The San Francisco Public Utilities Commission (SFPUC) produces this annual report detailing where your water comes from, how we treat it, and its overall chemical composition. We do this as a regulatory requirement, and we think it is important for you to understand the information within it.

We are committed to providing high quality drinking water for all our customers. Our system is large and we work across several counties to maintain the system that delivers our water. It is our hope that this report will not only provide you with greater knowledge of your water, but also an increased understanding of the considerable skill, talent, and effort that goes into ensuring businesses and residents have reliable access to this precious resource.

We’re proud of our water, and we hope you are too. Throughout this report, you’ll find facts and figures to help expand upon the basic information we’re required to provide. We hope you enjoy getting to know a little more about who we are as an Agency and how you can get involved.

**WATER FACT:**
The SFPUC is the third largest utility in the State of California, serving 2.7 million residential, commercial and industrial customers in the Bay Area, and we operate 24/7 – 365 days every year.
OUR DRINKING WATER SOURCES AND TREATMENT

Our major water source is in Yosemite National Park and originates from spring snowmelt flowing down the Tuolumne River to storage in Hetch Hetchy Reservoir. The well-protected Sierra water source is exempt from federal and State’s filtration requirements. To meet the appropriate drinking water standards for consumption, water from Hetch Hetchy Reservoir receives treatment consisting of ultraviolet light and chlorine disinfection, pH adjustment for optimum corrosion control, fluoridation for dental health protection, and chloramination for maintaining disinfectant residual and minimizing the formation of regulated disinfection byproducts.

The Hetch Hetchy water supply is supplemented with surface water from local watersheds and upcountry non-Hetch Hetchy sources (UNHHS). Rainfall and runoff from the 35,000-acre Alameda Watershed in Alameda and Santa Clara counties are first collected in Calaveras Reservoir and San Antonio Reservoir for storage followed by delivery to the Sunol Valley Water Treatment Plant (SVWTP) for treatment. Rainfall and runoff from the 23,000-acre Peninsula Watershed in San Mateo County are stored in Crystal Springs Reservoir, San Andreas Reservoir and Pilarcitos Reservoir, and are delivered to the Harry Tracy Water Treatment Plant. Water delivered to the two treatment plants is subject to filtration, disinfection, fluoridation, optimum corrosion control, and taste and odor removal to ensure the water supplied to our customers meet the federal and state drinking water standards. The UNHHS was not used in 2019.

PROTECTING OUR WATERSHEDS

We conduct watershed sanitary surveys for the Hetch Hetchy source annually, for the local water, and Upcountry Non-Hetch Hetchy Sources (UNHHS) every five years. The latest local sanitary survey was completed in 2016 for the period of 2011 - 2015. The last watershed sanitary survey for UNHHS was conducted in 2015 as part of our drought response plan efforts. All these surveys together with our stringent watershed protection activities were completed with support from partner agencies including the National Park Service and the US Forest Service. The purpose of these surveys is to evaluate the sanitary conditions and water quality of the watersheds and to review results of watershed management activities conducted in the preceding years. Wildlife, stock, and human activities continue to be potential contamination sources. You may contact the San Francisco District office of the State Water Resources Control Board’s Division of Drinking Water (SWRCB-DDW) at 510-620-3474 to review these reports.

WATER FACT: Groundwater is widely used across California and throughout the world. While it is true not all groundwater sources (aquifers) are the same, we’re proud of ours. To learn more about the Westside Basin and our groundwater, please visit sfwater.org/groundwater
Mandated by State law, water fluoridation is a widely accepted practice proven to be safe and effective for preventing and controlling tooth decay. Our fluoride target level in the water is 0.7 milligram per liter (mg/L, or part per million, ppm), consistent with the May 2015 State regulatory guidance on optimal fluoride level. Infants fed formula mixed with water containing fluoride at this level may still have a chance of developing tiny white lines or streaks in their teeth. These marks are referred to as mild to very mild fluorosis, and are often only visible under a microscope. Even in cases where the marks are visible, they do not pose any health risk. The Centers for Disease Control (CDC) considers it safe to use optimally fluoridated water for preparing infant formula. To lessen this chance of dental fluorosis, you may choose to use low-fluoride bottled water to prepare infant formula. Nevertheless, children may still develop dental fluorosis due to fluoride intake from other sources such as food, toothpaste and dental products.

