

A close-up photograph of a person's hand holding a clear, faceted glass filled with water. The background is softly blurred, showing parts of the person's arm and clothing. The image is positioned on the left side of the page, partially overlapping a dark blue background.

2021 Annual Water Quality Report

West Marin Edition | Published July 2022

In North Marin Water District, your water comes from protected watersheds and is purified to remove pathogens, bacteria and viruses. It is continuously monitored to ensure that it surpasses all state and federal standards for health and safety.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien. Para más información, llame al (415) 761-8929.



**NORTH MARIN
WATER DISTRICT**



Delivering high quality water to West Marin

Water served by North Marin Water District to its customers comes from protected watersheds and is purified using modern treatment techniques to remove pathogens, including bacteria and viruses. Water is continuously monitored to ensure that it surpasses all state and federal standards for health and safety.

This brochure is a snapshot of water quality monitoring performed in 2021. Included are details about where your water comes from, what it contains, and how it compares to regulatory standards.

How your water is treated

North Marin Water District's water is pumped from three wells adjacent to Lagunitas Creek. Two of these wells are located in Point Reyes Station and one well is located a mile and a half east of Point Reyes Station at the Gallagher Ranch. Testing shows that the quality of the water at each of the wells is excellent. Iron and manganese are the principal contaminants found, and although they do not have any negative effects on health, they can affect the color of the water. For this reason, we treat and filter the water to completely remove both of these metals. Chlorine is added as a disinfectant.

Due to their proximity to Lagunitas Creek and Tomales Bay, the two wells in Point Reyes Station are prone to salt water intrusion. Once the salty water is in the aquifer that feeds the wells it can take many months for salinity to return to normal. We typically take steps to minimize the amount of salty water that is drawn into our wells, but the problem has been worsening in the last few years due to sea level rise and a changing bay. The Gallagher Well

is beyond the reach of the tides and is not affected by saltwater intrusion. A new pipeline to this well, completed in 2014, has given North Marin Water District the ability to draw on this alternate source during occurrences of salinity intrusion in order to provide drinking water that is free from the effects of increased salts.

Safe, clean water

As you continue to keep your family safe from the COVID-19 virus you can feel confident that your tap remains a safe and reliable source of clean, good-tasting drinking water. If you have any questions regarding this Water Quality Report, contact Pablo Ramudo, Water Quality Supervisor, (415) 761-8929 or (800) 464-6693.

Source water assessment

An Assessment of watershed activities, which may affect the Point Reyes source of supply, was completed in July 2013 as required by the US Environmental Protection Agency. The activities identified with the highest potential for contamination of the Point Reyes groundwater supply are salt water intrusion and activities associated with the operation of the former US Coast Guard housing wastewater system and maintenance facility area. These activities increase the potential to introduce chemical and microbial contaminants into the local groundwater. The Point Reyes groundwater is routinely monitored by North Marin Water District. No contaminants have been detected with exception of occasional increases in salts and metals related to saltwater intrusion. Water produced at the Point Reyes water treatment plant meets federal and state water quality requirements. A copy of the complete assessment is on file at the North Marin Water District office at 999 Rush Creek Place, Novato, CA 94945.

Salinity intrusion

North Marin Water District is experiencing salinity intrusion at two of our three wells, these being the wells situated adjacent to the former Coast Guard housing facility. Our third well, situated on the Gallagher Ranch, is not affected by salinity intrusion. Throughout the cooler months we were able to supply our customers water almost solely from our Gallagher Well, but during the higher-demand summer months our system will be supplemented with higher salinity water from the Coast Guard wells.

We test our water supply weekly for a number of chemical and microbial constituents, including those associated with higher salts like sodium, chloride, conductance, and total dissolved solids. There are no health-based regulations for these mineral constituents in public drinking water, however there are aesthetic standards as detailed in the table on the next page. In 2021 the water served by North Marin Water District was above these aesthetic standard for several weeks, the water having an undesirable salty taste that was noted by many customers.

