2012 Consumer Confidence Report

for Central Marina and Ord Community

Marina Coast Water District is proud to present the 2012 Consumer Confidence Report. This annual water quality report includes information about where your water comes from, what it contains and how it compares to drinking water standards. As in the past, the District gives you the assurance that your drinking water meets stringent California and Federal drinking water standards.

If you have any questions regarding the information in this report or about your water, please contact our Laboratory Supervisor, Thomas Barkhurst, at 384-6131. You can also visit our website at www.mcwd.org

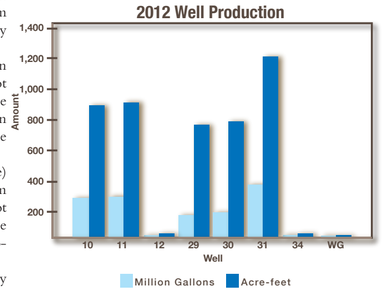
Water Supply and Treatment

The District provides groundwater produced from eight wells delivered through a distribution system network of seven storage tanks and one hundred sixty miles of pipeline.

Three deep supply wells (10, 11, and 12) located in Central Marina draw groundwater from the 900-foot aquifer of the Salinas Valley Groundwater Basin. The groundwater is treated at each well site for disinfection and to remove naturally-occurring hydrogen sulfide that can cause odor problems.

Five supply wells (29, 30, 31, 34 and Watkins Gate) located in the Ord Community draw groundwater from the Salinas Valley Groundwater Basin 900-foot, 400-foot and lower 180-foot aquifers. Groundwater from these supply wells is disinfected in the Ord Community chlorination treatment plant.

In 2005, the Central Marina and Ord Community water systems were connected to allow water to flow between the systems to meet peak demands and improve overall service.



Source Water Assessment

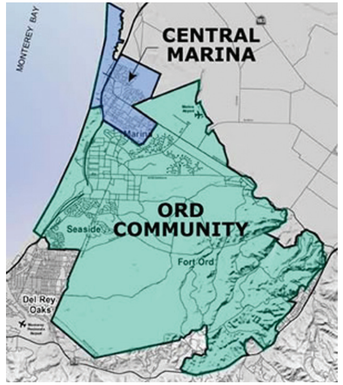
Several source water assessments have been completed. The source water assessment considers several factors: The presence of a possible contaminating activity (PCA) such as current or historic human activities that are potential origins of contamination for a drinking water source, its proximity to the source, the risk associated with the PCA, and the construction and setting of the source. These factors are then ranked, the source is considered most vulnerable to the PCAs at the top of the ranking.

In July 2001, the California Department of Public Health (CDPH) completed an assessment of each groundwater supply well in Central Marina, which concluded they are most vulnerable to historic waste dumps, landfill activities and military installations. The desalination plant seawater intake well is considered most vulnerable to salt water intrusion and to contaminants associated with injection wells.

For the Ord Community: In February 2002, an assessment of each groundwater supply well concluded they are most vulnerable to known volatile organic contaminant plumes from the closed landfill on the former Fort Ord, as well as to saltwater intrusion, sewer collection system, above ground storage tanks, irrigated crops, transportation corridors, farm machinery repairs and septic systems. January 2011, a completed preliminary assessment for Well 34 determined the well most vulnerable to the Storm Drain Detention Facility, Military Installation (former Fort Ord) and to that mentioned in the Ord Community source assessment completed February 2002. November 2012, a completed source assessment for Watkins Gate well determined the well to be most vulnerable to Military Installations.

Full details of the assessment may be viewed at the following locations: MCWD, 11 Reservation Road, Marina, CA, or at CDPH, 1 Lower Ragsdale Drive, Building 1, Suite 120, Monterey, CA.

Cover Photo: Monitoring operations at the Watkins Gate Well.



11 Reservation Road, Marina, CA 93933-2099
Phone: (831) 384-6131 • Fax: (831) 883-5995
www.mcwd.org • mcwd@mcwd.org

Mission Statement: Providing high quality water, wastewater and recycled water services to the District's expanding communities through management, conservation and development of future resources at reasonable costs.

