

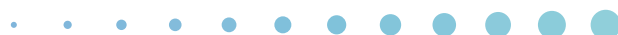


# 2019



# ANNUAL WATER QUALITY REPORT

DELIVERING QUALITY FOR YOU SINCE 1961



# 2019 | WWD Annual Water Quality Report

## Our Drinking Water Sources and Treatment

The Westborough Water District purchases 100% of its water from the San Francisco Public Utility Commission (SFPUC). The water supplied by the San Francisco Regional Water System (SFRWS), which is owned and operated by the SFPUC, our major water source originates from Spring Yosemite National Park 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. SFRWS did not use the UNHHS in 2019. ■



## Water Quality

SFRWS regularly collects and tests water samples from reservoirs and designated sampling points throughout the sources and the transmission system to ensure the water delivered to you meets or exceeds federal and State drinking water standards. In 2019, SFRWS conducted more than 53,650 drinking water tests in the sources and the transmission system. This is in addition to the extensive treatment process control monitoring performed by SFRWS's 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. ■

This report contains important information about our drinking water. For assistance or additional information concerning this report, please contact the Westborough Water District at (650) 589-1435 or email the District at [wwd@westboroughwater.org](mailto:wwd@westboroughwater.org). Translate it, or speak with someone who understands it.

### WWD Board of Directors

**President:** Janet G. Medina **Vice President:** Tom Chambers  
**Directors:** David J. Irwin, Perry H. Bautista, Karema Al-Arabi

### WWD Management

**General Manager:** Darryl Barrow  
**Assistant General Manager:** Patricia Mairena

## 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. The 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 of 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 [www.waterboards.ca.gov/drinking\\_water/certlic/drinking-water/Fluoridation.shtml](http://www.waterboards.ca.gov/drinking_water/certlic/drinking-water/Fluoridation.shtml) or the CDC website [www.cdc.gov/fluoridation](http://www.cdc.gov/fluoridation) ■

## 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 800-426-4791 or at [www.epa.gov/safewater](http://www.epa.gov/safewater) ■

## 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, call Darryl Barrow, General Manager at (650) 589-1435. Information about lead in drinking water, testing methods, and steps you can take to minimize exposure is available at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead)

In 2019 we completed an inventory of lead user service lines (LUSL) in our system and there are known or no known pipelines and connectors between water mains and meters made of lead. ■





## Watersheds Protection

SFRWS conducts watershed sanitary surveys for the Hetch Hetchy source annually and for the local water sources and 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 SFRWS's drought response plan efforts. All these surveys together with the stringent watershed protection management activities were completed by SFRWS with support from partner agencies including National Park Service and US Forest Service. The purposes of the surveys are 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 are continued to be the 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 for the review of these reports. ■

## 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 water sources and makes drinking water supply even more reliable. SFRWS 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 its surface water supplies before it is delivered to our customers. For the past decade, SFRWS has 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, SFRWS knows that after adding groundwater to its water supplies, it 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 the year of 2020. ■

## 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 very persistent in the environment and human body. SFRWS conducted a special round of PFAS monitoring of its water sources and transmission system in 2019. The monitoring effort was not under any federal or State order/permit requirements; it was proactively conducted on a voluntary basis with the objective to identify if SFRWS's water supplies are impacted by PFAS. Using the State's stringent sampling procedures and based on the currently approved/certified method of analysis for 18 PFAS contaminants, SFRWS confirmed no PFAS was detected in its water sources and transmission system. Considering USEPA's recent development of a newer method of analysis for additional PFAS contaminants, SFRWS intends to conduct another round of monitoring when the new analytical method is available at its contract laboratory. For additional information about PFAS, visit SWRCB-DDW website [www.waterboards.ca.gov/pfas](http://www.waterboards.ca.gov/pfas) and/or USEPA website [www.epa.gov/pfas](http://www.epa.gov/pfas) ■

## Quinoline Monitoring

SFRWS conducted a special round of voluntary monitoring for the contaminant quinoline. The monitoring effort was part of SFRWS' assessment to identify if quinoline a contaminant of concern in its water sources and/or transmission system. The monitoring results confirm that the raw water sources and transmission system have no quinoline detected. ■

## 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 SFRWS's 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. ■

## Contaminants and Regulations

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 800-426-4791, or at [www.epa.gov/safewater](http://www.epa.gov/safewater)

## Key Water Quality Terms

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

**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.

**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. SFRWS regularly tests 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.

