

Annual Drinking Water Quality Report For 2022
Madrona Beach Community Water System
DOH ID No. 499547

The Board of Directors of the Madrona Beach Community Water System (MBCWS) are very pleased to provide you with this year's Annual Water Quality Report, also known as a Consumer Confidence Report. We want to keep you informed about the water that you receive daily. Our goal is, and always has been to provide to you a safe and dependable supply of drinking water. This report is prepared in accordance with requirements of the Federal Safe Drinking Water Act and contains the language required by that act.

Report Time Frame:

This report covers the period from January 1 through December 31, 2022

Type and Source of MBCWS Water Supply:

Type: Ground water

Source: Two wells

Storage: Tank/reservoir

Treatment: Chlorine disinfection and filter treatment system

Madrona Beach Community Water System routinely monitors for contaminants in your drinking water according to Federal and State laws. Please see the attached tables for a list of tests performed in 2022.

Definitions:

The following is a list of the most common definitions used in Annual Drinking Water Quality Reports. Not all of the definitions apply to your report.

- ND Indicates that nothing was detected

-*Parts per million (ppm) or Milligrams per liter (mg/l)*: one part per million corresponds to one minute in two years or a single penny in \$10,000.

-*Parts per billion (ppb) or Micrograms per liter*: one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

-*Nephelometric Turbidity Unit (NTU)*: nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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

-*Maximum Contaminant Level*: The "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

-*Maximum Contaminant Level Goal*: The "Goal" (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

-*Micromhos/centimeter (Umhos/cm)*: Umhos/cm is a unit of measure for electrical conductivity. It stands for micro-mhos per centimeter. Notice that the word "mhos" is "ohms" backwards. "mhos" represents resistance (versus conductance) of electrical energy as a result of (typically) salts in water.

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Water Quality Data:

The water quality information presented in the following tables are from the most recent round of testing done in accordance with the regulations. All data shown were collected during the last calendar year unless otherwise noted in the table.

Contaminant	Sample Date	Monitoring Cycle	Level Detected	Unit Measurement	MCL	Likely Source of Contamination
Arsenic	2022	Monthly	Results Range: .0010 to .0086	Mg/L	.010	Erosion of natural deposits; runoff from orchards, runoff from glass & electronics production wastes.
Manganese	Dec 2022	Once every 3 years	.01	Mg/L	.05	Naturally occurring in rocks, soil, groundwater, surface water, food, ect.
Nitrate	Aug. 2022	Once every year	.5	Mg/L	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Iron	Dec. 2022	Once every 3 years	ND	Mg/L	.3	Erosion of natural deposits; runoff from orchards, runoff from glass & electronics production wastes.

Contaminant	Site Location	Sample Date	Level Detected	Unit Measurement	MCL
Electrical Conductivity	Well #1	4/27/2021	434	uS/cm	700
Electrical Conductivity	Well #2	4/27/2021	489	uS/cm	700
Electrical Conductivity	Well #1	8/30/2022	292	uS/cm	700
Electrical Conductivity	Well #2	8/30/2022	319	uS/cm	700
Chloride	Well #1	4/27/2021	18.3	Mg/L	250
Chloride	Well #2	4/27/2021	22.9	Mg/L	250
Chloride	Well #1	8/30/2022	16.30	Mg/L	250
Chloride	Well #2	8/30/2022	16.6	Mg/L	250

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Other Contaminates Tested

Microbiological Contaminants (samples collected once per month)

Contaminant	Sample Date	Satisfactory samples	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria	One sample per month	11		0	Presence of coliform bacteria in 5% of monthly samples	Naturally present in the environment
Fecal Coliform and <i>E.coli</i>	One sample per month	12		0	A routine sample and repeat sample are total coliform positive, and one is also fecal coliform or <i>E. coli</i> positive	Human and animal fecal waste

NOTE: We received a positive coliform bacteria in July- all repeat/follow up samples were satisfactory. No additional testing is required.

