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.
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.

Delivering high quality water to Novato

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 Stafford Lake Water Treatment Plant produces about 25% of the water needed for Novato. This facility is designed to produce water which meets or exceeds strict state and federal standards for water quality. The water treatment process starts with chlorine dioxide and polymers prior to filtration through layers of anthracite and garnet sand. The water then passes through granular activated charcoal to remove any remaining impurities before adjusting the pH to 8.3 for corrosion control and the addition of a small amount of chlorine for disinfection.

Most of Novato’s water supply is purchased as treated water from Sonoma County Water Agency (SCWA). The SCWA water supply is collected from gravel beds 80-100 feet below and adjacent to the Russian River. The quality of this naturally filtered water is excellent, making additional treatment unnecessary. Water from additional SCWA wells in the Santa Rosa plain can be blended with the Russian River well water to augment water supply.

Before delivering the water to Novato, SCWA adds small amounts of chlorine and sodium hydroxide to ensure purity and to adjust the pH to 8.3. The Stafford Lake water supply blends with the SCWA water supply in the Novato water distribution system. The percentage from each source can vary by day and by season.

Drinking water source assessment for SCWA groundwater supply

In January 2001, a drinking water source assessment for all of the SCWA’s water sources was conducted to identify if any potential sources of contamination exist.

The SCWA source water is extracted from groundwater via six Ranney collector wells and seven conventional wells located at Wohler and Mirabel, and three wells in the Santa Rosa Plain. The aquifer is recharged by subsurface flows and Russian River water filtering down through the gravel riverbed.

Most of the SCWA water supply comes from the wells at Wohler and Mirabel adjacent to the Russian River. These sources are considered to be most vulnerable from wastewater treatment and gravel mining in the area. However, no contaminants associated with these activities were detected in the drinking water.

The SCWA also operates three groundwater wells on the Santa Rosa Plain near Occidental Road, Todd Road and Sebastopol Road. These sources are considered to be most vulnerable from animal feeding operations. However, no contaminants associated with this activity were detected in the drinking water.

A copy of the complete assessment may be reviewed at the California Water Boards-Division of Drinking Water Field Operations Branch office located at 50 D Street, Suite 200, Santa Rosa, CA 95404. You may request a summary of this assessment be sent to you by contacting the Office Representative at (707) 576-2145 (voice) or by email to dwpdist18@waterboards.ca.gov.

Drinking water source water assessment for Stafford Lake

An assessment of watershed activities, which may affect the Stafford Lake source of supply, was performed in 2002 as required by the U.S. Environmental Protection Agency (U.S. EPA). The watershed activities identified with the highest potential for contamination of Stafford Lake are animal feeding/waste disposal at the existing stable and former dairy operations on the watershed. These activities increase the potential to introduce microbial contaminants and nutrients to Stafford Lake. North Marin Water District actively works with the stable and ranch owners to control their operations and reduce potential contaminants. The Stafford Lake source water is routinely monitored by North Marin Water District to ensure the controls are effective.

A copy of the complete assessment is on file at the North Marin Water District office at 999 Rush Creek Place, Novato, CA 94945.

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2021 Water Quality Data

Primary Drinking Water Standards

Table 1: Report on detected constituents with a primary drinking water standard (PDWS) Sonoma County Water Agency

<table>
<thead>
<tr>
<th>Constituent</th>
<th>Units</th>
<th>PHG / [MRDLG]</th>
<th>MCL / [MRDL]</th>
<th>Typical Source</th>
<th>Sonoma County Water Agency</th>
<th>Stafford Water Treatment Plant</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>MCLG (MCLG)</td>
<td>MCL (MCL)</td>
<td>Average</td>
<td>Range</td>
<td>Average</td>
</tr>
<tr>
<td>Fluoride</td>
<td>mg/L</td>
<td>1.0</td>
<td>2.0</td>
<td>Errosion of natural deposits</td>
<td>ND</td>
<td>ND</td>
</tr>
<tr>
<td>Nitrate (as N)</td>
<td>mg/L</td>
<td>10</td>
<td>15</td>
<td>Soil runoff from fertilizers, leaching from septic systems and sewage</td>
<td>ND</td>
<td>ND</td>
</tr>
<tr>
<td>Radioactivity Gross Alphas</td>
<td>PCU</td>
<td>0</td>
<td>15</td>
<td>Erosion of natural deposits</td>
<td>ND (1)</td>
<td>ND (1): ND (2)</td>
</tr>
</tbody>
</table>

Distribution System

Chlorine, Free

mg/L

[4.0] (4.0)

Drinking water disinfectant added for treatment

Average = 0.91

Range = 0.10 – 1.65

Total Coliform Bacteria

% of samples positive

5

>5% of monthly samples positive

Naturally present in the environment

All samples negative for coliform bacteria.

992 samples collected in 2021.

E Coli

% positive samples

0

Human and animal fecal waste

All samples negative

Total Trichloramines (3)

μg/L

n/a

80

Byproduct of drinking water disinfection

Highest Location Running Annual Average = 60.5

Range = 57.7 – 58.8

Total Haloacetic Acids (3)

μg/L

n/a

80

Byproduct of drinking water disinfection

Highest Location Running Annual Average = 22.7

Range = 27.7

Copper (4)

μg/L

1.70

(AL 1300)

Internal corrosion of household plumbing systems

30 samples collected, none above the action level 90th percentile = 100, Range = ND – 120

Lead (4)

μg/L

0.2

(AL 15)

Internal corrosion of household plumbing systems

30 samples collected, none above the action level 90th percentile = ND, Range = ND

Legend

PHG (Public Health Goal): The level of a contaminant in drinking water below which it is known or expected to 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 level of a contaminant in drinking water below which there is no known or expected risk to health. MCLs are set by the U.S. EPA.

