**ISSUED JULY 2011** 

# Your Water Quality

EASTERN MUNICIPAL WATER DISTRICT

www.emwd.org











2010
Consumer
Confidence
Report



03 | Contaminants and Regulations 03 | Lead 04 | The Source of Your Tap Water 05 | Protecting Your Drinking Water 06 | Facts About Total Coliform Bacteria 07 | Distribution Data for 2010 08 | 2010 Water Quality Table

#### INSIDE THIS REPORT

Contaminants and Regulations 3
Lead 3
The Source of Your Tap Water 4
The Communities We Serve 5
Protecting Your Drinking Water 5
Facts About Total Coliform Bacteria 6
Abbreviations and Definitions 6
EMWD Distribution System Data for 2010 7
EMWD 2010
Water Quality Tables 8 - 11

#### **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.

## **2010**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 2010. 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 2010, the EMWD laboratory tested nearly 7,000 water samples and performed more than 46,000 water quality tests on those samples collected throughout the year for contaminants such as arsenic, nitrates, and disinfection by-products.

EMWD has more than 40 sources of water. It is not uncommon for untreated groundwater or surface waters to have measurable contaminants. Therefore, it is important for EMWD and other water agencies to protect customers' safety by treating or blending the water before distribution to meet all regulations. EMWD supports science-based standards that provide health benefits to the public in an economically balanced manner. Should more stringent standards be set, EMWD will meet them. EMWD's water has met and will continue to meet all regulations.

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.

This report also contains information on the back page about the value of your tap water and how water use efficiency remains essential even though California had an extremely wet winter season.

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.



### Contaminants and Regulations



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.

To ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) and the California Department of Public Health (CDPH) established regulations that limit the amount of certain contaminants in water provided by public water systems. CDPH regulations also establish limits for contaminants in bottled water that provide the same protection of public health.

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.

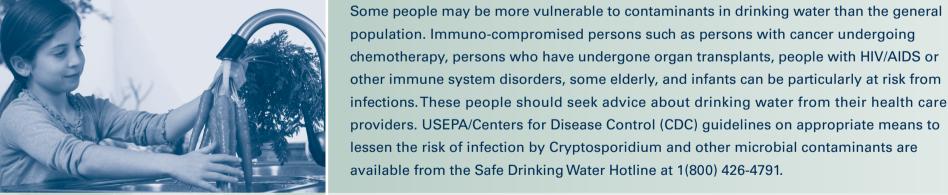
MICROBIAL CONTAMINANTS, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock, and wildlife.

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 naturallyoccurring or be the result of oil and gas production and mining activities.

NITRATE LEVELS REPORTED AS NO. 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 that 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.



