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"Dedicated to Quality, Service, and Innovation"

# MWWD Water Sources

MWWD obtains its drinking water supply from the following sources:

- Groundwater: Over many years, water that falls on the ground travels through the soil, is naturally filtered, and collects in "aquifers" hundreds of feet below the earth's surface. Groundwater is pumped from the ground through production wells, disinfected, and distributed to customers. In 2013, approximately 66 percent of MWWD's water supply was produced from a series of aquifers known collectively as the Chino Groundwater Basin.
- Imported Surface Water: Water from rivers and streams in northern California is collected and transported through the California Aqueduct to southern California. MWWD's imported water supply is treated at the Agua de Lejos Treatment Plant in the City of Upland prior to distribution to customers. In 2013, approximately 27 percent of MWWD's water supply was imported from northern California.
- City of Upland: MWWD is a shareholder in the San Antonio Water Company and entitled to a portion of the company's water supply. MWWD currently receives this entitlement through a connection to Upland's water system. The source of Upland's water supply originates from local mountain and canyon runoff, groundwater, and imported water. In 2013, approximately 7 percent of MWWD's water supply was received from San Antonio Water Company through Upland's water system.

For more information about MWWD's water supply sources, visit [www.mwwd.org](http://www.mwwd.org) and follow the "Your Water" link.

## MWWD Water Treatment and Testing

State-of-the-art technologies are used to treat and test the water served to MWWD's customers. To ensure proper distribution, MWWD adds chlorine in the form of sodium hypochlorite, a chemical similar to household bleach, to the water supply produced by its groundwater wells. The chlorine kills harmful bacteria and viruses that might enter the system via a broken main or well contamination. Treated water from the Agua de Lejos Treatment Plant and the city of Upland distribution system is introduced directly into MWWD's distribution system.

Groundwater produced by MWWD's wells requires very minimal treatment prior to distribution. However, the groundwater basin from which MWWD draws water has areas of high concentrations of nitrates, a salt that at certain levels may pose a health risk to vulnerable populations (see below). One of MWWD's newest wells is equipped with an ion exchange treatment facility that removes nitrates from the pumped groundwater. MWWD also operates three nitrate denitrification facilities that ensure nitrate levels in water entering the distribution system meet drinking water requirements.

MWWD safeguards the distribution system by actively monitoring for 165 contaminants. MWWD collects water samples from sixteen State Department of Public Health approved locations evenly dispersed throughout our distribution system every week, as well as from each of the District's active wells each month.

## Your Drinking Water Sources

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

- Inorganic contaminants, such as salts and metals, that can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- Pesticides and herbicides, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- Radon, a naturally-occurring radioactive gas that can be present in groundwater.

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

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

Source water assessments were conducted in 2002 and 2008 to determine the contamination vulnerabilities of MWWD's active wells. The sources are considered most vulnerable to the following activities associated with contaminants detected in the water supply: high density housing and commercial complexes, parks and schools, graveyards, grazing, sewer collection systems, automobile body shops, and industrial sites. In addition, the sources are considered most vulnerable to these activities: gas stations, dry cleaners, mining operations, hospitals, parking and transportation, above ground storage tanks, and permitted waste discharges. You may request a summary of the assessment by contacting the California Department of Public Health sanitary engineer for MWWD at (909) 383-5289 or MWWD at (909) 624-0035.

## Stay Informed

MWWD encourages customers to stay informed by attending our regularly scheduled Board of Directors meetings, which are held on the 2nd and 4th Wednesdays of each month, 6:30 p.m., at MWWD's offices located at 10575 Central Avenue, Monrovia. Meeting agendas can be found on the MWWD website at [www.mwwd.org](http://www.mwwd.org). A time for public comment is included on each meeting's agenda.

## Questions?

If you have any questions regarding this report, please contact Henry Aceves, Water Systems Supervisor at (909) 624-0035.

## ? Necesita este informe traducido al español?

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien. Para conseguir copias de este informe traducidas al español, llame al (909) 624-0035 o visite [www.reporte.mwwd.org](http://www.reporte.mwwd.org).

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# 2013 Annual Water Quality Report

**MWWD General Manager**  
Mark Kinsey

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Manny Martinez, Director

**MWWD Board of Directors**  
Sandra S. Rose, President  
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## Welcome

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## Monitoring Requirements Not Met

MWWD is providing notification that procedural monitoring requirements were not met for three days in 2013.

