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## ANNUAL WATER QUALITY REPORT 2014

ADELANTO WATER AUTHORITY  
 Consumer Confidence Report  
 July 1, 2015

### 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, 3G2, 4, 4G, 5A, 6, 7, 8G2, 14A and 15. Water is pumped 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; an emergency source connection with the City of Victorville exists for backup or emergency needs.



### 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.

### 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. In this report, we summarize the extensive certified third-party laboratory data and test results in a simple manner to inform our customers of the exceptionally high quality drinking water we provide.

### 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.” 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.

### PUBLIC PARTICIPATION

As always the public is welcome to attend and encouraged to participate in water related discussions. City Council meetings are held on the 2<sup>nd</sup> and 4<sup>th</sup> Wednesdays of each month at 7:00 p.m. at City Hall, 11600 Air Expressway.

### CONTACT INFORMATION

Questions concerning this report may be directed to Rich Buday, Water Superintendent at (760) 246-2300.

## EDUCATIONAL INFORMATION

### Additional General Information on Drinking Water

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 storm water 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 storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water 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.



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).

### 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  $\mu\text{m}$  in length.
- **N/A:** Not Applicable
- **Notification Level (NL):** Notification levels are health-based advisory levels established by CDPH for chemicals in drinking water that lack maximum contaminant levels (MCLs).
- **$\mu\text{mho}$ :** Microohms

# CITY OF ADELANTO 2014 WATER QUALITY REPORT

## Primary Standards: Mandatory Health-Related Standards

CONTAMINANT	MCL	PHG (MCLG)	AVERAGE	RANGE	SOURCES IN DRINKING WATER
Arsenic (ppb)	10	0.004	0.48	ND-10	Erosion of natural deposits
Flouride (ppm)	2	1	0.55	0.29-2.1	Naturally Present in environment
Barium (ppm)	1	2	ND	ND	Erosion of natural deposits
Gross Alpha (pCi/L)	15	0	2.66	0.99-15	Erosion of natural deposits
Total Trihalomethanes "TTHMs" (ug/L)	80	N/A	29.47	10.2-48	By-product of drinking water disinfection
Haloacetic Acid "HAAS" (ug/L)	60	N/A	6.32	1.1-11.6	By-product of drinking water disinfection
UNREGULATED CONTAMINANT	NOTIFICATION LEVEL	PHG (MCLG)	AVERAGE	RANGE	SOURCES IN DRINKING WATER
Vanadium (ppb)	50	N/A	13.25	5.5-21	

## Secondary Standards

### Aesthetic Standards

CONTAMINANT	MCL	AVERAGE	RANGE	SOURCES IN DRINKING WATER
Bicarbonate Alkalinity (ppm)	N/A	110	110-210	Naturally present in environment
Calcium	N/A	16	16-54	Naturally present in environment
Chloride (ppm)	500.0	75	13-160	Naturally present in environment
Color (units)	15.0	0	0	Naturally present in environment
Odor Threshold (units)	3.0	1	1	Naturally present in environment
Hardness (CaCO3)	N/A	96	52-180	Naturally present in environment
Iron (ppm)	300.0	0.02	ND-20	Naturally present in environment; industrial waste
Manganese (ppm)	0.1	0.047	ND-1.4	Naturally present in environment
ph Units	N/A	7.56	7-8.6	Naturally present in environment
Clarity "turbidity" (NTU)	5.0	0.2	0-0.77	Naturally present in environment
Sodium (ppm)	N/A	133	53-360	Naturally present in environment
Specific Conductance (µmho)	1600.0	856	340-1600	Substances from ions in water
(ppm)	250.0	174	56-400	Naturally present in environment
Zinc (ppm)	5.0	0.017	ND-0.05	Naturally present in environment

### Detection of Coliform Bacteria

MICROBIOLOGICAL CONTAMINANT	MCL	HIGHEST NO. OF DETECTIONS	MONTHS IN VIOLATION	SOURCES IN DRINKING WATER
*Total Coliform Bacteria ≤ 40 Samples/Month (Present/Absent)	More than 1 sample in a month with a detection	1	0	Normally present in the environment

### Lead and Copper

CONTAMINANT	Sample Date	No. of samples collected	90 <sup>th</sup> percentile level detected	No. sites exceeding AL	AL	PHG	SOURCES IN DRINKING WATER
Copper (ppb)	9/20/2012	32	1.0	0	1.3	0.3	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

**Emergency Source  
City of Victorville  
Water Quality 2014**

<b>Table 1 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD</b>					
<b>Chemical or Constituent</b>	<b>Range of Detections</b>	<b>Average Level</b>	<b>MCL</b>	<b>PHG (MCLG) (MRDLG)</b>	<b>Typical Source of Contaminant</b>
Arsenic (ppb)	0 - 10	4.72	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Chromium (ppb)	0-12	5.43	50	(100)	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Fluoride (ppm)	0-3.50	0.64	2.0	1	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (as No3) (ppm)	0-12.0	3.94	45	45	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits

