

2006 Consumer Confidence Report

for *Central Marina* and *Ord Community*



Field tests are performed regularly at the new dedicated sampling stations.

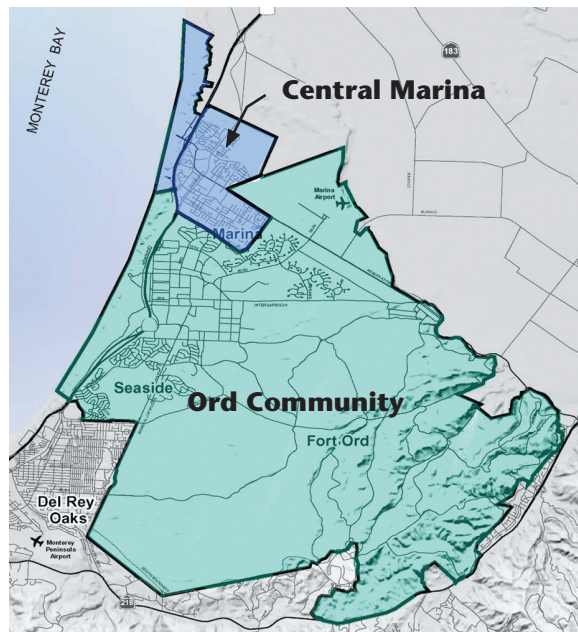
The mission of the Marina Coast Water District is to provide high quality water, wastewater and recycled water services to the District's expanding communities through management, conservation and development of future resources at reasonable costs.

Marina Coast Water District conducts extensive monitoring of your drinking water to ensure that it meets state and federal drinking water standards. The District is proud to provide this 2006 Consumer Confidence Report to its customers in *Central Marina* and *Ord Community*. You can find the water quality at your location by matching the colored map with the Water Quality table.

If you have any questions regarding the information in this report or about your water, please contact Water Quality Manager Evelina A. Adlawan at 384-6131. You can also visit our website at www.mcwd.org.

Water Supply and Treatment

Central Marina's water supply comes from three deep groundwater wells located in the 900-foot aquifer of the Salinas Valley Groundwater Basin. A treatment system at each Marina well disinfects water and removes the naturally occurring hydrogen sulfide that can sometimes cause odor problems. Marina's Desalination plant did not operate in 2006, but is capable of providing up to 16 percent of *Central Marina's* annual 2006 water demand.



이 안내는 매우 중요합니다.
본인을 위해 번역인을 사용하십시오.

Este informe contiene informacion muy importante sobre su agua potable. Traduzcalo o hablo con alguien que lo entiende bien.

Ord Community's water supply comes from three groundwater wells located in the lower 180-foot and 400-foot aquifers of the Salinas Valley Groundwater Basin. Groundwater from these supply wells is disinfected in the Ord Community treatment system.

By maintaining allowable amounts of residual chlorine in its water supply, the District's disinfection systems ensure health and safety to *Central Marina* and *Ord Community* customers.

In 2005, the District removed the aging Bayer Drive water tank from service and connected the *Central Marina* and *Ord Community* water systems, allowing water to flow between the systems to meet peak demands and improve overall services. Computer-controlled equipment balance the amount of water exchanged between the *Central Marina* and *Ord Community* systems.

Water Supply Assessment and Protection

In July 2001, the California Department of Health Services (CDHS) completed an assessment of *Central Marina's* groundwater sources, which concluded they are most vulnerable to historic waste dumps, landfill activities and military installations. Marina's desalination plant seawater intake well is considered most vulnerable to saltwater intrusion and contaminants associated with injection wells.

In February 2002, an assessment of the *Ord Community's* groundwater sources was completed. The Ord Community well field is considered to be most vulnerable to known volatile organic contaminant plumes from the closed landfill on the former Fort Ord. The well field is also most vulnerable to saltwater intrusion, sewer collection system, above ground storage tanks, irrigated crops, transportation corridors, farm machinery repairs and septic systems.

Full details of the assessment may be viewed at the following locations: MCWD, 11 Reservation Road, Marina, CA, and CDHS, 1 Lower Ragsdale Drive, Building 1, Suite 120, Monterey, CA. Secondary MCL's are set to protect the odor, taste, and appearance of drinking water.

