Important Health Information

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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or http://water.epa.gov/drink/hotline.

Protecting Our Watershed

The City of Napa is devoted to protecting the land surrounding our local source waters in order to maintain the quality and purity of drinking water for Napa’s consumers. In the long term, protecting our watershed is one of the least costly and most important actions we can take to reduce the risk of unwanted constituents in our drinking water. Algal growth is the number one cause of taste and odor affecting your tap water. Nutrients in the watershed are increased artificially by wastewater systems as well as fertilizers and runoff from agricultural practices.

Every five years, the City of Napa conducts source water assessments to evaluate the quality of the water used as drinking water supply and examine activities associated with the specific waterway and surrounding areas to determine their contribution to contamination. These potential contributors are then compiled into a Vulnerability Summary. Results from the Vulnerability Summaries show the most significant potential sources of contaminants for the City of Napa’s source waters are:

- Lake Hennessey (completed June 2021): Pacific Union College Wastewater Treatment Plant, vineyards, fires, invasive species, potential hazardous material spills due to traffic accidents (on Highway 128 near lake), septic tank systems (in Angwin), grazing, and wild animals.

- Lake Milliken (completed April 2018): Fires, vineyards, grazing, and wild animals.

- Sacramento Delta (updated 2021): Recreational use, urban and agricultural runoff, grazing animals, herbicide application, and seawater intrusion.

Copies of the complete assessments are available through the SWRCB DDW Santa Rosa District Office, 50 D Street, Suite 200, Santa Rosa, CA 95404 or by calling the State Board at (707) 576-2145.

Where Does My Water Come From?

The City of Napa’s customers are fortunate because we have water supply from three sources. Depending on which water treatment plant is in operation, the source comes from (1) Barker Slough in the Sacramento Delta via the North Bay Aqueduct (treated by the Edward I. Barwick Jamieson Canyon Water Treatment Plant), (2) Lake Hennessey (treated by the Hennessey Water Treatment Plant), or (3) Lake Milliken (treated by the Milliken Water Treatment Plant).

Community Participation

The City of Napa encourages citizens to participate in our city council meetings, which take place on the first and third Tuesdays of each month from 3:30 to 5:00 p.m. and 6:30 to 9:00 p.m. in Council Chambers at City Hall, 955 School Street. For more information concerning city activities, please see our website, http://cityofnapa.org.

Questions?

For more information about this report, or for any questions relating to your drinking water, please call Erin Kebbas, Water Quality Manager, at (707) 253-0822. For questions concerning the City of Napa Water Division in general, please call (707) 257-9521. See our website, www.cityofnapa.org/water, for up-to-date information on programs. For emergencies or customer use during weekends and holidays, please call (707) 253-4451.
Substances That Could Be in Water

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.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (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. The U.S. Food and Drug Administration regulations and California law 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.

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 can 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, which are by-products of industrial processes and petroleum production and which can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems;

Radioactive Contaminants that can be naturally occurring or can be the result of oil and gas production and mining activities.

More information about contaminants and potential health effects can be obtained by calling the U.S. EPA’s Safe Drinking Water Hotline at (800) 426-4791.

Water Main Flushing

Distribution mains (pipes) convey water to homes, businesses, and hydrants in your neighborhood. The water entering distribution mains is of very high quality; however, water quality can deteriorate in areas of the distribution mains over time. Water main flushing is the process of cleaning the interior of water distribution mains by sending a rapid flow of water through the mains.

Flushing maintains water quality in several ways. For example, flushing removes sediments like iron and manganese. Although iron and manganese do not pose health concerns, they can affect the taste, clarity, and color of the water. Additionally, sediments can shield microorganisms from the disinfecting power of chlorine, contributing to the growth of microorganisms within distribution mains. Flushing helps remove stale water and ensures the presence of fresh water with sufficient dissolved oxygen and disinfectant levels.

During flushing operations in your neighborhood, some short-term deterioration of water quality, though uncommon, is possible. If you use the tap, allow your cold water to run for a few minutes at full velocity before use and avoid using hot water to prevent sediment accumulation in your hot water tank. Visit the City of Napa’s Hydrant Flushing information page at https://www.cityofnapa.org/717/Hydrant-Flushing for more information on our annual winter main flushing.
What Are PFAS?

Per- and polyfluoroalkyl substances (PFAS) are a group of manufactured chemicals used worldwide since the 1950s to make fluoropolymer coatings and products that resist heat, oil, stains, grease, and water. During production and use, PFAS can migrate into the soil, water, and air. Most PFAS do not break down; they remain in the environment, ultimately finding their way into drinking water. Because of their widespread use and their persistence in the environment, PFAS are found all over the world at low levels. Some PFAS can build up in people and animals with repeated exposure over time.

