

EASTERN MUNICIPAL WATER DISTRICT

Water Quality

CONSUMER CONFIDENCE REPORT **2006**

Issued July 2007

Este informe contiene información importante con respecto a su calidad del agua. Si usted desea obtener información en español, visitenos en www.emwd.org y seleccione "EMWD en Español" o llame (951) 928-3777, ext. 4221 para solicitar una copia por correo.



WWW.EMWD.ORG

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OUR MISSION

The mission of Eastern Municipal Water District is to provide safe and reliable water and wastewater management services to our community in an economical, efficient and responsible manner, now and in the future.



YOUR WATER QUALITY CONSUMER CONFIDENCE REPORT FOR 2006

Dear EMWD Customer,

As General Manager of Eastern Municipal Water District, I am pleased to present our Consumer Confidence Report for 2006. This report covers water quality information that is important to your every day life.

Each year, EMWD faces new challenges. In 2006, our District experienced tremendous growth; in fact, Riverside County was one of the top five fastest growing counties in the nation. In response to this growth, EMWD has committed to building new facilities and infrastructure to meet water demands. EMWD has also committed to enhance its water conservation programs so the water we provide is used wisely.

EMWD has been challenged to meet ever increasing regulations that govern our water quality. We thoroughly test our water to meet all drinking water standards and to serve high quality water to our customers. This report describes how we meet all drinking water standards that are set by the United States Environmental Protection Agency and enforced by the California Department of Public Health.

EMWD is also challenged to be more responsive to you, our customers. Last year, we included a survey card asking you how we can improve this report. We have incorporated your suggestions by making the tables more user-friendly and adding more conservation tips. We would appreciate your feedback again this year.

EMWD cares about our customers. We work hard each day to provide quality drinking water today, and we invest in our water system to be able to deliver quality water in the future. Please look over this report, and if you have any questions, call Amy Mora, Environmental Compliance Analyst at (951) 928-3777 ext. 6337.

Sincerely,

Handwritten signature of Anthony J. Pack in black ink.

Anthony J. Pack
General Manager
EASTERN MUNICIPAL WATER DISTRICT

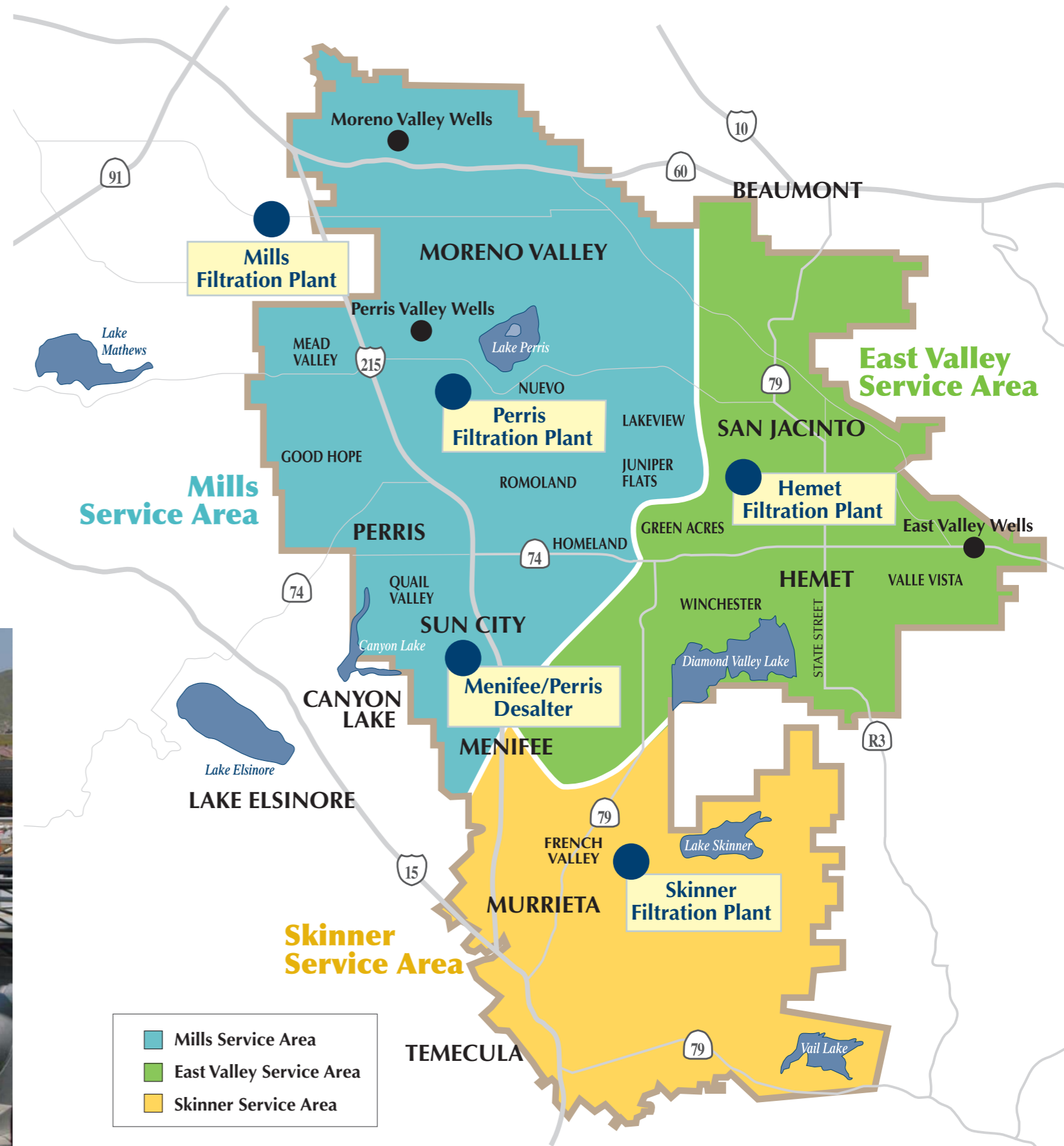
Water is the only drink for a wise man.