General Manager's Message



Once again we are proud to present to you the Marina Coast Water District's Consumer Confidence Report (CCR). This report is prepared in accordance with the 1996 amendment of the federal Safe Drinking Water Act, which requires that all community water systems serving at least 25 residents deliver to their customers an annual water quality report.

The 2006 CCR represents the first full-year of integrated system operations, which resulted from connecting the *Central Marina* and *Ord Community* water systems. This integrated mode of operation improves system reliability, which all customers realize through uninterrupted delivery of high quality water — a circumstance you expect from your water supplier and one that we take very seriously.

We are proud of our 2006 CCR and system operations, but do not rest on past successes to ensure delivery of future water supply. The District is continually looking to improve its system operations and water quality through enhanced operations, identifying new sources of supply, diversifying its sources of supply (so as not to rely on only one source) and educating our employees with the most up-to-date methods of operating water supply systems.

Marina Coast Water District remains committed to providing high quality water at a reasonable cost through management, conservation and development of resources.

— Marc A. Lucca, General Manager



Marina Coast Water District
11 Reservation Road
Marina, CA 93933-2099

Phone: (831) 384-6131 • Fax: (831) 384-2479

Web Site: www.mcwd.org

E-mail: mcwd@mcwd.org

Board meetings are open to the public and held the second and fourth Wednesday of every month at the District office, 11 Reservation Road (Marina State Beach) at 7 p.m. Agendas are posted in the following places at least 72 hours before each meeting: Marina Coast Water District, Marina City Hall, Marina Library and the Marina Post Office.

Water Quality

In addition to those listed in this report, over 150 constituents were not detected in *Central Marina* and *Ord Community* water supplies. They are reported at:

www.mcwd.org/ccr2006-ND.html

Sources of Contaminants

The source of both tap and bottled drinking water include rivers, lakes, streams, ponds, reservoirs, spring 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. It can also 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 may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- **Inorganic Contaminants**, such as salts and metals, may be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- **Pesticides and Herbicides** can come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.
- **Organic Chemical Contaminants**, including synthetic and volatile organic chemicals (by-products of industrial processes and petroleum production) can come from gas stations, urban stormwater runoff, agricultural application and septic systems.
- **Radioactive Contaminants** can be naturally occurring or the result of oil and gas production and mining activities.

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

Radon

Radon is a naturally occurring radioactive gas that is found throughout the United States. It cannot be seen and has no taste or smell. Radon can move up

through the ground and into a home through cracks and holes in the foundation. It 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, in most cases, will be small. Breathing air containing radon may lead to lung cancer. Drinking water containing radon may increase the risk of stomach cancer. If you have a concern about radon, test the air in your

home. Testing is inexpensive and easy. For additional information, call the USEPA's Radon Hotline at (800) SOS-RADON.

Coliform

In 2006, 278 distribution system samples were tested for the presence of coliform bacteria in *Central Marina*. Customers were informed that two of the 26 samples collected in August and December showed the presence of total coliform. No more than one sample per month may show the presence of total coliform to meet the standard (MCL). Coliform bacteria, which is naturally occurring in the environment, is generally not harmful but is an indicator that other potentially harmful bacteria might be present. The District's tests did not show the presence of any of these harmful bacteria. As the required follow-up tests revealed the absence of



total coliform, the original detection was attributed to a sample collection error. The *Ord Community* drinking water samples were in compliance with the total coliform MCL.

Trichloroethylene (TCE)

In 2006, low-level TCE (standard or below the MCL) was detected in Ord Community supply Well No. 29 and Well No. 30. TCE was a common solvent used by the US Army on the former Fort Ord. Volatile organic compounds, including TCE were not detected in quarterly water samples collected from the Intermediate Tank and Sand Tank reservoirs. With the interconnection of the two water systems, the Intermediate Tank and Sand Tank may supply drinking water to *Central Marina* and *Ord Community* distribution systems. The US 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. Results of the Army's cleanup showed low-level TCE were detected in a majority of its groundwater monitoring wells with some recent data above the standard. In addition to quarterly monitoring of the Army's groundwater monitoring wells, the District's Ord Community drinking water supply Wells No. 29, 30 and 31 are also monitored quarterly.

Arsenic

The new Federal arsenic MCL of 10-parts-per-billion regulation went into effect on January 23, 2006. It balances the current understanding of arsenic's possible health effects with the cost of removing arsenic from drinking water. The CDHS 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. CDHS is proceeding with its own arsenic regulatory process while implementing the Federal rules. Though containing low-levels of naturally occurring arsenic, *Central Marina's* drinking water meets both the current CDHS arsenic MCL of 50 parts per billion and the new lower Federal arsenic MCL. Arsenic was not detected in the *Ord Community* drinking water.