The most commonly studied PFAS are perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS). PFOA and PFOS have been phased out of production and use in the United States, but other countries may still manufacture and use them.

Some products that may contain PFAS include:

- Some grease-resistant paper, fast food containers/wrappers, microwave popcorn bags, pizza boxes
- Nonstick cookware
- Stain-resistant coatings used on carpets, upholstery, and other fabrics
- Water-resistant clothing
- Personal care products (shampoo, dental floss) and cosmetics (nail polish, eye makeup)
- Cleaning products
- Paints, varnishes, and sealants

Even though recent efforts to remove PFAS from manufacturing process have reduced the likelihood of exposure, some products may still contain them. If you have questions or concerns about products you use in your home, contact the Consumer Product Safety Commission at (800) 638-2772. For a more detailed discussion on PFAS, please visit http://bit.ly/3Z5AMm8.

Water Conservation Tips

You can play a role in conserving water and save yourself money in the process by becoming conscious of the amount of water your household is using and looking for ways to use less whenever you can. It’s not hard to conserve water. Here are a few tips:

- Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and you save more than 30,000 gallons a year.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water-using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.
- Implement water efficient landscaping. City of Napa pays you $1/ft² to replace thirsty turf and $2/ft² to Flip the Strip. Program details can be found at Cash For Grass | Napa, CA (cityofnapa.org)
Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detections below their respective maximum allowed levels.

The state recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

### Regulated Substances

<table>
<thead>
<tr>
<th>Substance</th>
<th>Unit of Measure</th>
<th>MCL (MRDL)</th>
<th>PHG (MCLG)</th>
<th>AMOUNT DETECTED</th>
<th>RANGE LOW-HIGH</th>
<th>IN COMPLIANCE</th>
<th>Typical Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bromate</td>
<td>ppb</td>
<td>10</td>
<td>0.1</td>
<td>[ND]</td>
<td>NA</td>
<td>Yes</td>
<td>By-product of drinking water disinfection</td>
</tr>
<tr>
<td>Chlorine</td>
<td>ppm</td>
<td>[4.0 (as Cl)]</td>
<td>[4 (as Cl)]</td>
<td>0.01–1.81</td>
<td>Yes</td>
<td>Drinking water disinfectant added for treatment</td>
<td></td>
</tr>
<tr>
<td>Total Coliform Bacteria [Federal Revised Total Coliform Rule]</td>
<td>% positive samples</td>
<td>TT</td>
<td>NA</td>
<td>0.15</td>
<td>NA</td>
<td>Yes</td>
<td>NA</td>
</tr>
<tr>
<td>Control of DBP Precursors [TOC] (removal ratio)</td>
<td>ppm</td>
<td>TT</td>
<td>NA</td>
<td>[1.61]</td>
<td>0.11–2.58</td>
<td>Yes</td>
<td>Various natural and human-made sources</td>
</tr>
<tr>
<td>HAA5 [Sum of 5 Haloacetic Acids]–Stage 2</td>
<td>ppm</td>
<td>60</td>
<td>NA</td>
<td>(40.2)</td>
<td>ND–86.7</td>
<td>Yes</td>
<td>By-product of drinking water disinfection</td>
</tr>
<tr>
<td>TTHMs [Total Trihalomethanes]–Stage 2</td>
<td>ppm</td>
<td>80</td>
<td>NA</td>
<td>(83.1)</td>
<td>31.3–108.8</td>
<td>No¹</td>
<td>By-product of drinking water disinfection</td>
</tr>
</tbody>
</table>

Filter Performance (Turbidity-the Standard Measure of Clarity in Water)

<table>
<thead>
<tr>
<th>Substance</th>
<th>Unit of Measure</th>
<th>MCL (MRDL)</th>
<th>PHG (MCLG)</th>
<th>AMOUNT DETECTED</th>
<th>IN COMPLIANCE</th>
<th>Typical Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turbidity (NTU)</td>
<td>ppm</td>
<td>TT</td>
<td>NA</td>
<td>1.26</td>
<td>Yes</td>
<td>Soil runoff</td>
</tr>
<tr>
<td>Turbidity (lowest monthly percent of samples meeting limit)</td>
<td>ppm</td>
<td>TT = 95% of samples meet the limit</td>
<td>NA</td>
<td>99.8</td>
<td>Yes</td>
<td>Soil runoff</td>
</tr>
</tbody>
</table>

Tap water samples were collected for lead and copper analyses from sample sites throughout the community in 2021

