

2009 Consumer

Confidence Report

Issued July 2010

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.

### **Our Vision**

To provide essential services to our community at a level that exceeds the performance of any other public or private agency.

This report contains important information about the quality of your water. If you would like to obtain this information in Spanish, visit us at www.emwd.org and select "EMWD en Español" or call (951) 928-3777 ext. 4221 for a Spanish copy by mail.

Este informe contiene información importante con sobre la calidad de su 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.

# YOUR WATER QUALITY 2009 CONSUMER CONFIDENCE REPORT

Dear EMWD Customer,

I am pleased to report that Eastern Municipal Water District (EMWD) consistently provided high quality drinking water for the year 2009. Last year, the water we supplied to our customers met or surpassed all health-based drinking water standards. These standards are set by the U.S. Environmental Protection Agency and enforced by the California Department of Public Health (CDPH).

EMWD achieves this high quality of water by protecting our water sources, using state-of-the-art water treatment processes, prudently maintaining and operating our facilities, and vigilantly monitoring and testing the water we serve. In 2009, EMWD conducted 53,000 field and laboratory tests on nearly 7,200 samples collected throughout the year for contaminants such as bacteria, nitrates, and disinfection by-products.

The CDPH requires that EMWD customers receive a copy of this report which summarizes the results of water quality tests and provides specific information about the quality of water served in your neighborhood. We continue to minimize the costs associated with production and mailing of this report, while keeping it as reader-friendly as possible.

California is in the midst of a severe and complex water crisis due to continued drought, environmental restrictions limiting our water supply from Northern California, increasing population needs, and aging infrastructure. Please refer to the back page of this report to learn about *The Safe, Clean and Reliable Drinking Water Supply Act of 2010*, and to find resources to help you use water wisely.

EMWD strives to be more responsive to you, our customers. Over the years we have used customer feedback to improve this report and our overall customer service. This year an on-line survey is available at **www.emwd.org** and we hope you will take the time to log on and provide your input and suggestions.

Please look over this report and if you have any questions contact Amy Mora, Environmental Analyst, at (951) 928-3777, extension 6337.

Sincerely,

Anthony J. Pack
GENERAL MANAGER

EASTERN MUNICIPAL WATER DISTRICT



This report contains important and useful information about the sources, quality, and safety of your drinking water and describes how EMWD meets all drinking water standards as set by the U.S. Environmental Protection Agency and enforced by the California Department of Public Health.



# CONTAMINANTS AND 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 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 REPORTED AS NITROGEN in

drinking water above 10 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 10 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.

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 at 1(800) 426-4791.