Educational 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 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.

A Note to the Immuno-compromised: Immuno-compromised people, such as infants or the elderly, may be more vulnerable to contaminants in drinking water than the general population. Also people undergoing chemotherapy, have undergone organ transplants, have HIV/AIDS or other immune system disorders 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 USEPA Safe Drinking Water Hotline: 1-800-426-4791.

2006 Water Statistics	Central Marina	Ord Community
Water Produced (million gallons)	582.1	817.5
Water Produced (acre-feet)	1,786	2,509
Maximum Month (million gallons)	July (57.9)	July (92.3)
Population Served	18,500	14,500
Service Connections	3,848	4,223

How to Read the Water Quality Tables

The District conducts tests for over 150 constituents at various sampling points in **Central Marina** and **Ord Community**. While most constituent monitoring was conducted in 2006, certain constituents are monitored less than once per year because the levels do not change frequently. The Tables list the results of detected contaminants in the distribution systems and groundwater sources. The test results are divided

into the following sections: *Primary Drinking Water Standards*, *Secondary Drinking Water Standards* and other *Unregulated Contaminants*. To better understand the tables use the *Definitions of Terms*.

To read the table, start with the column titled *Contaminant* 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 2006 or, for some contaminants, the most recent sampling year. *Average Amount Detected* 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 Systems Water Quality

Primary Drinking Water Standards				Central Marina			Ord Community			
Microbiological Quality	Units	MCL	(MCLG)	Year Tested	Total No.of Samples Collected = 278	Violation	Year Tested	Total No.of Samples Collected = 266	Violation	Major Sources in Drinking Water
Total Coliform	Positive Samples	1 per month	(0)	2006	August & December 2006 2 Positive Samples/Month	Yes	2006	January & June 2006 1 Positive Sample/Month	No	Naturally present in the environment.

Lead & Copper Indoor Tap Water Samples

Detected Contaminant	Units	Action Level	PHG	Year Tested	Central Marina			Year Tested	Ord Community			Major Sources in Drinking Water
					90th Percentile Level	No. of Sites Above Action Level	Violation		90th Percentile Level	No. of Sites Above Action Level	Violation	
Copper	ppm	1.3	0.17	2004	0.12	0 of 31	No	2005	0.16	0 of 33	No	Internal corrosion of household plumbing systems.

Disinfection Byproducts & Disinfectant Residual

Detected Contaminants	Units	MCL [MRDL]	PHG (MCLG) [MRDLG]	Year Tested	Central Marina			Year Tested	Ord Community			Major Sources in Drinking Water
					Highest Running Annual verage	Range Low - High	Violation		Highest Running Annual Average	Range Low - High	Violation	
Total Trihalomethanes (THM's)	ppb	80	n/a	2006	12.8	3.50 - 32.0	No	2006	4.3	3.5 - 6.3	No	Byproduct of drinking water chlorination.
Haloacetic Acids (HAA's)	ppb	60	n/a	2006	1.3	ND - 2.3	No	2006	0.3	ND - 1.0	No	Byproduct of drinking water chlorination.
Chlorine Residual [as Cl2]	ppm	[4.0]	[4]	2006	0.7	0.05 - 1.19	No	2006	0.88	0.07 - 1.01	No	Drinking water disinfectant added for treatment

Definitions of Terms Used in This Report

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCL's are set as close to the PHG's (or MCLG's) as is economically and technologically feasible. Secondary MCL's are set to protect the odor, taste and appearance of drinking water.

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

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 EPA

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 USEPA

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

Maximum Residual Disinfectant Level (MRDL): The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a disinfectant added for water treatment below which