<b>Table 2 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD</b>					
<b>Chemical or Constituent</b>	<b>Range of Detection</b>	<b>Average Level</b>	<b>Secondary MCL</b>	<b>PHG (MCLG)</b>	<b>Typical Source of Contaminant</b>
Chloride (ppm)	1.8-49.0	8.5	500	N/A	Runoff/leaching from natural deposits; seawater influence
Specific Conductance (µmho)	180-550	264	1600	N/A	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2.7-150	21.07	500	N/A	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	94-350	176	1000	N/A	Runoff/leaching from natural deposits
Turbidity (NTU)	0-4.7	0.4	5	N/A	Soil runoff

<b>Table 4 – SAMPLING RESULTS FOR SODIUM AND HARDNESS</b>					
<b>Chemical or Constituent</b>	<b>Range of Detection</b>	<b>Average Level</b>	<b>MCL</b>	<b>PHG (MCLG)</b>	<b>Typical Source of Contaminant</b>
Sodium (ppm)	20-72	47.54	None	None	Naturally occurring mineral found in ground & surface water
Hardness (ppm)	0-170	27.87	None	None	Generally found in ground & surface water

**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 4 were found to exceed the EPA maximum contaminant level of 10 ppb (0.010 ppm); 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 2013.

Water blending is required for Fluoride adjustment from wells 4 and 5A. Filtration treatment is required for Iron and Manganese for wells 1G, 3G2, 4G, and 8G2. CDPH approved Fluoride blending in 2005.

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.

## IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Este informe contiene información muy importante sobre su agua potable.  
Tradúzcalo o hable con alguien que lo entienda bien.

### Monitoring Requirements Not Met for City of Adelanto

Our water system failed to monitor as required for drinking water standards during the past year and, therefore, was in violation of the regulations. Even though this failure was not an emergency, as our customers, you have a right to know what you should do, what happened, and what we did to correct this situation.

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 our drinking water meets health standards. During 2014, we did not complete all monitoring for Nitrate and therefore, cannot be sure of the quality of our drinking water during that time.

#### What should I do?

- There is nothing you need to do at this time
- The table below lists the contaminant we did not properly test for during the last year, how many samples we are required to take and how often, how many samples we took, when samples should have been taken, and the date on which follow-up samples were taken.

Contaminant	Required Sampling Frequency	Number of Samples Taken	Number of delinquent sample	When All Samples Should Have Been Taken	When Delinquent Samples Were Taken
Nitrate	One (1) Annual Sample per Well (10)	Five (5)	Five (5)	2014	*6/2/2015

\* Nitrate Sample results for two of the three delinquent wells was "Non-detect". One well remains unsampled due to maintenance issues of the well. Nitrate sampling met water quality standards. The delinquent wells ran for a total of 271 days (Well 6), 352 days (Well 7), 298 days (Well 8G2), and 362 days (Well 1G).

- If you have other health issues concerning the consumption of this water, you may wish to consult your doctor.

## **What happened? What is being done?**

Nitrate samples are required to be taken annually from source water wells used for potable water consumption. During 2014 5 of the ten wells were sampled for Nitrate; five were not. These five wells are utilized intermittently during the year on an as needed basis; one well was out of service for maintenance issues and is still out of service so samples were not taken from this well. The remaining 4 wells were not sampled due Staff's failure to properly adhere to the sampling frequency.

One well remains out of service for maintenance and will be sampled when the well is returned to service. The remaining 4 wells were sampled on June 2, 2015. **The results from Nitrate sampling was "Non-detect" respectively for these wells. Nitrate sampling met water quality standards.**

For more information, please contact Mr. Thomas Thornton; (Public Utilities Director) at 760-246-2300; Ext: 3025 or at 11600 Air Expressway, Adelanto, CA 92301.

## **Secondary Notification Requirements**

Upon receipt of notification from a person operating a public water system, the following notification must be given within 10 days [Health and Safety Code Section 116450(g)]:

- **SCHOOLS:** Must notify school employees, students, and parents (if the students are minors).
- **RESIDENTIAL RENTAL PROPERTY OWNERS OR MANAGERS** (including nursing homes and care facilities): Must notify tenants.
- **BUSINESS PROPERTY OWNERS, MANAGERS, OR OPERATORS:** Must notify employees of businesses located on the property.

This notice is being sent to you by the City of Adelanto

State Water System ID#: 3610001. Date distributed: \_\_\_\_\_.