



## Montara Water and Sanitary District

# REPORT ON WATER QUALITY 2017



### **High-Quality, Well-Protected Local Water Supply**

The water served by Montara Water and Sanitary District (MWSD) comes from high-quality local ground-water wells and Montara Creek. Our sources are consistently fed by clean, coastal rainfall, which flows into local streams and percolates into the aquifers from which we draw water. We are fortunate to have such a high-quality, well-protected, and 100% locally-controlled water supply.

MWSD owns and operates water storage, treatment, and distribution facilities that provide domestic water to approximately 1,650 domestic water connections, most of which are single family and multi-family residential connections. These facilities are operated by a committed staff of water system operators who ensure that our customers are receiving the highest quality of drinking water. This consumer confidence report (CCR) provides important information about your water quality, and illustrates that MWSD drinking water has met all the state and federal public health requirements for 2017.

# Excellent Quality and Consistent Water System Upgrades

*A message from the Board President*

**Dear Customer,**

**Your Water Meets all Quality Standards.** We are pleased to report continued compliance of your local water with all federal and state drinking water regulations as demonstrated by this Consumer Confidence Report for 2017. This Report summarizes the results of approximately 2,300 analyses conducted on your drinking water in the past year.

**The District has Continued its Infrastructure Improvement Work** by rehabilitating its existing well sources and distribution system. The District will continue to implement projects that maximize system reliability while minimizing costs and environmental impacts.

**Please Keep Up Your Excellent Conservation Practices.** Since 2004, MWSD has reduced its per person water use by 32%. Despite this winter's rainfall, we encourage you to continue conserving – there is never enough water to waste. For more information on how to save water and reduce your water bills, please visit [saveourwater.com](http://saveourwater.com).

**Please Contact Us. We Are Here to Serve!** For more information about your drinking water, you can visit the District's office, the website at [mwsd.montara.org](http://mwsd.montara.org), or attend one of our Board meetings. District Staff and Board Members are always available to discuss issues with customers and constituents.

*Sincerely,*

*Dwight Wilson, Board President*

## Our High-Quality Water Supply

We test the drinking water quality for many constituents as required by State and Federal regulations. This report shows the results of our monitoring for the period of January 1 through December 31, 2017 and may include earlier monitoring data.

**To ensure that tap water is safe to drink,** the U.S. Environmental Protection Agency (USEPA) and State Water Resources Control Board (SWRCB) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. SWRCB regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

**MWSD is served by groundwater from San Mateo Coastal Basin Aquifers and surface water from the Montara Creek.**

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 are byproducts of 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 and mining activities.

**A Drinking Water Source Assessment** for all sources was completed in January 2003 and is on file with the SWRCB Division of Drinking Water (DDW).

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

## A Message from the USEPA and the SWRCB Division of Drinking Water

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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

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 about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline: (1-800-426-4791).

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. MWSD is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you do so, you may wish to collect the flushed water and reuse it for other beneficial purposes, such as watering plants. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/lead>.

## Important Information about Your Drinking Water

**Copper** and **Lead** were found at levels *below* the Regulatory Action Level (AL) of 1.3 ppm and 15 ppb, respectively, in the 2017 residential tap sampling. No exceedance was found in the distribution system. The typical sources for copper and lead contamination are corrosion of house-hold plumbing systems and erosion of natural deposits. Copper is an essential nutrient, but some people who drink water containing copper in excess of the AL over a relatively short time may experience gastrointestinal distress and liver or kidney damage. People with Wilson's disease should consult their doctor.

**Arsenic** was detected at a District well at a level *below* the Maximum Contaminant Level (MCL). While your drinking water meets the federal and state standard for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. The USEPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

**Fluoride** was found at six District wells at levels *below* the MCL. While your drinking water meets the federal and state standard for fluoride, it does contain low levels of fluoride. Some people who drink water containing fluoride in excess of the federal MCL of 4 mg/L over many years may get bone disease, including pain and tenderness of the bones. Children who drink water containing fluoride in excess of the state MCL of 2 mg/L may get mottled teeth.