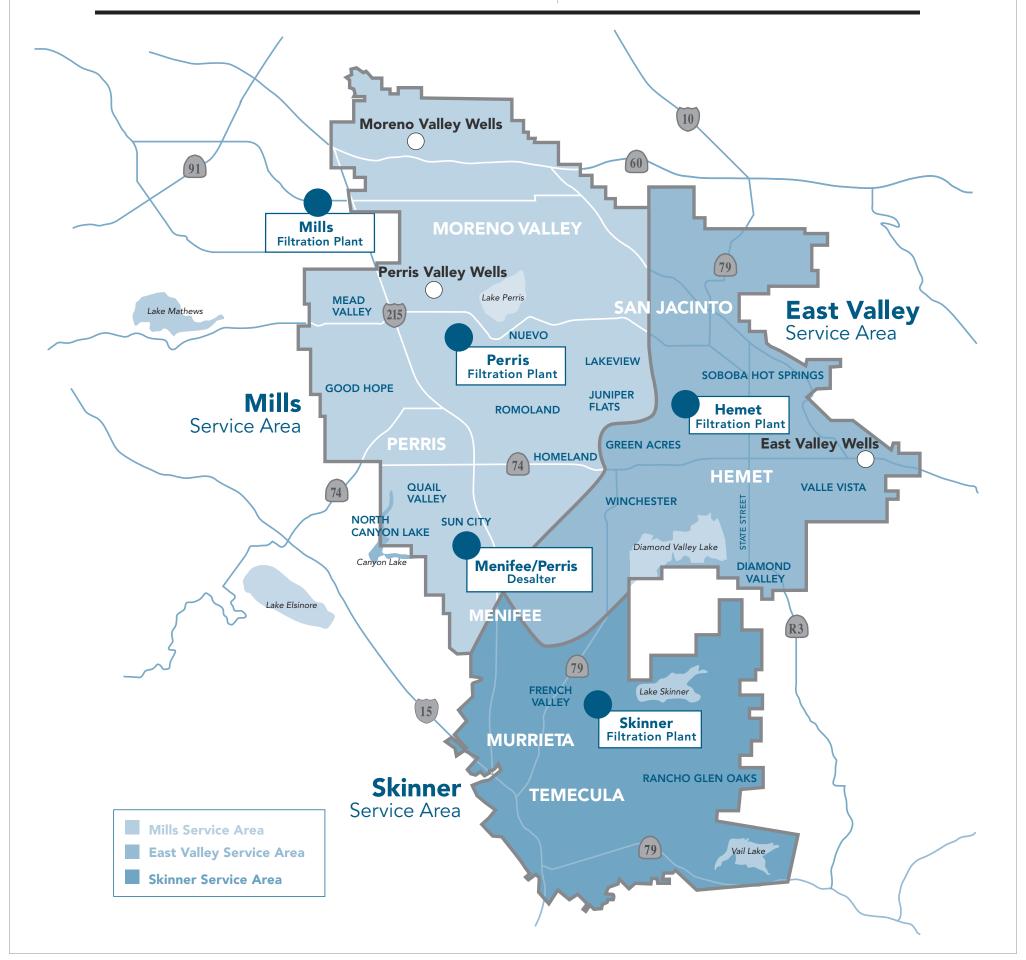
## **LEAD**

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. EMWD 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 <a href="https://www.epa.gov/safewater/lead">www.epa.gov/safewater/lead</a>.

# THE SOURCE OF YOUR TAP WATER

To help you find specific details about your tap water, we have organized this report according to the communities we serve.



## The Communities We Serve...

MILLS SERVICE AREA | Water from this service area comes from a combination of sources: 

#### **COMMUNITIES SERVED:**

Good Hope Homeland Juniper Flats Lakeview Mead Valley Menifee\*\* Moreno Valley North Canyon Lake

Nuevo

Perris

Quail Valley

Romoland

Sun City\*\*

from northern California through the State Water Project (SWP).

#### Water from the Mills Plant is blended with several other EMWD water sources:

• The Henry J. Mills Filtration Plant\* treats imported surface water supplied solely

- Two Moreno Valley Wells serve two small portions of Moreno Valley near the intersections of Heacock and Fir, and Heacock and Ironwood.
- Three Perris Valley Wells serve a limited area of Perris along Perris Boulevard south of the Ramona Expressway.
- The Perris Water Filtration Plant treats a blend of State Project Water and Colorado River water. This plant uses the latest ultrafiltration technology to remove particulate contaminants to produce quality, potable water. This plant serves Lakeview, Nuevo, Romoland, Homeland, and Juniper Flats.
- The Menifee/Perris Desalter converts salty groundwater into potable water using a reverse osmosis process. 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.

**EAST VALLEY SERVICE AREA** This service area is split into two regions: 

#### **COMMUNITIES SERVED:**

Diamond Valley Green Acres Hemet San Jacinto Winchester\*\*\*

#### **COMMUNITIES** SERVED:

Hemet San Jacinto Soboba Hot Springs Valle Vista

#### West of State Street:

• The Hemet Water Filtration Plant treats water from the State Water Project. This plant uses the latest ultrafiltration technology to remove particulate contaminants and produce quality, potable water. Local groundwater also supplies this area.

#### **East of State Street:**

• A system of deep groundwater wells serves these communities.

**SKINNER SERVICE AREA** Water from this service area comes from:

#### **COMMUNITIES SERVED:**

French Valley Menifee\*

Murrieta

Sun City\*\*

Temecula

Winchester\*\*\*

• 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 Skinner Plant
- \*\*\* Typically served by Hemet Water Filtration Plant and occasionally served by Skinner Plant

## PROTECTING YOUR DRINKING WATER

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 at 1(800) 426-4791.

EMWD uses several sources of water to serve its customers, including surface water from the Colorado River and the California State Water Project (SWP), 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 SWP, also a surface water source, was assessed to be most vulnerable to urban and storm water runoff, wildlife, agriculture, recreational activities, and wastewater.

The assessments of the groundwater 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 vulnerability assessments on line at www.cdph.ca.gov/certlic/drinkingwater/Pages/DWSAP.aspx and then clicking on "Summary of Assessments." You can also call (951) 928-3777, ext. 6337 for a copy of EMWD's vulnerability assessments.