Henry David Thoreau

THE SOURCE OF YOUR TAP WATER

As an EMWD customer, your tap water comes from one of three areas: the Mills service area in the northwest portion of the District, the East Valley service area in the northeast portion of the District, and the Skinner service area in the southern portion of the District.

In an effort to help you easily find specific details about your tap water, we have organized this report according to the communities we serve. To find information such as the source, quality, and hardness of your tap water, simply locate your community on the map and match it with the Service Area on the foldout table.



- Mills Service Area
- East Valley Service Area
- Skinner Service Area

In 2006, the Perris Water Filtration Plant doubled in capacity to 20 million gallons a day. This plant uses membrane technology to filter the water and ultraviolet light as a primary disinfectant.

Water is the basis of life and the blue arteries of the earth!

“Sandra Postel, *Global Water Policy Project*,” Grist Magazine 2004

THE COMMUNITIES WE SERVE...



Mills Service Area

- Good Hope
- Homeland
- Juniper Flats
- Lakeview
- Mead Valley
- Menifee**
- Moreno Valley
- (North) Canyon Lake
- Nuevo
- Perris
- Quail Valley
- Romoland
- Sun City **

- Water from this service area comes from a combination of sources:
- The Henry J. Mills Filtration Plant* treats imported surface water supplied solely from Northern California through the State Water Project.
- Water from the Mills Plant is blended with several other EMWD water sources:
- The Moreno Valley Wells serve two small portions of Moreno Valley near the intersections of Heacock and Fir, and Heacock and Ironwood.
 - The Perris Valley Wells serve a limited area of Perris – along Perris Boulevard south of the Ramona Expressway.
 - The Perris Water Filtration Plant treats Colorado River water purchased from The Metropolitan Water District of Southern California (MWD). This plant uses the latest microfiltration technology to remove particulate contaminants to produce quality, potable water. This plant serves Lakeview, Nuevo, Romoland, Homeland and Juniper Flats.
 - The Menifee/Perris Desalters convert salty groundwater into potable water using a reverse osmosis process to remove contaminants that exceed the maximum contaminant levels (MCL). Menifee, Sun City, (North) Canyon Lake, and Quail Valley are the only communities within the Mills Service Area to receive blended water from this desalination plant.

*The Mills and Skinner Plants are owned and operated by The Metropolitan Water District of Southern California (MWD)
 **Typically served by Mills Plant and occasionally served by the Skinner Plant

East Valley Service Area

- West of State Street
- Diamond Valley
 - Green Acres
 - Hemet
 - San Jacinto
 - Winchester**

- This service area is split into two regions
- The Hemet Water Filtration Plant treats water from the State Water Project. This plant uses the latest microfiltration technology to remove particulate contaminants and produce quality, potable water. Local groundwater also supplies this area.