SMCL (Secondary Maximum Contaminant Level): Secondary standards based on aesthetic, 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 expected risk to health. MRDLGs are set by the U.S. EPA.

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

Limit

Contaminant Limit Typical Source System Range

Meets Regulations

Yes/No

Secondary Drinking Water Standards

Table 2: Constituents with aesthetic concerns and/or a secondary drinking water standard Sonoma County Water Agency

<table>
<thead>
<tr>
<th>Constituent</th>
<th>Units</th>
<th>SMCL</th>
<th>Typical Source</th>
<th>System Range</th>
<th>Source Range</th>
<th>Source Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>PCU</td>
<td>15</td>
<td>Naturally occurring organic materials</td>
<td>2</td>
<td>ND – 4</td>
<td>ND</td>
</tr>
<tr>
<td>Odor</td>
<td>TON</td>
<td>3</td>
<td>Naturally occurring organic materials</td>
<td>ND</td>
<td>ND</td>
<td>1</td>
</tr>
<tr>
<td>Chloride</td>
<td>mg/L</td>
<td>500</td>
<td>Runoff / leaching of natural deposits</td>
<td>8.6</td>
<td>5.5 – 20</td>
<td>29 – 37</td>
</tr>
<tr>
<td>Sulfate</td>
<td>mg/L</td>
<td>500</td>
<td>Leaching of natural deposits, treatment chemicals</td>
<td>11.4</td>
<td>3.6 – 17</td>
<td>90 – 100</td>
</tr>
<tr>
<td>Turbidity</td>
<td>NTU</td>
<td>5</td>
<td>Soil runoff</td>
<td>0.22</td>
<td>0.02 – 0.95</td>
<td>0.16</td>
</tr>
<tr>
<td>Total Dissolved Solids</td>
<td>mg/L</td>
<td>1000</td>
<td>Runoff / leaching of natural deposits</td>
<td>160</td>
<td>130 – 240</td>
<td>330</td>
</tr>
<tr>
<td>Sodium</td>
<td>mg/L</td>
<td>n/a</td>
<td>Naturally occurring and treatment chemicals</td>
<td>8.8</td>
<td>4.6 – 10</td>
<td>50</td>
</tr>
<tr>
<td>Hardness (5)</td>
<td>mg/L</td>
<td>n/a</td>
<td>Leaching of natural deposits</td>
<td>107</td>
<td>53 – 130</td>
<td>145</td>
</tr>
<tr>
<td>Radon</td>
<td>pCi/l</td>
<td>n/a</td>
<td>See “Radon in Air” on page 5</td>
<td>196</td>
<td>99 – 314</td>
<td>n/a</td>
</tr>
<tr>
<td>Specific Conductance</td>
<td>μmhos/cm</td>
<td>1600</td>
<td>Substances that form ions in water</td>
<td>230</td>
<td>210 – 270</td>
<td>505</td>
</tr>
<tr>
<td>Manganese</td>
<td>μg/L</td>
<td>50</td>
<td>Leaching from natural deposits</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
</tr>
</tbody>
</table>

Other Water Quality Parameters

Table 3: Unregulated contaminants

<table>
<thead>
<tr>
<th>Constituent</th>
<th>Units</th>
<th>Notification Limit</th>
<th>Maximum Contaminant Limit</th>
<th>Typical Source</th>
<th>System Range</th>
<th>Source Range</th>
<th>Source Average</th>
<th>Meets Regulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brominated Haloacetic Acids (HAA5)</td>
<td>μg/L</td>
<td>n/a</td>
<td>n/a</td>
<td>Byproduct of drinking water disinfection</td>
<td>0.84 – 8.8</td>
<td>5.8</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Haloacetic Acids (HAA5)</td>
<td>μg/L</td>
<td>n/a</td>
<td>n/a</td>
<td>Byproduct of drinking water disinfection</td>
<td>2.0 – 2.2</td>
<td>9.6</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>1,4-Dimeth</td>
<td>μg/L</td>
<td>1</td>
<td>n/a</td>
<td>Solvent and stabilizer used in manufacturing</td>
<td>ND</td>
<td>ND</td>
<td>ND – 4.2</td>
<td>ND</td>
</tr>
</tbody>
</table>

D SS: Picocuries per liter

NL: Not Applicable

ND: Not Detected

NA: Not Analyzed

(1) 2014 Data, (2) 2012 Data, (3) Compliance based on a four-quarter running average at each distribution system monitoring location, (4) 2020 Data, (5) Average hardness shown in mg/L equates to 6.2 to 8.5 grains per gallon.
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 result from the 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. The SCWA water was tested for Radon and showed an average of 196 and a range of 99 – 314 pCi/L (picocuries per liter). 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.

Cryptosporidium & Giardia
Monitoring performed by North Marin Water District on untreated water in Stafford Lake has intermittently shown the presence of cryptosporidium, a microbial pathogen found in surface waters throughout the U.S. North Marin Water District’s filtration is designed and operated to remove cryptosporidium, but 100% removal cannot be guaranteed. Should you be concerned? Healthy individuals should not be concerned. However, immunocompromised people are at greater risk. We suggest immunocompromised individuals consult their physician regarding appropriate precautions.

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. The SCWA water was tested for Radon and showed an average of 196 and a range of 99 – 314 pCi/L (picocuries per liter). 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 the Safe Drinking Water Hotline (800-SOS-RADON).

Notice to kidney dialysis patients
Chlorine dioxide is used as pre-oxidant in water produced from Stafford Lake Water Treatment Plant. Customers undergoing kidney dialysis treatment are advised to use sufficient pre-treatment to ensure chlorine dioxide does not pose a threat to the dialysis process.

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
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