, vineyards, tomatoes, and tree fruit	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 (CCR units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG) in CCR units	Major Sources in Drinking Water	Health Effects Language
Dinoseb (µg/L)	0.007	1,000	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)	0.00000003	1,000,000,000	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)	0.02	1,000	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)	0.1	1,000	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)	0.002	1,000	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	-	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

Contaminant (CCR units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG) in CCR units	Major Sources in Drinking Water	Health Effects Language
						problems, and may have an increased risk of getting cancer.
Ethylene Dibromide [EDB] (ng/L)	0.00005	1,000,000	50	10	Discharge from petroleum refineries; underground gas tank leaks; banned nematocide that may still be present in soils due to runoff and leaching from grain and fruit crops	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.
Glyphosate (µg/L)	0.7	1,000	700	900	Runoff from herbicide use	Some people who drink water containing glyphosate in excess of the MCL over many years may experience kidneys problems or reproductive difficulties.
Heptachlor (ng/L)	0.00001	1,000,000	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)	0.00001	1,000,000	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.

Contaminant (CCR units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG) in CCR units	Major Sources in Drinking Water	Health Effects Language
Hexachlorobenzene (µg/L)	0.001	1,000	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.
Hexachlorocyclo-pentadiene (µg/L)	0.05	1,000	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)	0.0002	1,000,000	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)	0.03	1,000	30	0.09	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, and livestock	Some people who drink water containing methoxychlor in excess of the MCL over many years may experience reproductive difficulties.
Molinate [Ordram] (µg/L)	0.02	1,000	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)	0.05	1,000	50	26	Runoff/leaching from insecticide used on	Some people who drink water containing oxamyl in excess of the

Contaminant (CCR units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG) in CCR units	Major Sources in Drinking Water	Health Effects Language
					field crops, fruits and ornamentals, especially apples, potatoes, and tomatoes	MCL over many years may experience slight nervous system effects.
PCBs [Polychlorinated Biphenyls] (ng/L)	0.0005	1,000,000	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)	0.001	1,000	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)	0.5	1,000	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)	0.004	1,000	4	4	Herbicide runoff	Some people who use water containing simazine in excess of the MCL over many years may experience blood problems.

Contaminant (CCR units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG) in CCR units	Major Sources in Drinking Water	Health Effects Language
Thiobencarb (µg/L)	0.07	1,000	70	42	Runoff/leaching from herbicide used on rice	Some people who use water containing thiobencarb in excess of the MCL over many years may experience body weight and blood effects.
Toxaphene (µg/L)	0.003	1,000	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 [TCP] (ng/L)	0.000005	1,000,000	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 (CCR units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG) in CCR units	Major Sources in Drinking Water	Health Effects Language
Benzene (µg/L)	0.001	1,000	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.
Carbon Tetrachloride (ng/L)	0.0005	1,000,000	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)	0.6	1,000	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)	0.005	1,000	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)	0.005	1,000	5	3	Extraction and degreasing solvent; used in manufacture	Some people who use water containing 1,1-dichloroethane in excess of the MCL over many

Contaminant (CCR units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG) in CCR units	Major Sources in Drinking Water	Health Effects Language
					of pharmaceuticals, stone, clay and glass products; fumigant	years may experience nervous system or respiratory problems.
1,2-Dichloroethane (ng/L)	0.0005	1,000,000	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)	0.006	1,000	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)	0.006	1,000	6	13	Discharge from industrial chemical factories; major biodegradation byproduct of TCE and PCE groundwater contamination	Some people who use water containing cis-1,2-dichloroethylene in excess of the MCL over many years may experience liver problems.
trans-1,2-Dichloroethylene (µg/L)	0.01	1,000	10	50	Discharge from industrial chemical factories; minor biodegradation byproduct of TCE and PCE	Some people who drink water containing trans-1,2-dichloroethylene in excess of the MCL over many years may experience liver problems.

Contaminant (CCR units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG) in CCR units	Major Sources in Drinking Water	Health Effects Language
					groundwater contamination	
Dichloromethane (µg/L)	0.005	1,000	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)	0.005	1,000	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)	0.0005	1,000,000	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)	0.3	1,000	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)	0.013	1,000	13	13	Leaking underground storage tanks; discharge 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.

