# Information about your drinking water

**2008 Water Quality Report**

# Drinking water news . . .

We know the quality of your drinking water is important to you and we take drinking water regulations very seriously. Every year, thousands of water samples are collected to monitor the quality of water delivered to your tap. The Albuquerque Bernalillo County Water Utility Authority is proud that our drinking water continues to meet all federal and state drinking water quality standards – without exception – since the U.S. Environmental Protection Agency (USEPA) Safe Drinking Water Act was passed in 1974.

Inside this report you'll find accurate information about:

- your drinking water from source to tap
- completion of the San Juan-Chama Drinking Water Project
- compliance with the arsenic standard
- arsenic concentrations throughout the water system
- pilot drinking water plant monitoring results

*The Water Authority Water Quality Laboratory provides analytical services for water and wastewater operations. Above, a laboratory analyst prepares to analyze samples.*

***This report can be downloaded in English or Spanish from our web page at www.abcwua.org. There you'll find additional information about the quality of water delivered to your home. For assistance in interpreting this report, please call the Water Quality Information Line at 857-8260 or use the links on our web page to send us e-mail at waterquality@abcwua.org.***


Albuquerque Bernalillo County
Water Utility Authority

P.O. Box 1293 Albuquerque NM 87103


*The Albuquerque Bernalillo County Water Utility Authority is a joint agency of the City of Albuquerque and the County of Bernalillo that administers the water and wastewater utility for all of Albuquerque and Bernalillo County. The New Mexico State Legislature created the Albuquerque Bernalillo County Water Authority in June of 2003.*



*Monthly board meetings are held at the Vincent E. Griego Joint Chambers of the Albuquerque Bernalillo County Government Center. Meeting schedules and agendas are available at http://www.abcwua.org.*


Design and graphics by Jan Underwood, Information Illustrated

# Our Drinking Water Sources: The Sustainable Solution

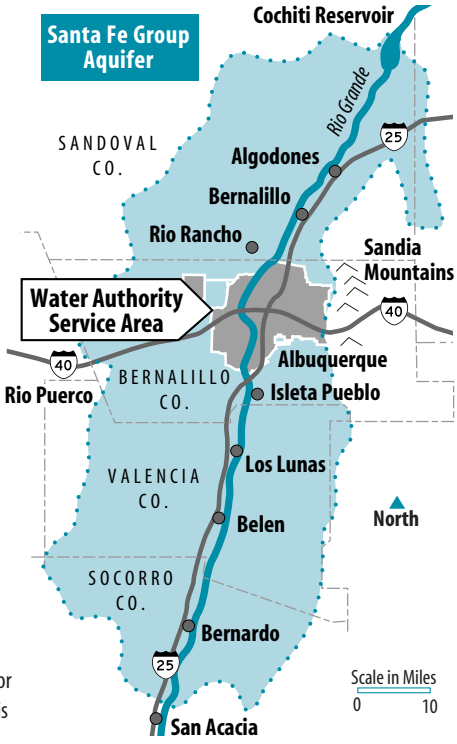
## The Ground Water Legacy

For many years, ground water pumped from the Santa Fe Group Aquifer has been our only water supply source. In 2008, some 90 wells pumped a total of 31.9 billion gallons of water.

The Water Authority monitors both the water level and the water quality in each well. Water level measurements have shown significant decline in some parts of the aquifer. Continued pumping at current rates could damage the aquifer itself and cause subsidence in some areas. Studies have shown that only about half of the water pumped from the aquifer is being replenished; the rest is "mined" – lost forever.

Water conservation efforts have helped. Thanks to our customers, we are experiencing the lowest per person consumption rate (161 gallons per day) on record.

Water Quality Specialists collect samples each year from every well to monitor the chemical and biological characteristics of the wells. While water quality in a single well does not vary much from year to year, water quality in wells in different parts of the aquifer can vary significantly. Water quality in wells near known or suspected soil or ground water contamination is monitored more frequently.




*The Santa Fe Group Aquifer stretches from Cochiti Reservoir on the north to San Acacia on the south and from the Sandia Mountains on the east to (and beyond) the Rio Puerco on the west.*

## Water Quality Protection

The Water Authority, the City of Albuquerque, and Bernalillo County have worked together for many years to find and clean up contaminated ground water and promote coordinated protection and prudent use of ground water throughout the region. The Groundwater Protection Policy and Action Plan (GPPAP) defines ground water protection activities. The GPPAP is being updated and expanded to incorporate surface water protection goals, policies, and objectives. Call 768-3633 for meeting schedules and educational materials.

