

2005 Consumer Confidence Report

for **Central Marina and Ord Community**



이 안내는 매우 중요합니다.
본인을 위해 번역인을 사용하십시오.

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

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 is proud to present the 2005 Consumer Confidence Report to its customers in **Central Marina** and **Ord Community**. We have color coded our service territory to show the **Central Marina** and **Ord Community** boundaries (pictured right). You can find the water quality at your location by matching the colored map with the Water Quality tables.

If you have any questions regarding the information in this report or about your water, please contact District Water Quality Manager Evelina A. Adlawan at 384-6131. For more information, please 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 fourth well, which historically provided less than one percent of Marina's annual water production, was permanently removed from service in August 2005.

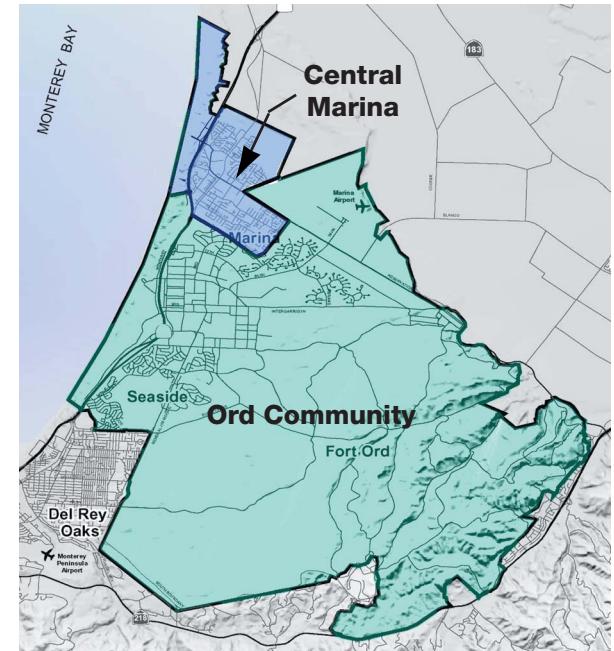
Also in 2005, a new sodium hypochlorite treatment system was installed at each well in Marina to disinfect water and reduce the naturally occurring hydrogen sulfide that can cause odor problems.

Marina's desalination plant did not operate in 2005, but is capable of providing up to thirteen percent of Central Marina's annual water supply.

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

The District's disinfection systems ensure the health and safety of its water supply by maintaining allowable amounts of residual chlorine in drinking water that is delivered to our customers.

Always looking for opportunities to improve operations, the District re-



moved the aging Bayer Drive water tank from service in 2005. As part of this project, the District connected the **Central Marina** and **Ord Community** water systems to allow water to flow between the systems during peak demand events and improve overall services. An integral part of that project also included the design and construction of a computer-controlled accounting system that balances the amount of water exchanged between the **Central Marina** and **Ord Community** systems. The project is now complete, the Bayer tank is empty and the "zero balance" accounting system is working well.

Water Statistics for 2005

	Central Marina	Ord Community
Water Produced (million gallons)	715.1	649.6
Water Produced (acre-feet)	2,195	1,994
Maximum Month (million gallons)	93.1 (Sept)	82.2 (Oct)
Population Served	18,500	14,500
No. of Service Connections	3,840	4,342

Water Quality

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

www.mcwd.org/WaterQuality/NotDetected

Sources of Contaminants

In order to ensure that tap water is safe to drink, the US Environmental Protection Agency (USEPA) and California Department of Health Services (CDHS) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. CDHS also establishes limits for contaminants in bottled water so that it provides the same level of protection for public health.

Drinking water sources (both tap and bottled 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 and domestic wastewater discharges, oil and gas production, mining or farming.
- **Pesticides and Herbicides** 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 in addition to gas stations, urban stormwater runoff, agricultural application and septic systems.
- **Radioactive Contaminants**, can be naturally occurring or be the result of oil and gas production and mining activities.

Arsenic

The new Federal arsenic MCL of 10 parts per billion took effect on January 23, 2006. It balances the cur-

rent understanding of arsenic's possible health effects against the costs 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 but in the meantime it will implement the Federal rule. **Central Marina's** drinking water meets both the current CDHS arsenic MCL of 50 parts per billion and the new lower Federal arsenic MCL, but does contain low-levels of naturally occurring arsenic. Arsenic was not detected in the **Ord Community** drinking water.