Sodium is an essential nutrient for the body, necessary for proper nerve function. The FDA recommends a dietary intake of 2300 milligrams per day, but most Americans consume between 2700 to 7000 milligrams per day. Some medical conditions make reducing sodium necessary, with the most severe restrictions limiting sodium intake to no more than 1375-1800 milligrams per day. North Marin Water District publishes the weekly sodium and chloride levels in the Point Reyes Light when the sodium level rises above 50 milligrams per liter so that those of our customers who are advised by their physicians to account for sodium in their diets can adjust their sodium intake as needed.

For those customers on a salt restricted diet, we have developed a plan to make water from the Gallagher Well available at fill stations on the former Coast Guard property. The fill stations will be available on specified days when the sodium concentration in the water served to customers' homes reaches 115 milligrams per liter. This value is derived from the FDA recommended sodium intake of 2300 milligrams per person per day and represents a contribution from drinking water of 10% based on the typical drinking water consumption of 2 liters per day. For details about the fill stations including directions and hours of operations please visit our website www.nmwd.com/wq

Construction of a second well on the Gallagher Ranch and initial water quality testing is currently underway. Permitting for this well to make its water available for delivery to our customers should be completed by autumn of this year.

North Marin Water District's Water Quality Lab



2021 Water Quality Data

Primary Drinking Water Standards

Table 1: Report on detected constituents with a primary drinking water standard (PDWS)						
Constituent	Units	PHG / [MRDLG] (MCLG)	MCL / [MRDL] (PDWS)	Point Reyes Treatment Plant	Point Reyes Distribution System	Typical Source
Total Trihalomethanes (1)	µg/L	n/a	80	n/a	Highest Running Annual Average = 59.3 Range = 13.9 – 96.6	By-product of drinking water disinfection
Haloacetic Acids (1)	µg/L	n/a	60	n/a	Highest Running Annual Average = 24.7 Range = 8.6 – 40.7	By-product of drinking water disinfection
Lead (2) (See the section on lead in drinking water on page 6)	µg/L	0.2	(Action level 15)	ND	90th Percentile = 13 None of 10 samples above action level	Internal corrosion of household water plumbing system and fixtures
Copper (2)	µg/L	170	(Action level 1300)	ND	90th Percentile = 480 None of 10 samples above action level	Internal corrosion of household water plumbing system and fixtures
Fluoride	mg/L	1.0	2.0	Average = ND Range = ND – 0.10	n/a	Erosion of natural deposits
Chlorine, free	mg/L	[4.0]	[4.0]	n/a	Average = 0.40 Range = 0.00 – 0.88	Drinking water disinfectant
Coliform Bacteria	# of positive samples per month	(0)	2 or more positive monthly samples	n/a	All samples negative for coliform bacteria, 91 samples collected in 2021	Naturally present in the environment
E Coli	% positive samples	(0)	0	n/a	All samples negative	Human and animal fecal waste
Arsenic	µg/L	0.004(0)	10	3	n/a	Erosion of natural deposits; runoff from orchards

(1) Compliance is based on a four-quarter running average at each distribution system monitoring location, (2) 2020 data

Legend

PHG (Public Health Goal): 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.

MCLG (Maximum Contaminant Level Goal): 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. EPA.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water by regulation. Primary standards based on health, set as close to the PHGs and MCLGs as is economically and technologically feasible. These standards are developed and imposed by the California and/or U.S. EPA.

SMCL (Secondary Maximum Contaminant Level): Secondary standards based on aesthetics, set to protect the odor, taste, and appearance of drinking water. These standards are developed and imposed by the California and/or U.S. EPA.

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

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

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

NTU (Nephelometric Turbidity Units): A measure of suspended material in water.

90th Percentile: Compliance based on highest value after eliminating the highest 10% of values.

MRDL (Maximum Residual Disinfectant Level): The level of a disinfectant added for water treatment that may not be exceeded at the consumer’s tap.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of a disinfectant added for water treatment below which there is no known or exposed risk to health. MRDLGs are set by the U.S. EPA.

