Health & Education Information

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 Safe Drinking Water Hotline.

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 from their health care providers.

The City of Sunnyvale is replacing and upgrading aging water distribution infrastructure to ensure continued reliable water supply. The improvements will enhance water quality and improve operational efficiency. In the past year, the City has replaced over eight miles of water pipelines and upgraded one of our water pumping facilities. The City has also updated the water communications system to better manage and operate the water distribution system. If you have questions about an upcoming project along your street, contact us at (408) 730-7400.

Web Resources

CITY OF SUNNYVALE 2013 WATER QUALITY REPORT

Last year was the driest year on record for many parts of California. Last January, Governor Brown declared a drought state-of-emergency and called on all Californians to reduce their water usage by 20%. While Sunnyvale’s water use has been trending downward, we must continue to use water wisely. Sunnyvale is working to ensure a reliable water supply, and you can continue to do your part by conserving water. To learn more visit save20gallons.org and valleywater.org/drought2014.
Protecting your water supply

To ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) and the California Department of Public Health (CDPH) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. CDPH regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

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. 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 may come from industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application and septic systems.
- **Radioactive Contaminants** that can be naturally-occurring or be the result of oil and gas production and mining activities.

Protection begins in the watersheds. Protecting the water supply is important to ensure that water is safe from contamination and aesthetically clean for use. Contamination requires treatment, which increases the cost to deliver water to your tap. Here’s is where you can help protect our watershed:

- Eliminate excess use of lawn and garden fertilizers and pesticides
- Pick-up after your pets
- Take used motor oil and other recyclables to the SMART Station
- Dispose of pharmaceuticals at any Sunnyvale fire station. Medications should not be flushed down drains or put in the garbage.
- Dispose of cleaners, chemicals and paints at a Household Hazardous Waste Drop-off Event
- Participate in public meetings and forums. It allows decision-makers to hear your perspective and you to be involved in protecting your water supply.

More information about disposal and recycling ➤
Call (408) 730-762

SMART Station ➤
301 Carl Road, Sunnyvale, CA 94089
Open daily, 8 a.m. to 5:30 p.m. Tel: (408) 752-6500

Household Hazardous Waste Drop-off ➤
164 Carl Road, Sunnyvale, CA 94089
Every 3rd Saturday, 8 a.m. to 1 p.m.

Where your water comes from

The City of Sunnyvale has three different sources of drinking water supply: local groundwater, treated surface water from the Santa Clara Valley Water District (SCWV) and treated water from the San Francisco Public Utilities Commission (SFPUC).

**Local Groundwater**

The City owns, operates and maintains eight deep wells. The wells are used to help supplement the imported water supplies during peak demands in the summer months and emergency situations. The City is always working to increase flexibility in local groundwater supplies, enhance water quality, reduce operating costs, and increase reliability. Recent groundwater improvements include water well connections, electrical upgrades and installation of an emergency generator. Groundwater pumped from these wells is tested by SCWV.

The City completed a Drinking Water Source Assessment Program (DWSAP) in January 2002 for these groundwater sources. The City’s groundwater sources are considered most vulnerable to contamination by leaking underground fuel tanks, dry cleaning chemicals, sewer collection systems, old septic systems and machine shops.

**SFPUC Supply**

The City purchases a blend of Hatton Hotch water and treated water from SFPUC to serve the northern part of the City. Filtered water turbidity from SFPUC met the standard of 0.3 NTU or less, 96% of the time. The Hatton Hotch Watershed provides most of the SFPUC supply, supplemented by the Amadera watershed. The major water source originates from spring snowfall flowing down the Tuolumne River and is stored in the Hatton Hotch Reservoir. Since this water source meets all federal and state standards for watershed protection, distribution treatment practices, bacteriological quality monitoring and operations, the State has granted this water source a filtration exemption.

The Amadera Watershed contains more than 35,000 acres in Amadera and Santa Clara Counties. Surface water from rainfall and runoff is collected in the Calaveras and San Antonio Reservoirs. Prior to distribution, the water from these reservoirs is treated. Fluoridation, chlorination and corrosion control treatment are provided for the combined Hatton Hotch and treated water. Fluoride is added to the naturally occurring level to help protect against tooth decay in consumers. The average fluoride levels in the treated water were maintained within a range of 0.7-1.4 mg/L, as required by CDPH.

The SFPUC actively protects the water resources entrusted to its care. A technical audit of the Hatton Hotch Watershed Sanitary Survey evaluates the sanitary conditions, water quality, potential contamination sources and the results of watershed management activities with partner agencies (such as the National Park Service and US Forest Service). The SFPUC also conducts sanitary surveys every five years to detect and track sanitary concerns for the Bay Area watersheds and the approved sanitary water sources in Early Intake Watersheds, which includes Cherry Lake and Lake Elsinor. The latest 5-year surveys were completed in 2011 for the period of 2006-2010. These surveys identify wildlife, stock and human activities as potential contamination sources. They are available for review at the CDPH San Francisco District office.

**SCWV Supply**

The City purchases treated surface water from SCWV and delivers it to the southern portion of the City. SCWV imports more than half of its supply from the South Bay Aqueduct, Lake Del Valle and San Luis Reservoir, which all draw water from the Sacramento-San Joaquin Delta Watershed. SCWV local surface water sources include Anderson and Calero Reservoirs. SCWV source waters are vulnerable to potential contamination from a variety of land use practices such as agricultural and urban runoff, recreational activities, livestock grazing and residential and industrial development. Imported sources are vulnerable to wastewater treatment plant discharges, seawater intrusion and wildfires in watershed areas.