#### LEAD

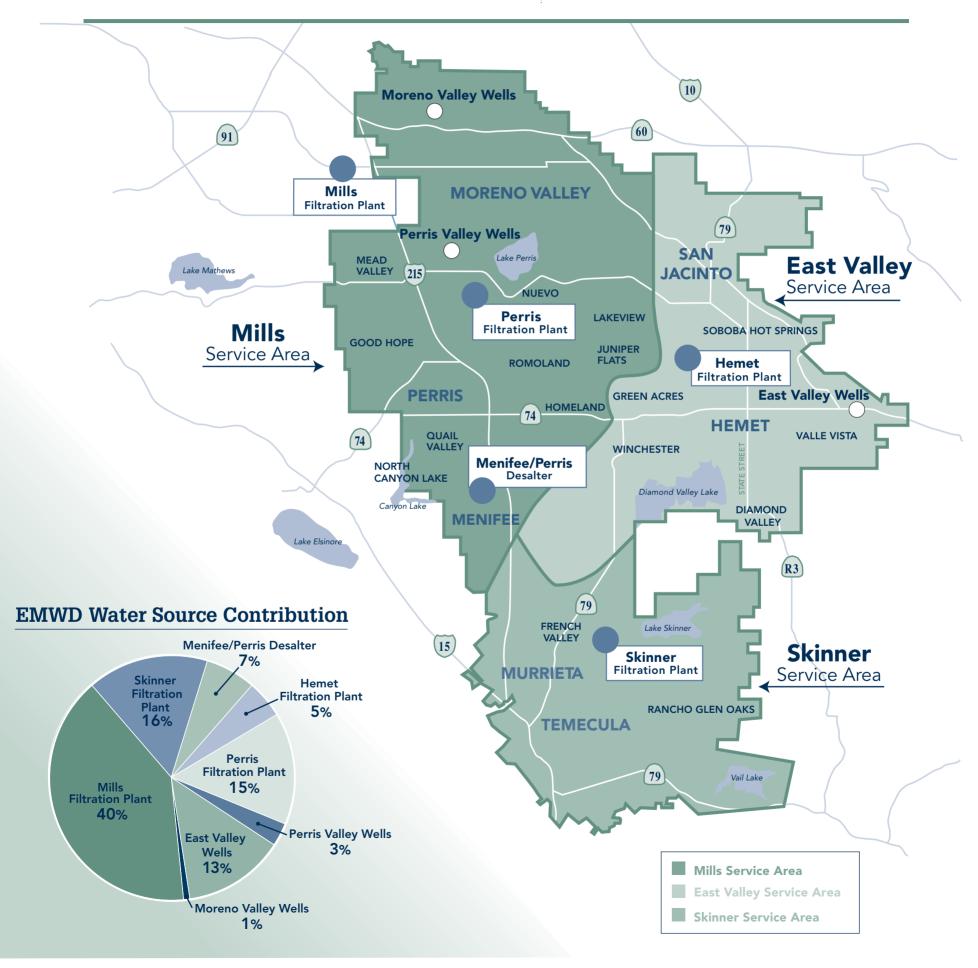
IF PRESENT, ELEVATED LEVELS OF LEAD CAN cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. EMWD is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting in your household

plumbing 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 www.epa.gov/safewater/lead.



# 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

• The Henry J. Mills Filtration Plant\* treats imported surface water supplied solely from northern California through the State Water Project (SWP).

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

- 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 Colorado River and State Water Project waters.
- The Menifee/Perris Desalter converts salty groundwater into potable water using a reverse osmosis process. Menifee, 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:

West of State Street

.....

groundwater also supplies this area.

#### COMMUNITIES

**SERVED:** 

**Diamond Valley** 

**Green Acres** 

Hemet

San Jacinto

Winchester\*\*\*

#### **COMMUNITIES**

Hemet

Valle Vista

San Jacinto

Soboba Hot Springs

**SERVED:** 

**East of State Street:** 

• A system of deep groundwater wells serves these communities.

• 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

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

#### COMMUNITIES **SERVED:**

French Valley

Menifee\*\*

Murrieta

Temecula

Rancho Glen Oaks\*\*\*\*

Winchester\*\*\*

• The Robert A. Skinner Filtration Plant\* treats water from the Colorado River and from the State Water Project.

#### \*The Mills and Skinner Filtration Plants are owned and operated by the Metropolitan Water District of Southern California (MWD)

## **PROTECTING YOUR DRINKING** WATE

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.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. 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 water 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.



<sup>\*\*</sup>Typically served by Mills Filtration Plant and occasionally served by the Skinner Filtration Plant

<sup>\*\*\*</sup>Typically served by Hemet Water Filtration Plant and occasionally served by Skinner Filtration Plant

<sup>\*\*\*\*</sup>Served water produced by Rancho California Water District

## Facts about Total Coliform Bacteria

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

Coliform bacteria are naturally present 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 3,017 coliform samples in 2010, 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 0.42%, 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 Environmental Protection Agency's Safe Drinking Water Hotline at (800) 426-4791 or at <a href="http://water.epa.gov/drink/info/">http://water.epa.gov/drink/info/</a>.