## FACTS ABOUT TOTAL COLIFORM BACTERIA

Water agencies test for the presence of coliform bacteria as an indicator of drinking water quality.

Coliform bacteria are common in the environment and are generally not harmful. Coliform bacteria may occur in soil, vegetation, animal waste, sewage, and surface waters.

Eastern Municipal Water District routinely tests for the presence of any coliform bacteria as an indicator of the sanitary quality of drinking water. EMWD analyzed 2,856 coliform samples in 2009, two of which were coliform positive. The maximum allowed by EPA for coliforms is no more than 5% in any month. The highest monthly coliform result was 0.5%, which complies with this standard.

A positive coliform test result does not necessarily mean a maximum contaminant level (MCL) has been exceeded, or that there is a problem in the water system. More information and general guidelines on ways to lessen the risk of infection by microbes are available from the USEPA Safe Drinking Water Hotline at 1 (800) 426-4791 or at www.epa.gov/safewater/dwh/health.html.



#### **ABBREVIATIONS & DEFINITIONS**

#### **ABBREVIATIONS**

AL	Action Level	MCLG	Maximum Contaminant	pCi/L	picoCuries per Liter	TON	Threshold Odor Number
CFU/mL	Colony-Forming Units	MRDL	Level Goal  Maximum Residual	PHG	Public Health Goal	TT	Treatment Technique
	per milliliter		Disinfectant Level	ppb	parts per billion or	μS/cm	microSiemen per centimeter;
DLR	Detection Limits for purposes of Reporting	MRDLG	Maximum Residual		micrograms per liter (μg/L)		or micromho per centimeter (µmho/cm)
	parpassa a mapor mig		Disinfectant Level Goal	ppm	parts per million or		
grains/ gallon	Grains per gallon	NA	Not Applicable		milligrams per liter (mg/L)	""	Samples not required
		ND	None Detected	ppt	parts per trillion or	<b>"&gt;"</b>	Greater than
HPC	Heterotrophic Plate Count				nanograms per liter (ng/L)	<b>"&lt;"</b>	Less than
LRAA	Locational Running	NL	Notification Level	RAA	Running Annual Average		
	Annual Average	NR	No Range	SI	Saturation Index (Langelier)		

#### **DEFINITIONS**

**MCL** 

#### 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

NTU

#### 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 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):

SI

Saturation Index (Langelier)

The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

#### 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):

Nephelometric Turbidity Units

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 (AL):

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 that 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.

#### EASTERN MUNICIPAL WATER DISTRICT DISTRIBUTION SYSTEM DATA FOR 2009

	Parameter	Units	State or Federal MCL [MRDL]	PHG [MRDLG]	State DLR	Range <b>Average</b>	Entire Distribution System	Mills	East Valley	Skinner					
	MICROBIOLOGICAL														
A	Total Coliform Bacteria	# positive coliforms	(A)	0	NA	# positives monthly %	2 0.5	1	1 	0					
В	Fecal Coliform Bacteria	positive E. coli	(B)	0	NA	# positives monthly %	0 0	0	0	0					
C	Heterotrophic Plate Count (HPC)	# HPCs > 500 CFU/mL	(C)	NA	1	# HPC> 500 monthly %	5 99.5	4	1	0					
	DISINFECTION BY-PRODUCTS AND DISINFECTANT RESIDUALS														
D	Total Trihalomethanes (TTHMs)	ppb	80	NA	1	Range Highest LRAA	7.4 - 110 65	20 - 110 46	7.4 - 84 65	18 - 50 39					
B	Haloacetic Acids (five) (HAA5s)	ppb	60	NA	1(E)	Range Highest LRAA	<1.0 - 28 23	<1.0 - 18 13	<1.0 - 28 23	7.6 - 24 18					
F	Bromate (Mills plant only)	ppb	10	0.1	5	Range <b>Highest RAA</b>		3.9 - 12 8.0							
	Total Chlorine Residual	ppm	[4]	[4]	NA	Range <b>Average</b>	<0.2 - 4.5 1.5	<0.2 - 4.5 1.5	<0.2 - 3.0 1.2	<0.2 - 2.7 1.9					
	TREATMENT-RELATED FLUORID	E LEVELS													
		T		Optimal F	luoride C	ontrol Range		0.6 - 1.2	(G)	0.7 - 1.3					
3	Fluoride Treatment-related	ppm (G)		1	0.1	Range <b>Average</b>	0.1 - 1 0.6								
	PHYSICAL PARAMETERS														
	Color	Units	15	NA	NA	Range <b>Average</b>	<2.5 - 62 <2.5	<2.5 - 12 <2.5	<2.5 - 62 <2.5	<2.5 - 10 <2.5					
	Odor Threshold	TON	3	NA	1	Range <b>Average</b>	1 - 2 1	1 - 2	NR 1	NR 1					
	Turbidity	NTU	5	NA	NA	Range <b>Average</b>	<0.1 - 5 0.1	<0.1 - 2.4 0.1	<0.1 - 5 0.3	<0.1 - 1.6 0.1					
	рН	Units	6.5 - 8.5	NA	NA	Range <b>Average</b>	7.0 - 8.9 8.0	7.0 - 8.9 8.1	7.6 - 8.7 8.0	7.5 - 8.0 7.8					
	UNREGULATED CONTAMINANT	MONITORING	G												
	N-Nitrosodimethylamine (NDMA)	ppt	NA	3	2	Range <b>Average</b>	ND - 12 2	ND - 12 2	ND - 4 ND	ND - 8 2					
	METALS AS A BY-PRODUCT OF	CORROSION	OF CONSUMER'S	PLUMBING											
Ð	Copper	ppb	AL=1300	300	50	NA	90th pe	ercentile of 50 samples: 200 ppb							
	Lead	ppb	AL=15	0.2	5	NA		ercentile of 50 samples: <5 ppb e sample exceeded the AL							