- East of State Street
- Hemet
 - San Jacinto
 - Soboba Hot Springs
 - Valle Vista

- A system of deep groundwater wells serves these communities.

Skinner Service Area

- French Valley
- Menifee**
- Murrieta
- Sun City**
- Winchester

- Water from this service area comes from:
- The Robert A. Skinner Filtration Plant* treats water from the Colorado River and from the State Water Project.

*The Mills and Skinner Plants are owned and operated by The Metropolitan Water District of Southern California (MWD)
 **Typically served by Mills Plant and occasionally served by the Skinner Plant

The Hemet Water Filtration Plant began service in 2006 using the latest membrane filtration to treat 10 million gallons a day. Over time, the plant's capacity will be increased to 40 million gallons a day.

DISTRIBUTION TABLE

ABBREVIATIONS

AI	Aggressiveness Index	MRDLG	Maximum Residual Disinfectant Level Goal	ppt	parts per trillion or nanograms per liter (ng/L)
AL	Action Level	N	Nitrogen	RAA	Running Annual Average
CFU/mL	Colony-Forming Units per Milliliter	NA	Not Applicable	SI	Saturation Index (Langelier)
DBP	Disinfection By-Products	ND	parameter tested for, but Not Detected	TOC	Total Organic Carbon
DLR	Detection Limits for purposes of Reporting	NL	Notification Level	TON	Threshold Odor Number
HAA5	Haloacetic Acids (five)	NTU	Nephelometric Turbidity Units	TT	Treatment Technique
MCL	Maximum Contaminant Level	PCi/L	picoCuries per Liter	TTHM	Total Trihalomethanes
MCLG	Maximum Contaminant Level Goal	PHG	Public Health Goal	µS/cm	microSiemen per centimeter; also equivalent to µmho/cm (micromho per centimeter)
MRDL	Maximum Residual Disinfectant Level	ppb	parts per billion or micrograms per liter (µg/L)	“---”	No Data, parameter not required for testing
		ppm	parts per million or milligrams per liter (mg/L)		

DEFINITIONS

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. MCLGs are set by the U.S. Environmental Protection Agency.

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 there is no known or expected risk to health. MRDLGs are set by the U.S. Environmental Protection Agency.

PRIMARY DRINKING WATER STANDARD (PRIMARY STANDARD):

MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

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.

REGULATORY ACTION LEVEL:

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

SECONDARY DRINKING WATER STANDARD (SECONDARY STANDARD):

MCLs for contaminants do not affect health but are used to monitor the aesthetics of the water.

TREATMENT TECHNIQUE:

A required process intended to reduce the level of a contaminant in drinking water.

VARIANCES AND EXEMPTIONS:

The California Department of Public Health grants permission not to meet an MCL or a treatment technique under certain conditions.

Parameter	Units	State or Federal MCL [MRDL]	PHG (MCLG) [MRDLG]	State DLR	Range Average	Entire Distribution System	Moreno Valley, Perris, Sun City, Menifee & Canyon Lake	Hemet, San Jacinto, Winchester & French Valley	Murrieta
MICROBIOLOGICAL									
A Total Coliform Bacteria	%	5.0 (A)	(0)	NA	Range Average	0 - 1.3 0.2	---	---	---
B Fecal Coliform Bacteria	(B)	(B)	(0)	NA	Range Average	0 0	---	---	---
C Heterotrophic Plate Count	%	(C)	NA	NA	Range Average	99.5 - 100 99.9	---	---	---
DISINFECTANT BY-PRODUCTS AND DISINFECTANT RESIDUALS									
D Total Trihalomethanes	ppb	80	NA	0.5	Range RAA	ND - 75 30	ND - 71 26	2 - 53 20	32 - 75 58
D Haloacetic Acids (5)	ppb	60	NA	1(E)	Range RAA	ND - 41 13.8	ND - 33 13.0	ND - 19 6.1	27 - 41 33.1
E Bromate (Mills plant only)	ppb	10	(0)	5.0	Range Average	---	ND - 10 5.8	---	---
Total Chlorine Residual	ppm	[4]	[4]	NA	Range RAA	<0.2 - 2.9 1.8	<0.2 - 2.9 1.8	<0.2 - 2.7 1.1	0.3 - 2.9 2.3
PHYSICAL PARAMETERS									
Color	Units	15	NA	NA	Range Average	<2.5 - 10 1.3	<2.5 - 5 1.2	<2.5 - 10 1.6	<2.5 - 5 1.4
Odor Threshold	TON	3	NA	NA	Range Average	1 - 2 1	1 - 2 1	1 - 2 1	1 - 2 1
Turbidity	NTU	5	NA	NA	Range Average	<0.1 - 1.4 0.1	<0.1 - 1.4 0.1	<0.1 - 0.8 0.2	<0.1 - 0.8 0.1
pH	Units	NA	NA	NA	Range Average	6.6 - 8.9 7.9	6.6 - 8.9 7.8	6.8 - 8.7 7.8	6.9 - 8.3 7.9
METALS AS A BY-PRODUCT OF CORROSION OF CONSUMER'S PLUMBING									
F Copper	ppb	AL=1300	170	50	NA	90th percentile of 50 samples: 250 ppb			
F Lead	ppb	AL=15	2	5	NA	90th percentile of 50 samples: 11 ppb			