#### **ABBREVIATIONS & DEFINITIONS**

#### **ABBREVIATIONS**

AL	Action Level	LRAA	Locational Running Annual Average: the yearly average	ND	None Detected: sample was taken and chemical was not	ppt	parts per trillion or nanograms per liter (ng/L)
CFU/ml	Colony-Forming Units per milliliter		which is calculated every 3 months using the previous		detected	RAA	Running Annual Average: The yearly average which is calcu-
DLR	Detection Limits for purposes of Reporting: State-determined		12 months' data at one sample location	NL NR	Notification Level  No Range: all result(s) were		lated every 3 months using the
	level that a test can detect	MCL	Maximum Contaminant Level	Mh	the same value	TON	previous 12 months' data  Threshold Odor Number
grains/	Grains per gallon: a measure	MCLG	Maximum Contaminant Level Goal	NTU	Nephelometric Turbidity Units	TT	TreatmentTechnique
gallon	of water hardness; one gr/gal equals 17.1 ppm or mg/L	MRDL	Maximum Residual	pCi/L PHG	picoCuries per Liter  Public Health Goal	μS/cm	microSiemen per centimeter;
HPC	Heterotrophic Plate Count: a bacteriological test that counts		Disinfectant Level	ppb	parts per billion or		or micromho per centimeter (µmho/cm)
	the general number of bacteria	WIRDLG	Maximum Residual Disinfectant Level Goal		micrograms per liter (µg/L)	<u>"_"</u>	Samples not required
	per milliliter of sample	NA	NA Not Applicable: no State or Federal standards		parts per million or milligrams per liter (mg/L)	">"	Greater than
			are established			"<"	Less than

#### **DEFINITIONS**

**90th Percentile:** The value in a data set in which 90% of the set is less than or equal to this value.

**Disinfection By-Product:** Compounds which are formed from mixing of organic or mineral precursors in the water with chlorine or chloramine. Bromate, Total Trihalomethanes, Haloacetic Acids and NDMA are all disinfection by-products.

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 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): 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.

**Notification Level (NL):** Notification levels are health-based advisory levels established by CDPH for chemicals in drinking water that lack maximum contaminant levels (MCLs).

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

Running Annual Average (RAA): The yearly average which is calculated every 3 months using the previous 12 months' data.

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 (TT):** A required process intended to reduce the level of a contaminant in drinking water.

#### EASTERN MUNICIPAL WATER DISTRICT DISTRIBUTION SYSTEM DATA FOR 2010

							Service Area					
Parameter	Units	State or Federal Maximum Contaminant Level (MCL)	Public Health Goals (PHG)	State Detection Limit for Reporting (DLR)	Range Average	EMWD's Entire Distribution System	Mills	East Valley	Skinner			
MICROBIOLOGICAL												
Total Coliform Bacteria	# positive coliforms	A	MCLG = 0	NA	# positives in 2010 Highest monthly %	2 0.42	1 	1 	0			
Fecal Coliform Bacteria ( <i>E.coli</i> )	# positive <i>E.coli</i>	В	MCLG = 0	NA	# positives in 2010	0	0	0	0			
Heterotrophic Plate Count (HPC)	# HPCs > 500 CFU/mL	C	NA	1	# HPC>500 in 2010 Lowest monthly %	3 99.3	2	1 	0			
DISINFECTION BY-PRODUCTS AN	D DISINFECTA	NT RESIDUALS										
Total Trihalomethanes (TTHMs)	ppb	80	NA	1	Range Highest LRAA	8.5 - 69 58	14 - 69 49	8.5 - 66 58	24 - 59 42			
Haloacetic Acids (five) (HAA5s)	ppb	60	NA	E	Range Highest LRAA	<1.0 - 24 19	<1.0 - 24 15	<1.0 - 18 19	8.9 - 22 18			
Bromate (Mills & Skinner plants only) <b>F</b>	ppb	10	0.1	5	Range <b>Highest RAA</b>		ND - 13 <b>F</b> 7.7		ND - 6.1			
Total Chlorine Residual	ppm	MRDL=4	MRDLG=4	NA	Range <b>Average</b>	<0.2 - 3.8 1.5	<0.2 - 3.8 1.5	<0.2 - 3.0 1.2	<0.2 - 2.9 1.7			
PHYSICAL PARAMETERS												
Color	Units	15	NA	NA	Range <b>Average</b>	<2.5 - 38 <2.5	<2.5 - 12 <2.5	<2.5 - 38 <b>G</b> 2.5	<2.5 - 5 <2.5			
Turbidity	NTU	5	NA	NA	Range <b>Average</b>	<0.1 - 8.5 0.2	<0.1 - 1.7 0.1	<0.1 - 8.5 <b>G</b> 0.4	<0.1 - 1.2 0.1			
OdorThreshold	TON	3	NA	1	Range <b>Average</b>	1 - 2 1	NR 1	1 - 2 1	NR 1			
рН	Units	6.5 - 8.5	NA	NA	Range <b>Average</b>	6.9 - 8.7 8.0	6.9 - 8.7 <b>H</b> 8.0	7.4 - 8.4 7.9	7.4 - 8.4 7.8			
UNREGULATED CONTAMINANT M	ONITORING											
N-Nitrosodimethylamine (NDMA)	ppt	NA	3	2	Range <b>Average</b>	ND - 12 ND	ND - 12 2	ND - 4 ND	ND - 8 2			
METALS AS A BY-PRODUCT OF CO	ORROSION OF	CONSUMER'S	PLUMBING									
Copper	ppb	AL=1300	300	50	NA	l '		percentile of 50 samples: 230 ppb ample exceeded the Action Level				
Lead <b>①</b>	ppb	AL=15	0.2	5	NA		percentile of 50 samples: <5 ppb amples exceeded the Action Level					