The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

2008 values

- 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 2,856 samples in 2009, two of which were total coliform positive. The highest monthly coliform result was 0.5%. The MCL was not violated in 2009.
- **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. There were no detected fecal coliforms. The MCL was not violated in 2009.
- 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 samples

- in one month may have no detectable chlorine residual and an HPC greater than 500 colony forming units per mL. The HPC results were no less than 99.5% in any month in 2009. The MCL was not violated in 2009.
- D Total Trihalomethanes are the sum of the following analytes: bromodichloromethane, bromoform, chloroform, and dibromochloromethane. Distribution system-wide average and range were taken from 12 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. Distribution system-wide average and range were taken from 12 samples collected quarterly.

- **F** Bromate is a disinfectant by-product resulting from the use of ozone. Currently, only Mills filtration plant uses ozone.
- **G** Fluoridation treatment of water at Mills and Skinner Treatment plants began in 2007. Optimal Fluoride Control range is based on average daily air temperature of the region. The East Valley Area does not have fluoride added to its system.
- H Lead and copper are regulated as a Treatment Technique under the Lead and Copper Rule, which requires systems to take water samples at the consumers' tap every three years. Results are from 2007. The next round of samples will be taken in 2010.

				PHG (MCLG)	State DLR	Moreno Valley, Perris, Sun City, Menifee & North Canyon Lake										
	Parameter  Percent of water delivered in service area	Units	State or Federal MCL			Mills F	Plant	Moreno We		Perris Valley Wells 8.5		Perris Plant 20.7 12.7				
		%				61.	.1	1.								
	Percent of total water delivered by EMWD	%				37.7		0.7	7	5.2	2					
	,					Range	Average	Range	Average	Range	Average	Range	Average			
	PRIMARY STANDARDS-Mandatory	/ Health-Re	elated Star	ndards												
	CLARITY					Highest NTU	% < 0.3					Highest NTU	% < 0.3			
	Combined Filter Effluent Turbidity	NTU	0.3 NTU/ 95% (I)	NA	NA	0.18	100					0.52	99.93			
	ORGANIC CHEMICALS															
	Dibromochloropropane (DBCP)	ppt	200	1.7	10	NR	ND	40 - 140	76			NR	ND			
-	Tetrachloroethylene (PCE)	ppb	5	0.06	0.5	NR	ND	ND - 5.8	3.2	NR	ND	NR	ND			
	Trichloroethylene (TCE)	ppb	5	1.7	0.5	NR	ND	NR	ND	ND - 0.9	0.6	NR	ND			
	INORGANIC CHEMICALS															
	Aluminum	ppb	200 (J) 1000	600	50	ND - 160	96	NR	ND	NR	ND	ND - 100	ND			
3	Arsenic	ppb	10	0.004	2	ND - 3.4	2.6	ND - 2	ND	ND - 7.9	3.3	NR	ND			
	Barium	ppb	1000	2000	100	NR	ND	140 - 290	210	58 - 340	200	NR	150			
I	Fluoride (Naturally-occurring)	ppm	2.0	1	0.1			0.3 - 0.4	0.4	0.3 - 0.4	0.4	0.1 - 0.5	0.3			
M	Nitrate (as Nitrogen)	ppm	10	10	0.4	ND - 0.8	0.6	3.8 - 8.3	5.6	4.5 - 6.3	5.5	ND - 1.0	0.6			
I	Nitrite (as Nitrogen)	ppm	1	1	0.4	NR	ND	NR	ND	NR	ND	ND - 0.8	ND			
M	Perchlorate	ppb	6	6	4	NR	ND	NR	ND	ND - 4.3	ND	NR	ND			
!	Selenium	ppb	50	(50)	5	NR	ND	ND - 5.5	ND	ND - 5.1	ND	NR	ND			
	RADIOLOGICALS															
	Gross Alpha Particle Activity	pCi/L	15	(0)	3	ND - 5.5	ND	NR	ND	ND - 12	8.0	NR	3.2			
	Gross Beta Particle Activity	pCi/L	50	(0)	4	ND - 7.5	ND			NR	11					
	Uranium	pCi/L	20	0.43	1	1.5 - 2.8	2.1			NR	7.5					
	DISINFECTION BY-PRODUCTS															
1	Total Trihalomethanes (TTHMs)	ppb	80	NA	1	20 - 33	25	NR	ND	ND - 6.1	1.0	30 - 50	38			
	Haloacetic Acids (five) (HAA5s)	ppb	60	NA	(O)	2.3 - 7.0	4.3					7.1 - 21	14			