Trichloroethylene (TCE)

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 abandoned landfill and fire drill area. Results of the Army's cleanup showed low-level TCE were detected in a majority of its shallow groundwater monitoring wells with some recent data above the standard. TCE was a common solvent used by the US Army on the former Fort Ord. In 2005, low-level TCE (below the MCL or standard) was detected at **Ord Community** supply Well No. 29 only. 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 convey drinking water to **Central Marina** and **Ord Community** distribution systems. In addition to quarterly monitoring of the



Water Quality Manager Evelina Adlawan with Water Quality Chemist Thomas Barkhurst

Army's groundwater monitoring wells, the District's drinking water supply Wells No. 29, 30 and 31 are also monitored quarterly.

Radon

Radon is a naturally occurring radioactive gas that is found throughout the United States. It cannot be seen, tasted or smelled. 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 potentially 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. Breathing air containing radon may 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. For additional information, call the USEPA Radon Hotline at (800) SOS-RADON.

Water Supply Assessment and Protection

In July 2001, the CDHS assessment of **Central Marina's** groundwater sources concluded that they are most vulnerable to historic waste dumps and landfill activities. These threats are not necessarily associated with any detected contaminants from prior military installation activities. Marina's desalination plant seawater intake well is considered most vulnerable to salt water intrusion and to contaminants associated with injection wells.

In February 2002, an assessment of the **Ord Community's** groundwater sources concluded that the Ord 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. These threats are not necessarily associated with other detected contaminants from prior military installation activities.

Full details of the assessment may be reviewed at the following locations: MCWD, 11 Reservation Road, Marina, CA 93933, or at CDHS, 1 Lower Ragsdale Drive, Building 1, Suite 120, Monterey, CA 93940.

General Manager's Message



On behalf of Marina Coast Water District, we are proud to present to you the 2005 Consumer Confidence Report (CCR) for the **Central Marina** and **Ord Community** water systems. 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. Inside you will find basic information on the source water, the levels of any contaminants detected in the water, and some brief educational material. The 2005 CCR shows that the District's drinking water meets or exceeds all California and federal health and safety requirements.

If you have any questions regarding the information in this CCR or about your water, please contact our Water Quality Manager, Evelina Adlawan at (831) 384-6131. You may also visit our web site at www.mcwd.org for additional information about the District.

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

—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.



MCWD's customer service representatives are ready to serve you.

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 Safe Drinking Water Hotline: 1-800-426-4791.

A Note to the Immuno-compromised: Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people such as those with cancer undergoing chemotherapy, those who have undergone organ transplants, those 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 USEPA Safe Drinking Water Hotline: 1-800-426-4791.

Water Information Sources

California Department of Health Services

www.dhs.ca.gov/ps/ddwem

US Environmental Protection Agency

www.epa.gov/safewater

Centers for Disease Control

www.cdc.gov

Fort Ord Cleanup Project

www.fortordcleanup.com

How To Read Water Quality Tables

Marina Coast Water District diligently monitors your drinking water quality. In 2005, it conducted tests for over 150 contaminants at various sampling points for **Central Marina's** and **Ord Community's** water systems. Some contaminants are monitored less than once per year because the levels do not change frequently. The tables included in this report list the contaminants that were detected during 2005 or the most recent sampling year. The test results

are divided into the following sections: *Primary Drinking Water Standards* that protect public health; *Secondary Drinking Water Standards* that could affect the water's taste, odor and appearance; and other *Unregulated Contaminants* for which State and Federal maximum allowed levels have not been established.

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 2005 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				Year	Total No. of Samples		Year	Total No. of Samples		
Detected Contaminant	Units	MCL	(MCLG)	Tested	Collected = 263	Violation	Tested	Collected = 266	Violation	Major Sources in Drinking Water
Total Coliform	Positive Samples	1 per month	(0)	2005	June 2005 1 Positive Sample	No	2005	March & April 2005 1 Positive Sample	No	Naturally present in the environment.