Board meetings are open to the public and held the first and third Mondays of every month at the City of Marina Council Chambers, 211 Hillcrest Avenue at 6:45 p.m. Agendas are posted in the following places at least 72 hours before each meeting: Marina Coast Water District, Marina and Seaside City Halls, Marina and Seaside Libraries and the Marina Post Office.

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

Water Quality

The District diligently monitors water quality and, once again, is proud to report that your tap water meets California and Federal drinking water standards.

Federal Unregulated Contaminants Monitoring Rule-2 (UCMR-2)

In 2009, the District completed testing for ten UCMR-2 chemicals specified by the US Environmental Protection Agency (USEPA). The UCMR-2 chemicals were not detected in Central Marina and Ord Community. The results were reported directly to the USEPA and are also available at our website at www.mcwd.org/2012ccr-ND.html

Federal Groundwater Rule

The California Department of Public Health (CDPH) is implementing the Federal Groundwater Rule (GWR); compliance started on December 1, 2009. The purpose of the GWR is to reduce the risk of illness caused by microbial contamination in public groundwater systems. The District is pleased to report that coliforms were not detected in all but one of the required 523-distribution system samples collected in Central Marina and Ord Community.

Trichloroethylene (TCE)

TCE was a common solvent used by the US Army on the former Fort Ord. In 2012, TCE (below the MCL or standard) was detected in District's supply Well No. 29, 30, and 31, and also in the Intermediate and Sand Tanks. With the interconnection of the two water systems, the Intermediate and Sand Tanks may supply drinking water to Central Marina and Ord Community distribution systems.

The Army operates a network of shallow groundwater monitoring wells to track progress in its ongoing cleanup of the TCE contamination plume from the now-closed landfill and fire drill area. The Army groundwater monitoring wells do not supply drinking water to District customers. TCE was detected in a majority of the Army's groundwater monitoring wells. In addition to quarterly monitoring of the Army's groundwater monitoring wells, the District's supply Wells No. 29, 30 and 31 are also monitored quarterly.

Arsenic

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 costs 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.

Lead

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. Marina Coast Water 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.

A Notice on Radon

Radon is a radioactive gas that you cannot see, taste, or smell. It is found throughout the U.S. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will in most cases be a small contributor to radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. You should pursue radon removal for your home if the level of radon in your air is 4 picocuries per liter of air (pCi/L) or higher. There are simple ways to fix a radon problem that are not too costly. For additional information, call your State radon program (1-800-745-7236), the EPA Safe Drinking Water Act Hotline (1-800-426-4791), or the National Safety Council Radon Hotline at (1-800-SOS-RADON).

What Are the Sources of Contaminants?

The sources of drinking water (both tap 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 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 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, that can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the California Department of Public Health (Department) 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 provide the same protection for public health.

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).

The District's Customer Service staff is available to assist you Monday through Friday, 8 AM to 5:30 PM.

Educational Information and Special Health Information

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 heath 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.

Other Water Information Sources

California Department of Public Health: www.cdph.ca.gov/programs/pages/ddwem.aspx
US Environmental Protection Agency: water.epa.gov/drink/index.cfm
Centers for Disease Control: www.cdc.gov
Fort Ord Cleanup Project: www.fortordcleanup.com

Laboratory staff continually monitor Marina's drinking water. Water quality data is posted monthly on the MCWD website (www.mcwd.org).

How to Read Water Quality Tables

The following tables list the results of detected contaminants in the District's distribution system and groundwater supply wells. While most monitoring was completed through December 2012, regulations allow the District to monitor certain chemicals less than once per year because the levels do not change frequently. The test results are divided into the following sections: Primary Drinking Water Standards, Secondary Drinking Water Standards, Other Constituents and Unregulated Contaminants. To help better understand the report, use the Definitions of Terms given below.