The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

2008 values

- I The turbidity level of the combined filter effluent shall be less than or equal to 0.3 NTU in 95% of the measurements taken each month and shall not exceed 1 NTU at any time. Turbidity is a measure of the cloudiness of the water and is an indicator of treatment performance.
- **J** Aluminum has both primary and secondary standards.
- K While your drinking water meets the federal and state standard for arsenic, some of our sources do 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.
- ${\bf L}~$  State MCL is 45 mg/L as Nitrate, which equals 10 mg/L as Nitrogen.
- M Moreno Valley Wells are blended with Mills water to reduce Nitrate and Perchlorate levels to comply with State MCLs. Results are after blending.
- **N** Total Trihalomethanes are the sum of the following analytes: bromodichloromethane, bromoform, chloroform, and dibromochloromethane.
- O 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.

				Murr	ieta	Hemet & San Jacinto				
		Menifee Desal		Skinner	· Plant	East Valley Wells		Hemet Plant		Major Sources in Drinking Water
	Percent of water delivered in service area	8.6	5	100	0.0	70.	0	30.0		
	Percent of total water delivered by EMWD	5.3	3	18	.6	13.	9	5.	9	
		Range	Average	Range	Average	Range	Average	Range	Average	
	PRIMARY STANDARDS Mandatory	/ Health-Rela	ted Standa	rds						
	CLARITY			Highest NTU	% < 0.3			Highest NTU	% < 0.3	
0	Combined Filter Effluent Turbidity			0.08	100			3.3	99.89	Soil runoff
	ORGANIC CHEMICALS									
	Dibromochloropropane (DBCP)	NR	ND	NR	ND	NR	ND	NR	ND	Banned nematocide (pesticide) that may still be present in soils
	Tetrachloroethylene (PCE)	NR	ND	NR	ND	NR	ND	NR	ND	Discharge from factories, dry cleaners, and auto shops
	Trichloroethylene (TCE)	NR	ND	NR	ND	NR	ND	NR	ND	Discharge from metal degreasing sites and other factories
	INORGANIC CHEMICALS									
1	Aluminum	NR	ND	NR	ND	NR	ND	NR	ND	Residue from water treatment process; natural deposits erosion
K	Arsenic	NR	ND	NR	ND	ND - 7.7	2.3	NR	2.2	Natural deposits erosion; runoff from orchards; glass and electronics production wastes
	Barium	NR	ND	ND - 110	ND	ND - 110	ND	NR	ND	Oil and metal refineries discharge; natural deposits erosion
	Fluoride (Naturally-occurring)	NR	ND			0.1 - 0.6	0.3	0.1 - 0.2	0.1	Erosion of natural deposits; water additive to promote strong teeth; discharge from fertilizer and aluminum factories
M	Nitrate (as Nitrogen)	1.2 - 2.3	1.7	ND - 0.4	ND	ND - 3.3	0.7	ND - 0.7	ND	Runoff and leaching from fertilizer use; septic tank and sewage; natural deposits erosion
	Nitrite (as Nitrogen)	NR	ND	NR	ND	NR	ND	ND - 0.5	ND	Runoff and leaching from fertilizer use; septic tank and sewage; natural deposits erosion
M	Perchlorate	NR	ND	NR	ND	NR	ND	NR	ND	Contaminant of inorganic fertilizer; industrial waste
	Selenium	NR	ND	NR	ND	ND - 13	ND	NR	ND	Runoff/leaching from livestock lots; erosion of natural deposits
	RADIOLOGICALS									
	Gross Alpha Particle Activity	NR	ND	3.3 - 4.3	3.6	ND - 5.4	ND	NR	ND	Erosion of natural deposits
	Gross Beta Particle Activity	NR	ND	ND - 8.8	ND			NR	ND	Decay of natural and man-made deposits
	Uranium	NR	ND	2.3 - 2.7	2.5			NR	ND	Erosion of natural deposits
	DISINFECTION BY-PRODUCTS									
N	Total Trihalomethanes (TTHMs)	NR	ND	26 - 56	41	ND - 3.5	ND	31 - 72	48	By-product of drinking water disinfection
0	Haloacetic Acids (five) (HAA5s)	NR	ND	9.9 - 15	12			8.9 - 28	18	By-product of drinking water disinfection