FOOTNOTES

- A** Total coliform MCLs: No more than 5.0% of the monthly samples may be total coliform-positive. Compliance is based on distribution system samples. EMWD analyzed 2,431 samples in 2006. The MCL was not violated.
- B** Fecal coliform/*E. coli* MCLs: The occurrence of two (2) consecutive total coliform-positive samples, one of which contains fecal coliform/*E. coli*, constitutes an acute MCL violation. The MCL was not violated in 2006.
- C** HPCs were tested only in the coliform distribution system samples which had no detectable chlorine residual. HPC MCL: No less than 95% of all distribution system coliform samples may have no detectable chlorine residual and an HPC greater than 500 colony forming units per mL.
- D** Distribution system-wide average and range were taken from 28 samples collected quarterly.
- E** DLR = 1.0 ppb for each HAA5 analyte (dichloroacetic acid, trichloroacetic acid, monobromoacetic acid and dibromoacetic acid) except for monochloroacetic acid which has a DLR = 2.0 ppb.
- F** Lead and copper are regulated with a Treatment Technique under the Lead and Copper Rule. It requires systems to take water samples at the consumer's tap every three years. The federal action level (AL), which triggers water systems into taking treatment steps if exceeded in more than 10% of the tap water samples, is 1300 ppb for copper and 15 ppb for lead.

PROTECTING YOUR DRINKING WATER

EMWD uses several sources of water to serve its customers, including surface water from the Colorado River and the California State Water Project, as well as local groundwater. As water travels over the surface of the land, or soaks down through the ground, it dissolves naturally occurring substances, such as minerals and radioactive material; surface water can also pick up substances from the presence of animals and/or humans. The land that the water comes into contact with is called the watershed; everything that happens to or in the watershed can affect the quality of your drinking water supply.

An assessment of all EMWD's watersheds, both surface and groundwater, was completed in 2002. The Colorado River, a surface water source, was assessed to be most vulnerable to recreational activities, urban and storm water runoff, increasing urbanization in the watershed, and wastewater. Water from the California State Water Project, also a surface water source, was assessed to be most vulnerable to urban and storm water runoff, wildlife, agriculture, recreational activities, and wastewater. The assessment of the groundwater wells within the District were determined to be most vulnerable to urban land uses such as automobile gas stations and repair shops, transportation corridors, furniture repair and manufacturing, sewer collection systems and sand and gravel mining operations. Groundwater wells were also considered vulnerable to agricultural uses including irrigated crops and use of pesticides and herbicides.

Protecting the sources of drinking water helps protect our health. You can view the vulnerability assessments online by logging onto <http://www.dhs.ca.gov/ps/ddwem/dwsap/default.htm> and then clicking on "Summary of Assessments." You can also call (951) 928-3777 ext. 6337 for a copy of the vulnerability assessments.



conservation tips

Take advantage of our rebates for residents and businesses. Log onto www.emwd.org for program details, conservation tips, types of rebates and more!

A SUMMER MUST – water only after dusk for **15 minutes, 4 times a week.** That's approximately how much water your lawn will need in the SUMMER.*

*For a more customized watering schedule for your specific landscape, go to www.bewaterwise.com

Check the batteries in your irrigation controller and replace when needed.