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

#### **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 3,017 coliform samples in 2010, two of which were total coliform positive. The highest monthly coliform result was 0.42 %. The MCL was not violated in 2010.
- B Fecal coliform/E.coli MCLs: An MCL violation is the occurrence of two consecutive total coliform-positive samples, one of which contains fecal coliform or E.coli. There were no detected fecal coliforms. The MCL was not violated in 2010.
- G HPCs were tested only in the coliform distribution system samples which had no detectable chlorine residual. HPC TT: 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 99.3% in any month in 2010.
- Total Trihalomethanes are the sum of the following analytes: bromodichloromethane, bromoform, chloroform, and dibromochloromethane. Locational running annual averages and ranges were taken from 12 samples collected quarterly throughout the distribution system. TTHMs are a by-product of drinking water chlorination.
- EDLR = 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. Locational running annual averages and ranges were taken from 12 samples collected quarterly throughout the distribution system. HAA5s are a by-product of drinking water chlorination.
- Formate is a disinfection by-product resulting from the use of ozone. Currently, Mills and Skinner Filtration plants use ozone. Skinner Filtration plant has no Running Annual Average (RAA) since it has not yet been on line for a year. The MCL is based on the RAA, not the results of the individual samples that are reported in the range.

- G High color (38) and turbidity (8.5) represent one sample site in the East Valley service area. EMWD responded to these high values by flushing the area and resampling, and the resamples complied with state standards.
- H The recommended Federal secondary MCL for pH is a range of 6.5 to 8.5, however it is not enforced by CA Department of Public Health. pH is adjusted at the Mills Filtration plant to control aggressiveness of the water. Five samples in the Mills service area of 704 total samples taken were over the 8.5 limit.
- NDMA is a by-product of drinking water chlorination. Samples are from chlorinated distribution samples.
- 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 2010. Neither lead nor copper are found in the source waters but can get into water by way of internal corrosion of household plumbing.