### NMED Source Water Assessment

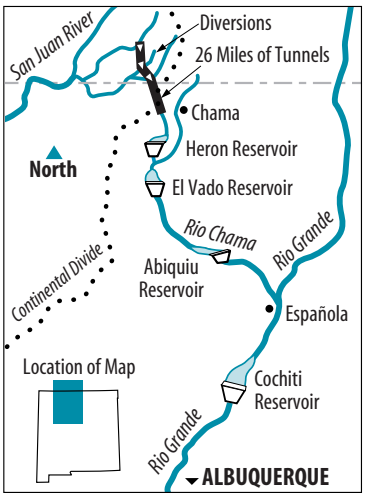
In 2002, the New Mexico Environment Department (NMED) conducted a Source Water Assessment to determine each well's susceptibility to contamination. NMED reported that the wells are generally protected from potential sources of contamination. To request a copy of the Source Water Assessment, contact NMED Drinking Water Bureau in Santa Fe toll free at 1-877-654-8720. Reference the Albuquerque Water System, number 10701.

## The San Juan-Chama Drinking Water Project

A Grand Opening ceremony in December 2008 marked the completion of the San Juan-Chama Drinking Water Project. For the first time, treated surface water was pumped into the distribution system to be delivered to customer taps.

The surface water treatment plant will initially supply about 25 percent of our drinking water. Throughout 2009, the amount of surface water will be gradually increased. Eventually, 70-90 percent of the drinking water supply will be surface water. Customers will continue to receive high quality drinking water, while we transition to a sustainable water supply source. Water quality results for the surface water treatment plant will be included in next year's report.

Reducing dependence on the aquifer will allow it to recover, enabling us to draw from it as a drought reserve in times of minimal precipitation.




Find more information on the Drinking Water Project at **www.abcwua.org**

***WHAT THE USEPA SAYS ABOUT DRINKING WATER CONTAMINANTS***

*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 U.S. Environmental Protection Agency's (USEPA) Safe Drinking Water Hotline (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 human activity.*

*Contaminants in drinking water sources may include:*

- ***Microbial contaminants,*** *such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.*
- ***Inorganic contaminants,*** *such as salts and metals, which can be naturally-occurring or result from urban stormwater 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, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, 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, USEPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.*

# Surface Water Treatment Plant Complete

**Construction of the Water Authority's surface water treatment plant, cornerstone of the San Juan-Chama Drinking Water Project, was completed in late 2008. The plant started treating surface water in December, and is currently providing about 25 percent of the Albuquerque area's drinking water.**

The plant uses a series of chemical and mechanical processes to remove sediment and other contaminants from San Juan-Chama water drawn from the Rio Grande. This is state-of-the-art technology designed to treat up to 92 million gallons per day.

As was done for the Pilot Treatment Plant (see below and on page 4), the finished water produced at the surface water treatment plant is routinely monitored for compliance with state and federal drinking water quality standards. Next year's Water Quality Report will include that information.

Besides the surface water treatment plant, other features of the $400 million San Juan-Chama Drinking Water Project include:

- An adjustable height **diversion dam** and intake structure.
- Funding of programs to preserve the endangered Rio Grande Silvery Minnow and its habitat, and inclusion of **fish screens** and passages at the diversion site to minimize Project impacts on fish populations.
- A **raw water pump station**.
- Eight miles of **raw water pipeline** to transport water from the raw water pump station.
- 38 miles of distribution **pipeline** (including crossing the river).

*Fish passage at diversion.*

*The surface water treatment plant.*

## Find more information on the Drinking Water Project at **www.abcwua.org**

*An independent expert review of the plant and its capabilities may be viewed at http://www.abcwua.org/content/view/371/378/*

*The raw water pump station.*

*Water intake structure with fish screens.*

# The Pilot Drinking Water Treatment Plant

As part of the San Juan-Chama Drinking Water Project, the Water Authority operated a Pilot Drinking Water Treatment Plant from 2007 through early 2008. Located near the Alameda Bridge on the banks of the Rio Grande, the Pilot Treatment Plant was housed in a trailer and contained all of the equipment and water treatment processes that are found in the full-sized plant.

The quality of raw surface water diverted from the river and the quality of the finished water produced by the Pilot Treatment Plant were routinely monitored. Testing of more than 500 samples confirmed that the finished water met all federal and state drinking water quality standards.