# WWD's Water Quality Data for Calendar Year 2019

The table following table 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. SFRWS holds a SWRCB-DDW monitoring waiver for some contaminants in its surface water supply and therefore the associated monitoring frequencies are less than annual.

## DETECTED CONTAMINANTS<sup>1</sup>

▼ TURBIDITY	Unit	MCL	PHG or (MCLG)	Range or Level Found	Average or [Max]	Major Sources in Drinking Water
Unfiltered Hetch Hetchy Water	NTU	5	N/A	0.3 - 0.7 <sup>(2)</sup>	[2.1]	Soil runoff
Filtered Water from Sunol Valley Water Treatment Plant (SVWTP)	NTU	1 <sup>(3)</sup>	N/A	-	[1]	Soil runoff
	-	Min 95% of samples ≤ 0.3 NTU <sup>(3)</sup>	N/A	99.89% - 100%	-	Soil runoff
Filtered Water from Harry Tracy Water Treatment Plant (HTWTP)	NTU	1 <sup>(3)</sup>	N/A	-	[0.1]	Soil runoff
	-	Min 95% of samples ≤ 0.3 NTU <sup>(3)</sup>	N/A	100%	-	Soil runoff
▼ DISINFECTION BYPRODUCTS AND PRECURSOR						
Total Trihalomethanes	ppb	80	N/A	11.1 - 47.7	47.7 <sup>(4)</sup>	Byproduct of drinking water disinfection
Haloacetic Acids	ppb	60	N/A	4.4 - 36.0	36.0 <sup>(4)</sup>	Byproduct of drinking water disinfection
Total Organic Carbon <sup>(5)</sup>	ppm	TT	N/A	1.6 - 2.6	2.1	Various natural and man-made sources
▼ MICROBIOLOGICAL						
Total Coliform <sup>(6)</sup>	-	NoP ≤ 5.0% of monthly samples	(0)	-	Zero positives	Naturally present in the environment
<i>Giardia lamblia</i>	cyst/L	TT	(0)	0 - 0.09	0.02	Naturally present in the environment
▼ INORGANICS						
Fluoride (source water) <sup>(7)</sup>	ppm	2.0	1	ND - 0.9	0.3 <sup>(8)</sup>	Erosion of natural deposits; water additive to promote strong teeth
Chloramine (as chlorine)	ppm	MRDL = 4.0	MRDLG = 4	.52 - 3.46	2.57 <sup>(9)</sup>	Drinking water disinfectant added for treatment
<b>KEY</b> <div> <div> &lt; / ≤ = less than / less than or equal to  AL = Action Level  Max = Maximum  Min = Minimum  N/A = Not Available </div> <div> ND = Non-detect  NL = Notification Level  NoP = Number of Coliform-Positive Sample  NTU = Nephelometric Turbidity Unit  ORL = Other Regulatory Level </div> <div> ppb = part per billion  ppm = part per million  µS/cm = microSiemens /centimeter </div> </div>						

Please distribute this Water Quality Report and make available to everyone, including tenants, employees, homeowner association members, etc. The District welcomes the opportunity for public participation in discussing the Water Quality Report. Board meetings are held at 7:30 p.m. at the District office every second Thursday of the month.

## DETECTED CONTAMINANTS<sup>1</sup>

### ▼ CONSTITUENTS WITH SECONDARY STANDARDS

	Unit	SMCL	PHG	Range	Average	Major Sources of Contaminant
Aluminum <sup>(10)</sup>	ppb	200	600	ND - 68	ND	Erosion of natural deposits; some surface water treatment residue
Chloride	ppm	500	N/A	<3 - 17	8.7	Runoff / leaching from natural deposits
Color	unit	15	N/A	<5 - 10	<5	Naturally-occurring organic materials
Specific Conductance	µS/cm	1600	N/A	32 - 234	158	Substances that form ions when in water
Sulfate	ppm	500	N/A	1 - 29	15	Runoff / leaching from natural deposits
Total Dissolved Solids	ppm	1000	N/A	<20 - 119	76	Runoff / leaching from natural deposits
Turbidity	NTU	5	N/A	ND - 0.5	0.2	Soil runoff