Contaminant (CCR units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG) in CCR units	Major Sources in Drinking Water	Health Effects Language
Monochlorobenzene (µg/L)	0.07	1,000	70	70	Discharge from industrial and agricultural chemical factories and dry cleaning facilities	Some people who use water containing monochlorobenzene in excess of the MCL over many years may experience liver or kidney problems.
Styrene (µg/L)	0.1	1,000	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)	0.001	1,000	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)	0.005	1,000	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)	0.005	1,000	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.

Contaminant (CCR units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG) in CCR units	Major Sources in Drinking Water	Health Effects Language
1,1,1-Trichloroethane (µg/L)	0.200	1,000	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)	0.005	1,000	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.
Trichloroethylene [TCE] (µg/L)	0.005	1,000	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)	0.15	1,000	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)	0.15	1,000	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.

Contaminant (CCR units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	PHG (MCLG) in CCR units	Major Sources in Drinking Water	Health Effects Language
1,1,2-Trichloro-1,2,2-trifluoroethane (mg/L)	1.2	-	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-trifluoroethane in excess of the MCL over many years may experience liver problems.
Vinyl Chloride (ng/L)	0.0005	1,000,000	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	-	1.750	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 (CCR units)	Traditional MCL or [MRDL] in mg/L	To convert for CCR, multiply by	MCL or [MRDL] in CCR units	PHG, (MCLG or MRDLG)	Major Sources in Drinking Water	Health Effects Language
TTHMs [Total Trihalomethanes] (µg/L)	0.080	1,000	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)	0.060	1,000	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)	0.010	1,000	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)]	-	[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.

Contaminant (CCR units)	Traditional MCL or [MRDL] in mg/L	To convert for CCR, multiply by	MCL or [MRDL] in CCR units	PHG, (MCLG or MRDLG)	Major Sources in Drinking Water	Health Effects Language
Chlorine (mg/L)	[MRDL = 4.0 (as Cl_2)]	-	[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	-	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 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 = 0.8 (as ClO_2)]	1,000	[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.

Contaminant (CCR units)	Traditional MCL or [MRDL] in mg/L	To convert for CCR, multiply by	MCL or [MRDL] in CCR units	PHG, (MCLG or MRDLG)	Major Sources in Drinking Water	Health Effects Language
Control of DBP Precursors (TOC)	TT	-	TT	N/A	Various natural and manmade 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 of the California Code of Regulations, Title 22.

Constituent	Secondary MCL (units)	To convert to CCR, multiply by	MCL in CCR units	Typical Source of Contaminant
Aluminum	0.2 mg/L	1,000	200 µg/L	Erosion of natural deposits; residual from some surface water treatment processes
Color	15 Units	-	15 Units	Naturally-occurring organic materials
Copper	1.0 mg/L	-	1.0 mg/L	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Foaming Agents [MBAS]	0.5 mg/L	1,000	500 µg/L	Municipal and industrial waste discharges
Iron	0.3 mg/L	1,000	300 µg/L	Leaching from natural deposits; industrial wastes
Manganese	0.05 mg/L	1,000	50 µg/L	Leaching from natural deposits
Methyl-*tert*-butyl ether [MTBE]	0.005 mg/L	1,000	5 µg/L	Leaking underground storage tanks; discharge from petroleum and chemical factories
Odor---Threshold	3 Units	-	3 Units	Naturally-occurring organic materials
Silver	0.1 mg/L	1,000	100 µg/L	Industrial discharges
Thiobencarb	0.001 mg/L	1,000	1 µg/L	Runoff/leaching from rice herbicide
Turbidity	5 Units	-	5 Units	Soil runoff
Zinc	5.0 mg/L	-	5.0 mg/L	Runoff/leaching from natural deposits; industrial wastes

Total Dissolved Solids [TDS]	1,000 mg/L	-	1,000 mg/L	Runoff/leaching from natural deposits
Specific Conductance	1,600 µS/cm	-	1,600 µS/cm	Substances that form ions when in water; seawater influence
Chloride	500 mg/L	-	500 mg/L	Runoff/leaching from natural deposits; seawater influence
Sulfate	500 mg/L	-	500 mg/L	Runoff/leaching from natural deposits; industrial wastes