	Moreno Valley, Perris, Menifee & North Canyon Lake									
Parameter	Units	State or Federal Maximum Contaminant Level (MCL)	California Public Health Goal (PHG)	State Detection Limit for Reporting (DLR)	Mills Filtration Plant 40.5		Moreno Wel		Perris Valley Wells	
Percent of total water delivered by EMWD	%						0.9	)		
					Range	Average	Range	Average	Range	Average
PRIMARY STANDARDS-Mandato	ry Health-Rela	ated Standards								
CLARITY					Highest NTU	% ≤ 0.3				
Combined Filter Effluent Turbidity	NTU and %	M	NA	NA	0.10	100				
ORGANIC CHEMICALS										
Dibromochloropropane (DBCP)	ppt	200	1.7	10	NR	ND	14 - 34	24 K	NR	ND
Tetrachloroethylene (PCE) (a.k.a. Perchloroethylene)	ppb	5	0.06	0.5	NR	ND	ND - 2	1.5 K	NR	ND
Trichloroethylene (TCE)	ppb	5	1.7	0.5	NR	ND	NR	ND	ND - 0.8	0.6
INORGANIC CHEMICALS										
Aluminum	ppb	1000 🕦 200	600	50	ND - 130	110	NR	ND	NR	ND
Arsenic O	ppb	10	0.004	2	ND - 3.1	2.7	NR	ND	NR	ND
Barium	ppm	1	2	0.1	NR	ND	0.14 - 0.25	0.20	0.17 - 0.30	0.23
Fluoride (Naturally-occurring)	ppm	2.0	1	0.1			0.1 - 0.6	0.4	ND - 0.7	0.4
Fluoride (Treatment related)	ppm	2.0	1	0.1	0.5 - 0.9	0.7				
Nitrate (as NO <sub>3</sub> )	ppm	45	45	2	ND - 4.0	2.6	13 -33	23 <b>K</b>	20 - 29	24
Perchlorate	ppb	6	6	4	NR	ND	NR	ND K	NR	ND (
Selenium	ppb	50	30	5	NR	ND	NR	ND	NR	ND
RADIOLOGICALS										
Gross Alpha Particle Activity	pCi/L	15	MCLG = 0	3	ND - 5.5	ND	NR	ND	7.1 - 10.5	8.4
Gross Beta Particle Activity	pCi/L	50 @	MCLG = 0	4	ND - 7.5	ND			NR	9.7
Uranium	pCi/L	20	0.43	1	1.5 - 2.8	2.1			NR	8

#### **FOOTNOTES**

Moreno Valley Wells are blended with Mills water to reduce Nitrate, Perchlorate and PCE levels to comply with State MCLs. Also, although not over the MCL, DBCP is also detected in these wells and blended. Results are after blending.

contaminants do not change frequently. Some of our data, though representative, are more than one year old.

- Values are from blended Well 57 and raw well values from other wells in area. Well 57 is blended on site with Mills water to improve Total Dissolved Solids.
- M The turbidity level of the combined filter effluent at the Mills and Skinner Filtration plants 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. For Perris and Hemet Filtration plants, the turbidity level of the combined filter effluent shall be less than or equal to 0.1 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.