Check out our rebates for smart irrigation controllers. Once installed and programmed, irrigation run-times are automatically adjusted with the seasons. To obtain a rebate application, log onto www.emwd.org or call (951) 928-3777 ext. 4517.

Fall and spring are the best times to plant in Southern California, especially when choosing California natives. For California Friendly landscape ideas, log onto www.bewaterwise.com.



CONTAMINANTS & REGULATIONS

To ensure that tap water is safe to drink, the United States Environmental Protection Agency (USEPA) and the California Department of Public Health (CDPH) established regulations that limit the amount of certain contaminants in water provided by public water systems.

Contaminants that may be present in source water include the following:

INORGANIC CONTAMINANTS, such as salts and metals, can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

PESTICIDES AND HERBICIDES may come from a variety of sources such as agriculture, urban storm water runoff and residential uses.

MICROBIAL CONTAMINANTS, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock, and wildlife.

ORGANIC CHEMICAL CONTAMINANTS including synthetic and volatile organic chemicals. These may be by-products of industrial processes or petroleum production, and can also come from gas stations, urban storm water runoff, agricultural application, and septic systems.

RADIOACTIVE CONTAMINANTS can be naturally occurring or be the result of oil and gas production and mining activities.

NITRATE LEVELS in drinking water above 45 parts per million (ppm) are a health risk for infants under 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 a serious illness. Symptoms include shortness of breath and blueness of the skin. Nitrate levels above 45 ppm may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider.

TASTE & ODOR

For various reasons, your drinking water may periodically have a different odor or taste. Below are some of the more common changes reported and possible reasons for each:

CHLORINOUS:

Most of the water that EMWD serves is chloraminated, using a combination of five parts of chlorine to one part ammonia. If this ratio changes in the distribution system, it is possible that a chlorinous taste and/or odor may temporarily occur.

The tap water on the east side of the Hemet Valley uses only chlorine (no ammonia), which can have a chlorinous odor.

EARTHY, MUSTY:

All of our surface water sources are susceptible to algae blooms, particularly in the summertime. Some blue-green algae produce substances that cause an earthy, musty taste and odor. The Henry J. Mills Filtration Plant uses a process called ozonation, which naturally eliminates the earthy smelling substance. The Robert A. Skinner Filtration Plant is planning to use ozone by 2008.

SEWER ODOR:

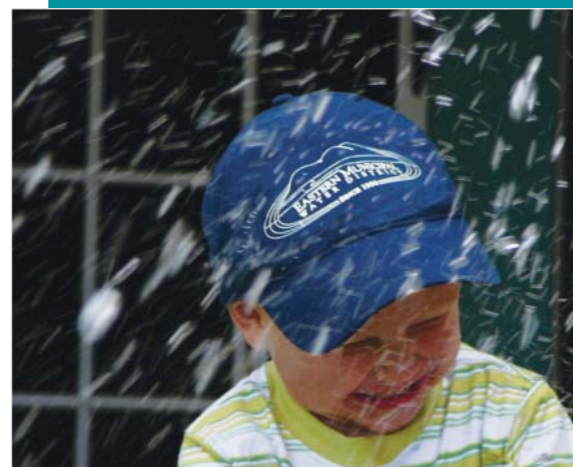
More often than not, the water at a customer's tap will have a sewer odor only at one sink, which indicates the drain at that sink needs cleaning. Water from the tap displaces the stagnant air in the drain and pushes it upward. To find out if the problem is the water or the drain, fill a clean glass with water, walk away from the sink, and smell the water; if there is no odor, the drain needs cleaning. If, however, there is still an odor call us so we can investigate further.

*If there is magic on this planet,
it is contained in water.*

Loran Eisely, *The Immense Journey*, 1957

GOOD TO KNOW:

Odor or taste problems can sometimes be caused by home filters, water softeners, hot water heaters and other treatment devices, especially if they are not maintained or serviced properly. To preserve good quality tap water, be sure to maintain your water appliances according to the manufacturers' directions.



DRINKING WATER FLUORIDATION

"Community water fluoridation continues to be the most cost-effective, practical, and safe means for reducing and controlling the occurrence of tooth decay in a community."

- Richard H. Carmona, M.D. U.S. Surgeon General, 2004

Fluoride has been added to U.S. drinking water supplies since 1945, and of the 50 largest cities in the U.S., 43 fluoridate their drinking water. In fall 2007, the MWD and, in turn, EMWD will join the majority of our nation's water suppliers in helping to prevent tooth decay by adding fluoride to our drinking water.