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

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 ✓ 2,6-dinitrotoluene ✓ Acetochlor ✓ DCPA mono-acid degradate ✓ DCPA di-acid degradate ✓ 4,4'-DDE ✓ EPTC ✓ Molinate ✓ MTBE ✓ Nitrobenzene ✓ Perchlorate ✓ Terbacil	✓ 1,2-diphenylhydrazine ✓ 2-methyl-phenol ✓ 2,4-dichlorophenol ✓ 2,4-dinitrophenol ✓ 2,4,6-trichlorophenol ✓ *Aeromonas* ✓ Alachlor ESA ✓ Diazinon ✓ Disulfoton ✓ Diuron ✓ Fonofos ✓ 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) ✓ Perfluoroheptanoic acid (PFHpA) ✓ Perfluorobutanesulfonic acid (PFBS)	✓ 17-β-estradiol ✓ 17-α-ethynylestradiol (ethinyl estradiol) ✓ 16-α-hydroxyestradiol (estriol) ✓ Equilin ✓ Estrone ✓ Testosterone ✓ 4-anderostene-3,17-dione	✓ Enteroviruses ✓ Noroviruses

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.

Chemical	Notification Level	Health Effects Language (Optional)
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.
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.
Perfluorobutane sulfonic acid (PFBS)	500 ng/L	Perfluorobutane sulfonic acid exposures resulted in decreased thyroid hormone in pregnant female mice.
Perfluorohexane Sulfonic Acid [PFHxS]	3 ng/L	Perfluorohexane sulfonic acid exposures resulted in decreased total thyroid hormone in male rats.
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.

Chemical	Notification Level	Health Effects Language (Optional)
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.
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 for PFOS of 13 ng/L were superseded on August 22, 2019, with new notification levels 5.1 ng/L for PFOA and 6.5 ng/L for PFOS.

APPENDIX E: Special Language for Nitrate, Arsenic, Lead, Radon, *Cryptosporidium*, Ground Water Systems, and Surface Water Systems

(A) Nitrate: For systems that detect nitrate **above 5 mg/L as nitrogen, but below 10 mg/L as nitrogen**, 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 Water 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 µg/L, but below or equal to 10 µg/L**, 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[3]: Consistent with 40 CFR section 141.154(d)(1), every Consumer Confidence Report (CCR) must include the lead-specific language shown below. A water system may provide its own educational statement, but only after consulting with the State Water Board.

[3] All water systems are required to comply with the state Lead and Copper Rule (LCR). Water systems are also required to comply with the federal LCR, and its revisions and corrections. The 2007 Short-term Revisions of the LCR included mandatory language requirements that have not yet been adopted by the State Water Board.

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. Lhoist North America 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. 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.

Consistent with the California Code of Regulations, section 64482(c), systems that detect lead above 15 µg/L in more than 5 percent, and up to and including 10 percent, of sites sampled (or if your system samples fewer than 20 sites and has even one sample above the Action Level [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, 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) **Groundwater Systems:** For ground water systems that had a treatment technique (TT) violation described in Item S of the document titled *"Instructions for Completing the 2022 CCR for Small Water Systems"*, the following language MAY be used to describe the potential health effects. The U.S. Environmental Protection Agency (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.

(G) **Surface Water Systems:** For surface water systems that had a TT violation under the **Surface Water Treatment Rule (SWTR), Interim Enhanced Surface Water Treatment Rule (IESWTR), Filter Backwash Recycling Rule (FBRR), or Long-term 1 Enhanced Surface Water Treatment Rule (LT1ESWTR)**, as described in Item U of the document titled *"Instructions for Completing the 2022 CCR for Small Water Systems"*, 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 **Long-term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR)**, as described in Item U of the document titled *"Instructions for Completing the 2022 CCR for Small Water Systems"*, 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 and Health Effects Language

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

Table 1: Summary of Source Well PW-6 Analytical Results
Lhoist North America Natividad Plant, Water System I.D. No. 270 - 2259 (Source Well -006)
11771 Old Stage Road, Salinas, California