Contact your healthcare provider or SWRCB-DDW if you have concerns about dental fluorosis. For additional information about fluoridation or oral health, visit the SWRCB-DDW website waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.shtml, the CDC website cdc.gov/fluoridation, or our website sfwater.org/fluoride.

WE ♥
TAP WATER.
DRINK TAP!

Your tap water is the most sustainable choice when it comes to drinking water sources. Bottled water is many times more expensive than the water from your tap, and the carbon footprint associated with it is avoidable. Show your love for our water and our planet and drink tap!

WATER QUALITY

We regularly collect and test water samples from reservoirs and designated sampling points throughout the system to ensure the water delivered to you meets or exceeds Federal and State drinking water standards. In 2019, we conducted more than 53,000 drinking water tests in the source, transmission, and distribution system. This is in addition to the extensive treatment process control monitoring performed by our certified operators and online instruments.

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. In order to ensure that tap water is safe to drink, the United States Environmental Protection Agency (USEPA) and the SWRCB-DDW 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.

FLUORIDATION AND DENTAL FLUOROSIS

Mandated by State law, water fluoridation is a widely accepted practice proven to be safe and effective for preventing and controlling tooth decay. Our fluoride target level in the water is 0.7 milligram per liter (mg/L, or part per million, ppm), consistent with the May 2015 State regulatory guidance on optimal fluoride level. Infants fed formula mixed with water containing fluoride at this level may still have a chance of developing tiny white lines or streaks in their teeth. These marks are referred to as mild to very mild fluorosis, and are often only visible under a microscope. Even in cases where the marks are visible, they do not pose any health risk. The Centers for Disease Control (CDC) considers it safe to use optimally fluoridated water for preparing infant formula. To lessen this chance of dental fluorosis, you may choose to use low-fluoride bottled water to prepare infant formula. Nevertheless, children may still develop dental fluorosis due to fluoride intake from other sources such as food, toothpaste and dental products.

Contact your healthcare provider or SWRCB-DDW if you have concerns about dental fluorosis. For additional information about fluoridation or oral health, visit the SWRCB-DDW website waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.shtml, the CDC website cdc.gov/fluoridation, or our website sfwater.org/fluoride.

WATER FACT:
We’re immensely proud of our water quality, and the team of experts that make it possible. It is estimated that 785 million people in the world are living without access to safe water.

The system that delivers our water is made up of many different sources of water. We work hard to protect our water and water quality. Find out about each of our reservoirs, how much they contribute to the system and how you can visit them.

A watershed is a land area that collects and channels rainfall and snowmelt by gravity to creeks, streams, and rivers, and eventually to common outflow points such as reservoirs, bays, and the ocean.

**CALAVERAS RESERVOIR**

**FUN FACT:** This is the largest of our East Bay reservoirs. During the recent construction of the new dam at Calaveras, prehistoric whale teeth were found in the ground some 60 miles from the Pacific Ocean.

**CHERRY LAKE**

**FUN FACT:** This is the only lake in our system where recreational boating is permitted on the water itself, as this is only an emergency supply. Maintained in partnership with the US Forest Service, Cherry Lake is a popular recreation spot for locals and visitors alike.

**CRYSTAL SPRINGS RESERVOIR**

**FUN FACT:** One of the most accessible reservoirs of ours to visit from San Francisco, Crystal Springs offers the opportunity to walk, hike, and even attend docent lead bike tours along the trails that surround the water itself.

**HETCH HETCHY RESERVOIR**

**FUN FACT:** O’Shaughnessey Dam which holds back the Hetch Hetchy Reservoir, was initially completed in 1923. It was raised a further 85 feet in 1938 to the height it currently stands, which is 430 feet.

**LAKE ELEANOR**

**FUN FACT:** Because of differences in elevation and water levels, water can be moved from Lake Eleanor to Cherry Lake through the Eleanor-Cherry Diversion Tunnel, resulting in a unique opportunity for highly efficient hydroelectric power generation.

**PILARCITOS RESERVOIR**

**FUN FACT:** Completed in 1866, this reservoir was the first in our system and initially built by the Spring Valley Water company primarily serves water to Half Moon Bay, though at one point it did store water for San Francisco too.

**SAN ANDREAS RESERVOIR**

**FUN FACT:** As the name would suggest, the San Andreas fault runs through the Reservoir, and the dam holding back the reservoir survived the 1906 earthquake. The 6-mile long Sawyer Camp Trail links San Andreas and Crystal Springs reservoirs.

