

# 2013 Consumer Confidence Report

Montara Water and Sanitary District

May 2014

## About Your Water

The Montara Water and Sanitary District is served by groundwater sources from San Mateo Coastal Basin Aquifers and surface water from the Montara Creek. Drinking water treatment technologies used in the water system include conventional coagulation, filtration, ion exchange and disinfection. The Drinking Water Source Assessment for all sources was completed in January 2003 and is on file with the California Department of Public Health (Department or CDPH).

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, 2013.

**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 production and mining activities.

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

## Message from the Board President

Dear Customer,

We are pleased to report continued compliance of your local water with all federal and state drinking water regulations, as demonstrated by the Consumer Confidence Report for 2013. This Report summarizes the results of approximately 1,000 analyses conducted on your drinking water in the past year. Since the community acquired the water system in 2003, we have made significant improvements to the water system, which have resulted in water quality improvements in turbidity, iron, nitrates, and color.

2013 was a landmark year for the District, with the approval by the California Coastal Commission of a much-needed amendment to MWSD's Public Works Plan, removing the restriction that no new connections can be made to the District's system. This approval is due in large part to the water system improvements made by the District and conservation efforts by District customers, resulting in the Commission's acknowledgement of the transformation that the District water system has undergone since 2003. With the recent approval of the PWP amendment by the Commission, MWSD can initiate the conversion of private wells within the District's service area to a safer, more reliable, and environmentally sustainable public water supply, as well as serve new development within its service area.

The District has also continued its infrastructure improvement efforts throughout 2013, completing the design of Schoolhouse Tank West in 2013 (construction completed in 2014), and rehabilitating several drinking water wells to improve water quality. MWSD looks forward to continued water conservation efforts and further development of important infrastructure projects, and would like to thank its customers for your support in helping us to maintain a reliable and environmentally conscious water system.

For more information on the MWSD system and the quality of your drinking water, you can visit the District's office, the web site at [mwsd.montara.org](http://mwsd.montara.org), or by attending one of our Board meetings. District Staff and Board Members are always available to discuss issues with customers and constituents.

Sincerely,

Scott Boyd  
MWSD Board President

## Our Mission Statement

To sensitively manage the natural resources entrusted to our care, to provide the people of Montara and Moss Beach with reliable, high-quality water, wastewater, and trash disposal services at an equitable price, and to ensure the fiscal and environmental vitality of the district for future generations.

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## Important Information about Your Drinking Water

**Copper** was found at levels that exceeded the Regulatory Action Level (AL) of 1.3 ppm in the 2005 residential tap sampling. No exceedance was found in the distribution system. The typical source for copper contamination is internal corrosion of household plumbing systems, erosion of natural deposits or leaching from wood preservatives.

**Nitrate** was detected at one District well at levels above the MCL of 45 ppm. This well is currently kept *offline* and none of this water entered the distribution system. Nitrate in drinking water at levels above the MCL is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in serious illness; symptoms include 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 specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider.

**Manganese** was found at levels that exceeded the secondary MCL of 50 ppb. 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. 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.

**Arsenic** was detected at one District well at levels *below* the MCL but above 5 ppm. While this 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 U.S. Environmental Protection Agency 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.

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## A Message from the USEPA and the California Department of Public Health

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).

Lead-Specific Language for Community Water Systems: 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. Montara Water and Sanitary District 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 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/safewater/lead>.

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## 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.

**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. PHGs are set by the California Environmental Protection Agency.

**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.

**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.

**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.

**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 which, if exceeded, triggers treatment or other requirements that a water system must follow.

**Variations and Exemptions:** Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.

**ND:** not detectable at testing limit

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

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

**ppt:** parts per trillion or nanograms per liter (ng/L)

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

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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 Department 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 <i>E. coli</i>	0	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or <i>E. coli</i>	0	Human and animal fecal waste

TABLE 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER						
Lead and Copper	No. of samples collected	90th percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb)	26 2005 Tap Sampling	6	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
*Copper (ppm)	26 2005 Tap Sampling	1.3	3	1.3	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)	5/22, 8/29	35	25	-	45	none	none	Generally found in ground & surface water
Hardness (ppm)	5/22, 8/29	119	88	-	150	none	none	Generally found in ground & surface water

