

MID-PENINSULA WATER DISTRICT

2023 CONSUMER CONFIDENCE REPORT



SEE INSIDE

▶ ANNUAL WATER QUALITY DATA



Thank You, Customers!

...for the Opportunity to Serve Our Community for 95 Years.

ABOUT MPWD

MID-PENINSULA WATER DISTRICT

1075 Old County Road, Ste. A
Belmont, CA 94002
650-591-8941
www.MidPeninsulaWater.org

BOARD OF DIRECTORS

The Board of Directors meets every month at 1075 Old County Road, Ste. A, Belmont. The schedule of upcoming meetings can be found at MidPeninsulaWater.org/calendar

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President

Catherine M. Jordan
Vice President

Brian Schmidt
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James W. Ramsey, CPA, CFE
District Treasurer

El Informe Anual de Calidad del Agua 2023 del MPWD se encuentra disponible en español. Las copias están disponibles en la oficina del Distrito y pueden descargarse de:

MidPeninsulaWater.org/ccr

95 Years of Service



2024 marks the 95th anniversary of the incorporation of the Belmont County Water District (which later became the Mid-Peninsula Water District) under the County Water District Act of California. This began an enduring mission of supplying a safe, high-quality, reliable supply of water from the San Francisco Regional Water System to our local community.

Starting as a consolidation of seven separate water systems in 1929, our current water system grew with the community as it was built out over the decades. Today, that system encompasses 93 miles of pipe, nine pump stations, eleven storage tanks, and the delivery of millions of gallons of water every day. As our community continues to grow and evolve, the MPWD must invest in maintaining and replacing its aging infrastructure to meet the present and future water needs of the community. A reliable supply of water keeps our community thriving and prosperous – and our water infrastructure lies at the heart of it all.



The MPWD employees and Board of Directors would like to thank our customers for the responsibility and trust of serving the community with this essential resource and we look forward to meeting the challenges of the future together. Please hit the QR code at left or visit MidPeninsulaWater.org/95 for more about the MPWD's history! ■

WATER QUALITY

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 human activity. Collectively, these are called contaminants. Therefore, 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. To ensure that tap water is safe to drink, the United States Environmental Protection Agency and the State Water Resources Control Board prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The United States Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health.

The San Francisco Regional Water System (SFRWS) regularly collects and tests water samples from reservoirs and designated sampling locations throughout its system to ensure the water delivered to you meets all state and federal drinking water standards. In 2023, the SFRWS conducted more than 49,610 drinking water tests in the source, transmission, and distribution system. This is in addition to its extensive treatment process control monitoring performed by certified operators and online instruments. ■



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.

此份水質報告，內有重要資訊。請找他人為你翻譯和解說清楚。



Protecting Our Watersheds

The SFRWS conducts watershed sanitary surveys for its Hetch Hetchy source annually and every five years for its local water sources and upcountry non-Hetch Hetchy sources. The latest sanitary surveys for the non-Hetch Hetchy watershed were completed in 2021 for the period of 2016-2020. All these surveys together with our stringent watershed protection management activities were completed with support from partner agencies including the National Park Service and the United States Forest Service. The purposes of these annual

and quinquennial surveys are to evaluate the sanitary conditions and water quality of the watersheds and to review the results of watershed management activities conducted in the preceding years. Wildfire, wildlife, livestock, and human activities continue 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 at 510-620-3474 for more information. ■

Special Health Needs

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons, such as those with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome or other immune system disorders, and some elderly people and infants, can be particularly at risk from infections. These people should seek advice about drinking water from their healthcare providers.



Cryptosporidium is a parasitic microbe found in most surface water. The SFRWS regularly tests for this waterborne pathogen and found it at very low levels in source water and treated water in 2023. However, current test methods approved by the United States Environmental Protection Agency 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.