To read the table, start with the column titled *Detected Contaminant(s)* and read across the row. *Units* express the amount measured. *MCL* shows the highest amount of contaminant allowed. *PHG/MCLG* is the goal amount for that contaminant (this may be lower than what is allowed). *Year Tested* is usually in 2012 or, for some contaminants, the most recent sampling year. *Annual Average* is the average amount measured or detected. *Range* tells the lowest and highest amounts measured. A *No Violation* indicates that regulation requirements were met. *Major Sources in Drinking Water* tell where the contaminant usually originates.

Distribution System Water Quality

PRIMARY DRINKING WATER STANDARDS — *Microbiology*

Detected Contaminant	*Units*	*MCL*	*(MCLG)*	*Year Tested*	*Total Samples Collected & Month Positive*	*Violation*	*Major Sources in Drinking Water*
Total Coliform Bacteria	Positive Samples	5.0% Monthly Samples	(0)	2012	523 Samples 1- Positive (2.3%) in September	No	Naturally present in the environment.

PRIMARY DRINKING WATER STANDARDS — *Disinfection Byproducts & Disinfectant Residual*

Detected Contaminants	*Units*	*MCL [MRDL]*	*PHG (MCLG) [MRDLG]*	*Year Tested*	*Annual Average*	*Range Low - High*	*Violation*	*Major Sources in Drinking Water*
Total Trihalomethanes (TTHM's)	ppb	80	n/a	2012	8.3	3.8 - 19	No	Byproduct of drinking water disinfection.
Chlorine Residual [as Cl_2]	ppm	[4.0]	[4]	2012	0.71	0.12 - 2.20	No	Drinking water disinfectant added for treatment.

PRIMARY DRINKING WATER STANDARDS — *Lead & Copper Indoor Tap Samples*

Detected Contaminant	*Units*	*Action Level*	*PHG*	*Year Tested*	** 90th Percentile Level*	*No. of Sites Above Action Level*	*Violation*	*Major Sources in Drinking Water*
Copper	ppm	1.3	0.17	2010	0.22	0 of 32	No	Internal corrosion of household plumbing systems.

**** 90th Percentile:*** *For compliance, the sample result at the 90th percentile level must be less than the Action Level for copper at 1.3 ppm. Action Level for lead is set at 15 ppb. Lead was not detected in Central Marina and Ord Community indoor tap water samples.*

Not Detected Chemicals: *The list of chemicals tested but not detected are reported at: www.mcwd.org/2012ccr-ND.html.*

Definitions of Terms Used

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. MCLG's are set by the U.S. Environmental Protection Agency.

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHG's are set by the California Environmental Protection Agency

Primary Drinking Water Standards (PDWS): MCL's and MRDL's for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

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. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

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

UCMR: Unregulated Chemicals Monitoring Rule that help EPA and CDPH to determine where certain contaminants occur and need to be regulated.