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2008 values

2008 and 2009 values

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- 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.
- L State MCL is 45 mg/L as Nitrate, which equals 10 mg/L as Nitrogen.
- M Moreno Valley Wells are blended with Mills water to reduce Nitrate and Perchlorate levels to comply with State MCLs. Results are after blending.
- **N** Total Trihalomethanes are the sum of the following analytes: bromodichloromethane, bromoform, chloroform, and dibromochloromethane.
- O 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.

					State DLR	Moreno Valley, Perris, Sun City, Menifee & North Canyon Lake											
	Parameter	Units	State or Federal MCL			Mil	ls Plant	Morenc We		Perris Valley Wells		Perris Plant					
						Range	Average	Range	Average	Range	Average	Range	Average				
:	SECONDARY STANDARDS-Aesthe	tic Standard	ds														
•	Chloride	ppm	500	NA	NA	67 - 99	85	170 - 310	240	220 - 410	310	92 - 130	100				
	Color	Units	15	NA	NA	1 - 2	2	NR	<2.5	NR	<2.5	<2.5 - 2.5	<2.5				
l	lron	ppb	300	NA	100	NR	ND	NR	ND	NR	ND	NR	ND				
P	Manganese	ppb	50	NL = 500	20	NR	ND	NR	ND	NR	ND	NR	ND				
0	Odor Threshold	TON	3	NA	1	2	2	NR	1	NR	1	NR	1				
!	Specific Conductance	μS/cm	1600	NA	NA	460 - 670	590	860 - 1400	1130	1040 - 1760	1380	590 - 1100	980				
!	Sulfate	ppm	500	NA	0.5	32 - 77	68	25 - 32	28	44 - 50	48	36 - 260	200				
-	Total Dissolved Solids (TDS)	ppm	1000	NA	NA	250 - 380	330	580 - 960	770	670 - 960	790	320 - 680	580				
R	Turbidity	NTU	5	NA	NA	0.05 - 0.08	0.06	<0.1 - 0.1	<0.1	<0.1 - 0.2	0.1	<0.1 - 1.0	0.2				
	UNREGULATED CHEMICALS REQUIRING MONITORING																
ı	Boron	ppb	NA	NL = 1000	100	110 - 180	150	NR	ND	300 - 560	440	100 - 220	140				
,	Vanadium	ppb	NA	NL = 50	3	5.7 - 6.8	6.3										
S	N-Nitrosodimethylamine (NDMA)	ppt	NA	3	2	ND - 10	4	ND - 8	4	ND - 12	ND	NR	ND				
(	OTHER PARAMETERS																
4	Alkalinity	ppm	NA	NA	NA	69 - 95	83	73 - 99	86	110 - 180	140	77 - 170	130				
	Calcium	ppm	NA	NA	NA	17 - 30	26	68 - 120	94	80 - 160	120	27 - 84	68				
	Chlorate	ppb	NA	NL =800	20	NR	54										
	Corrosivity (as Langelier Index)	SI	NA	NA	NA	0.09 - 0.3	0.22	-0.830.51	-0.67	-0.53 - 0.12	-0.21	-0.36 - 1.0	0.58				
ı	Hardness	grains/ gallon	NA	NA	NA	5.1 - 7.6	7.0	16 - 29	22	18 - 32	24	7.0 - 19	16				
U	Heterotrophic Plate Count (HPC)	CFU/mL	TT	NA	NA	ND - 140	1	<2 - 340	110	<2 - 738	140	<2 - 230	8				
Ī	Magnesium	ppm	NA	NA	NA	9 - 15	12	24 - 48	36	23 - 35	29	13 - 30	25				
Ī	рН	Units	NA	NA	NA	8.3 - 8.5	8.4	NR	6.9	7.0 - 7.2	7.1	7.7 - 8.6	8.1				
	Potassium	ppm	NA	NA	NA	2.4 - 3.5	2.9	<5 - 5	<5	<5 - 5.2	<5	<5 - 6.1	<5				
!	Silica	ppm	NA	NA	NA	6.3 - 16	11	62 - 71	66	40 - 47	43	8.9 - 24	12				
!	Sodium	ppm	NA	NA	NA	54 -82	73	56 - 69	62	86 - 130	110	66 - 100	92				
-	Total Organic Carbon	ppm	TT	NA	0.30	1.4 - 3.2	2.1	NR	ND	NR	ND	1.3 - 2.9	2.1				

