

2021 Consumer Confidence Report

**** Landlords: please make copies of this document for your tenants. ****

Water System Name: Howell Mountain Mutual Water Report Date: 06/20/22

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 - December 31, 2021 and may include earlier monitoring data.

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

Type of water source(s) in use: Surface Water, Ground Water ; System #2810001

Name & general location of source(s): Surface water reservoirs are located on HMMWC 263-acre watershed; nine reservoirs (that feed each other) in total named as follows: Cooksley, Deer, Doe, Fawn, Granite, Newton, Orville, Whitehead, and Henne. We have intakes located in Deer, Orville, Newton and Henne; We also have two wells (Well 1 and Well 2 located in the watershed and off of Friesen Drive).

Drinking Water Source Assessment information: Completed Jan 2015 and due 2014. This source is considered vulnerable to activities (agriculture) located near the drinking water source (no contaminants detected in water supply).

Time and place of regularly scheduled board meetings for public participation: 6:30 pm during the last week of the month located at the Water Treatment Plant; 1100 Friesen Dr, Angwin CA 94508. The agenda is posted on the bulletin board at Howell Mountain Market: 15 Angwin Ave, Angwin, CA 94508 and on our website: www.hmmwco.com.

For more information, contact: Tanner S. Hiers Phone: (707)965-2205

TERMS USED IN THIS REPORT

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

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

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

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

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

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

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

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

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

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

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

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

ND: not detectable at testing limit

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

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

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

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

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

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

Contaminants that may be present in source water include:

- *Microbial contaminants*, such as viruses and bacteria, which 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 storm water 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 storm water 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 storm water runoff, agricultural application, and septic systems.
- *Radioactive contaminants* that can be naturally-occurring or be the result of oil and gas production and mining activities.

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

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

TABLE 1 – SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA

Microbiological Contaminants (complete if bacteria detected)	Highest No. of Detections	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria (state Total Coliform Rule) After Treatment	(In a mo.) 0	0	1 positive monthly sample	0	Naturally present in the environment.
Fecal Coliform or <i>E. coli</i> (state Total Coliform Rule) After Treatment	(In the year) 0	0	A routine sample and a repeat sample are total coliform positive, and one of these is also fecal coliform or <i>E. coli</i> positive	0	Human and animal fecal waste.
<i>E. coli</i> (federal Revised Total Coliform Rule) After Treatment	(In the year) 0	0	(a)	0	Human and animal fecal waste.
(a) Routine and repeat samples are total coliform-positive and either is <i>E. coli</i> -positive or system fails to take repeat samples following <i>E. coli</i> -positive routine sample or system fails to analyze total coliform-positive repeat sample for <i>E. coli</i> .					

Lead and Copper (complete if lead or copper detected in the last sample set)	Sample Date	No. of Samples Collected	90th Percentile Level Detected	No. Sites Exceeding AL	AL	PHG	No. of Schools Requesting Lead Sampling	Typical Source of Contaminant
Lead (ppb) 10 approved customer residences representing the whole distribution system.	9/22/21 & 9/23/21	10	ND ug/L	0	15 ug/L	0 ug/L	Not applicable	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits.
Copper (ppb) 10 approved customer residences representing the whole distribution system.	9/22/21 & 9/23/21	10	0.11 ug/L	0	1300 ug/L	1300 ug/L	Not applicable	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm) Well 2 Lake Intake	5/26/21 & 10/20/21	7.95 mg/L Average	5.9 mg/L – 10 mg/L	none	none	Salt present in the water and is generally naturally occurring.
Hardness (Total) (As CaCO ₃) (ppm) Well 2 Lake Intake	5/26/21 & 10/20/21	31 mg/L Average	18 mg/L – 44 mg/L	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring.

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG mg/L (MCLG) [MRDLG]	Typical Source of Contaminant
Arsenic (ppb) Well 2	10/20/21	3.0 ug/l	3.0 ug/L	10 ug/L	.004 ug/L	Erosion of natural deposits; runoff from orchards; glass and electronics.
Fluoride (ppm) Well 2	10/20/21	0.11 mg/L	0.11 mg/L	4.0 mg/L	1 mg/L	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories.
Nitrate (ppm) Well 2	4/22/21	0.36 mg/L	0.36 mg/L	10 mg/L	10 mg/L	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion from natural deposits
*TTHMs (Total Trihalomethanes)(ppb) Deer Park Sample Station	3/25/21 & 6/24/21 & 7/22/21 & 9/27/21 & 12/22/21	82.2 ug/L Average	64 ug/L – 106 ug/L	80 ug/L	N/A	Byproduct of drinking water disinfection.