Groundwater Sources Water Quality

Detected Contaminants	Units	MCL	PHG (MCLG)	Central Marina				Ord Community				Major Sources in Drinking Water
				Year Tested	Average Amount Detected	Range Low - High	Violation	Year Tested	Average Amount Detected	Range Low - High	Violation	
Primary Drinking Water Standards												
Arsenic	ppb	50	0.004	2006	5.1	ND - 6.7	No	2006	ND	ND	No	Erosion of natural deposits.
Fluoride (Natural)	ppm	2.0	1	2006	ND	ND	No	2006	0.25	0.21 - 0.27	No	Erosion of natural deposits.
Nitrate (NO3)	ppm	45	1	2006	ND	ND	No	2006	12	5.7 - 21	No	Erosion of natural deposits.
Trichloroethylene (TCE) (a)	ppb	5	0.8	2006	ND	ND	No	2006	ND	ND - 0.90	No	Discharge from metal degreasing.
Gross Alpha Activity	pCi/L	15	(0)	2001	ND	ND - 6.7	No	2001	ND	ND - 9.42	No	Erosion of natural deposits.
Radium 228	pCi/L	5= Tot Rad	(0)	2006	ND	ND - 1.4	No	2006	ND	ND - 1.2	No	Erosion of natural deposits.
Asbestos	MFL	7	(7)	2003	ND	ND	No	1998	0.2	0.2	No	Erosion of natural deposits.

Secondary Drinking Water Standards

Chloride	ppm	500	n/a	2006	98	67 - 130	No	2006	88	79 - 100	No	Natural deposits; seawater influence.
Specific Conductance	µS/cm	1600	n/a	2006	698	618 - 778	No	2006	649	639 - 661	No	Formed ions when in water; seawater influence.
Sulfate	ppm	500	n/a	2006	56	49 - 63	No	2006	63	57 - 71	No	Naturally-occurring mineral.
Total Dissolved Solids	ppm	1000	n/a	2006	411	372 - 450	No	2006	424	404 - 450	No	Naturally occurring minerals and metals.
pH Units	Units	6.5 - 8.5	n/a	2006	7.9	7.70 - 8.20	No	2006	7.7	7.7 - 7.8	No	Naturally-occurring minerals.
Odor Threshold	TON	3	n/a	2006	3	2 - 4	No	2006	1.3	1.0 - 2.0	No	Naturally-occurring materials
Turbidity	NTU	5	n/a	2006	0.15	0.10 - 0.20	No	2006	0.10	ND - 0.15	No	Soil run-off.

Other Constituents - No Drinking Water Standards

Alkalinity	ppm	n/a	n/a	2006	130	126 - 133	n/a	2006	98	76 - 109	n/a	Naturally-occurring minerals.
Calcium	ppm	n/a	n/a	2006	24	20 - 27	n/a	2006	58	53 - 64	n/a	Naturally-occurring mineral.
Magnesium	ppm	n/a	n/a	2006	4.14	0.67 - 7.60	n/a	2006	19	19	n/a	Naturally-occurring mineral.
Potassium	ppm	n/a	n/a	2006	3.70	2.80 - 4.60	n/a	2006	2.9	2.8 - 3.0	n/a	Naturally-occurring mineral.
Sodium	ppm	n/a	n/a	2006	130	110 - 150	n/a	2006	45	39 - 49	n/a	Naturally-occurring mineral.
Hardness (b)	ppm	n/a	n/a	2006	76	53 - 99	n/a	2006	223	210 - 240	n/a	Naturally-occurring minerals.
Radon 222	pCi/L	n/a	n/a	2000	701	208 - 1408	n/a	2000	362	320 - 388	n/a	Naturally-occurring gas.

Unregulated Chemicals - No Drinking Water Standards

Boron	ppb	1000 (AL)	n/a	2006	150	120 - 180	n/a	2006	40	ND - 120	n/a	Erosion of natural deposits.
Chromium, Cr VI Screen	ppb	n/a	n/a	2004	2.5	1.3 - 5.9	n/a	2004	4.3	3.2 - 5.4	n/a	Erosion of natural deposits.
Vanadium	ppb	50 (AL)	n/a	2006	3.2	ND - 6.4	n/a	2006	7.1	6.0 - 8.0	n/a	Erosion of natural deposits.

Footnotes: (a) TCE and other volatile organic compounds (VOC's) tested were not detected in quarterly water samples collected from the Ord Community Sand Tank. (b) Water Hardness Unit Conversion: 76 ppm = 5 grains/gallon; 223 ppm = 14 grains/gallon.

there is no known or expected risk to health. MRDLG's are set by the USEPA

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

n/a: Not applicable

ND: Not detectable at testing limit

NTU: Nephelometric Turbidity Units (measure of clarity or turbidity)

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

ppm: parts per million, or milligrams per liter

ppb: parts per billion, or micrograms per liter

TON: Threshold Odor Number

*** 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/ccr2006-ND.html