



NORTH MARIN WATER DISTRICT

2015 ANNUAL WATER QUALITY REPORT • POINT REYES AREA EDITION • PUBLISHED JUNE 2016

In 2015, water provided by North Marin Water District met or surpassed every federal and state drinking water standard.

This brochure is a snapshot of water quality monitoring performed in 2015. Included are details about where your water comes from, what it contains, and how it compares to regulatory standards. If you have any questions regarding this Water Quality Report, contact Pablo Ramudo, Water Quality Supervisor, (415) 897-4133 or (800) 464-6693



This report is available on our website: www.nmwd.com

North Marin Water District's water is pumped from 3 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 west 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 during very high tides. 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 NMWD 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.

NMWD is committed to supplying safe water that meets or surpasses strict state and federal standards and achieves the highest standards of customer satisfaction.

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 — Point Reyes Water Service Area
Report of Detected Constituents of Concern**

CHEMICAL	UNITS	PHG / [MRDLG] (MCLG)	MCL / [MRDL] (PDWS)	POINT REYES TREATMENT PLANT	POINT REYES DISTRIBUTION SYSTEM	TYPICAL SOURCE OF CHEMICAL
Total Trihalomethanes	µg/l	n/a	80 ¹	n/a	Highest Running Annual average = 71.4 Range = 23.5 – 116	By-product of drinking water disinfection
Haloacetic Acids (HAA5)	µg/l	n/a	60 ¹	n/a	Highest Running Annual average = 19.1 Range = 6.6 – 25.7	By-product of drinking water disinfection
Lead (2 rounds of testing)	µg/l	2	(Action level 15)	ND	January 2015: 90th Percentile = 6.2, one sample of 20 above the action level. July 2015: 90th percentile = ND, none of 20 samples above the action level.	Internal corrosion of household water plumbing system and fixtures
Copper (2 rounds of testing)	µg/l	170	(Action level 1300)	ND	January 2015: 90th Percentile = 954, one sample of 20 above the action level. July 2015: 90th percentile = 995, one sample of 20 above the action level.	Internal corrosion of household water plumbing system and fixtures
Fluoride	mg/l	1.0	2.0	Average = 0.12 Range = 0.11 - 0.12	n/a	Erosion of natural deposits
Hexavalent Chromium ²	ug/l	0.02	10	ND	n/a	Erosion of natural deposits
Chlorine, free	mg/l	[4.0]	[4.0]	n/a	Average = 0.50 Range = 0.05 - 1.10	Drinking water disinfectant
Coliform Bacteria	# of positive samples per month	0	2 or more positive monthly samples	n/a	All Samples negative (91 samples collected)	Naturally present in the Environment

1) Compliance is based on a four-quarter running average at each distribution system monitoring location

2) 2013 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. Environmental Protection Agency (USEPA).

MCL (Maximum Contaminant Level): 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 (SMCL) are set to protect the odor, taste, and appearance of drinking water. MCLs are set by the California and/or USEPA.

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

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 USEPA.

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

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

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

Abbreviations

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 sized swimming pool.

NTU = Nephelometric Turbidity Units, a measure of suspended material in water

pCi/l = picocuries per liter (a measure of radiation)

n/a = not applicable

ND = Not Detected at testing limit

µmhos/cm = micromhos per centimeter

PCU = platinum cobalt units

**North Marin Water District — Point Reyes Water Service Area
Report on Constituents of Interest**

CONSTITUENT	UNITS	MCL or (SMCL)	POINT REYES AVERAGE	POINT REYES RANGE	TYPICAL SOURCES
Chloride	mg/l	(500)	34	15 – 61	Runoff/leaching from natural deposits; seawater influence
Color	PCU	(15)	ND	ND	Naturally-occurring organic materials
Hardness	mg/l	n/a	98	61 – 130	Generally found in ground and surface water
Manganese	ug/l	(50)	ND	ND	Leaching from natural deposits
Specific Conductance	µmhos/cm	(1600)	340	260 – 450	Substances that form ions when in water; seawater influence
pH	n/a	(8.5)	7.2	7.2 – 7.4	
Total Dissolved Solids	mg/l	(1000)	180	180 – 190	Runoff/leaching from natural deposits
Turbidity	NTU	5	0.08	0.05 – 0.14	Soil runoff
Sodium	mg/l	n/a	36	13 – 61	Generally found in ground and surface water; seawater influence

Capital Improvement Projects

West Marin System improvements recently completed to improve system water quality and reliability: (1) Olema Pump Station Flood Protection and Instrumentation Upgrade to eliminate potential outages of this facility during spring flooding of Olema Creek , (2) Emergency Generator Connections at various pump stations to improve ease of connection during power outages, (3) Internal Spray System modifications at three different tanks to reduce disinfection byproducts.

Major ongoing projects include: (1) permitting and design for a solids handling facility at the Point Reyes Water Treatment Plant, (2) seismic upgrades to the piping connections at the Point Reyes Water Storage Tanks and (3) permitting for construction of a new 80,000 gallon storage tank in Paradise Ranch Estates to replace the 25,000 gallon tank destroyed by fire years ago.

Concerning Lead and Drinking Water

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 private 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 your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing 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.

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 Department of Public Health (CDPH) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. DHS 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 (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. 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 (1-800- 426-4791).

Source Water Assessment

An Assessment of watershed activities, which may affect the Point Reyes source of supply, was completed in July 2002 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 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 NMWD. No contaminants have been detected with the exception of occasional increases in salt concentrations. 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.

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).

Board of Directors

John C. Shoonover
President

Stephen Petterle
Vice President

Jack Baker

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Dennis Rodoni

The Board of Directors meets on the first and third Tuesday of the month, 7:00 pm at NMWD Administrative office, 999 Rush Creek Place, Novato, CA 94945.

On June 28, 2016, the Board will meet at 7:00 pm in Point Reyes Station to review the Point Reyes budget and Point Reyes water issues.