Local sources are also vulnerable to contamination from commercial, industrial, and urban uses. No contaminated associated with any of these activities has been detected in SCWV treated water. Treatment plants provide multiple barriers for physical removal and disinfection.

More information on SCWV ➤
Visit seawater.org

Water Conservation Tips

The City works cooperatively with our water wholesalers to provide residents with advice, assistance and access to programs. The following water-saving tips are simple ways to conserve water both indoors and out, and are provided jointly by the City and SCWV.

**Steps to Save Water Indoors**

- Turn off the faucet while you brush your teeth.
- Take shorter showers. You will save 2.5 gallons of water each minute.
- Install water-efficient faucet aerators and showerheads in your kitchen and bathrooms.
- Check toilets and faucets for leaks. Running toilets can waste two gallons a minute while leaky faucets can waste thousands of gallons.
- Do not use the toilet as a trash can.
- Only wash full loads of laundry and dishes.

- Rinse fruits and vegetables in a pan instead of using running water.
- Keep a pitcher of drinking water in the refrigerator. Running tap water to cool it off is drinking water wasted.
- Replace your old top-loading clothes washer with a high-efficiency model. For information about rebates call the Water Conservation Hotline.
- If your toiler uses more than 3.5 gallons per flush, replace it with a high-efficiency toilet. Now models use 70 percent less water. For information about rebates, call the Water Conservation Hotline.
- Deeply soak your lawn to ensure max is reached out. Replace it with a high-efficiency toilet. Now models use 70 percent less water. For information about rebates, call the Water Conservation Hotline.
- Check for leaks in pipes, sprinkler heads and valves.
- Water during cool parts of the day. Early morning is the best time because it helps prevent growth of fungus.
- Water your lawn only when it needs it. If the grass springs back up after sprinkling it, it does not need watering.
- Avoid watering on windy days.
- Use drip irrigation in larger gardens with weather-based irrigation control. For information about rebates call the Water Conservation Hotline.

Water Conservation Hotline ➤
SCWV (408) 830-2554
sunnyvalewaterefficiency.com
**DEFINITIONS OF KEY TERMS**

- **Microbial contaminants.** Expected risk to health. MRDLGs do not reflect the level of a drinking water contaminant in drinking water below which there is no known or expected risk to health. MRDLGs are set to protect the odor, taste and appearance of drinking water. MCLs are established by USEPA as the MCL is ≤0.3 NTU 95% of the time. Turbidity has no health effects. It is a measure of the clarity of the water and is monitored because it is a good indicator of water quality and the effectiveness of a filtration system. The MCL for turbidity is based on the TOC for unfiltered water, if MCL for filtered water, the MCL is 0.3 NTU 95% of the time.

**HOW TO READ THIS CHART**

- **Typical Sources in Drinking Water**
  1. Naturally present in the environment
  2. Soil runoff
  3. Drainage of natural deposits
  4. Residue from some surface water treatment processes
  5. Associated with the presence of certain specific excreta
  6. Discharge from fertilizer and agricultural factories
  7. Discharge from livestock (feed additive)
  8. Leaching from pesticide and sewage
  9. Byproduct of drinking water disinfection
  10. Various natural and man-made sources
  11. Runoff from natural food sources
  12. Leaching from natural deposits
  13. Natural occurrence of organic matter
  14. Sewerage inflow
  15. Industrial wastes
  16. Substances that form inorganic
  17. Internal corrosion of household plumbing systems
  18. Discharge from livestock and sewage
  19. Discharge from oil drilling wastes and from metal refineries
  20. Discharge from industrial producers
  21. Discharge from livestock and sewage
  22. Discharge from sewage treatment
  23. Discharge from livestock and sewage
  24. Runoff from livestock feedlots

**WARNING**

- 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. The City is responsible for providing high-quality drinking water and does not control the variety of materials used in plumbing components. 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 waterpipe.gov/drinkinglead.

**NATURAL SOURCES**

- Nitrate in drinking water at levels above 45 mg/L is a health risk for infants younger than six months of age. Such levels of nitrate in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in serious symptoms such as shortness of breath and blueness of the skin. Nitrate levels above 45 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask for advice from your health care provider.

**Handicap**

- Water hardness is determined mainly by the presence of calcium and magnesium salts. Although hard water does not contain a direct health risk, it may be considered undesirable for other reasons. Some types of water softening are reductions in soap usage, longer life for water heaters and a decrease in encrustation of pipes. Some disadvantages of water softening are an increase in sodium intake (depending on the type of water softener used), an increase in maintenance and servicing requirements and potential adverse effects on some people with renal problems. Water hardness is determined mainly by the presence of calcium and magnesium salts. Although hard water does not contain a direct health risk, it may be considered undesirable for other reasons.

**INORGANIC CHEMICALS**

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<th>Range</th>
<th>Average</th>
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<td>Fluoride</td>
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<td>Turbidity</td>
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<td>FT</td>
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<td>Nitrate</td>
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<td>10-26</td>
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**DISINFECTION BYPRODUCT PRECURSORS**

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<th>Range</th>
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<td>TCCA Alpha Particle Activity</td>
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**DISTRIBUTION SYSTEM SAMPLING**

| Lead | ppm | 0.2 | 0.1 | ND | ND | 0.002 | 3.4 |
| Copper | ppm | 0.3 | 0.3 | ND | ND | 0.3 | 3.4 |

**UNREGULATED PARAMETERS**

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<th>Range</th>
<th>Average</th>
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<th>Average</th>
<th>Range</th>
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<td>Vanadium</td>
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