The United States Environmental Protection Agency (EPA) and the 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 EPA’s Safe Drinking Water Hotline at 800-426-4791 or at [epa.gov/safewater](https://www.epa.gov/safewater) ■

Lead & Copper Tap Sampling Results

The Mid-Peninsula Water District conducted its triennial residential Lead and Copper Rule (LCR) monitoring in August 2021, and all the tap sampling results were all below the lead and copper action level. The Mid-Peninsula Water District is currently conducting its triennial LCR monitoring District-wide with a scheduled completion date of October 2024. The results will be published next year in the MPWD’s 2024 *Consumer Confidence Report*. ■

Lead and Drinking Water

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. The children of women who are exposed to lead before or during pregnancy can have increased risk of these adverse health effects. Adults can have increased risks of heart disease, high blood pressure, kidney, or nervous system problems.

When lead is found to be present in drinking water, it 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 and removing lead pipes, but we cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from 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 tap water, 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 by an American National Standards Institute accredited certifier to remove lead from drinking water. If you are concerned about lead in your water and wish to have your water tested, call Mid-Peninsula Water District at (650) 591-8941 to request a lead test. Information about lead in drinking water, testing methods, and steps you can take to minimize exposure is available at USEPA website epa.gov/safewater/lead

Mid-Peninsula Water District is currently conducting a lead service line (LSL) inventory to identify the materials of service lines connected to the public water distribution system. This inventory will include the service line material from the water main to the water meter, as well as the pipe material behind the water meter to the inlet of the home or building. The LSL inventory is anticipated to be completed by October 16, 2024. ■

Boron Detection Above Notification Level in Source Water

In 2023, boron was detected at a level of 1.7 ppm (parts per million) in the raw water stored in Pond F3 East, one of the SFRWS's approved sources in the Alameda Watershed. Similar levels were also previously detected in the same pond. Although the detected value was above the California Notification Level (NL) of 1 ppm, the water was typically delivered to San Antonio Reservoir, where it was substantially diluted to below the NL before treatment at the Sunol Valley Water Treatment Plant. Boron is an element in nature and is typically released into air and water when soils and rocks weather naturally. ■

Fluoridation & Dental Fluorosis

Mandated by State law, water fluoridation is a widely accepted practice proven 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 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, tooth paste, and dental products. Contact your healthcare provider or the SWRCB if you have concerns about dental fluorosis. For additional information about fluoridation or oral health, visit the SWRCB website waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.html or the CDC website cdc.gov/fluoridation ■

No PFAS Detected

PFAS are man-made chemicals that have been used in the industry and consumer products since the 1940s. We did not detect PFAS in our water. To learn more, visit waterboards.ca.gov/pfas ■

Unregulated Contaminant Monitoring Rule

The fifth Unregulated Contaminant Monitoring Rule (UCMR 5) was published on December 27, 2021. UCMR 5 requires sample collection for 30 chemical contaminants between 2023 and 2025 using analytical methods developed by the EPA and consensus organizations. UCMR 5 will provide new data that will improve the agency's understanding of the frequency that 29 per- and polyfluoroalkyl substances (PFAS) and lithium are found in the nation's drinking water systems, and at what levels. The monitoring data on PFAS and lithium will help the EPA make determinations about future regulations and other actions to protect public health under the Safe Drinking Water Act (SDWA). In 2023, the MPWD conducted 4 quarter sampling of the 29 polyfluoroalkyl substances and lithium. The results for the samples taken in the 4 quarters were non-detect (ND).

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 United States Environmental Protection Agency.

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 the 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 the cloudiness of the water and is also used to indicate the effectiveness of the filtration system. High turbidity can hinder the effectiveness of disinfectants.

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. Water from these sources may pick up contaminants in following forms:

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; and

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 United States Environmental Protection Agency's Safe Drinking Water Hotline at 800-426-4791, or at epa.gov/safewater

MPWD's Water Quality Data for Calendar Year 2023

The following tables list detected contaminants in our drinking water in 2023 and information about their typical sources. Contaminants below detection limits for reporting are not shown, in accordance with regulatory guidance. The MPWD holds a SWRCB monitoring waiver for some contaminants in the surface water supply and therefore their monitoring frequencies are less than annual. All results met State and Federal drinking water health standards.