Lead & Copper Indoor Tap Water Samples				Central Marina				Ord Community				
Detected Contaminant	Units	Action Level	PHG	Year Tested	90th Percentile Level*	No. of Sites Above Action Level	Violation	Year Tested	90th Percentile Level*	No. of Sites Above Action Level	Violation	Major Sources in Drinking Water
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				Central Marina				Ord Community				
Detected Contaminants	Units	MCL [MRDL]	PHG (MCLG) [MRDLG]	Year Tested	Highest Running Annual Average	Range Low - High	Violation	Year Tested	Highest Running Annual Average	Range Low - High	Violation	Major Sources in Drinking Water
Total Trihalomethanes (THM's)	ppb	80	n/a	2005	3.50	0.7 - 6.9	No	2005	3.40	1.8 - 5.0	No	Byproduct of drinking water chlorination.
Haloacetic Acids (HAA's)	ppb	60	n/a	2005	0.10	ND - 1.1	No	2005	0.30	ND - 1.2	No	Byproduct of drinking water chlorination.
Chlorine Residual [as Cl ₂]	ppm	[4.0]	[4]	2005	0.75	0.03 - 1.51	No	2005	0.88	0.06 - 1.44	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 by State or Federal 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.

Primary Drinking Water Standards (PDWS)– MCLs for contaminants that affect health and establish their moni-

toring 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. PHGs 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. MCLGs 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.

Groundwater Sources Water Quality

				Central Marina				Ord Community				
Detected Contaminants	Unit	MCL	PHG (MCLG)	Year Tested	Average Amount Detected	Range Low - High	Violation	Year Tested	Average Amount Detected	Range Low - High	Violation	Major Sources in Drinking Water
Primary Drinking Water Standards												
Aluminum	ppm	1	0.6	2005	ND	ND	No	2005	ND	ND - 0.062	No	Erosion of natural deposits.
Arsenic	ppb	50	0.004	2005	3.8	ND - 6.3	No	2005	ND	ND	No	Erosion of natural deposits.
Fluoride (Natural)	ppm	2.0	1	2005	0.1	ND - 0.15	No	2005	0.25	0.25	No	Erosion of natural deposits.
Nitrate (NO ₃)	ppm	45	1	2005	ND	ND	No	2005	11.3	5.4 - 20.0	No	Erosion of natural deposits.
Trichloroethylene (TCE) ^(a)	ppb	5	0.8	2005	ND	ND	No	2005	ND	ND - 0.82	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)	2005	ND	ND - 1.4	No	2005	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	2005	78	53 - 130	No	2005	84	79 - 90	No	Natural deposits; seawater influence.
Specific Conductance	µmhos/cm	1600	n/a	2005	578	452 - 700	No	2005	603	573 - 632	No	Formed ions in water; seawater influence.
Sulfate	ppm	500	n/a	2005	60	49 - 78	No	2005	63	56 - 73	No	Naturally-occurring mineral.
Total Dissolved Solids	ppm	1000	n/a	2005	380	300 - 450	No	2005	407	400 - 410	No	Naturally occurring minerals and metals.
pH Units	Units	6.5 - 8.5	n/a	2005	8.2	8.2	No	2005	7.8	7.7 - 7.8	No	Naturally-occurring minerals.
Odor Threshold	TON	3	n/a	2005	3	1 - 4	No	2005	1	1	No	Naturally-occurring materials.
Turbidity	NTU	5	n/a	2005	0.29	0.15 - 0.50	No	2005	0.2	0.2	No	Soil run-off.
Other Contaminants - No Drinking Water Standards												
Alkalinity	ppm	n/a	n/a	2005	132	110 - 144	n/a	2005	110	91 - 124	n/a	Naturally-occurring minerals.
Calcium	ppm	n/a	n/a	2005	27	20 - 35	n/a	2005	58	55 - 60	n/a	Naturally-occurring mineral.
Magnesium	ppm	n/a	n/a	2005	8	0.68 - 16	n/a	2005	19	17 - 20	n/a	Naturally-occurring mineral.
Potassium	ppm	n/a	n/a	2005	3	2.2 - 4.7	n/a	2005	3	3	n/a	Naturally-occurring mineral.
Sodium	ppm	n/a	n/a	2005	95	69 - 140	n/a	2005	42	37 - 46	n/a	Naturally-occurring mineral.
Hardness ^(b)	ppm	n/a	n/a	2005	99	53 - 153	n/a	2005	222	220 - 227	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	2005	110	ND - 200	n/a	2005	80	ND - 130	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	2005	4.3	ND - 8	n/a	2005	7.5	6.5 - 8.1	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 Intermediate Tank and Sand Tank, which convey drinking water to the distribution systems. (b) Water Hardness Unit Conversion: 99 ppm = 6 grains/gallon; 222 ppm = 13 grains/gallon

Maximum Residual Disinfectant Level Goal (MRDLG)– The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the USEPA.

UCMR– Unregulated Chemicals Monitoring Rule

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 set 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/WaterQuality/NotDetected