<table>
<thead>
<tr>
<th>Substance</th>
<th>Unit of Measure</th>
<th>AL</th>
<th>PHG (MCLG)</th>
<th>AMOUNT DETECTED</th>
<th>SITES ABOVE AL/TOTAL SITES</th>
<th>IN COMPLIANCE</th>
<th>Typical Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper</td>
<td>ppm</td>
<td>1.3</td>
<td>0.3</td>
<td>0.33</td>
<td>0/34</td>
<td>Yes</td>
<td>Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives</td>
</tr>
<tr>
<td>Lead</td>
<td>ppm</td>
<td>15</td>
<td>0.2</td>
<td>ND</td>
<td>0/34</td>
<td>Yes</td>
<td>Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits</td>
</tr>
</tbody>
</table>

### Secondary Substances

<table>
<thead>
<tr>
<th>Substance</th>
<th>Unit of Measure</th>
<th>SMCL</th>
<th>PHG (MCLG)</th>
<th>AVERAGE</th>
<th>RANGE LOW-HIGH</th>
<th>IN COMPLIANCE</th>
<th>Typical Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chloride</td>
<td>ppm</td>
<td>500</td>
<td>NS</td>
<td>16</td>
<td>11–39</td>
<td>Yes</td>
<td>Runoff/leaching from natural deposits; seawater influence</td>
</tr>
<tr>
<td>Specific Conductance</td>
<td>µS/cm</td>
<td>1,600</td>
<td>NS</td>
<td>233</td>
<td>120–330</td>
<td>Yes</td>
<td>Substances that form ions when in water; seawater influence</td>
</tr>
<tr>
<td>Sulfate</td>
<td>ppm</td>
<td>500</td>
<td>NS</td>
<td>39</td>
<td>15–60</td>
<td>Yes</td>
<td>Runoff/leaching from natural deposits; industrial wastes</td>
</tr>
<tr>
<td>Total Dissolved Solids</td>
<td>ppm</td>
<td>1,000</td>
<td>NS</td>
<td>238</td>
<td>97–463</td>
<td>Yes</td>
<td>Runoff/leaching from natural deposits</td>
</tr>
<tr>
<td>Turbidity</td>
<td>NTU</td>
<td>5</td>
<td>NS</td>
<td>0.08</td>
<td>0.02–0.74</td>
<td>Yes</td>
<td>Soil runoff</td>
</tr>
</tbody>
</table>
### UNREGULATED SUBSTANCES

<table>
<thead>
<tr>
<th>SUBSTANCE (UNIT OF MEASURE)</th>
<th>AVERAGE</th>
<th>RANGE LOW-HIGH</th>
<th>TYPICAL SOURCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boron (ppb)</td>
<td>0.05</td>
<td>ND–0.15</td>
<td>Runoff/leaching from naturally occurring and artificial sources</td>
</tr>
<tr>
<td>Hardness, Total [as CaCO3] (ppm)</td>
<td>93</td>
<td>25–177</td>
<td>Naturally occurring in groundwater and surface water</td>
</tr>
<tr>
<td>Sodium (ppm)</td>
<td>18</td>
<td>11–22</td>
<td>Naturally occurring in groundwater and surface water</td>
</tr>
</tbody>
</table>

1 **Violation Information**

A single sample location on Darms Lane that serves eleven customers exceeded the MCL for total trihalomethanes in April 2022 as a result of increased organic loading in source water and reduced customer demands. Flushing improved the water quality and returned the location to compliance in subsequent sample collections.

Scientists cannot disprove that people who drink two liters of water per day every day containing trihalomethanes in excess of the MCL over a seventy year lifespan may contribute to liver, kidney, or central nervous system problems and may have an increased risk of getting cancer.

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2 Unregulated contaminant monitoring helps U.S. EPA and the State Board determine where certain contaminants occur and whether the contaminants need to be regulated.

### Lead in Home Plumbing

Fortunately, before it was banned by the EPA in 1986, lead was not a common material used for service pipes in the City of Napa. 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. We are responsible for providing high-quality drinking water, but we 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 two minutes before using water for drinking or cooking. (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 at (800) 426-4791 or at www.epa.gov/safewater/lead.

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### Definitions

**90th %ile**: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

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

**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 (SMCLs) are set to protect the odor, taste, and appearance of drinking water.

**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.

**MRDL (Maximum Residual Disinfectant Level)**: 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.

**MRDLG (Maximum Residual Disinfectant Level Goal)**: 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.

**NA**: Not applicable.

**ND (Not detected)**: Indicates that the substance was not found by laboratory analysis.

**NS**: No standard.

**NTU (Nephelometric Turbidity Units)**: Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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

**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 EPA.

**ppb (parts per billion)**: One part substance per billion parts water (or micrograms per liter).

**ppm (parts per million)**: One part substance per million parts water (or milligrams per liter).

**removal ratio**: A ratio between the percentage of a substance actually removed to the percentage of the substance required to be removed.

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

**µS/cm (microsiemens per centimeter)**: A unit expressing the amount of electrical conductivity of a solution.