	Murri	Murrieta Hemet & San Jacinto									
Perris Parameter Filtration Pla			Menifee & Perris Desalters		Skinner Filtration Plant			East Valley Wells		et Plant	Major Sources in Drinking Water
Percent of total water delivered by EMWD	14.8		6.6		16.0		13	13.2			
,	Range	Average	Range	Average	Range	Average	Range	Average	Range	Average	
PRIMARY STANDARDS-Mandato	ry Health-Rela	ated Stanc	dards								
CLARITY	Highest NTU	Lowest % ≤ 0.1			Highest NTU	Lowest % ≤ 0.3			Highest NTU	Lowest % ≤ 0.1	
Combined Filter Effluent Turbidity	0.98	97.7			0.05	100			0.76	99.4	Soil runoff
ORGANIC CHEMICALS											
Dibromochloropropane (DBCP)	NR	ND	NR	ND	NR	ND	NR	ND	NR	ND	Banned nematocide (pesticide) that may still be present in soils
Tetrachloroethylene (PCE) (a.k.a. Perchloroethylene)	NR	ND	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	NR	ND	Discharge from metal degreasing sites and other factories
INORGANIC CHEMICALS											
Aluminum	ND - 62	ND	NR	ND	NR	ND	NR	ND	NR	ND	Residue from water treatment process; natural deposits erosion
Arsenic	NR	2.4	NR	ND	NR	ND	ND - 7.3	ND	NR	ND	Natural deposits erosion; runoff from orchards; glass and electronics production wastes
Barium	NR	0.12	NR	ND	ND - 0.12	0.11	ND - 0.11	ND	NR	ND	Oil and metal refineries discharge; natural deposits erosion
Fluoride (Naturally-occurring)	ND - 0.5	0.2	ND - 0.1	ND			ND - 0.7	0.3	ND - 0.2	0.1	Erosion of natural deposits; discharge from
Fluoride (Treatment related)					0.6 - 1.0	0.8					fertilizer and aluminum factories; water additive to promote strong teeth
Nitrate (as NO <sub>3</sub> )	ND - 3.5	ND	8.8 - 11	10	NR	ND	ND - 18	3.4	ND - 3.5	ND	Runoff and leaching from fertilizer use; septic tank and sewage; natural deposits erosion
Perchlorate	NR	ND	NR	ND	NR	ND	NR	ND	NR	ND	Contaminant of inorganic fertilizer; industrial waste
Selenium	NR	ND	NR	ND	NR	ND	ND - 12	ND	NR	ND	Runoff/leaching from livestock lots; erosion of natural deposits
RADIOLOGICALS						<u> </u>					
Gross Alpha Particle Activity	NR	ND	NR	ND	3.3 - 4.3	3.6	ND - 5.4	ND	NR	ND	Erosion of natural deposits
Gross Beta Particle Activity	NR	7.1	NR	5.1	ND - 8.8	ND	ND - 8.5	4.4	NR	ND	Decay of natural and man-made deposits
Uranium	NR	2.2	NR	1.1	2.3 - 2.7	2.5	2.2 - 3.1	2.6	NR	1.1	Erosion of natural deposits

- N Aluminum has both primary (1,000 ppb) and secondary (200 ppb) standards.
- 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.
- P Fluoridation treatment of water at Mills and Skinner Filtration plants began in 2007. The regulatory Optimal Fluoride Control range is based on the average daily air temperature of the region. For the Mills Filtration plant the optimal range is 0.6 - 1.2 ppm and for the Skinner Filtration Plant it is 0.7 - 1.3 ppm. The East Valley Area does not have fluoride added to its system.
- The Gross Beta particle activity MCL is 4 millirems per year annual dose equivalent to the total body or any internal organ. 50 pCi/L is used as a screening level.

						Moreno Va	lley, Perris, Me	Perris, Menifee & North Canyon Lake					
Parameter	State or Federal Maximum Contaminant Units Level (MCL)		California Public Health Goal (PHG)  State Detection Limit for Reporting (DLR)		Mills Filtration Plant		K Moreno Valley Wells		L Perris Valley Wells				
					Range	Average	Range	Average	Range	Average			
SECONDARY STANDARDS-Ae	sthetic Stand	lards											
Chloride	ppm	500	NA	NA	52 - 88	67	170 - 330	250	200 - 370	280			
Color	Units	15	NA	NA	NR	1	<2.5 - 2.5	<2.5	NR	<2.5			
Iron	ppb	300	NA	100	NR	ND	ND - 110	ND	NR	ND			
Manganese	ppb	50	NL = 500	20	ND - 35	20	NR	ND	NR	ND			
Odor Threshold	TON	3	NA	1	NR	2	NR	1	NR	1			
Specific Conductance	μS/cm	1600	NA	NA	390 - 540	460	830 - 1330	1080	1040 - 1330	1140			
Sulfate	ppm	500	NA	0.5	27 - 54	52	24 - 47	36	47 - 53	50			
Total Dissolved Solids (TDS)	ppm	1000	NA	NA	230 - 270	290	520 - 900	710	620 - 860	710			
Turbidity <b>(</b>	NTU	5	NA	NA	0.04 - 0.09	0.06	0.1 - 1	0.6	0.1 - 0.3	0.2			
UNREGULATED CHEMICALS	S REQUIRING	MONITORING											
Boron	ppm	NA	NL = 1	0.1	0.10 - 0.14	0.12	NR	ND	0.29 - 0.55	0.44			
Vanadium	ppb	NA	NL = 50	3	3.5 - 5.6	4.6	10 - 15	12	14 - 18	16			
OTHER PARAMETERS													
Hardness <b>V</b>	grains/ gallon	NA	NA	NA	4.3 - 6.4	5.3	16 - 28	22	18 - 33	24			
Sodium	ppm	NA	NA	NA	46 - 63	55	57 - 70	64	83 - 130	110			