**SAN ANTONIO RESERVOIR**

**FUN FACT:** This reservoir, impounded by Turner Dam, was first sited as a water supply source in 1875 by the Spring Valley Water Company. It was impounded in 1964 by Turner Dam, named after former General Manager of Hetch Hetchy, James H. Turner.
SPECIAL HEALTH NEEDS

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as those with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly people and infants, can be particularly at risk from infections.

These people should seek advice about drinking water from their healthcare providers. USEPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the USEPA’s Safe Drinking Water Hotline 1-800-426-4791 or at epa.gov/safewater.

QUINOLINE MONITORING

In conjunction with our wholesale customer San Francisco Water System (SFWS), we conducted a special round of voluntary monitoring for the contaminant quinoline. The monitoring effort was part of our assessment to identify if quinoline was from our raw water sources and transmission pipelines or was localized in SFWS’s distribution system. The monitoring results confirm that our raw water sources and transmission system have no quinoline detected.

MONITORING OF PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

PFAS is a group of approximately 5,000 man-made chemicals used in a variety of industries and consumer products. These chemicals are widely present in the environment and human body. In order to determine the impact of PFAS on the water we provide to our customers, we conducted a round of PFAS monitoring in 2019. This monitoring effort, done on a voluntary basis, helped to determine whether PFAS was present in any form in any of our water supply, transmission or distribution systems. Using the State’s stringent sampling procedures and based on the currently approved/certified method of analysis for 18 PFAS contaminants, we confirmed no PFAS were detected in our water sources. We plan to conduct another round of PFAS monitoring in late 2020 or early 2021 when a new USEPA method of analysis is available at our contract laboratory. For additional information about PFAS, visit our website at sfwater.org/quality. View the factsheet here, the SWRCB-DDW website waterboards.ca.gov/pfas, and/or USEPA website epa.gov/pfas.
Generally, the sources of drinking water (both tap water and bottled water) include rivers, lakes, oceans, 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. Such substances are called contaminants, and may be present in source water as:

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

**Radioactive contaminants**, which can be naturally occurring or 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 USEPA's Safe Drinking Water Hotline 1-800-426-4791, or at epa.gov/safewater.

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**DRINKING WATER AND LEAD**

Exposure to lead, if present, can cause serious health effects in all age groups, especially for pregnant women and young children. Infants and children who drink water containing lead could have decreases in IQ and attention span and increases in learning and behavior problems. Lead exposure among women who are pregnant increases prenatal risks. Lead exposure among women who later become pregnant has similar risks if lead stored in the mother’s bones is released during pregnancy. Recent science suggests that adults who drink water containing lead have increased risks of heart disease, high blood pressure, kidney or nervous system problems.

Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. There are no known lead service lines in our water distribution system. We are responsible for providing high quality drinking water, but we cannot control the variety of materials used in plumbing components. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family’s risk. Before drinking, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified to remove lead from drinking water. If you are concerned about lead in your water you may wish to have your water tested. Information about lead in drinking water, testing methods, and steps you can take to minimize exposure is available at epa.gov/safewater/lead.
As previously reported in 2018, we completed an inventory of lead user service lines (LUSL) in our system and there are no known pipelines and connectors between water mains and meters made of lead. Our policy is to remove and replace any LUSL promptly if it is discovered during pipeline repair and/or maintenance.

GROUNDWATER STORAGE AND RECOVERY (GSR) PROJECT

Groundwater is a renewable source of naturally-occurring fresh water that is found in underground reservoirs called aquifers that are replenished primarily by rainfall. The use of groundwater helps diversify our water sources and makes our drinking water supply even more reliable. We recently completed Phase 1 of the GSR project, in which a total of eight deep-water wells were installed to provide groundwater for the water system. The groundwater will be treated and blended with our surface water supplies before it is delivered to our customers. For the past decade, we have collected water quality and quantity data from the Westside Basin aquifer, from which the groundwater will be extracted. With extensive testing and water level monitoring, we know that after adding groundwater to our water supplies, we will continue providing our customers with high-quality drinking water that meets or exceeds all regulatory health-based and aesthetic standards set by the SWRCB-DDW and the USEPA. Testing of the wells will be conducted throughout 2020.

WATER FACT:
Do you know how much water you should have stored as part of your emergency kit? To find out visit sf72.org/supplies
KEY WATER QUALITY TERMS

The following are definitions of key terms referring to standards and goals of water quality noted on the data table.