Secondary MCLs were set to protect you against unpleasant aesthetic effects such as color, taste, odor, and the staining of plumbing fixtures (e.g., tubs and sinks), and clothing while washing. Exceeding the secondary MCLs poses no health risks. **Manganese** was found at levels that **exceeded** the secondary MCL of 50 ppb that is set to protect consumers from neurological effects. The high manganese levels are most likely due to leaching of natural deposits in the soil where groundwater is in contact with naturally occurring sediments. Iron was found at levels that **exceeded** the secondary MCL of 300 ppb. The high iron levels are due to leaching of natural deposits.

## Terms Used in this Report

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

**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.

**Public Health Goal (PHG):** The level of a contaminant in drinking water, below which there is no known or expected risk to health. The California Environmental Protection Agency (CEPA) sets PHGs.

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

**Secondary Drinking Water Standards (SDWS):** MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

**Secondary Maximum Contaminant Level (SMCL):** Secondary MCLs are set to protect the odor, taste, and appearance of drinking water. Exceeding the SMCLs poses no health risks.

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

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

**Variations and Exemptions:** SWRCB Division of Drinking Water permission to exceed an MCL or not comply with a treatment technique under certain conditions.

**ND:** not detectable at testing limit

**NTU:** nephelometric turbidity unit

**ppm:** parts per million or milligrams per liter (mg/L)

**ppb:** parts per billion or micrograms per liter (µg/L)

**ppq:** parts per quadrillion or picograms per liter (ng/L)

**pCi/L:** picocuries per liter (a measure of radiation)

**T.O.N.:** threshold odor unit

The tables below list all of the drinking water contaminants that were detected during the most recent sampling events for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The State Board allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

TABLE 1 – SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA					
Microbiological Contaminants	Highest No. of detections	No. of months in violation*	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	0	0	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or E. coli	0	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or E. coli	0	Human and animal fecal waste

\* During the week of October 24, 2017, two (2) of the six (6) bacteriological samples in the distribution system were not taken at the correct, approved locations due to human error. While this resulted in a violation of the California Code of Regulations, this failure was not an emergency. The two (2) samples were taken at their correct location and did not result in a positive coliform reading. To ensure that sampling and monitoring requirements are met in the future, we have improved our QA/QC process under the direction of DDW.

TABLE 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER						
Lead and Copper	No./Date of samples collected	90th percentile level detected	No. Sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb)	40 2017 Tap Sampling	ND	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	40 2017 Tap Sampling	0.18	0	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Lead sampling was not requested by any schools during this sampling period.

TABLE 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS								
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections			MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	Annually	45	45	–	45	None	None	Salt present in water and generally found naturally occurring in ground & surface water
Hardness (ppm)	Annually	83	83	–	83	None	None	Sum of polyvalent cations present in water, generally magnesium and calcium, and are usually naturally occurring in ground & surface water

TABLE 4 – DETECTION OF UNREGULATED CONTAMINANTS							
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections			Notification Level	Health Effects Language
Boron (ppm)	Annually (varies by location)	0.2	0.1	–	0.4	1	The babies of some pregnant women who drink water containing boron in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals.