### ▼ LEAD AND COPPER

	Unit	AL	PHG	Range	90th Percentile	Major Sources in Drinking Water
Copper	ppb	1300	300	6.6 - 243.0 <sup>(11)</sup>	96.9 <sup>(11)</sup>	Internal corrosion of household water plumbing systems
Lead	ppb	15	0.2	<1.0 - 1.5 <sup>(12)</sup>	1.5 <sup>(12)</sup>	Internal corrosion of household water plumbing systems

### ▼ OTHER WATER QUALITY PARAMETERS

	Unit	ORL	Range	Average
Alkalinity (as CaCO <sub>3</sub> )	ppm	N/A	3.5 - 97	46
Boron	ppb	1000 (NL)	ND - 107	ND
Calcium (as Ca)	ppm	N/A	3.3 - 20	12
Chlorate <sup>(13)</sup>	ppb	(800) NL	40 - 220	84
Chromium (VI) <sup>(14)</sup>	ppb	N/A	0.04 - 0.19	0.12
Hardness (as CaCO <sub>3</sub> )	ppm	N/A	8.9 - 77	47
Magnesium	ppm	N/A	0.2 - 6.6	4.2
pH	-	N/A	8.8 - 10.1	9.3
Potassium	ppm	N/A	0.3 - 1.2	0.8
Silica	ppm	N/A	4.9 - 8	6.1
Sodium	ppm	N/A	2.8 - 21	14
Strontium	ppb	N/A	13 - 230	107

### KEY

< / ≤ = less than / less than or equal to  
 AL = Action Level  
 Max = Maximum  
 Min = Minimum  
 N/A = Not Available  
 ND = Non-detect  
 NL = Notification Level  
 NoP = Number of Coliform-Positive Sample  
 NTU = Nephelometric Turbidity Unit  
 ORL = Other Regulatory Level  
 ppb = part per billion  
 ppm = part per million  
 µS/cm = microSiemens / centimeter

### Footnotes

- (1) All results met State and Federal drinking water health standards.
- (2) These are monthly average turbidity values measured every 4 hours daily.
- (3) There is no turbidity MCL for filtered water. The limits are based on the TT requirements for filtration systems.
- (4) This is the highest locational running annual average value.
- (5) Total organic carbon is a precursor for disinfection byproduct formation. The TT requirement applies to the filtered water from the SVWTP only.
- (6) The Westborough Water District had zero positives for Total Coliform in 2019.
- (7) In May 2015, the SWRCB 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.
- (8) The natural fluoride level in the Hetch Hetchy supply was ND. Elevated fluoride levels in the SVWTP and HTWTP raw water were attributed to the transfer of fluoridated Hetch Hetchy water into the local reservoirs.
- (9) This is the highest running annual average value.
- (10) Aluminum also has a primary MCL of 1,000 ppb.
- (11) The most recent Lead and Copper Rule monitoring was in 2019. None of the 30 site samples collected at consumer taps had copper concentrations above the AL.
- (12) The most recent Lead and Copper Rule monitoring was in 2019. None of the 30 site samples collected at consumer taps had lead concentrations above the AL.
- (13) The detected chlorate in the treated water is a degradation product of sodium hypochlorite used by the SFRWS for water disinfection.
- (14) 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.

Should you have any questions, please contact Darryl Barrow, General Manager, Westborough Water District at 650 589-1435 or by email at [dbarrow@westboroughwater.org](mailto:dbarrow@westboroughwater.org)