Public Health Goal (PHG): 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.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the USEPA.

Maximum Contaminant Level (MCL): 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.

Maximum Residual Disinfectant Level (MRDL): 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.

Maximum Residual Disinfectant Level Goal (MRDLG): 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.

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

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

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

Turbidity: A water clarity indicator that measures cloudiness of the water, and is also used to indicate the effectiveness of the filtration system. High turbidity can hinder the effectiveness of disinfectants.

Cryptosporidium is a parasitic microbe found in most surface water. We regularly test for this waterborne pathogen and found it at very low levels in source water and treated water in 2019. However, current test methods approved by the USEPA do not distinguish between dead organisms and those capable of causing disease. Ingestion of Cryptosporidium may produce symptoms of nausea, abdominal cramps, diarrhea, and associated headaches. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

SFPUC IN THE COMMUNITY

In addition to operating and maintaining the system that delivers high quality water to 2.7 million customers, SFPUC staff also perform key functions managing the land surrounding our infrastructure.

The SFPUC owns and manages two Bay Area watersheds as part of our Regional Water System. Our Natural Resources and Lands Management staff historically used native nursery plants for projects within our watershed lands. Healthy watersheds produce high-quality water and are resilient in times of fire or drought. In line with the principles of the SFPUC Environmental Stewardship Policy, we strive to maintain the ecological integrity of our watersheds for current and future generations.

Because we have a continuous need for healthy landscape plants at the Sunol Yard and future Watershed Center in the Alameda Creek Watershed, the SFPUC constructed the Sunol Native Plant Nursery using cutting-edge design specifications that exclude plant pathogens to the best extent possible. Dedicated nursery staff follow best management practices that operate more like a laboratory than a nursery.

These plants, which resemble grasses but are called rushes, started their lives as seeds collected in the Alameda Watershed, and they were sown into containers at the Sunol Native Plant Nursery over a year ago. They were intended for use as landscaping at the newly-constructed Sunol Yard. Staff grew and planted 20,000 plants for the Sunol Yard project, and those plants are already in the ground and thriving.
The table below lists all 2019 detected drinking water contaminants and the information about their typical sources. Contaminants below detection limits for reporting are not shown, in accord with regulatory guidance. We hold a SWRCB-DDW monitoring waiver for some contaminants in our surface water supply and therefore their monitoring frequencies are less than annual. Visit sfwater.org for a list of all water quality parameters we monitored in raw water and treated water in 2019.

