



Montara Water and Sanitary District

2016 CCR

Consumer Confidence Report

July 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 2016. This Report summarizes the results of approximately 2,200 analyses conducted on your drinking water in the past year.

Infrastructure Upgrades. The District has continued its infrastructure improvement efforts by replacing the water main along 4th Street and bringing the new Alta Vista Tank online. This new tank increased our system's storage capacity, improving the reliability of the water system and our fire-fighting capabilities. The District will continue to implement projects that maximize system reliability while minimizing costs and environmental impacts.

Please Keep Up Your Excellent Conservation Practices.

With drought conditions persisting into 2016, with your support, MWSD has reduced water consumption by 26% since 2004. Despite the recent 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 saveourh20.org.

Please Contact Us. We Are Here to Serve! For more information on the MWSD system and the quality of your drinking water, you can visit the District's office, the website at 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

The Montara Water and Sanitary District (MWSD) is served by groundwater from San Mateo Coastal Basin Aquifers and surface water from the Montara Creek.

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, 2016 and may include earlier monitoring data.

To ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and 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.

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 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 California State Water Resources Control Board (SWRCB) Division of Drinking Water.

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 2015 residential tap sampling. No exceedance was found in the distribution system. Although residential tap sampling was not required in 2016, results from 2015 are still representative of current conditions. The typical sources for copper and lead contamination are corrosion of household 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 two District wells at levels *below* the 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 five 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.

Variances 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 ($\mu\text{g}/\text{L}$)

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

Tables 1, 2, 3, 4, 5, 7, and 8 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. Some of the data, though representative of the water quality, are more than one year old.

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

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)	11 2015 Tap Sampling	8.4	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	11 2015 Tap Sampling	0.11	0	15	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

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	39	28	–	50	None	None	Salt present in water and generally found naturally occurring in ground & surface water
Hardness (ppm)	Annually	133	96	–	170	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	0.13	–	0.23	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
Turbidity (NTU)	Annually	0.4	N/A	–	N/A	TT	None	Soil runoff
Arsenic (ppb)	Quarterly	404	2.1	–	7.7	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production waste
Fluoride (ppm)	Quarterly	1.0	0.2	–	2	2	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (ppm)	Annually (date)	1.5	ND	–	10	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Toluene (ppb)	Quarterly	2	ND	–	10	150	150	Discharge from petroleum and chemical factories; underground gas tank leaks
Total Trihalomethanes [TTHMs] (ppb)	As needed	15	ND	–	67	80	none	Byproduct of drinking water disinfection
Haloacetic Acids [HAA5] (ppb)	As needed	6.6	4	–	10	60	none	Byproduct of drinking water disinfection
Control of DBP precursors [TOC] (ppm)	Quarterly	0.4	ND	–	0.5	TT	none	Various natural and man-made sources
Dioxin (2,3,7,8-TCDD) (ppq)	2 quarters per 3 years	1.5	1.1	–	2.0	30	0.05	Emissions from waste incineration and other combustion; discharge from chemical factories
cis-1,2-Dichloroethene (ppb)	Quarterly	1.0	ND	–	4.3	6	100	Discharge from industrial chemical factories; major biodegradation byproduct of TCE and PCE groundwater contamination
trans-1,2-Dichloroethene (ppb)	Quarterly	0.2	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	–	1.5	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

**Any violation of an MCL, TT or AL is asterisked. Additional information is provided in this report.*

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	0	ND	–	ND	15	None	Naturally-occurring organic materials
**Iron (ppb)	Quarterly	1781	ND	–	8,300	300	None	Leaching from natural deposits; industrial wastes
**Manganese (ppb)	Varies	59.8	ND	–	300	50	None	Leaching from natural deposits
Total Dissolved Solids [TDS] (ppm)	Annually	245	170	–	320	1,000	None	Runoff/leaching from natural deposits
Specific Conductance ($\mu\text{S}/\text{cm}$)	Annually	435	300	–	570	1,600	None	Substances that form ions when in water; seawater influence
Chloride (ppm)	Annually	67	42	–	92	500	None	Runoff/leaching from natural deposits; seawater influence
Sulfate (ppm)	Annually	26	9.6	–	42	500	None	Runoff/leaching from natural deposits; industrial wastes

TABLE 8 – SAMPLING RESULTS SHOWING TREATMENT OF SURFACE WATER SOURCES

Treatment Technique ^(a) (Type of approval filtration technology used)	Dual-media pressure filters, coagulation and contact clarifiers
Turbidity Performance Standards ^(b) (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	0.20
Number of violations of any surface water treatment requirements	0

^(a) A required process intended to reduce the level of a contaminant in drinking water.

^(b) 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.



**P.O. Box 370131
Montara, CA 94037
Voice: 650-728-3545
Email: mwsd@coastsidene.net
Web: mwsd.montara.org**

DIRECTORS
Dwight Wilson, President
Scott Boyd, President Pro Tem
Kathryn Slater-Carter, Secretary
Bill Huber, Treasurer
Jim Harvey, Director
GENERAL MANAGER
Clemens Heldmaier

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 the District at (650) 728-3545. You may also fax to us at (650) 728-8556, or email to mwsd@coastsidene.net, or visit us online at mwsd.montara.org