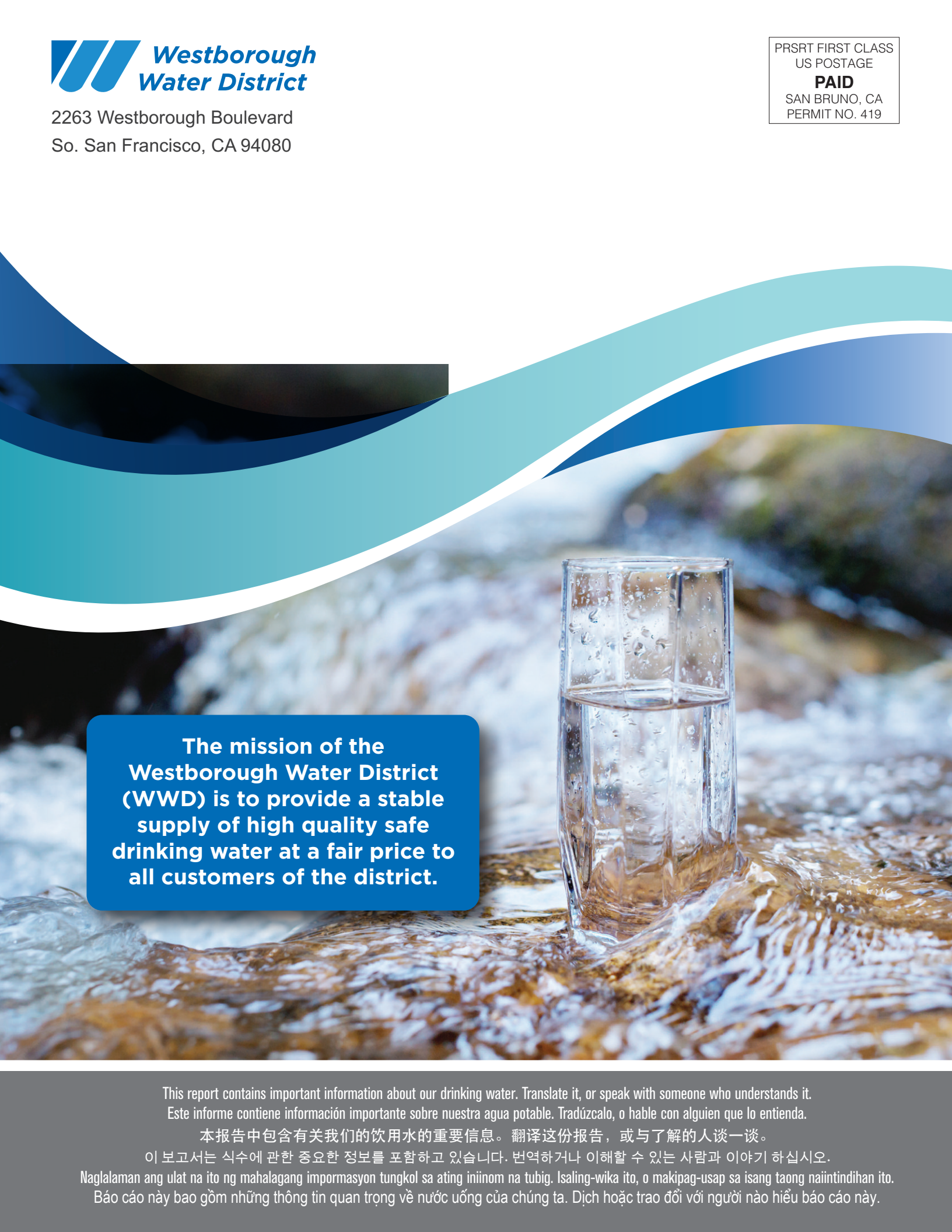


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A photograph of a clear glass filled with water, sitting on a wet, rocky surface. Water is splashing around the base of the glass, creating white foam and droplets. The background is a blurred natural setting with more rocks and water. The image is framed by large, flowing blue and teal waves at the top and bottom.

**The mission of the  
Westborough Water District  
(WWD) is to provide a stable  
supply of high quality safe  
drinking water at a fair price to  
all customers of the district.**

This report contains important information about our drinking water. Translate it, or speak with someone who understands it.

Este informe contiene información importante sobre nuestra agua potable. Tradúzcalo, o hable con alguien que lo entienda.

本报告中包含有关我们的饮用水的重要信息。翻译这份报告，或与了解的人谈一谈。

이 보고서는 식수에 관한 중요한 정보를 포함하고 있습니다. 번역하거나 이해할 수 있는 사람과 이야기 하십시오.

Naglalaman ang ulat na ito ng mahalagang impormasyon tungkol sa ating iniinom na tubig. Isaling-wika ito, o makipag-usap sa isang taong naiintindihan ito.

Báo cáo này bao gồm những thông tin quan trọng về nước uống của chúng ta. Dịch hoặc trao đổi với người nào hiểu báo cáo này.