



# City of Adelanto

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## CONSUMER CONFIDENCE REPORT 2010

### ADELANTO WATER AUTHORITY ANNUAL WATER QUALITY REPORT

July 1, 2011

#### I. SOURCE OF DRINKING WATER SUPPLY

About 5.3 million gallons of water is pumped daily, from a combination of eleven (11) of the City's wells. Wells include 1G, 2, 3G2, 4, 4G, 5A, 6, 7, 8A, 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 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.

#### 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 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). 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. Arsenic levels in well 8A were found to exceed the EPA maximum contaminant level of 0.010 ug/L; the well is off until treatment or blending can be approved. 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 2<sup>nd</sup> and 4<sup>th</sup> Wednesday 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.
- **Variances 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 *um* 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.

- o In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the State 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.

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	
Table 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER						
Lead and Copper	No. of samples collected (date)	90 <sup>th</sup> percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb)	30 (2009)	ND	0	.015 mg/L	2 ppb	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	30 (2009)	.92 mg/L	0	1.3 mg/L	0.17 mg/L	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Table 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS						
Chemical or Constituent	Most Recent Sample Date	Range of Detection	Average Level (mg/L)	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	2010	100 – 120	110	None	None	Generally found in ground & surface water
Hardness (ppm)	2010	130– 140	135	None	None	Generally found in ground & surface water
Table 4 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD						
Chemical or Constituent	Most Recent Sample Date	Range of Detections	Average Level (mg/L)	MCL (mg/L)	PHG (MCLG) (MRDLG)	Typical Source of Contaminant
Aluminum (mg/L)	2010	ND	ND	1.0	0.6 mg/L	Erosion of natural deposits; residue from some surface water treatment processes
Antimony (ppb)	2010	ND	ND	0.006	0.002 ppb	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic (ppb)	2010	.005 - ND	.005	0.010	0.004 ppb	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (mg/L)	2010	ND - .06	.06	1.0	2.0 mg/L	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Beryllium (ppb)	2010	ND	ND	0.004	0.001 ppb	Discharge from metal refineries, coal-burning factories, and electrical, aerospace, and defense industries
Cadmium (ppb)	2010	ND	ND	0.005	0.004 ppb	Internal corrosion of galvanized pipes; erosion of natural deposits; discharge from electroplating and industrial chemical factories, and metal refineries; runoff from waste batteries and paints
Chromium (ppb)	2010	ND	ND	0.05	(100 ppb)	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Cyanide (ppb)	2009	ND	ND	0.15	150 ppb	Discharge from steel/metal, plastic, and fertilizer factories
Fluoride (ppm)	2010	.38 – 1.65	.99	2.0	1.0 mg/L	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Mercury (ppb)	2010	ND	ND	0.002	1.2 ppb	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills and cropland
Nickel (ppb)	2010	ND	ND	0.1	12 ppb	Erosion of natural deposits; discharge from metal factories
Nitrate (as Nitrate) (mg/L)	2010	ND – 2.4	.525	45.0	45 mg/L	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage;

						erosion of natural deposits
Nitrate+Nitrite (sum as Nitrogen) (mg/L)	2010	ND - .550	.550	1.0	1 mg/L as Nitrogen	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Perchlorate (ppb)	2010	ND	ND	0.006	6.0 ppb	Perchlorate is an inorganic chemical used in solid rocket propellant, fireworks, explosives, flares, matches, and a variety of industries. It usually gets into drinking water as a result of environmental contamination from historic aerospace or other industrial operations that used or use, store, or dispose of perchlorate and its salts
Selenium (ppb)	2010	ND	ND	0.05	(50 ppb)	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)
Thallium (ppb)	2010	ND	ND	0.002	0.1 ppb	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories

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

Chemical or Constituent	Most Recent Sample Date	Range of Detection	Average Level (mg/L)	Secondary MCL	PHG (MCLG)	Typical Source of Contaminant
Color	2010	<3 - 10	4.25	15 Units	n/a	Naturally-occurring organic materials
Foaming Agents (MBAS)	2010	ND	ND	0.5 mg/L	n/a	Municipal and industrial waste discharges
Iron	2010	ND - .270	.270	0.3 mg/L	n/a	Leaching from natural deposits; industrial wastes
Manganese	2010	ND	ND	0.05 mg/L	n/a	Leaching from natural deposits
Odor-Threshold	2010	1	1	3 Units	n/a	Naturally-occurring organic materials
Silver	2009	ND	ND	0.1 mg/L	n/a	Industrial discharges
Turbidity	2010	<.1 - .5	.25	5 NTU	n/a	Soil runoff
Zinc	2010	ND - .1600	.1600	5.0 mg/L	n/a	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids	2010	360 - 450	410	1000 mg/L	n/a	Runoff/leaching from natural deposits
Specific Conductance	2010	540 - 710	625	1,600 $\mu$ S/cm	n/a	Substances that form ions when in water; seawater influence
Chloride	2010	34 - 58	49	500 mg/L	n/a	Runoff/leaching from natural deposits; seawater influence
Sulfate	2010	92 – 110	104	500 mg/L	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
Boron ( $\mu$ g/L)	2010	1000	n/a	100 - 580
Vanadium ( $\mu$ g/L)	2010	50	n/a	ND – 3.8

**Table 7 – Disinfection Byproducts**

Chemical or Constituent	Most Recent Sample Date	Primary MCL	PHG	Range of Detection ( $\mu$ g/L)	Typical Source of Contaminant
Total Trihalomethanes (TTHM) ( $\mu$ g/L)	2010	80	n/a	17.3 – 26.6	By-product of drinking water chlorination
Haloacetic Acid (HAA5) ( $\mu$ g/L)	2010	60	n/a	4.6 – 5.3	By-product of drinking water disinfection

\* 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

Total coliform bacteria exceeded the Maximum Contaminant Level in September and October of 2008. A notice was mailed to Adelanto residents describing the possible reasons for the exceedance. There were no further violations during the year.

No Habla Inglés?

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