

# 2002 Consumer Confidence Report



*Olson Elementary School 4th graders participate in an art and water conservation project by making tiles lining a pond that depicts a watershed.*

## MARINA COAST WATER DISTRICT

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

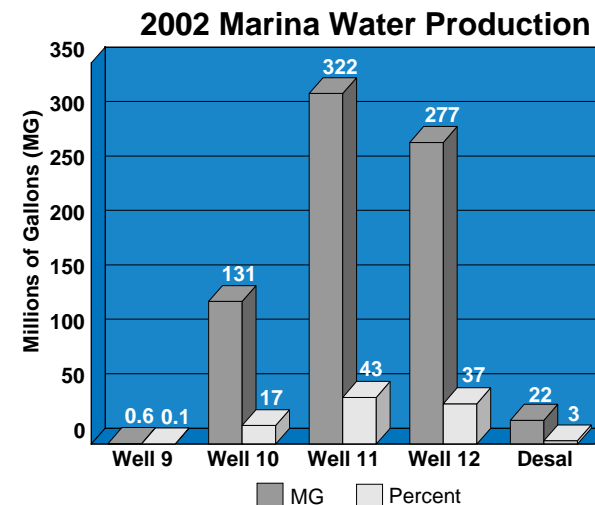
*The Marina Coast Water District is committed to supplying water that meets or surpasses all State and Federal drinking water standards. The information in this report contains the District's most recent quality tests.*

## Water Sources

In 2002, 97 percent of the District's water came from wells pumping groundwater from the 900-foot deep aquifer of the Salinas Valley Groundwater Basin. The well drawing from the 400-foot aquifer supplied less than one percent. A measured amount of chlorine is added to the groundwater to protect against microbial contamination and remove naturally occurring hydrogen sulfide, which can cause odor.

Each year, more water is pumped from the basin than is naturally replenished. This imbalance causes seawater intrusion—saltwater from the ocean that enters the basin coastal aquifers. Your efforts to conserve water help control this serious problem.

If operating at full capacity, the District's desalination plant is able to produce 13 percent of Marina's water supply.

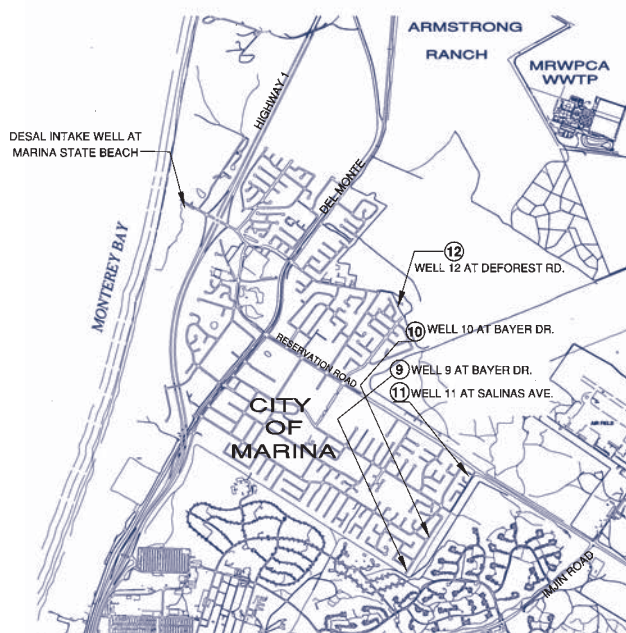


However, because of the need to conserve energy, desalinated water production was limited to three percent in 2002. A shallow well on the beach draws seawater from the ocean, which is then filtered through beach sand and pumped to the desalination plant adjacent to the District office at Marina State Beach on Reservation Road. The seawater is pretreated and forced through membranes that remove salt and other impurities (a process called reverse osmosis). The water is further treated, making it palatable, and disinfected to safeguard against microbial contamination. The treated water is pumped into the distribution system where it is blended with groundwater and distributed to customers in the western section of Marina.