DETECTED CONTAMINANTS¹

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 - 0.9 ⁽²⁾	[2]	Soil runoff
Filtered Water from Sunol Valley Water Treatment Plant (SVWTP)	NTU	1 ⁽³⁾	N/A	–	[0.2]	Soil runoff
	–	Min 95% of samples ≤ 0.3 NTU ⁽³⁾	N/A	100%	–	Soil runoff
Filtered Water from Harry Tracy Water Treatment Plant (HTWTP)	NTU	1 ⁽³⁾	N/A	–	[0.6]	Soil runoff
	–	Min 95% of samples ≤ 0.3 NTU ⁽³⁾	N/A	99.4% - 100%	–	Soil runoff
DISINFECTION BYPRODUCTS AND PRECURSOR						
Total Trihalomethanes	ppb	80	N/A	36.6 - 62.8	51.5 ⁽⁴⁾	Byproduct of drinking water disinfection
Five Haloacetic Acids	ppb	60	N/A	2.0 - 56.0	43.2 ⁽⁴⁾	Byproduct of drinking water disinfection
Bromate	ppb	10	0.1	ND - 1.7	[1] ⁽⁵⁾	Byproduct of drinking water disinfection
Total Organic Carbon ⁽⁶⁾	–	TT (% Removal Ratio)	N/A	1.2 - 1.8	[1.5] ⁽⁵⁾	Various natural and man-made sources
MICROBIOLOGICAL						
<i>E. coli</i> ⁽⁷⁾	–	0 Positive Sample	(0)	–	0	Human or animal fecal waste
<i>Giardia lamblia</i>	cyst/L	TT	(0)	0 - 0.13	0.03	Naturally present in the environment
INORGANICS						
Fluoride (source water) ⁽⁸⁾	ppm	2.0	1	ND - 0.7	0.3 ⁽⁹⁾	Erosion of natural deposits; water additive to promote strong teeth
Nitrate (as N)	ppm	10	10	ND - 0.6	ND	Erosion of natural deposits
Chloramine (as chlorine)	ppm	MRDL = 4.0	MRDLG = 4	0.84 - 3.45	2.86 ⁽⁵⁾	Drinking water disinfectant added for treatment

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
 NTU = Nephelometric Turbidity Unit
 ORL = Other Regulatory Level

ppb = parts per billion
 ppm = parts per million
 PS = Number of Positive Sample
 µS/cm = microSiemens / centimeter

DETECTED CONTAMINANTS¹

CONSTITUENTS WITH SECONDARY STANDARDS	Unit	SMCL	PHG	Range	Average	Major Sources of Contaminant
Aluminum ⁽¹⁰⁾	ppb	200	600	ND - 82	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 - 5	<5	Naturally-occurring organic materials
Iron	ppb	300	N/A	<6 - 42	19	Leaching from natural deposits
Manganese	ppb	50	N/A	<2 - 4.6	2.6	Leaching from natural deposits
Specific Conductance	µS/cm	1600	N/A	32 - 289	175	Substances that form ions when in water
Sulfate	ppm	500	N/A	1.2 - 36	17	Runoff / leaching from natural deposits
Total Dissolved Solids	ppm	1000	N/A	<20 - 153	84	Runoff / leaching from natural deposits
Turbidity	NTU	5	N/A	0.1 - 0.6	0.3	Soil runoff

LEAD AND COPPER	Unit	AL	PHG	Range	90th Percentile	Major Sources in Drinking Water
Copper	ppb	1300	300	0 ⁽¹¹⁾	57.3	Internal corrosion of household water plumbing systems
Lead	ppb	15	0.2	0 ⁽¹²⁾	2.7	Internal corrosion of household water plumbing systems