## What Happened?

On Friday, June 7, 2013, the City of Chino Hills notified MWWD that a sample of water from Chino Hills's distribution system failed a coliform bacteria water quality test. A portion of Chino Hills's water supply is from MWWD groundwater wells. MWWD was required to take water quality samples from wells serving Chino Hills within 24 hours of receiving this notification. Samples were taken the following Monday, June 10, 2013, and showed no evidence of contamination. However, samples were not taken within 24 hours of the notification.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During the period between June 7 and June 10, 2013, we did not complete all monitoring or testing for coliform bacteria, and therefore, cannot be sure of the quality of your drinking water during that time.

Please note, Chino Hills's groundwater supply comes from multiple sources, including its own wells and the Chino Dissaler Authority. MWWD's weekly water quality sampling of our

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our distribution system showed no evidence of contamination. Also, MWWD maintains a residual chlorine level in our distribution system to kill any bacteria that might enter the system. Please see the "MWWD Water Treatment and Testing" section of this report for more information.

## What MWWD Is Doing to Correct This Situation?

MWWD immediately revised its notification procedures with Chino Hills to ensure that future water quality notices are delivered to at least three (3) MWWD staff members, including one in-person phone conversation with a member of the Operations Department.

## What Should You Do?

There is nothing you need to do at this time. This is a notice that procedural monitoring federal water quality standards. Please share this information with all the other people who drink this water, especially those who may not have received this public notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this public notice in a public place or distributing copies by hand or mail.

If you would like more information about this notice, please contact Henry Aceves, Water Systems Supervisor, at (909) 624-0035, or at 10575 Central Avenue, Monrovia, CA 91763.

# About Your Water

In 2013, MWW collected more than 2,200 water samples that were analyzed for 165 different contaminants. Only contaminants that were detected are included in the tables below. If a contaminant is not listed, it was not detected in 2013. 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.

**Table 1** lists contaminants regulated by Primary Drinking Water Standards. These standards have been developed to monitor contaminants that have been determined to pose a risk to health (see Key Terms).

**Table 2** lists contaminants regulated by Secondary Drinking Water Standards. Generally, these standards have been developed to address the aesthetic properties of drinking water. In addition to constituents regulated by secondary standards, we have included data regarding sodium and hardness, which may be of interest to consumers.

**Table 3** contains data on contaminants that are not regulated. Unregulated contaminant monitoring helps USEPA and the California Department of Public Health to determine where certain contaminants occur and whether the contaminants need to be regulated.

## Water Quality Data Tables

Table 1: Parameter	Units	Primary MCL [MRDL]	PHG (MCLG) [MRDLG]	Range	Avg.	Major Sources in Drinking Water
<b>INORGANIC &amp; ORGANIC CHEMICALS, sampled in year 2013</b>						
Aluminum	ppb	1000	600	ND - 131	38.22	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic	ppb	10	0.004	ND - 5.9	3.13	Erosion of natural deposits; runoff from orchards, glass and electronics production waste
Barium	ppb	1000	2000	ND - 64	33.82	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Chromium	ppb	50	160	ND - 6.6	3.63	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Dibromochloropropane (DBCP)	ppt	200	1.7	ND - 110	10.47	Banned nematocide that still may be present in soils due to runoff/leaching
Fluoride (naturally occurring)	ppm	2	1	ND - 0.18	0.12	Erosion of natural deposits; discharge from aluminum and fertilizer factories
Lead	ppb	AL = 15	0.2	ND - 0.5	0.00	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Nitrate (as NO <sub>3</sub> )	ppm	45	45	1.8 - 39	16.88	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Perchlorate	ppb	6	6	ND - 5	0.37	Historic aerospace uses or industrial operations
Trichloroethylene (TCE)	ppb	5	1.7	ND - 0.58	0.06	Discharge from metal degreasing sites and other factories
<b>DISINFECTION BY-PRODUCTS (DBP), sampled in year 2013</b>						
Chlorine	ppm	4	4	0.04 - 1.46	0.81	Drinking water disinfectant added for treatment
Control of DBP Precursors (TCO)	ppm	TT	N/A	TT	TT	Various natural and man-made sources
Haloacetic Acids	ppb	60	N/A	ND - 14	8	By-product of drinking water disinfection
Total Trihalomethanes	ppb	80	N/A	ND - 72	57	By-product of drinking water disinfection
<b>RADIOLOGICALS, sampled in years 2010 - 2012</b>						
Gross Alpha	pCi/L	15	0	ND - 4.4	0.081	Erosion of natural deposits
Gross Beta	pCi/L	50	0	ND - 4	ND	Decay of natural and man made deposits
Uranium	pCi/L	20	0.43	ND - 1	0.15	Erosion of natural deposits
<b>MICROBIOLOGICAL, sampled in year 2013</b>						
Total Coliform Bacteria	% positive	Less than 5	0	ND - 1	0.12%	Naturally present in the environment
<b>LEAD &amp; COPPER, measured at the consumer's tap in 2013</b>						
Copper	ppm	AL = 1.3	0.3	30 samples, 0 sites above AL	90%	Internal corrosion of household plumbing; erosion of natural deposits; leaching from wood preservatives
Lead	ppb	AL = 15	0.2	30 samples, 0 sites above AL	90% 1.1	Internal corrosion of household plumbing; erosion of natural deposits; discharges from industrial manufacturers