#### **FOOTNOTES**

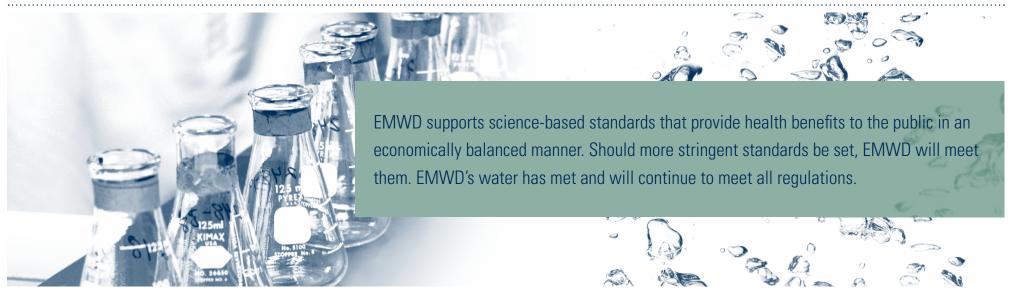
- R High color (30), iron (250) and turbidity levels (7.6) in East Valley Well 33 caused the well to be rehabilitated.
- S One well in the East Valley area exceeds the MCL for Manganese and its regular use was discontinued in August 2009 so it now is only used as a standby source. This well was on for 16 days in April 2010. The range for manganese levels without including this well is (ND 36) ppb.
- Odor data for Skinner is based on the State-required quarterly monitoring following MCL exceedance. The quarterly samples reported to the State were 35 TON in January, 20 TON in April, 19 TON in July, and 24 TON in October. Metropolitan utilizes a flavor-profile analysis method that can detect odor occurrences more accurately and found the samples from this location acceptable. No taste and odor event was observed and no complaints were received during the period. For more information, call MWD at (213) 217-6850.
- U 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 water.
- Water hardness, measured in grains per gallon, is characterized by the following scale: 0-4.4 is soft, 4.4-8.8 is moderately hard, 8.8-17.5 is hard and greater than 17.5 is very hard.

One part per million (ppm) = 1 second in 11.5 days.

One part per billion (ppb) = 1 second in 31.7 years.

One part per trillion (ppt) = 1 second in 31,710 years.