TTHM and HAA5 (these samples are collected within the distribution system)

Contaminant	Sample Date	Location	Unit Measurement	MCLG	Results	Before of After Treatment
TTHM	Dec 2022	Distribution	Ug/L	80.4	All results are ND and/or under the MCL level	After Treatment
HAA5	Dec 2022	Distribution	Ug/L	60.4	All results are ND and/or under the MCL level	After Treatment

Radioactive Contaminants (samples to be collected once every 4 years)

Contaminant	Sample Date	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Gross Beta	12/28/2022	ND	pCi/l	n/a	50	Decay of natural and man-made deposits
Gross Alpha	12/28/2022	ND	pCi/l	n/a	15	Erosion of natural deposits
Radium 228	12/28/2022	ND	pCi/l	n/a	5	Naturally occurring found in plant or animal tissue, soil and bedrock

Per- and polyfluoroalkyl substances (PFAS) are a class of thousands of synthetic chemicals used to make products resistant to water, heat, and stains. PFAS, often referred to as “forever chemicals,” do not easily break down in the environment and are difficult to destroy. Detected in drinking water and drinking water sources throughout the United States, their chemical properties make PFAS difficult to treat and remove using conventional water treatment processes. PFAS are not yet regulated under the Safe Drinking Water Act or other major U.S. environmental laws such as the Clean Air Act and the Clean Water Act.

Contaminant	Sample Date	Result Quantity	State Reporting Limit	
PFAS	3/1/2022	2.0	2.0	For more information on PFAS in drinking water please go to: https://doh.wa.gov/community-and-environment/contaminants/pfas

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EPA Health Effects Statements:

Arsenic Information: Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system and may have an increased risk of getting cancer.

Our water system uses a filter treatment system in order to remove a large amount of the Arsenic within our drinking water. While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. EPA 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.

Iron and Manganese: At sufficient concentrations, iron can adversely affect the taste of water and beverages and can leave rust-colored stains on laundry, plumbing fixtures and porcelain. Manganese causes similar problems. It can cause a bitter metallic taste in water and leave visible black "specks" in ice cubes. Manganese can also produce staining and cause the water to have a brown or black discoloration. Our water system uses a filter treatment system for Arsenic treatment which also removes a significant amount of the iron and manganese from the drinking water.

All 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 Environmental Protection Agency's Safe Drinking Water Hotline at 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. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

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, which 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, which 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, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

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In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. We would like each resident to try and reduce water consumption. Please see below for a list of helpful tips on conserving water. Our water systems Water Use Efficiency goal for the upcoming years is to measure and reduce water loss in our distribution system to meet state standards of 10% or less.

Conservation measures inside your home:

1. Fix leaking faucets, pipes, toilets, etc.
2. Install water-saving devices in faucets, toilets and appliances. Low flow fixtures are now the only kind produced since 1994. Simply replacing old fixtures with new will reduce water consumption by nearly half.
3. Wash only full loads of laundry and dishes
4. Don't use the toilet for trash disposal.
5. Take shorter showers. Do not let the water run while shaving, washing, brushing teeth, or cleaning fruits and vegetables.
6. Run the dishwasher only when full.

You can conserve outdoors as well:

1. Water the lawn and garden as little as possible. If you must water, do so in the early morning or evening.
2. Use mulch around plants and shrubs or choose plants that don't need much water.
3. Repair leaks in faucets and hoses. Use water-saving nozzles.
4. Use water from a bucket to wash your car, and save the hose for rinsing.
5. Sweep clippings and leaves from walks and driveways rather than using the hose.

Madrona Beach Community Water System works to provide top quality water to every tap. We ask that all our members and customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

For publications and more information regarding water conservation please visit the WA DOH web site at <http://www.doh.wa.gov>

If you have any questions about this report or concerning your water utility, please contact Madrona Beach Community Water System or Quality Water Care, Inc. We want everyone on our community water system to be informed about their water utility.

Thank you,

Madrona Beach Community Water Assoc.

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Attention: If you are renting your home, please forward this Water Quality Report to your tenants.