TABLE 4 – 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	5/22, 8/29	0.26	0.18	-	0.34	TT	none	Soil runoff
Arsenic (ppb)	2/14, 5/22, 8/29, 12/09	5.5	ND	-	7.5	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production
Cyanide (ppb)	5/22, 8/29	4.1	ND	-	8	150	150	Some people who drink water containing cyanide in excess of the MCL over many years may experience nerve damage or thyroid
Fluoride (ppm)	5/22, 8/29	0.66	0.57	-	0.74	2	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
*Nitrate (ppm)	As needed	10	ND	-	49	45	45	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Total Trihalomethanes [TTHMs] (ppb)	Annually	27	20	-	32	80	none	Byproduct of drinking water disinfection

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

**TABLE 4 CONTINUED – 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
Perchlorate (ppb)	5/22, 8/29, 12/11	0.58	ND	-	2.3	6	6	Perchlorate has been shown to interfere with uptake of iodide by the thyroid gland, and to thereby reduce the production of thyroid hormones, leading to adverse affects associated with inadequate hormone levels. Thyroid hormones are needed for normal prenatal growth and development of the fetus, as well as for normal growth and development in the infant and child. In adults, thyroid hormones are needed for normal metabolism and mental function.
Haloacetic Acids [HAAs] (ppb)	Annually	8.3	6.7	-	9.9	60	none	Byproduct of drinking water disinfection
Control of DBP precursors [TOC] (ppm)	Quarterly	0.55	0.27	-	0.65	TT	none	Various natural and man-made sources

**TABLE 5 – 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	5/22, 8/29	2.5	ND	-	5	15	none	Naturally-occurring organic materials
Iron (ppb)	2/14, 5/22, 8/29, 12/09	33	ND	-	100	300	none	Leaching from natural deposits; industrial wastes
<b>**Manganese (ppb)</b>	<b>Varies</b>	<b>305</b>	<b>ND</b>	-	<b>3300</b>	<b>50</b>	<b>none</b>	<b>Leaching from natural deposits</b>
Total Dissolved Solids [TDS] (ppm)	5/22, 8/29	225	150	-	300	1000	none	Runoff/leaching from natural deposits
Specific Conductance (µS/cm)	5/22, 8/29, 9/02, 12/11	561	290	-	750	1600	none	Substances that form ions when in water; seawater influence
Chloride (ppm)	5/22, 8/29	70	43	-	97	500	none	Runoff/leaching from natural deposits; seawater influence
Sulfate (ppm)	5/22, 8/29	14.9	9.8	-	20	500	none	Runoff/leaching from natural deposits; industrial wastes

*\*\*Any exceedance of an SMCL is astricked. 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 6 – DETECTION OF UNREGULATED CONTAMINANTS\*\*\***

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections			Notification Level	Health Effects Language
Trichloropropane [1,2,3-TCP] (ppt)	5/22, 8/29, 10/28, 12/11	2.78	ND	-	13	5	Some people who use water containing 1,2,3-trichloropropane in excess of the notification level over many years may have an increased risk of getting cancer, based on studies in laboratory animals.

*\*\*\*State or Federal unregulated contaminants are unregulated and have no MCL. Therefore, inclusion of the notification level and health effects language for levels above the notification level is only recommended, not required by CDPH.*

TABLE 7 – SAMPLING RESULTS SHOWING FECAL INDICATOR-POSITIVE GROUND WATER SOURCE SAMPLES					
Microbiological Contaminants (complete if fecal-indicator detected)	Total No. of Detections	Sample Dates	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
<i>E. coli</i>	0 (in the year)	N/A	0	(0)	Human and animal fecal waste
Enterococci	0 (in the year)	N/A	TT	n/a	Human and animal fecal waste
Coliphage	0 (in the year)	N/A	TT	n/a	Human and animal fecal waste

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 <u>0.3</u> NTU in 95% of measurements in a month. 2 – Not exceed <u>0.3</u> NTU for more than either consecutive hours. 3 – Not exceed <u>1</u> NTU at any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	100%
Highest single turbidity measurement during the year	0.27
Number of violations of any surface water treatment requirements.	0

### MWSD Board of Directors

Scott Boyd, President  
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### Montara Water and Sanitary District

P.O. Box 370131  
 8888 Cabrillo Highway  
 Montara, CA 94037

### 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@coastside.net](mailto:mwsd@coastside.net), or visit us online at [mwsd.montara.org](http://mwsd.montara.org)