Analyte	Date	Results in ppm (unless otherwise noted)	MCL in ppm (unless otherwise noted)
PRIMARY INORGANICS			
Aluminum (Al)	03/07/23 05/26/20 05/15/17 11/20/08 11/23/05 11/04/02	<0.005 <0.05 <0.05 <1.0 <1.0 <1.0	1.000
Antimony (Sb)	03/07/23 05/26/20 05/15/17 11/20/08 11/23/05 11/04/02	<0.001 <0.006 <0.006 <0.006 <0.006 <0.006	0.006
Arsenic (As)	03/07/23 05/26/20 05/15/17 11/20/08 11/23/05 11/04/02	0.002 0.002 0.002 <0.01 <0.01 <0.01	0.01
Barium (Ba)	03/07/23 05/26/20 05/15/17 11/20/08 11/23/05 11/04/02	0.075 0.073 <1.0 <1.0 <1.0 <1.0	1.0
Beryllium (Be)	03/07/23 05/26/20 05/15/17 11/20/08 11/23/05 11/04/02	<0.001 <0.001 <0.001 <0.000001 <0.000001 <0.000001	0.004
Boron (B)	11/20/08 11/04/02	<0.1 <0.1	No MCL, but California State Notification Level is 1.000 mg/L
Cadmium (Cd)	03/07/23 05/26/20 05/15/17 11/20/08 11/23/05 11/04/02	<0.001 <0.001 <0.001 <0.005 <0.005 <0.005	0.005
Chromium (Cr)	03/07/23 05/26/20 05/15/17 11/20/08 11/23/05 11/04/02	0.004 0.002 <0.01 <0.05 <0.05 <0.05	0.05
Hexavalent Chromium (Cr+6)	09/27/19 8/17/17 09/23/14 04/28/03 11/04/02	<0.001 <0.001 <0.001 470 860	0.05
Copper (Cu) (from taps)	8/23/2021 to 8/25/2021 9/24/2018 to 9/24/2018 10/30/2015 to 10/30/2015 9/10/2012 to 9/10/2012	0.102 average, 0.119 maximum 0.12 0.142 0.175	No MCL, but Action Level at >10% of taps at 1.3 mg/L
Copper (Cu) (from well)	03/07/23 11/20/08 11/20/08 11/04/02	0.004 <50 <50 <50	0.050
Cyanide	03/07/23 05/15/17 11/20/08 11/23/05 11/04/02	<0.005 <0.1 <0.15 <0.15 <0.15	0.15
Fluoride (F)	03/07/23 05/26/20	0.22 0.14	2.0 2.0

Analyte	Date	Results in ppm (unless otherwise noted)	MCL in ppm (unless otherwise noted)
	05/15/17	0.24	2.0
Lead (Pb) (from taps)	8/23/2021 to 8/25/2021 9/24/2018 to 9/24/2018	0.003 average, 0.005 maximum 0.03	No MCL, but Action Level at >10% of taps at 0.015 mg/L
Lead (Pb) (from well)	03/07/23 05/26/20 05/15/17	0.002 <0.005 <0.005	None
Mercury (Hg)	03/07/23 05/26/20 05/15/17	<0.001 <0.001 <0.001	0.002
Nickel (Ni)	03/07/23 05/26/20 05/15/17	0.003 0.001 <0.01	0.100
Nitrite (as N)	03/07/23 05/26/20 12/04/18 09/24/18 05/24/18 01/30/17 11/25/13 06/04/13 12/11/12 06/20/12 12/09/11	<0.05 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4	1
Nitrate+Nitrite (as N)	12/04/18 09/24/18 11/25/13 06/04/13 12/11/12 06/20/12	9.9 9.4 7.4 7.7 7.4 7.6	10 10 10 10 10 10
Nitrate (as N)	03/07/24 12/14/23 09/14/23 06/12/23 03/07/23 12/20/22 09/09/22 06/27/22 03/24/22 12/07/21 09/29/21 06/17/21 04/08/21 12/18/20 09/28/20 06/02/20 05/26/20 03/12/20 02/18/20 11/12/19 08/19/19 05/24/19 02/08/19 12/04/18 09/24/18 08/07/18 05/24/18 02/20/18 12/19/17 09/26/17 06/22/17 04/11/17 01/30/17 12/20/16 08/29/16 06/27/16 02/26/16 12/18/15 09/30/15 06/04/13	12.4* 12.2* 12.4* 12.2* 11.5* 11.9* 10.6* 11.7* 11.2* 11.2* 10.8* 10.4 10.6* 10.4 10.4 10.6* 10.8* 10.1 10.4 10.4 9.7 9.9 9.7 9.9 9.4 9.4 9.4 9.0 8.8 8.3 7.6 7.9 5.8 7.9 7.6 7.6 7.9 7.4 7.4 <10	10