Total Haloacetic Acids(5) (HAA5)(ppb) Sky Oaks /White Cottage Road North Crossing	3/25/21 & 6/24/21 & 9/27/21	40.33 ug/L Average	39 ug/L – 42 ug/L	60 ug/L	N/A	Byproduct of drinking water disinfection.
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TABLE 5 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Chloride(ppm) Well 2 Lake Intake	5/26/21 & 10/20/21	4.45 mg/L Average	4 mg/L – 4.9 mg/L	250 mg/L	none	Runoff/leaching from natural deposits; seawater influence.
Color ; Color Units (CU) Lake Intake	6/24/21	13 CU	13 CU	15 CU	none	Dissolved matter.
Iron (ppb) Lake Intake	5/26/21	390 ug/L	390 ug/L	300 ug/L	none	Leaching from natural deposits; industrial wastes.
Manganese (ppb) Lake Intake	5/26/21	32 ug/L	32 ug/L	50 ug/L	none	Found naturally in the environment and is one of the most abundant metals on the earth's surface, in air, water, and soil; or as a result of human activity such as mining and industrial discharges.
Odor (T.O.N.) Lake Intake	5/26/21	1 T.O.N.	1 T.O.N.	3.0 T.O.N.	none	Adding chlorine to the water or the interaction of chlorine with a build-up of organic matter in a plumbing system as well as organics in surface water sources.
PH (ph units) Well 2 Lake Intake	5/26/21 & 10/20/21	6.8 Average	6.2-7.4	6.5-8.5	none	pH is a measure of the relative amount of free hydrogen and hydroxyl ions in the water
Sulfate (ppm) Well 2 Lake Intake	5/26/21 & 10/20/21	1.995 mg/L Average	0.69 mg/L -3.3 mg/L	250 mg/L	none	Runoff/leaching from natural deposits; industrial wastes.
Total Dissolved Solids (ppm) Well 2 Lake Intake	5/26/21 & 10/20/21	94 mg/L Average	48 mg/L – 140 mg/L	500 mg/l	none	Total dissolved solids (TDS) are a measure of the dissolved combined content of all inorganic and organic substances present in a liquid. Particulate matter can include sediment - especially clay and silt, fine organic and inorganic matter, soluble colored organic compounds, algae, and other microscopic organisms.
Turbidity (NTU) Well 2 Lake Intake	5/26/21 & 10/20/21	0.475 NTU Average	0.1 NTU – 0.85 NTU	5 NTU	none	. Turbidity can include sediment - especially clay and silt, fine organic and inorganic matter, soluble colored organic compounds, algae, and other microscopic organisms.

TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Health Effects Language
Alkalinity (total) as CaCO3(ppm) Well 2 Lake Intake	1/20/21 & 2/11/21 & 3/18/21 & 4/14/21 & 5/12/21 & 5/26/21 & 6/17/21 & 6/24/21 & 7/22/21 & 8/25/21 & 9/29/21 & 10/20/21 & 11/23/21 & 12/9/21	31.9 mg/L Average	23 mg/L – 58 mg/L	none	none
Bicarbonate Alkalinity (ppm) Well 2 Lake Intake	5/26/21 & 6/24/21 & 10/20/21	45.33 mg/L Average	32 mg/L – 71 mg/L	none	none
Calcium (ppm) Well 2 Lake Intake	5/26/21 & 10/20/21	6.3 mg/L Average	4.6 mg/L – 8 mg/L	none	none
Conductivity @ 25 CUMHOS/CM (US) Well 2	10/20/21	140 US	140 US	1600 US	none
Total Carbon (ppm) Lake Intake	6/24/21	5.6 mg/L	5.6 mg/L	none	none