Following recommendations from the California Department of Public Health, the U.S. Centers for Disease Control and Prevention, and the American Dental Association, MWD and EMWD will adjust the natural fluoride level in the water we provide to our customers to the optimal range for dental health.

Fluoride levels in drinking water are limited under California state regulations at a maximum dosage of 2 parts per million (ppm). We will remain below the regulation dosage and add only enough fluoride to the water to reach the optimal range of 0.7 to 0.8 ppm.

For additional information about drinking water fluoridation, contact EMWD at (951) 928-3777 extension 6337 or the following agencies:

U.S. Centers for Disease Control and Prevention

1-800-311-3435

<http://www.cdc.gov/fluoridation/index.htm>

American Dental Association

<http://www.ada.org/public/topics/fluoride/index.asp>

American Water Works Association

www.awwa.org

For more information about MWD's fluoridation program contact:

Edgar G. Dymally at (213) 217-5709

www.mwdh2o.com

EMWD's laboratory performed approximately 63,000 tests on about 10,000 fresh water samples in calendar year 2006.

TAP WATER VS. BOTTLED WATER

The presence of a small amount of contaminants, whether the water is in bottles or from the tap, a small amount of contamination does not necessarily indicate that the water poses a health risk. To ensure that contaminants in drinking water are minimal, the U.S. Environmental Protection Agency (EPA) and the U.S. Food and Drug Administration (FDA) have very strict drinking water standards that must be upheld at all times. EPA sets standards for tap water provided by public water suppliers (such as EMWD); FDA sets standards for bottled water based on the EPA's standards.

Many people believe that bottled water tastes better than tap water. The taste of all water is dictated by the treatment processes used, the quality of its source, and its natural mineral content. Most bottled water comes from a groundwater source, where water quality varies less from day to day, or is treated and immediately bottled. Bottled water from a dedicated source or plant may have a more consistent taste than tap water, which mostly comes from surface water and must travel through pipes to reach homes.

It is important to remember that some people may be more vulnerable to contaminants in drinking water. 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 are particularly sensitive to contaminants. Likewise, some elderly and infants can be particularly at risk from infections.

Anyone who may be immuno-compromised 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).

When the well is dry, we learn the worth of water.

Benjamin Franklin, *Poor Richard's Almanac*, 1746



This new water well adds another 1.5 million gallons a day into EMWD's distribution system. With other supply sources added since last summer, EMWD's operational capacity went from 219 million to 238 million gallons a day.



conservation tips

Add mulch to bare soil around your plants to retain moisture and protect roots from frostbite.

Use the watering calculator on www.bewaterwise.com for a customized watering schedule.

Remember...turn off your sprinklers when it's raining. Better yet, invest in a **rain sensor**.

Your landscape requires less water in the **fall and winter months**, so set your irrigation controller for shorter cycles as the weather cools.



PUBLIC MEETINGS

EMWD's Board of Directors generally meet on the 1st and 3rd Wednesdays of each month. Work sessions begin at 9:00 a.m. and the public board meetings start at 1:00 p.m.

If you wish to attend a meeting, please call the board secretary during normal business hours at (951) 928-3777, ext. 4235 to confirm meeting dates.

For more information, contact:
(951) 928-3777, ext. 6337
www.emwd.org

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Water Quality

CONSUMER CONFIDENCE REPORT **2006**

Working hard to serve you...

EMWD continues to work hard to pursue new and innovative ways to ensure a safe and reliable water supply for years to come. An aggressive program has secured millions of dollars in grants and low interest loans to fund infrastructure expansion projects and helps EMWD provide better service while keeping costs low.

Some of the accomplishments this past year include:

- Perris Water Filtration Plant—Capacity doubled from 10 to 20 million gallons a day
- Hemet Water Filtration Plant—10 million gallons a day supply began in 2006
- Desalination—Production capacity more than doubled from three to 7.5 million gallons a day
- Ultraviolet light—EMWD became the first public water agency in California to implement this technology for disinfection and to enhance water quality
- Groundwater recharge—Nearly two billion gallons of water from the State Water Project were stored underground in the San Jacinto River basin
- One new water well has increased production capacity by more than 1.5 million gallons a day

