



CONSUMER CONFIDENCE REPORT 2012

ADELANTO WATER AUTHORITY ANNUAL WATER QUALITY REPORT July 1, 2013

I. SOURCE OF DRINKING WATER SUPPLY

About 5.3 million gallons of water is pumped daily from a combination of ten (10) of the City's active wells. Wells include 1G, 2, 3G2, 4, 4G, 5A, 6, 7, 8G2 and 14A. The City of Adelanto pumps water from underground storage areas called aquifers located within the City and along the Mojave River. These aquifers are recharged naturally by rainfall and snowmelt and artificially from the State Water Project; you are asked to use only what you require; do not waste water by over watering lawns, failing to repair faulty sprinkler systems, etc. Replace high usage plumbing devices with low flow devices, high efficiency toilets, washing machines and hot water heaters. An emergency intertie connection with the City of Victorville exists for backup or emergency needs. During 2012, the City did not utilize this intertie connection.

II. WATER QUALITY REGULATIONS

Water quality regulations are strictly enforced on a state and federal level. The State of California Department of Public Health (CDPH) (formerly California Department of Health Services (DHS)) monitors all listed contaminants plus bacteriological samples taken on a weekly basis.

III. WATER QUALITY CONTROL

Before the water reaches your tap, samples from wells and 30 individual locations throughout the City have been collected and tested in State certified laboratories. You will find a listing of chemicals found in our water supply that were above California's Detection Limits for the purposes of reporting. If you have any questions please feel free to call the Director of the Adelanto Public Utility Authority, at (760) 246-2300.

IV. SOURCE WATER ASSESSMENTS

In the year 2001 the CDPH conducted a source water assessment of all 15 of the City's water wells. The purpose of the assessment was to determine the vulnerability of the wells to "possible contaminating activities." At this time no treatment is required for Nitrate since the level is below the respective MCL (45 mg/L). A copy of the complete assessment may be viewed at the City of Adelanto Water Department or at the CDPHS San Bernardino District Office, 464 W. Street, Suite 437, San Bernardino, CA 92401.

V. HOME FILTERS AND BOTTLED WATER

Bottled water or systems that filter tap water may be purchased from commercial vendors. While most vendors use ethical sales methods, some capitalize on health fears and use misleading information designed to convince you your tap water is harmful. These activities are illegal in California. Be suspicious of scare or hard sell tactics. While these devices may improve the taste and/or appearance of your water, remember no additional treatment of your water is necessary to ensure its safety.

VI. PUBLIC PARTICIPATION

City Council meetings are held on the 2nd and 4th Wednesdays of each month at 7:00 p.m. at City Hall, 11600 Air Expressway. The public is invited to voice their concerns or comments concerning the water at this meeting.

VII. CONTACT INFORMATION

Questions concerning this report may be directed to the Director of Public Utilities, John R. Sponsler (760)246-2300.

WATER AND DRINKING WATER INFORMATION

Terms used in 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 of health. PHGs are set by the California Environmental Protection Agency.
- **Maximum Residual Disinfectant Level (MRDL):** The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.
- **Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the U.S. Environmental Protection Agency.
- **Primary Drinking Water Standard (PDWS):** MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
- **Secondary Drinking Water Standards (SDWS):** MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.
- **Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.
- **Regulatory Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- **Variations and Exemptions:** Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.
- **ND:** not detectable at testing limit.
- **ppm:** parts per million or milligrams per liter (mg/L).
- **ppb:** parts per billion or micrograms per liter (ug/L)
- **ppt:** parts per trillion or nanograms per liter (ng/L).
- **pCi/L:** picocuries per liter (a measure of radiation)
- **MFL:** million fibers per liter. MCL for fibers exceeding μm in length.

EDUCATIONAL INFORMATION
Additional General Information on 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 (1-800-426-4791). 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 (1-800-426-4791).

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, which 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 byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.
- In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the California Department of Health Services (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 must provide the same protection for public health.

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. The City of Adelanto 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 <http://www.epa.gov/safewater/lead>.

Water Conservation Tips for Consumers

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference – try one today and soon it will become second nature.

- Take short showers! A 5 minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair and shaving and save up to 500 gallons a month.
- Use a water-efficient showerhead. They provide a strong spray while saving water – and the energy needed to heat the water.
- Use full loads in dishwashers and clothes washing machines. You can save up to 1,000 gallons a month.
- Fix leaking toilets and faucets! Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust lawn sprinklers to water plants ONLY – not sidewalks, driveways, patios, or streets. Maintain your sprinkler heads and valves to avoid creating hazards on sidewalks and streets.

Table 1 – SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA

Microbiological Contaminants	Highest No. of detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria	Health Effects Language
*Total Coliform Bacteria ≤40 Samples/Month (Present/Absent)	0	0	More than 1 sample in a month with a detection	0	Normally present in the environment.	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.
Fecal Coliform or <i>E. coli</i>	0	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or <i>E. coli</i>	0	Human and animal fecal waste	Fecal coliforms and <i>E. coli</i> are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems.