Analyte	Date	Results in ppm (unless otherwise noted)	MCL in ppm (unless otherwise noted)
	11/25/13	<10	
	06/20/12	<10	
	12/11/12	<10	
	12/09/11	<10	
Nitrate (as NO3)	12/07/21	50	45
	09/29/21	48	
	06/17/21	46	
	04/08/21	47	
	12/18/20	46	
	09/28/20	46	
	05/26/20	48	
	03/13/20	45	
	02/02/20	46	
	11/19/19	46	
	05/24/19	44	
	12/08/18	44	
	05/24/18	42	
	02/20/18	40	
	12/19/17	39	
	02/27/15	32	
	05/29/15	32	
	09/30/15	33	
	03/27/14	33	
	06/26/14	31	
	09/23/14	33	
	12/17/14	32	
	06/04/13	34	
	11/25/13	33	
	06/20/12	34	
	12/11/12	33	
	12/09/11	34	
Perchlorate	03/09/23	0.003	0.006
	05/26/20	<0.004	
	08/17/17	<0.004	
	09/23/14	<0.004	
Selenium (Se)	03/07/23	<0.005	0.05
	05/26/20	0.004	
	05/15/17	<0.005	
Thallium (Tl)	03/07/23	<0.001	0.002
	05/26/2020	<0.001	
	05/15/17	<0.001	
SECONDARY / GENERAL MINERAL & PHYSICAL			
Carbonate Alk. (as CO3)	11/4/02	<120	None
Calcium (Ca)	11/4/02	57000	None
Chloride (Cl)	11/4/02	78	250
MBAS (Surfactants)	11/20/08	<0.025	0.5
	11/04/02	<0.02	
Magnesium (Mg)	11/4/02	0.035	None
Manganese (Mn)	11/04/02	<0.015	0.05
Orthophosphate (P)	05/10/24	<0.05	None
Potassium (K)	11/04/02	2200	None
Sodium (Na)	11/04/02	40	None
Sulfate (SO4)	11/04/02	13	250
Iron Total (Fe)	07/19/06	<0.05	0.3
	11/04/02	<0.05	
Total Hardness (as CaCO3)	11/04/02	285	None
Total Alkalinity (as CaCO3)	11/04/02	230	None
Total Dissolved Solids	11/04/02	0.45	500
Zinc (Zn)	11/20/08	<5.0	5
	11/23/05	<5.0	
	11/04/02	<5.0	
OTHER			**5**
pH value	7/19/06	7.7	6.5 - 8.5
	11/4/02	7.6	

Analyte	Date	Results in ppm (unless otherwise noted)	MCL in ppm (unless otherwise noted)
Conductivity	5/26/20 8/17/17 9/23/14	800 770 740	1,600 µS/cm
Color	11/4/02	5	15 PtCo
Odor	11/4/02	<3	3 T.O.N.
Turbidity	11/4/02	0.04	5 NTU
Synthetic Organic Compounds	3/9/23 2/2/10 2/28/07 3/6/03	All ND All ND All ND All ND	Varies
Volatile Organic Compounds	3/7/23 5/26/20 9/23/14 11/20/08 11/23/05 11/4/02	All ND All ND All ND All ND All ND All ND	Varies
1,2,3 Trichloropropane (TCP)	06/27/22 06/27/22 12/08/18 05/24/18	ND ND ND ND	0.000005
Gross Alpha	08/29/16 05/21/07 02/28/07 11/29/06	<3 1.35 1.46 1.100	15 pCi/L

Notes

*Results exceed MCL

Secondary MCLs are set to protect the odor, taste, and appearance of drinking water and DO NOT affect health at that established level

Prior to January 1, 2015 Chromium VI was regulated under the Total Chromium Limit of 50 ug/L

The USEPA approved a new Arsenic MCL standard of 10 ug/L and the state implemented this beginning January 2006

The CDPH approved a Hexavalent Chromium MCL standard of 10 ug/L and the state implemented this beginning July 2014

Based on discussions with MCHD staff and review of weather, the 11/4/02 Chromium VI samples are classified as dry season Samples, and the 4/28/03 Chromium VI samples are classified as wet season samples

Definitions

MCL = Maximum Contaminant Level

ND = Not Detected at or above the laboratory's Reporting Limit

ppm = parts per million = milligrams per liter (mg/L)

µS/cm = microsiemens per centimeter

PtCo = Platinum-Cobalt Scale

T.O.N. = Threshold Odor Number

NTU = Nephelometric Turbidity Unit

pCi/L = picocuries per liter