NL (Notification Level): The notification level for some unregulated contaminants.

mg/L: Milligrams per liter (parts per million) – equivalent to 4 drops of water in the average sized bathtub.

µg/L: Micrograms per liter (parts per billion) – equivalent to 50 drops in an olympic size swimming pool.

µmhos/cm: Micromhos per centimeter

ND: Not Detected
NA: Not Analyzed
N/A: Not Applicable
PCU: Platinum cobalt units
pCi/l: Picocuries per liter

Secondary Drinking Water Standards

Table 2: Report on detected constituents of interest					
Constituent	Units	SMCL	Point Reyes Average	Point Reyes Range	Typical Sources
Chloride	mg/L	500	24	13 – 230	Runoff / leaching from natural deposits; seawater influence
Color	PCU	15	ND	ND	Naturally-occurring organic materials
Hardness	mg/L	n/a	108	107 – 109	Generally found in ground and surface water
Manganese	µg/L	50	ND	ND	Leaching from natural deposits
Specific Conductance	µmhos/cm	1600	290	240 – 950	Substances that form ions when in water; seawater influence
pH	n/a	8.5	7.1	7.1 – 7.2	
Total Dissolved Solids	mg/L	1000	150	140 – 150	Runoff / leaching from natural deposits
Turbidity	NTU	5	0.06	0.03 – 0.13	Soil runoff
Sodium	mg/L	n/a	17	11 – 149	Generally found in ground and surface water; seawater influence



A message from the United States Environmental Protection Agency

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 materials, 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 by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural applications 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. Environmental Protection Agency (USEPA) and the California State Water Resources Control Board’s Division of Drinking Water (DDW) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. California regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA’s Safe Drinking Water Hotline (800) 462-4791. Some people may be more vulnerable to contaminants in drinking water than the general population.

Immunocompromised 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. USEPA/ 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 (800) 462-4791.

Radon in air

Radon is a radioactive gas that can move from decomposed granite soils into a home through cracks and holes in the foundation. Radon can also get into indoor air when running tap water for showering and other household activities. In most cases, radon from tap water is a small source of radon in air. Radon is a known human carcinogen. It can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. 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.

If you are concerned about radon in your home, test the air in your home: Testing is inexpensive and easy. For additional information, call your state radon program or call EPA’s Radon Hotline (800-SOS-RADON).



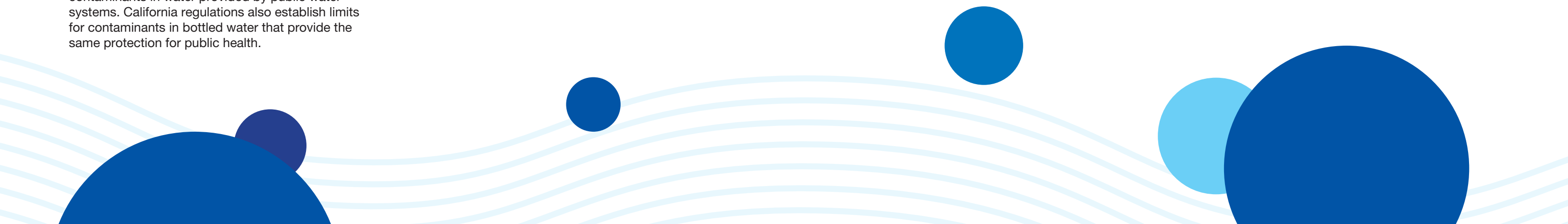
Concerning lead and drinking water

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. There is no lead in drinking water produced by North Marin Water District and there are no district owned lead service lines within our system, however lead can leach into drinking water from materials and components associated with customers’ service lines and home plumbing.

North Marin Water District is responsible for providing high quality drinking water to your meter, but cannot control the variety of materials used in home plumbing components. When water in your

household plumbing has been sitting for several hours, you can minimize the potential for lead exposure by running your tap water for 30 seconds to 2 minutes before using water for drinking or cooking.

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 www.epa.gov/safewater/lead



nmwd.com/wq

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