### Detected Contaminants

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>Unit</th>
<th>MCL</th>
<th>PHG or (MCLG)</th>
<th>Range or Level Found</th>
<th>Average or (Max)</th>
<th>Major Sources in Drinking Water</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Turbidity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unfiltered Hetch Hetchy Water</td>
<td>NTU</td>
<td>5</td>
<td>N/A</td>
<td>0.3 - 0.7 [M]</td>
<td>[2.1]</td>
<td>Soil runoff</td>
</tr>
<tr>
<td>Filtered Water from Sunol Valley Water Treatment Plant (SVWTP)</td>
<td>NTU</td>
<td>1 [M]</td>
<td>N/A</td>
<td>99.9% - 100%</td>
<td>[1]</td>
<td>Soil runoff</td>
</tr>
<tr>
<td>Filtered Water from Harry Tracy Water Treatment Plant (HTWTP)</td>
<td>NTU</td>
<td>1 [M]</td>
<td>N/A</td>
<td>100%</td>
<td>[0.1]</td>
<td>Soil runoff</td>
</tr>
<tr>
<td><strong>Disinfection By-Products and Precursor</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Trihalomethanes</td>
<td>ppb</td>
<td>80</td>
<td>10 - 62</td>
<td>[48] [M]</td>
<td></td>
<td>By-product of drinking water disinfection</td>
</tr>
<tr>
<td>Haloacetic Acids</td>
<td>ppb</td>
<td>60</td>
<td>3 - 39</td>
<td>[31] [M]</td>
<td></td>
<td>By-product of drinking water disinfection</td>
</tr>
<tr>
<td><strong>Microbiological</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Coliform</td>
<td>-</td>
<td>NoP</td>
<td>≤5.0% of monthly samples</td>
<td>[0]</td>
<td>[1.0%]</td>
<td>Naturally present in the environment</td>
</tr>
<tr>
<td><em>Giardia lamblia</em></td>
<td>cyst/L</td>
<td></td>
<td>0 - 0.09</td>
<td>0.02</td>
<td></td>
<td>Naturally present in the environment</td>
</tr>
<tr>
<td><strong>Inorganics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fluoride (source water)</td>
<td>ppm</td>
<td>2.0</td>
<td>ND - 0.9</td>
<td>[0.3] [M]</td>
<td></td>
<td>Erosion of natural deposits; water additive to promote strong teeth</td>
</tr>
<tr>
<td>Chlorine (including free chlorine and chloramine)</td>
<td>ppm</td>
<td>MRDL = 4.0</td>
<td>MRDLG = 4</td>
<td>0.3 - 4.3 [2.7] [M]</td>
<td></td>
<td>Drinking water disinfectant added for treatment</td>
</tr>
<tr>
<td><strong>Constituents with Secondary Standards</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aluminum</td>
<td>ppb</td>
<td>200</td>
<td>600</td>
<td>ND - 68</td>
<td>ND</td>
<td>Erosion of natural deposits; some surface water treatment residue</td>
</tr>
<tr>
<td>Chloride</td>
<td>ppm</td>
<td>500</td>
<td>&lt;3 - 17</td>
<td>8.7</td>
<td></td>
<td>Runoff / leaching from natural deposits</td>
</tr>
<tr>
<td>Color</td>
<td>unit</td>
<td>15</td>
<td>&lt;5 - 10</td>
<td>&lt;5</td>
<td></td>
<td>Naturally-occurring organic materials</td>
</tr>
<tr>
<td>Specific Conductance</td>
<td>µS/cm</td>
<td>1600</td>
<td>32 - 234</td>
<td>158</td>
<td></td>
<td>Substances that form ions when in water</td>
</tr>
<tr>
<td>Sulfate</td>
<td>ppm</td>
<td>500</td>
<td>1 - 29</td>
<td>15</td>
<td></td>
<td>Runoff / leaching from natural deposits</td>
</tr>
<tr>
<td>Total Dissolved Solids</td>
<td>ppm</td>
<td>1000</td>
<td>&lt;20 - 119</td>
<td>76</td>
<td></td>
<td>Runoff / leaching from natural deposits</td>
</tr>
<tr>
<td>Turbidity</td>
<td>NTU</td>
<td>5</td>
<td>ND - 0.5</td>
<td>0.2</td>
<td></td>
<td>Soil runoff</td>
</tr>
</tbody>
</table>

### Lead and Copper

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>Unit</th>
<th>AL</th>
<th>PHG</th>
<th>Range</th>
<th>90th Percentile</th>
<th>Major Sources in Drinking Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper</td>
<td>ppb</td>
<td>1300</td>
<td>300</td>
<td>1.2 - 480</td>
<td>75</td>
<td>Internal corrosion of household water plumbing systems</td>
</tr>
<tr>
<td>Lead</td>
<td>ppb</td>
<td>15</td>
<td>0.2</td>
<td>&lt;1 - 6.9</td>
<td>2.9</td>
<td>Internal corrosion of household water plumbing systems</td>
</tr>
</tbody>
</table>