n/a: Not Applicable

ND: Non-Detected

NTU: Nephelometric Turbidity Units

pCi/L: picocuries per liter

ppm: parts per million, or milligrams per liter

ppb: parts per billion, or micrograms per liter

TON: Threshold Odor Number

Groundwater Supply Wells Water Quality

Detected Contaminants	*Units*	*MCL*	*PHG (MCLG)*	*Year Tested[b]*	*Annual Average*	*Range Low - High*	*Violation*	*Major Sources in Drinking Water*
PRIMARY DRINKING WATER STANDARDS								
Arsenic	ppb	10	0.004	2012[c]	3.0	ND - 6.7	No	Erosion of natural deposits.
Fluoride (Natural)	ppm	2.0	1	2012[d]	0.19	0.10 - 0.26	No	Erosion of natural deposits.
Gross Alpha	pCi/L	15	0	2011[g]	ND	ND - 3.03	No	Erosion of natural deposits.
Nitrate (NO_3)	ppm	45	1	2012	5.7	ND - 20	No	Erosion of natural deposits.
Trichloroethylene (TCE)	ppb	5	1.7	2012	ND	ND - 1.6	No	Discharge from metal degreasing sites.
Uranium	pCi/L	20	0.43	2011[f]	3.43	3.43 - 3.43	No	Erosion of natural deposits.
SECONDARY DRINKING WATER STANDARDS								
Chloride	ppm	500	n/a	2012[d]	101	46 - 200	No	Natural deposits; seawater influence.
Odor Threshold	TON	3	n/a	2012[d]	1.0	ND - 2	No	Naturally-occurring organic materials.
pH Units	Units	6.5 - 8.5	n/a	2012[d]	7.9	7.20 - 8.7	No	Naturally-occurring minerals.
Specific Conductance	µS/cm	1600	n/a	2012[d]	661	520 - 940	No	Formed ions when in water; seawater influence.
Sulfate	ppm	500	n/a	2012[d]	47	22 - 63	No	Leaching from natural deposits.
Total Dissolved Solids	ppm	1000	n/a	2012[d]	419	300 - 600	No	Leaching from natural deposits.
Turbidity	NTU	5	n/a	2012[d]	0.15	ND - 0.51	No	Soil run-off.
OTHER CONSTITUENTS — *No Drinking Water Standards*								
Alkalinity	ppm	n/a	n/a	2012[d]	112	85 - 170	n/a	Naturally-occurring minerals.
Calcium	ppm	n/a	n/a	2012[d]	41	3.7 - 81	n/a	Naturally-occurring mineral.
Magnesium	ppm	n/a	n/a	2012[d]	13	0.47 - 24	n/a	Naturally-occurring mineral.
Potassium	ppm	n/a	n/a	2012[d]	2.9	2.3 - 3.8	n/a	Naturally-occurring mineral.
Sodium	ppm	n/a	n/a	2012[d]	75	44 - 110	n/a	Naturally-occurring mineral.
Hardness[a]	ppm	n/a	n/a	2012[d]	156	11 - 300	n/a	Naturally-occurring minerals.
Radon 222	pCi/L	n/a	n/a	2000[e]	532	208 - 1408	n/a	Naturally-occurring gas.
UNREGULATED CONTAMINANTS — *No Drinking Water Standards*								
Boron	ppb	1000 (AL)	n/a	2012[c]	63	ND - 120	n/a	Erosion of natural deposits.
Chromium, Cr VI Screen	ppb	n/a	n/a	2004[e]	3.4	1.3 - 5.9	n/a	Erosion of natural deposits.
Vanadium	ppb	50 (AL)	n/a	2012[c]	4.8	ND - 13	n/a	Erosion of natural deposits.

Footnotes:

(a) Water Hardness Unit Conversion: 156 ppm = 9.1 grains/gallon.
(b) December 10, 2012—California Department of Public Health (CDPH) granted an amendment to Marina Coast Water District's Domestic Water Supply Permit to allow two new groundwater sources: Wells 34 and Watkins Gate. Prior to the amendment, CDPH granted interim approval to operate Well 34 10/31/2012 and Watkins Gate Well 11/28/2012.
(c) Year Tested 2011—most recent sampling date tested for compliance in Watkins Gate Well 12/7/2011.
(d) Year Tested 2011—most recent sampling date test for compliance: in Well 34 5/4/2011, in Watkins Gate Well 12/7/2011.
(e) Testing in Years 2000 & 2004 did not include Well 34 and Watkins Gate Well, see footnote (b) above.
(f) Watkins Gate Well most recent sampling date tested 12/7/2011 for initial compliance. Wells 34 and Watkins Gate Initial Monitoring to be complete in 2013. Wells 10, 11, 12, 29, 30 and 31 waived.
(g) Year Tested (most recent sampling date tested for compliance) 2008 (Well 10: 4/15/2008) and 2007 (Wells 29 and 12: 3/27/2007, Wells 31, 30 and 11: 1/10/2007).

Not Detected Chemicals: *The list of chemicals tested but not detected are reported at: www.mcwd.org/2012ccr-ND.html.*