The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

2008 values

- P One well in the East Valley area exceeds the MCL for Manganese and its use was discontinued in August 2009.
- For Mills and Skinner plants, Metropolitan has developed a flavor-profile analysis method that can detect odor occurrences more accurately. For more information, call MWD at (213) 217-6850.
- **R** Turbidity is a measure of the cloudiness of the water and is an indicator of treatment performance. Secondary standards were based on the treatment plant effluent or raw well
- **S** NDMA samples are from chlorinated effluents.
- **T** Positive SI index = non-corrosive; tendency to precipitate and/or deposit scale on pipes. Negative SI index = corrosive; tendency to dissolve calcium carbonate.
- **U** HPC values were based on chlorinated treatment plant effluents or on unchlorinated raw well water.

				Murri	eta	Hemet & San Jacinto				
		Menifee & Desalt		Skinner	· Plant	East Va We		Heme	t Plant	Major Sources in Drinking Water
		Range	Average	Range	Average	Range	Average	Range	Average	
	SECONDARY STANDARDS-Aesthet	tic Standards								
	Chloride	79 - 230	150	93 - 100	97	11 - 87	25	67 - 110	96	Runoff/leaching from natural deposits; seawater influence
	Color	NR	2.5	1 - 2	2	<2.5 - 5	<2.5	<2.5 - 2.5	<2.5	Naturally-occurring organic materials
	Iron	NR	ND	NR	ND	ND - 270	ND	NR	ND	Leaching from natural deposits; industrial wastes
	Manganese	NR	ND	NR	ND	ND - 110 (P)	ND	NR	ND	Leaching from natural deposits
	Odor Threshold	NR	1	12 - 24	18	ND - 2	1	NR	1	Naturally-occurring organic materials
	Specific Conductance	370 - 1040	660	760 - 1100	960	320 - 970	460	440 - 800	600	Substances that form ions in water; seawater influence
	Sulfate	11 - 35	22	130 - 250	220	9.4 - 220	53	27 - 140	50	Runoff/leaching from natural deposits; industrial wastes
	Total Dissolved Solids (TDS)	190 - 580	360	440 - 640	580	170 - 580	290	200 - 460	320	Runoff/leaching from natural deposits
3	Turbidity	NR	0.1	0.04 - 0.05	0.05	<0.1 - 0.7	0.2	<0.1 - 0.2	0.1	Soil runoff
	UNREGULATED CHEMICALS REQUI	IRING MONIT	ORING							
	Boron	100 - 240	180	130 - 140	140	25 - 180	40	110 - 220	170	Runoff/leaching from natural deposits; industrial wastes
	Vanadium			NR	ND					Naturally-occurring; industrial waste discharge
	N-Nitrosodimethylamine (NDMA)	NR	ND	ND - 4	ND	ND - 2	ND	ND - 2	ND	By-product of drinking water chlorination; industrial processes
	OTHER PARAMETERS									
	Alkalinity	29 - 75	46	94 - 120	110	110 - 210	140	62 - 120	85	Naturally-occurring carbonates; measures water's ability to neutralize acid
	Calcium	16 - 70	45	44 - 74	65	30 - 89	49	18 - 52	27	Naturally-occurring mineral
	Chlorate			NR	34					By-product of drinking water chlorination; industrial processes
	Corrosivity (as Langelier Index)	-0.15 - 0.69	0.28	0.08 - 0.39	0.31	-0.14 - 0.57	0.13	-0.4 - 0.4	-0.1	Elemental balance in water; affected by temperature, other factors
	Hardness	5.1 - 15	12	11 - 18	16	4.9 - 17	8.3	5.2 - 12	7.3	Naturally-occurring; the sum of calcium and magnesium in the water
	Heterotrophic Plate Count (HPC)	<2 - 310	14	ND - 3	ND	<2 - 740	40	<2 - 120	10	Naturally present in the environment
	Magnesium	4.4 - 18	13	20 - 29	26	2.1 - 17	5.1	8.8 - 20	12	Naturally-occurring mineral
	рН	8.0 - 8.6	8.3	7.9 - 8.0	7.9	7.5 - 8.4	7.8	7.7 - 8.7	7.9	Measures if water is acidic, neutral, or basic
	Potassium	NR	<5	4.2 - 5.0	4.7	<5 - 8.1	<5	<5 - 5	<5	Naturally-occurring mineral
	Silica	3.2 - 12	8.8	7.4 - 10	8.3	18 - 28	22	6 - 17	13	Naturally-occurring mineral
	Sodium	45 - 87	75	78 - 100	93	21 - 86	38	47 - 81	68	Naturally-occurring mineral
	Total Organic Carbon	NR	ND	1.8 - 2.3	2.2	ND - 0.4	ND	1.6 - 3.3	2.4	Various natural and man-made sources