### Other Water Quality Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit</th>
<th>ORL</th>
<th>Range</th>
<th>Average</th>
<th>Key</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkalinity (as CaCO₃)</td>
<td>ppm</td>
<td>N/A</td>
<td>3.5 - 97</td>
<td>46</td>
<td>&lt; / ≤ = less than / less than or equal to</td>
</tr>
<tr>
<td>Boron</td>
<td>ppb</td>
<td>1000 (NL)</td>
<td>ND - 107</td>
<td>ND</td>
<td>AL = Action Level</td>
</tr>
<tr>
<td>Calcium (as Ca)</td>
<td>ppm</td>
<td>N/A</td>
<td>3.3 - 20</td>
<td>12</td>
<td>Max = Maximum</td>
</tr>
<tr>
<td>Chlorate</td>
<td>ppm</td>
<td>800 (NL)</td>
<td>40 - 220</td>
<td>84</td>
<td>Min = Minimum</td>
</tr>
<tr>
<td>Chromium (VI)</td>
<td>ppm</td>
<td>NA</td>
<td>0.04 - 0.19</td>
<td>0.12</td>
<td>N/A = Not Available</td>
</tr>
<tr>
<td>Hardness (as CaCO₃)</td>
<td>ppm</td>
<td>N/A</td>
<td>8.9 - 77</td>
<td>47</td>
<td>ND = Non-Detect</td>
</tr>
<tr>
<td>Magnesium</td>
<td>ppm</td>
<td>N/A</td>
<td>0.2 - 6.6</td>
<td>4.2</td>
<td>NL = Notification Level</td>
</tr>
<tr>
<td>pH</td>
<td>-</td>
<td>N/A</td>
<td>8.8 - 10.1</td>
<td>9.3</td>
<td>NoP = Number of Coliform-Positive Sample</td>
</tr>
<tr>
<td>Potassium</td>
<td>ppm</td>
<td>N/A</td>
<td>0.3 - 1.2</td>
<td>0.8</td>
<td>NTU = Nephelometric Turbidity Unit</td>
</tr>
<tr>
<td>Silica</td>
<td>ppm</td>
<td>N/A</td>
<td>4.9 - 8</td>
<td>6.1</td>
<td>ORL = Other Regulatory Level</td>
</tr>
<tr>
<td>Sodium</td>
<td>ppm</td>
<td>N/A</td>
<td>2.8 - 21</td>
<td>14</td>
<td>ppb = part per billion</td>
</tr>
<tr>
<td>Strontium</td>
<td>ppb</td>
<td>N/A</td>
<td>13 - 230</td>
<td>107</td>
<td>ppm = part per million</td>
</tr>
</tbody>
</table>

**Notes:**
- **AL** = Action Level
- **Max** = Maximum
- **Min** = Minimum
- **NL** = Notification Level
- **NoP** = Number of Coliform-Positive Sample
- **NTU** = Nephelometric Turbidity Unit
- **ORL** = Other Regulatory Level
FOOTNOTES ON SAN FRANCISCO REGIONAL WATER SYSTEM - WATER QUALITY DATA:

(1) These are monthly average turbidity values measured every 4 hours daily. (2) There is no turbidity MCL for filtered water. The limits are based on the TT requirements for filtration systems. (3) This is the highest locational running annual average value. (4) Total organic carbon is a precursor for disinfection byproduct formation. The TT requirement applies to the filtered water from the SVWTP only. (5) In May 2015, the SWRCB-DDW recommended an optimal fluoride level of 0.7 ppm be maintained in the treated water. In 2019, the range and average of the fluoride levels were 0.2 ppm - 0.9 ppm and 0.7 ppm, respectively. (6) The natural fluoride level in the Hetch Hetchy source was ND. Elevated fluoride levels in the raw water at SVWTP and HTWTP were attributed to the transfer of fluoridated Hetch Hetchy water into the local reservoirs. (7) This is the highest running annual average value. (8) Aluminum also has a primary MCL of 1,000 ppb. (9) The most recent Lead and Copper Rule monitoring was in August 2018. None of the 28 site samples collected at consumer taps had concentration above the corresponding ALs. (10) The detected chlorate in the treated water is a degradation product of sodium hypochlorite, which we use for water disinfection. (11) Chromium (VI) has a PHG of 0.02 ppb but no MCL. The previous MCL of 10 ppb was withdrawn by the SWRCB-DDW on September 11, 2017. Currently, the SWRCB-DDW regulates all chromium through a MCL of 50 ppb for Total Chromium, which was not detected in our water in 2019.

Note: The different water sources blended at different ratios throughout the year have resulted in varying water quality. Additional water quality data may be obtained by calling our Water Quality Division toll-free number at (877) 737-8297.

BORON DETECTION ABOVE NOTIFICATION LEVEL IN SOURCE WATER

In 2019, boron was detected at a level of 1.49 ppm in the raw water stored in Pond F3 East, one of our approved sources in Alameda Watershed. A similar level was also detected in the same pond in 2017. Although the detected value is above the California Notification Level of 1 ppm for source water, the corresponding level in the treated water from the SVWTP was only 0.1 ppm. Boron is an element in nature, and is typically released into air and water when soils and rocks naturally weather.
This report contains important information about your drinking water. Translate it, or speak with someone who understands it.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

Mahalaga ang impormasyong ito. Mangyaring ipasalin ito.

이 보고서는 중요한수돗물정보를 담고 있습니다. 번역하거나 이해할 수 있는 사람이 되시기 바랍니다.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

Cé rapport contient des information importantes concernant votre eau potable. Veuillez traduire, ou parlez avec quelqu’un qui peut le comprendre.