

2021 Consumer Confidence Report

Water System Information

Water System Name: Highlands Water Company CA1710003

Report Date: June 15, 2022

Type of Water Source(s) in Use: Surface Water

Name and General Location of Source(s): Pump Island, Clear Lake Intake at 14475 Lakeshore Drive in the City of Clearlake, California.

Drinking Water Source Assessment Information:

- Clear Lake Watershed is vulnerable to potential contaminating activities (*PCAs*). The following is a list of the greatest concerns (alphabetically):
 - Agricultural/Farming
 - Aquatic Plant Management
 - Erosion
 - Hydrilla Eradication
 - Recreation on the Lake
 - Municipal Wastewater
 - Quagga and Zebra Mussels Introduction
 - Septic System Areas
 - Herbicide and Pesticide Spills

- Specific Water Quality issues that are associated with each *PCA* include the following:
 - Turbidity
 - Phosphorus
 - Simazine
 - Methyl tert-butyl ether (*MTBE*)
 - Giardia and Cryptosporidium
 - Arsenic
 - Mercury
 - Boron

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

- 2:30 PM on the last Wednesday of Every Month
- Business Administration Office Building at 14580 Lakeshore Drive in Clearlake, California

For More Information, Contact: Jeff Davis – General Manager Phone: (707) 994-2393
Email: jeff@highlandswater.com

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, 2021 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 Highlands Water Company CA1710003 at 14580 Lakeshore Drive in Clearlake, CA; Phone: (707) 994-2393 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 Highlands Water Company CA1710003 at 14580 Lakeshore Drive in Clearlake, CA; Phone: (707) 994-2393 以获得中文的帮助:

Language in Tagalog: Ang pag-uulat na ito ay naglalaman ng mahalagang impormasyon tungkol sa inyong inuming tubig. Mangyaring makipag-ugnayan sa Highlands Water Company CA1710003 at 14580 Lakeshore Drive in Clearlake, CA; Phone: (707) 994-2393 o tumawag sa 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 tại Highlands Water Company CA1710003 at 14580 Lakeshore Drive in Clearlake, CA; or Phone: (707) 994-2393 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 ntawm Highlands Water Company CA1710003 at 14580 Lakeshore Drive in Clearlake, CA; Phone: (707) 994-2393 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 <i>E. coli</i> 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).

Term	Definition
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 ($\mu\text{g/L}$)
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

To ensure that tap water is safe to drink, the U.S. EPA and the State Board prescribe regulations that limit the amounts 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 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
<i>E. coli</i>	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 1.A. Compliance with Total Coliform MCL between January 1, 2021 and June 30, 2021 (inclusive)

Microbiological Contaminants	Highest No. of Detections	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	1	0	1 positive monthly sample (a)	0	Naturally present in the environment
Fecal Coliform and <i>E. coli</i>	0	0	0	None	Human and animal fecal waste

(a) For systems collecting fewer than 40 samples per month: two or more positively monthly samples is a violation of the total coliform MCL

For violation of the total coliform MCL, include potential adverse health effects, and actions taken by water system to address the violation: System was in compliance

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	90 th Percentile Level Detected	No. Sites Exceeding AL	AL	PHG	No. of Schools Requesting Lead Sampling	Typical Source of Contaminant
Lead (ug/L)	6/16/20	20	ND	0	15	0.2	1	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ug/L)	6/16/20	20	0.91	0	1.3	0.3	NA	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 (mg/L): Raw Treated	6/17/21 6/17/21	17 22	17-22	None None	None None	Salt present in the water and is generally naturally occurring
Hardness (mg/L); Raw Treated	6/17/21 6/17/21	174 171	171-174	None None	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					
20TH Tank: Total Trihalomethanes [TTHMs] (ug/L)	2/10/21 5/12/21 8/25/21 11/17/21	2.47 4.15 10.16 7.93	< 1.00 – 50.68	80	NA	By-product of drinking water chlorination					
Lower Spruce Tank: Total Trihalomethanes [TTHMs] (ug/L)	2/10/21 5/12/21 8/25/21 11/17/21	21.25 < 1.00 50.68 20.96		80							
20TH Tank: *Total Haloacetic Acid [HAA5s] (ug/L)	2/10/21 5/12/21 8/25/21 11/17/21	*72.8 28.1 34.9 49.5		60			NA	By-product of drinking water chlorination			
Lower Spruce Tank: *Total Haloacetic Acid [HAA5s] (ug/L)	2/10/21 5/12/21 8/25/21 11/17/21	*64.6 3.5 17.4 22.8		60							
Bromate (ug/L)	2/17/21;5/19/21 8/18/21;11/17/21	ND ND		ND					10	0.1	By-product of water disinfection
Gross Alpha (pCi/L) Next Sample 2024/04	4/29/15	.067		-					15	NA	Found in surface water from erosion of natural deposits