Table 2: Parameter	Units	Secondary MCL	Range	Avg.	Major Sources in Drinking Water
<b>SECONDARY STANDARDS - Aesthetic Standards, plus sodium and hardness, sampled in year 2013</b>					
Aluminum	ppb	200	ND - 110	18.34	Residue from from water treatment process; erosion of natural deposits
Chloride	ppm	500	6.2 - 52	22.9	Runoff/leaching from natural deposits; seawater influence
Color	UNT	15	ND - 3	0.03	Naturally-occurring organic materials
Copper	ppm	1	ND - 8.3	0.08	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Hardness (CaCO <sub>3</sub> ) (Total Hardness)	ppm	N/A	100 - 230	127.3	Leaching from natural deposits
Iron	ppm	300	ND - 79	0.77	Leaching from natural deposits; industrial wastes
Manganese	ppb	50	ND - 2.8	0.03	Leaching from natural deposits
Odor Threshold	TGN	3	ND - 2	1.09	Naturally occurring organic materials
Sodium	ppm	N/A	16 - 65	41.10	Runoff/leaching from natural deposits; seawater influence
Specific Conductance	µS/cm	1600	360 - 570	454.8	Substances that form ions when in water; seawater influence
Sulfate	ppm	500	23 - 58	40.98	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids	ppm	1000	220 - 350	257.6	Runoff/leaching from natural deposits
Turbidity	NTU	5	0.08 - 1.5	0.21	Soil runoff

Table 3: Parameter	Units	Notification Level	Range	Avg.	Major Sources in Drinking Water
<b>UNREGULATED CHEMICALS, sampled in 2010 - 2012</b>					
Boron	ppb	1000	ND - 108	15.3	Runoff/leaching from natural deposits; industrial wastes
Chromium VI (Hexavalent Chromium)	ppb	NA	ND - 7	3.34	Industrial wastes; could be naturally present as well
Vanadium	ppb	50	0.59 - 15	9.06	Naturally occurring; industrial waste discharge

## Key Terms

Below are terms to assist consumers in understanding this report:

- ◆ **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.
- ◆ **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.
- ◆ **Primary Drinking Water Standard (PDWS):** MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
- ◆ **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 drinking water disinfectant 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.
- ◆ **Regulatory Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- ◆ **Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.

## Acronyms

- ◆ **ppm:** Parts per million, equivalent to one second in 11.5 days.
- ◆ **ppb:** Parts per billion, equivalent to one second in 31.7 years.
- ◆ **ppt:** Parts per trillion, equivalent to one second in 317.1 centuries.
- ◆ **pCi/L:** Picocuries per liter, a measure of radioactivity
- ◆ **TON:** Threshold odor number, a number indicating the greatest dilution of a water sample.
- ◆ **ND:** Monitored for but not detected.
- ◆ **NTU:** Nephelometric turbidity unit, the cloudiness in a water sample.
- ◆ **µS/cm:** Micro Siemens per Centimeter.

## Public Health Information

**Nitrate** in drinking water at levels above 45 ppm is a health risk for infants of less than 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.

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. MWW 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 State Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

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 State Drinking Water Hotline (1-800-426-4791).