	Murrieta	Hemet & San Jacinto									
Parameter	Perris Filtration Plant		Menifee & Perris Desalters		Skinner Filtration Plant		East Valley Wells		Hemet Filtration Plant		Major Sources in Drinking Water
	Range	Average	Range	Average	Range	Average	Range	Average	Range	Average	
SECONDARY STANDARDS-Aestho	etic Standar	ds									
Chloride	67 - 130	100	170 - 240	210	88 - 98	93	10 - 79	23	61 - 110	92	Runoff/leaching from natural deposits; seawater influence
Color	<2.5 - 2.5	<2.5	NR	<2.5	NR	1	<2.5 - 30 R	2.6	<2.5 - 2.5	<2.5	Naturally-occurring organic materials
Iron	NR	ND	NR	ND	NR	ND	ND - 250 R	ND	NR	ND	Leaching from natural deposits; industrial wastes
Manganese	NR	ND	NR	ND	NR	ND	ND - 110 S	ND	NR	ND	Leaching from natural deposits
OdorThreshold	1 - 2	1	NR	1	19 - 35 🕡	25	NR	1	NR	1	Naturally-occurring organic materials
Specific Conductance	440 - 990	690	650 - 1000	870	720 - 1000	900	320 - 950	450	410 - 700	570	Substances that form ions in water; seawater influence
Sulfate	29 - 240	84	18 - 39	28	160 - 240	210	10 - 210	54	26 - 65	46	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS)	250 - 620	390	380 - 680	510	480 - 610	560	200 - 550	260	220 - 430	310	Runoff/leaching from natural deposits
Turbidity	<0.1 - 0.2	0.1	NR	0.1	0.03 - 0.06	0.05	0.1 - 7.6 R	0.7	<0.1 - 0.2	<0.1	Soil runoff
UNREGULATED CHEMICALS REQUIRING MONITORING											
Boron	0.11 - 0.21	0.15	0.12 - 0.24	0.17	0.12 - 0.13	0.12	ND - 0.15	ND	0.10 - 0.20	0.15	Runoff/leaching from natural deposits; industrial wastes
Vanadium	NR	ND	NR	ND	NR	ND	ND - 42	9	NR	ND	Naturally-occurring; industrial waste discharge
OTHER PARAMETERS											
Hardness	5.2 - 17	9.4	9.4 - 15	12	11 - 18	14	4.8 - 16	8.8	5.2 - 8.3	6.9	Naturally-occurring; the sum of calcium and magnesium in the water
Sodium	47 - 96	74	62 - 95	77	80 - 100	87	19 - 92	38	44 - 83	65	Naturally-occurring mineral



#### **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 on this report, contact: (951) 928-3777, ext. 6337 www.emwd.org

# Your 2010 Water Quality

CONSUMER CONFIDENCE REPORT ISSUED JULY 2011



2270 TRUMBLE ROAD POST OFFICE BOX 8300 PERRIS, CA 92572-8300 PRSRT STD US POSTAGE PAID PERRIS, CA PERMIT NO 10

#### Water-Use Efficiency Is Essential...

The State's most recent drought emergency – from February 2009 through March 2011 – serves to remind us that water is a precious resource that we must use wisely...all year long...through both drought AND wet years!

Responding to improved water supply conditions throughout the state, the EMWD Board of Directors voted to terminate Stage 2 Water Shortage Contingency Measures, which have been in effect since June 2009, and reinstate Stage 1 in April 2011. The major change is that EMWD's mandatory water use efficiency requirements are now voluntary. Under Stage 1 conditions, water use efficiency is encouraged consistent with EMWD's Water Use Efficiency Ordinance 72.25, including avoiding runoff and remaining within water budget limits.

The Board thanks customers for reducing water use approximately 18 percent over the past three years! Customers have also adapted well to the four-tiered rate structure, which will remain in place. As a reminder, EMWD has not passed on to its retail customers the 7.5% rate increase from Metropolitan Water District – our wholesale water provider – that we've been paying them since January 1. EMWD has been able to absorb that higher cost for imported water through internal cost control measures.

EMWD reminds customers that Southern California is simply an arid region and all residents need to follow the motto: **Water – Use It Wisely**. There are a number of ways to save water, and they all start with you. For more water-saving information, please visit **www.usewaterwisely.org**.

#### Value of Water:

#### Tap vs. bottled or filtered water

You may have a preference for bottled or filtered water based on personal taste, but how does that translate into the value of tap water?

Even at EMWD's highest tier rate of \$7.805 per billing unit, customers are getting 748 gallons for less than \$8, or about a penny per gallon! The lowest tier is \$1.483 per billing unit, or a fraction of a penny per gallon. Compare that to what a case of bottled water costs!

EMWD is committed to providing safe and reliable water and wastewater services in the most economical, efficient, and responsible manner...not just today, but into the future. EMWD strives to keep the cost of its services as low as possible. Local projects such as the recycled water program, desalination, and water efficiency help to offset the need to purchase more expensive imported water. In addition, EMWD continues to seek grants and low-interest funding for programs and projects.

So the next time you turn on the faucet, just think about how valuable that water is that costs less than a penny per gallon.

For more information, log onto:

www.emwd.org www.usewaterwisely.org www.bewaterwise.com www.saveourh2o.org