Table 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER

Lead and Copper	No. of samples collected (date)	90 th percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant	Health Effects Language
Lead (ppb)	32 (2012)	ND	0	.015 ppb	2 ppb	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits	Infants and children who drink water containing lead in excess of the action level may experience delays in their physical or mental development. Children may show slight deficits in attention span and learning abilities. Adults who drink this water over many years may develop kidney problems or high blood pressure.
Copper (ppm)	32 (2012)	1.1 ppm	1	1.3 ppm	0.3 ppm	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time may experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years may suffer liver or kidney damage. People with Wilson's disease should consult their personal doctor.

Table 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS

Chemical or Constituent	Most Recent Sample Date	Range of Detection	Average Level	MCL	PHG (MCLG)	Typical Source of Contaminant	Health Effects Language
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Sodium (ppm)	2012	38 - 68	59	None	None	Generally found in ground & surface water	None
Hardness (ppm)	2012	56 - 170	93	None	None	Generally found in ground & surface water	None

Table 4 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical or Constituent	Most Recent Sample Date	Range of Detections	Average Level	MCL	PHG (MCLG) (MRDLG)	Typical Source of Contaminant	Health Effects Language
Arsenic (ppb)	2012	ND – 5.1	2.5	10 ppb	0.004 ppb	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes	Some people who drink water containing arsenic in excess of the MCL over many years may experience skin damage or circulatory system problems, and may have an increased risk of getting cancer.
Fluoride (ppm) naturally occurring	2012	.32 – 2.1	.69	2.0 ppm	1.0 ppm	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories	Some people who drink water containing fluoride in excess of the federal MCL of 4 mg/L over many years may get bone disease, including pain and tenderness of the bones. Children who drink water containing fluoride in excess of the state MCL of 2 mg/L may get mottled teeth.

Table 5 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

Chemical or Constituent	Most Recent Sample Date	Range of Detection	Average Level	Secondary MCL	PHG (MCLG)	Typical Source of Contaminant	Health Effects Language
Iron	2012	ND – 280	87	300 ppb	n/a	Leaching from natural deposits; industrial wastes	
Odor-Threshold	2012	1	1	3 Units	n/a	Naturally-occurring organic materials	
Turbidity	2012	ND – 1.8 NTU	.5 NTU	5 NTU	n/a	Soil runoff	
Total Dissolved Solids	2012	200 – 680	364	1000 ppm	n/a	Runoff/leaching from natural deposits	
Specific Conductance (μ S/cm)	2012	340 - 1100 μ S/cm	577 μ S/cm	1,600 μ S/cm	n/a	Substances that form ions when in water; seawater influence	
Chloride	2012	2.4 – 100	28	500 ppm	n/a	Runoff/leaching from natural deposits; seawater influence	
Sulfate	2012	66 – 270	150	500 ppm	n/a	Runoff/leaching from natural deposits; industrial wastes	

Table 6 – DETECTION OF UNREGULATED CONTAMINANTS

Chemical or Constituent	Most Recent Sample Date	Notification Level	PHG (MCLG)	Range of Detection		Health Effects Language
Vanadium (ppb)	2011	50	n/a	ND – 19 ppb		The babies of some pregnant women who drink water containing vanadium in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals.

Table 7 – Disinfection Byproducts

Chemical or Constituent	Most Recent Sample Date	Primary MCL	PHG	Range of Detection (μ g/L)	Typical Source of Contaminant	Health Effects Language
Total Trihalomethanes (TTHM) (μ g/L)	2012	80	n/a	11.4 – 22.0	By-product of drinking water chlorination	Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer.

Haloacetic Acid (HAA5) (ug/L)	2012	60	n/a	3.9 – 7.5	By-product of drinking water disinfection	Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.
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* Any violation of an MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

Summary Information for Contaminants Exceeding an MCL, MRDL, or AL, or a Violation of Any Treatment Technique or Monitoring and Reporting Requirement

Arsenic levels in well #8A and Well #4 were found to exceed the EPA maximum contaminant level of 10 ppb (0.010 ppm); Well #8A was physically disconnected from service. Well #4 water is being blended with well waters with low levels of Arsenic to produce finished water below the MCL for Arsenic. A blending plan for Arsenic was submitted to CDPH in 2011.

While your drinking water meets the federal and state standard for arsenic, it does 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.

Water blending is required for Fluoride adjustment from wells 4, 5A and 8A and filtration treatment is required for Iron and Manganese for wells 1G, 2G, 3G, 4G, 5G, 6G and 8G. CDPH approved Fluoride blending in 2005.

No Habla Inglés? “Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.”