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
Aluminum (ug/L): Raw Treated	6/17/21 6/17/21	110 <50	50 50	1000 1000	600	<i>Generally found in ground water and surface water from erosion of natural deposits, orchards</i>
Color (CU): Raw Treated	6/17/21 6/17/21	18 <5.0	ND ND	15 15	NA	<i>Naturally occurring organic materials</i>
Fluoride (mg/L): Raw Treated	6/17/21 6/17/21	0.14 0.12	0.10 0.10	2 2	1	<i>Generally found in ground water and surface water from erosion of natural deposits</i>
Iron (ug/L): Raw Treated	6/17/21 6/17/21	220 <100	100 100	300 300	NA	<i>Generally found in ground water and surface water from erosion of natural deposits</i>
Odor (T.O.N.) Raw Treated	6/17/21 6/17/21	54 <1.0	1 1	3 3	NA	<i>Substances that form ions when in water, seawater influence</i>
Sulfate (mg/L): Raw Treated	6/17/21 6/17/21	5.2 5.1	0.5 0.5		NA	<i>Runoff/leaching from natural deposits, industrial waste</i>
Arsenic (ug/L): Raw Treated	6/17/21 6/17/21	3.6 <2.0	2.0 2.0	10 10	4 (ng/L)	<i>Generally found in ground and surface water from erosion of natural deposits, agricultural runoff</i>
Mercury (ug/L): Raw Treated	6/17/21 6/17/21	<1.0 <1.0	1.0 1.0	2.0 2.0	1.2	<i>historical mining operations for mercury and for gold</i>

Table 6. Detection of Unregulated Contaminants

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Health Effects
Boron	6/17/21	1.4 mg/L	>1.0 mg/L	Tier 3 Level (CCR)	<i>Boron exposures resulted in decreased fetal weight (developmental effects) in newborn rats.</i>

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. The Highlands Water Company is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. [Optional: If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.] If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at <http://www.epa.gov/lead>.

Boron - Levels in excess of the unregulated MCL resulted in decreased fetal weight (developmental effects) in newborn rats.

***HAA5 [Sum of 5 Haloacetic Acids] -** Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

Turbidity - Turbidity has no health effects. However, high levels of turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

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
HAA5	Exceedance of HAA5 MCL	1 st Quarter 2021	Tank turnover & increased sampling between quarters	Over many years may possibly increase the risk of cancer

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)	#1 Multi-Media Pressure
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 0.3 NTU in 95% of Measurements in a Month. 2 – Not exceed 0.3 NTU for more than 30 consecutive minutes. 3 – Not exceed 1.0 NTU at any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	99.4%
Highest single turbidity measurement during the year	0.518
Number of violations of any surface water treatment requirements	0

(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
None	NA	NA	NA	NA

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

If a water system is required to comply with a Level 1 or Level 2 assessment requirement that is not due to an *E. coli* MCL violation, include the following information below [22 CCR section 64481(n)(1)].

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.

The water system shall include the following statements, as appropriate:

During the past year zero Level 1 assessments were required to be completed for our water system. Therefore, we were not required to take any corrective actions.

During the past year zero Level 2 assessments were required to be completed for our water system. Therefore, we were not required to take any corrective actions.

If the water system failed to complete all the required assessments or correct all identified sanitary defects, the water system is in violation of the treatment technique requirement and shall include the following statements, as appropriate:

During the past year we had no assessments. Therefore, no further action was required.

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) to identify problems and to correct any problems that were found during these assessments.

We were not required to complete any Level 2 assessments because we had no *E. coli* in our water system. Therefore, we were not required to take any corrective actions.