OTHER WATER QUALITY PARAMETERS	Unit	ORL	Range	Average
Alkalinity (as CaCO ₃)	ppm	N/A	3.1 - 103	46
Boron	ppb	1000 (NL)	22 - 65	40
Calcium (as Ca)	ppm	N/A	2.9 - 24	13
Chlorate ⁽¹³⁾	ppb	(800) NL	30 - 749	141
Chromium (VI)	ppb	N/A	0.11 - 0.35	0.23
Hardness (as CaCO ₃)	ppm	N/A	7.5 - 86	46
Magnesium	ppm	N/A	0.2 - 8.4	4.7
pH	-	N/A	8.4 - 9.8	9.2
Potassium	ppm	N/A	0.3 - 1.7	1
Silica	ppm	N/A	4.4 - 9.4	6.2
Sodium	ppm	N/A	2.7 - 20	14
Strontium	ppb	N/A	14 - 331	139



Buckland water storage tank site.

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) This is a TT requirement for filtration systems. (4) This is the highest locational running annual average value. (5) This is the highest running annual average value. (6) Total organic carbon (TOC) is a precursor for disinfection byproduct formation. The TT requirement applies to the filtered water from the SVWTP only. In 2023, the range of the SVWTP effluent TOC levels were 0.6 ppm - 3.3 ppm. (7) The MCL was changed to *E. coli* based starting on July 1, 2021 when the State Revised Total Coliform Rule became effective. (8) The SWRCB recommended an optimal fluoride level of 0.7 ppm be maintained in the treated water. In 2023, the range and average of the fluoride levels were 0.4 ppm - 2.6 ppm and 0.6 ppm, respectively. (9) Natural fluoride in the Hetch Hetchy source was ND. Elevated fluoride levels in raw water to the SVWTP and the HTWTP were attributed to the transfer of fluoridated Hetch Hetchy water into the local reservoirs. (10) Aluminum also has a primary MCL of 1,000 ppb. (11) The most recent Lead and Copper Rule monitoring was in 2021. 0 of 41 site samples collected at consumer taps had copper concentrations above the AL. (12) The most recent Lead and Copper Rule monitoring was in 2021. 0 of 41 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.

Additional water quality data may be obtained by calling the Mid-Peninsula Water District at (650) 591-8941 or SFPUC Water Quality Division at (877) 737-8297. Visit sfpub.org/WaterQuality for a list of all water quality parameters monitored in both raw water and treated water in 2023.

MPWD 2023 CONSUMER CONFIDENCE REPORT

Our Drinking Water Sources and Treatment

The SFRWS's drinking water supply consists of surface water and groundwater that are well protected and carefully managed. These sources are diverse in both origin and location with the surface water stored in reservoirs located in the Sierra Nevada, Alameda County and San Mateo County, as well as groundwater stored in a deep aquifer located in the northern part of San Mateo County. Maintaining this variety of sources is an important component of our near- and long-term water supply management strategy. A diverse mix of sources protects us from potential disruptions due to emergencies or natural disasters, provides resiliency during periods of drought, and helps us ensure a long-term, sustainable water supply as we address issues such as climate uncertainty, regulatory changes, and population growth.

To meet drinking water standards for consumption, all surface water sources, including the upcountry non-Hetch Hetchy sources,

undergo treatment before it is delivered to our customers. While the water from Hetch Hetchy Reservoir is exempt from state and federal filtration requirements, it does receive the following treatment before being delivered for your consumption: disinfection using ultraviolet light and chlorine, 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. Water from local Bay Area reservoirs in Alameda County and upcountry non-Hetch Hetchy sources is delivered to Sunol Valley Water Treatment Plant; whereas water from local reservoirs in San Mateo County is delivered to Harry Tracy Water Treatment Plant. Water treatment at these plants consists of filtration, disinfection, fluoridation, optimum corrosion control, and taste and odor removal. In 2023, neither upcountry non-Hetch Hetchy sources nor groundwater was used by the SFRWS. ■