*Water Quality Chemist Thomas Barkhurst and Technical Services Manager Evelina Adlawan perform water quality tests.*

## MCWD WATER RESOURCES MAP



# Water Quality

## ASSESSMENT PROGRAM

The Drinking Water Source Assessment and Protection Program (DWSAPP) report identifies possible sources of contamination for prioritizing cleanup and pollution prevention efforts on threats to drinking water sources. In July 2001, the California Department of Health Services (DHS) assessed the District's water supply sources and found that the ground-water sources are considered most vulnerable to contaminants associated with military installation, historic waste dumps and landfill activities. The District's desalination plant seawater intake well is considered most vulnerable to saltwater intrusion and to contaminants associated with injection wells, dry wells, sumps and wastewater treatment plant activities. Full details of the assessment may be viewed at the following locations: MCWD, 11 Reservation Road in Marina or DHS, 1 Lower Ragsdale Drive, Building 1, Suite 120 in Monterey.

## ARSENIC

The U.S. Environmental Protection Agency (USEPA) adopted the lower arsenic standard in drinking water of 10 parts per billion effective January 23, 2006. While the District's water supply meets the new USEPA standard, it does contain low levels of naturally occurring arsenic. The USEPA's standard balances the current understanding of arsenic's possible health effects against the costs 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.

## RADON

The USEPA proposed to set a drinking water standard for radon that could range from 300 to 4000 pCi/L (pico Curies per liter). Although the regulation has not been finalized, the District's water sources were tested for radon in 2000, showing a range from 208 to 1408 pCi/L.

Radon is a naturally occurring radioactive gas that cannot be seen, tasted or smelled. It can move up through the ground and into a home through cracks and holes in the foundation. Radon can also infiltrate indoor air when released from tap water from showering, washing dishes and other household activities. However, compared to radon entering the home through soil, this is a relatively small amount. Air containing radon may increase the risk of lung cancer; drinking water containing radon may cause increased risk of stomach cancer. If you have concerns regarding this, have the air in your home tested. If the level of radon inside your home is 4 pCi/L, you will need to correct the problem. The best way to reduce risks from radon is to reduce radon levels inside your house.

For additional information, call the USEPA's Radon Hotline at (800) SOS-RADON.



*Mark Duplissie and Richard Green conduct line maintenance.*

## CHROMIUM

Total chromium has never been detected in the District's water supply sources. The State unregulated contaminants monitoring rule (UCMR) allows the District to screen for chromium VI by analyzing for total chromium at a detection level (DLR) of 1mg/L, which is 10 times lower than the regulated total chromium's DLR of 10 mg/L. Total chromium was not detected at the lower DLR from the deep wells; only the 400-foot well, which accounts for less than one percent of the water supply, revealed a low level of chromium VI at 4.6 ppb. There is no MCL for chromium VI, only for total chromium.

## WATER HARDNESS

Water hardness is caused by dissolved minerals in the water such as calcium and magnesium. It affects the ability of water to react with soap to form suds. Hard water requires more soap because the soap first reacts chemically with the naturally present calcium and magnesium in the water before it can be used for cleaning. Water is considered soft if total hardness is less than 75 ppm; moderately hard if 75 to 150 ppm; hard if 150 to 300 ppm; and very hard if 300 ppm or higher. To determine total hardness in grains per gallon, simply divide hardness in ppm by 17.1. In 2002, Marina's average water hardness was 73 ppm or four grains per gallon.

# Drinking Water

All 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



*Dear Marina Neighbors,*

As in previous years, we present our 2002 Consumer Confidence Report to give you the assurance that your drinking water meets the State and Federal health and safety requirements.

This report contains detailed information about your water supply that we hope you find educational and useful. If you should have any questions regarding the information in this report or about your water, please contact our technical services manager, Evelina A. Adlawan, at 384-6131. Also, I encourage you to visit our website at [www.mcwd.org](http://www.mcwd.org).

Your District board of directors and staff remain fully committed to providing you with excellent water quality and superb customer services. Thank you for your continued efforts to conserve our precious water supplies.

*— Mike Armstrong, General Manager*



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**11 Reservation Road**  
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*Board meetings are open to the public and held the 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.*