Total Organic Carbon (TOC) (ppm) Lake Intake After Treatment (Effluent)	1/20/21 & 2/11/21 & 3/18/21 & 4/14/21 & 5/12/21 & 6/17/21 & 7/22/21 & 8/25/21 & 9/29/21 & 10/20/21 & 11/23/21 & 12/9/21	4.6 mg/L Average	3.0 mg/L – 6.7 mg/L	None	Disinfectant Byproduct Precursor
Magnesium (ppm) Well 2 Lake Intake	5/26/21 & 10/20/21	3.7 mg/L Average	1.6 mg/L – 5.8 mg/L	none	none
Bromochloroacetic Acid (ppb) Sky Oaks /White Cottage Road North Crossing	3/25/21 & 6/24/21	2.1 ug/L Average	1.7 ug/L – 2.5 ug/L	none	Disinfectant byproduct.
Monochloroacetic Acid (ppb) Sky Oaks /White Cottage Road North Crossing	3/25/21 & 6/24/21 & 9/27/21	3.9 ug/L Average	2.9 ug/L – 5.1 ug/L	none	Disinfectant byproduct.
Dibromoacetic Acid (ppb) Sky Oaks /White Cottage Road North Crossing	3/25/21 & 6/24/21 & 9/27/21	17.66 ug/L Average	16 ug/L – 19 ug/L	none	Disinfectant byproduct.
Tichloroacetic Acid (ppb) Sky Oaks /White Cottage Road North Crossing	3/25/21 & 6/24/21 & 9/27/21	18.66 ug/L Average	15 ug/L -23 ug/L	none	Disinfectant byproduct.

Bromodichloromethane (ppb) Deer Park Sample Station	3/25/21 & 6/24/21 & 7/22/21 & 9/27/21 & 12/22/21	9.04 ug/L	7.2 ug/L – 11 ug/L	none	Disinfectant byproduct.
Chloroform (ppb) Deer Park Sample Station	3/25/21 & 6/24/21 & 7/22/21 & 9/27/21 & 12/22/21	72.2 ug/L Average	56 ug/L – 95 ug/L	none	Disinfectant byproduct.
Dibromochloromethane (ppb) Deer Park Sample Station	7/22/21 & 9/27/21	1.15 ug/L Average	1.1 ug/L – 1.2 ug/L	none	Disinfectant byproduct.

Additional General Information on Drinking Water

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

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

Lead-Specific Language for Community Water Systems: If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Howell Mountain Mutual 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>.

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

VIOLATION OF A MCL, MRDL, AL, TT, OR MONITORING AND REPORTING REQUIREMENT				
Violation	Explanation	Duration	Actions Taken to Correct the Violation	Health Effects Language
The State Water Board has determined that the System failed to comply with a primary drinking water standard pursuant to CHSC, Section 116555 and the TTHM MCL pursuant to CCR, Title 22, Section 64533.	HMMWC currently has no treatment in place for the removal of TTHM or TTHM precursors. With rising raw water TTHM precursors HMMWC needs to find a cost effective and sustainable way of removing TTHMs and or TTHM precursors. We have conducted an extensive study to determine the best treatment options. We are now in position to take corrective action.	The violation is based on a locational running annual average (LRAA) that takes four consecutive quarters and averages them to see if the result is above the MCL of 80 ppb. The duration was from 9/15/2020 to 6/24/2021 with a LRAA of 83 ppb.	TTHMs have been an ongoing issue for HMMWC and we have conducted an extensive study over many years to determine the best treatment options for resolving this issue. As directed by the State Water Resources Control Board, we took action again in 2021 to resolve this issue by creating an emergency action plan. We have carried out this plan over the past year and an approximate \$180,000 was approved by our Board of Directors for the TTHM removal project. New treatment equipment will be installed in August or September of this year (2022) for the removal of TTHMs. We will also be removing TTHM precursors through an optimized coagulation processes. In combination these two upgrades to our treatment process will help keep our TTHMs below the MCL.	Some people who consistently 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.

For Systems Providing Surface Water as a Source of Drinking Water

TABLE 8 - SAMPLING RESULTS SHOWING TREATMENT OF SURFACE WATER SOURCES	
Treatment Technique ^(a) (Type of approved filtration technology used)	Conventional Multi- Media Filtration with corrosion control, Ph adjustment and chlorine disinfection.
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 1.0 NTU at any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	95%- 100%
Highest single turbidity measurement during the year	0.355 NTU Nonconsecutive isolated read.
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.