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2008 values

### Exceeds MCL

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### **PUBLIC MEETINGS**

EMWD's Board of Directors generally meet on the 1<sup>st</sup> and 3<sup>rd</sup> Wednesdays of each month. Work sessions begin at 9:00 a.m. and the public board meeting starts 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



CONSUMER CONFIDENCE REPORT ISSUED JULY 2010



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THE FOLLOWING IS ADDITIONAL INFORMATION REGARDING YOUR WATER SUPPLY. IT'S CRITICAL THAT WE ALL USE WATER WISELY, AS WE FACE CONTINUED WATER SHORTAGES.

## CALIFORNIA'S WATER CRISIS CONTINUES

- » Much of our water comes through the Sacramento San Joaquin Delta. Due to years of low rainfall, water pumping restrictions, and an outdated water system we're getting less and less, reducing water reserves by 50 percent.
- California water agencies are facing a fourth year of unprecedented water supply challenges, with 2010 precipitation still below normal. Regulatory restrictions have required massive reductions in California's water supply to protect certain fish species in the Delta. Meanwhile, our water system, which was originally built to serve 16 million Californians, is operating beyond its capacity, serving more than 38 million people today, and the state's population is expected to grow to 50 million by 2032.
- » While conservation alone will not solve this problem, we thank you for using water wisely – this helps stretch available supplies. Learn more about water saving practices, rebates, and California's water supply issues at www.bewaterwise.com.

For more information, log onto: www.usewaterwisely.org

www.bewaterwise.com

www.saveourh2o.org



Visit EMWD's Water Wise Demonstration Garden

## The Safe, Clean and Reliable Drinking Water Supply Act of 2010

- » The EMWD Board of Directors has adopted a resolution supporting The Safe, Clean and Reliable Drinking Water Supply Act of 2010, also known as the Water Bond.
- The Water Bond is a ballot measure for an \$11.14 billion general obligation bond that would provide funding to finance projects and programs throughout the state that are aimed at improving California's water supply and reliability.
- The Water Bond provides for a staged implementation where no more than \$5.57 billion would be sold before July 1, 2015 to ensure that the State's general fund would be able to spread out the debt payments.
- » Previous water bond measures (i.e. Proposition 84) did not provide financing for surface water storage or restoring and maintaining the Delta.
- » The Water Bond measure will be on the November 2, 2010 statewide ballot.

#### For more information, log onto:

Department of Water Resources (DWR) www.water.ca.gov

Association of California Water Agencies (ACWA) www.acwa.com

Conserving California www.conservingcalifornia.org