**TABLE 5 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD**

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections			MCL	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
			N/A	–	N/A			
Turbidity (NTU)	Annually	50	N/A	–	N/A	TT	None	Soil runoff
Aluminum (ppm)	Annually	0.01	ND	–	0.06	1	0.6	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic (ppb)	Quarterly	3.4	ND	–	7.2	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production waste
Barium (ppm)	Annually	0.04	ND	–	0.07	1	2	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits
Chromium (ppb)	Annually	8	ND	–	24	50	100	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Fluoride (ppm)	Quarterly	1.2	0.5	–	1.7	2	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (ppm)	Annually (date)	2.1	ND	–	5	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Total Trihalomethanes [TTHMs] (ppb)	As needed	4	ND	–	40	80	none	Byproduct of drinking water disinfection
Haloacetic Acids [HAA5] (ppb)	As needed	5.2	2.7	–	8.4	60	none	Byproduct of drinking water disinfection
Control of DBP precursors [TOC] (ppm)	Quarterly	0.7	0.4	–	1.2	TT	none	Various natural and man-made sources
cis-1,2-Dichloroethene (ppb)	Quarterly	0.4	ND	–	3.8	6	100	Discharge from industrial chemical factories; major biodegradation byproduct of TCE and PCE groundwater contamination
trans-1,2-Dichloroethene (ppb)	Quarterly	0.1	ND	–	1.2	10	60	Discharge from industrial chemical factories; minor biodegradation byproduct of TCE and PCE groundwater contamination
Trichloroethene (TCE) (ppb)	Quarterly	0.2	ND	–	1.7	5	1.7	Discharge from metal degreasing sites and other factories

**TABLE 6 – SAMPLING RESULTS SHOWING FECAL INDICATOR-POSITIVE GROUND WATER SOURCE SAMPLES**

Microbiological Contaminants	Total No. of Detections	Sample Dates	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
E. coli	0	N/A	0	(0)	Human and animal fecal waste
Enterococci	0	N/A	TT	N/A	Human and animal fecal waste
Coliphage	0	N/A	TT	N/A	Human and animal fecal waste

**TABLE 7 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD**

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections			SMCL	PHG (MCLG)	Typical Source of Contaminant
*Color (Color Units)	Varies	75	75	–	75	15	None	Naturally-occurring organic materials
*Iron (ppb)	Quarterly	2002	ND	–	8,800	300	None	Leaching from natural deposits; industrial wastes
*Manganese (ppb)	Varies	75	ND	–	350	50	None	Leaching from natural deposits
Total Dissolved Solids [TDS] (ppm)	Annually	230	230	–	230	1,000	None	Runoff/leaching from natural deposits
Specific Conductance (µS/cm)	Annually	407	390	–	430	1,600	None	Substances that form ions when in water; seawater influence
Chloride (ppm)	Annually	64	64	–	64	500	None	Runoff/leaching from natural deposits; seawater influence
Sulfate (ppm)	Annually	16	16	–	16	500	None	Runoff/leaching from natural deposits; industrial wastes

\* Any exceedance of an SMCL is asterisked. Exceeding the secondary MCLs poses no health risks. There are no PHGs, MCLGs, or mandatory standard health effects language for these constituents because secondary MCLs are set based on aesthetics.

**TABLE 8 – SAMPLING RESULTS SHOWING TREATMENT OF SURFACE WATER SOURCES**

Treatment Technique <sup>(a)</sup> (Type of approval filtration technology used)	Dual-media pressure filters, coagulation and contact clarifiers
Turbidity Performance Standards <sup>(b)</sup> (that must be met through the water treatment process)	Turbidity of the filtered water must: 1 – Be less than or equal to 0.3 NTU in 95% of measurements in a month. 2 – Not exceed 0.3 NTU for more than eight consecutive hours. 3 – Not exceed 1 NTU at any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1	100%
Highest single turbidity measurement during the year	0.25
Number of violations of any surface water treatment requirements	0

<sup>(a)</sup> A required process intended to reduce the level of a contaminant in drinking water.

<sup>(b)</sup> Turbidity (measured in NTU) is a measurement of the cloudiness of water and is a good indicator of water quality and filtration performance. Turbidity results that meet performance standards are considered to be in compliance with filtration requirements.



**Montara Water  
and Sanitary District**

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### Continuing Our Commitment

The District Board Meetings for public participation are held on the first and third Thursday of each month at 7:30 p.m. at the District Office at 8888 Cabrillo Highway, Montara, CA 94037. For more information about this report and with any questions related to your public water system, please contact Clemens Heldmaier, General Manager at (650) 728-3545. You may also fax to us at (650) 728-8556, or email to [mwsd@coastside.net](mailto:mwsd@coastside.net), or visit us online at [mwsd.montara.org](http://mwsd.montara.org)