USEPA sets regulations that limit the amount of certain substances in drinking water. For surface water, USEPA also requires that specific treatment techniques (TT) are used and that they are shown to be effective.

The table on the following page shows substances found in compliance monitoring for the finished water at the Pilot Treatment Plant. A list of regulated substances that we test for and have not detected is also included (see page 8).

An analysis of the treatment process by a water treatment expert from the University of New Mexico concluded that the treatment process in use at the Pilot Treatment Plant was, indeed, state-of-the-art. Further, it was reported that the plant's disinfection systems: 1) exceeded regulatory requirements; 2) produced microbiologically safe water; and 3) were effective in removing fungi, bacteria, viruses, and protozoa.

The Water Authority is committed to continued microbiological testing, as well as testing for other water quality substances.

# San Juan-Chama Drinking Water Project

## *(continued)*

Albuquerque Bernalillo County Water Utility Authority

USEPA sets regulations that limit the amount of certain substances in drinking water. USEPA defines where and how often samples for each substance must be collected. **The table below shows the substances found in compliance monitoring for the finished water at the Pilot Treatment Plant. For surface water, USEPA also requires that specific treatment techniques are used and that the treatment techniques are effective.**

2008 Results of Finished Water Monitoring at the

## Pilot Treatment Plant

| Substance | Maximum Contaminant Level (MCL) | Maximum Contaminant Level Goal (MCLG) | Minimum Detected | Average Detected | Maximum Detected | Source |
|---|---|---|---|---|---|---|
| **Microbiological** | | | | | | |
| Turbidity | 1 Nephelometric Turbidity Unit (NTU) | Not Applicable | 0.05 NTU | 0.10 NTU | 0.21 NTU | |
| *A measure of cloudiness of the water. It is a good indicator of water quality. High turbidity can hinder the effectiveness of filtration.* | 95% of the finished water samples must be less than 0.3 NTU | Not Applicable | 100% of all samples were less than 0.3 NTU | | | Soil runoff |
| **Minerals** | | | | | | |
| Fluoride | 4 Parts Per Million | 4 Parts Per Million | 0.4 Parts Per Million | 0.4 Parts Per Million | 0.4 Parts Per Million | Erosion of natural deposits. |
| **Substance** | **Maximum Residual Disinfectant Level (MRDL)** | **Maximum Residual Disinfectant Level Goal (MRDLG)** | **Minimum Detected** | **Average Detected** | **Maximum Detected** | **Source** |
| **Disinfectants** | | | | | | |
| Chlorine | 4 Parts Per Million | 4 Parts Per Million | 0.6 Parts Per Million | 0.7 Parts Per Million | 0.7 Parts Per Million | Disinfectant (sodium hypochlorite) |

*Surface water treatment plant operator checks the settling rate.*

*Process Laboratory Analyst provides measurements used for operating the surface water treatment plant efficiently.*

## San Juan-Chama Surface Water Treatment Plant Source Water

| Substance | Maximum Contaminant Level (MCL) | Maximum Contaminant Level Goal (MCLG) | Minimum Detected | Average Detected | Maximum Detected | Source |
|---|---|---|---|---|---|---|
| **Microbiological** | | | | | | |
| *Cryptosporidium* | TT | Zero oocysts/L | Zero oocysts/L | 0.038 oocysts/L | 0.089 oocysts/L | Human and animal fecal waste |

### Important Definitions for Reviewing the Tables (pages 4 and 6)

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

**Oocyst:** A capsulated spore of *Cryptosporidium*.

***Cryptosporidium*** is a microbial pathogen found in surface water throughout the U.S. We monitor the river for *Cryptosporidium*. The monitoring data summarized above is for the source water. Our monitoring indicates these organisms are either absent from the source water or present in very low quantities (0 or 1 oocyst per 10 liters of river water).

Based on the levels of *Cryptosporidium* found in source water, the USEPA requires water systems to use specific treatment techniques and to demonstrate their efficiency. The surface water treatment plant was designed to provide a multi-barrier approach (pre-sedimentation, clarification and filtration) to removing *Cryptosporidium* in order to meet the USEPA treatment technique requirements.

Current test methods approved by USEPA do not distinguish between dead organisms and those capable of causing disease. If ingested, these parasites may produce symptoms of nausea, stomach cramps, diarrhea, and associated headaches.

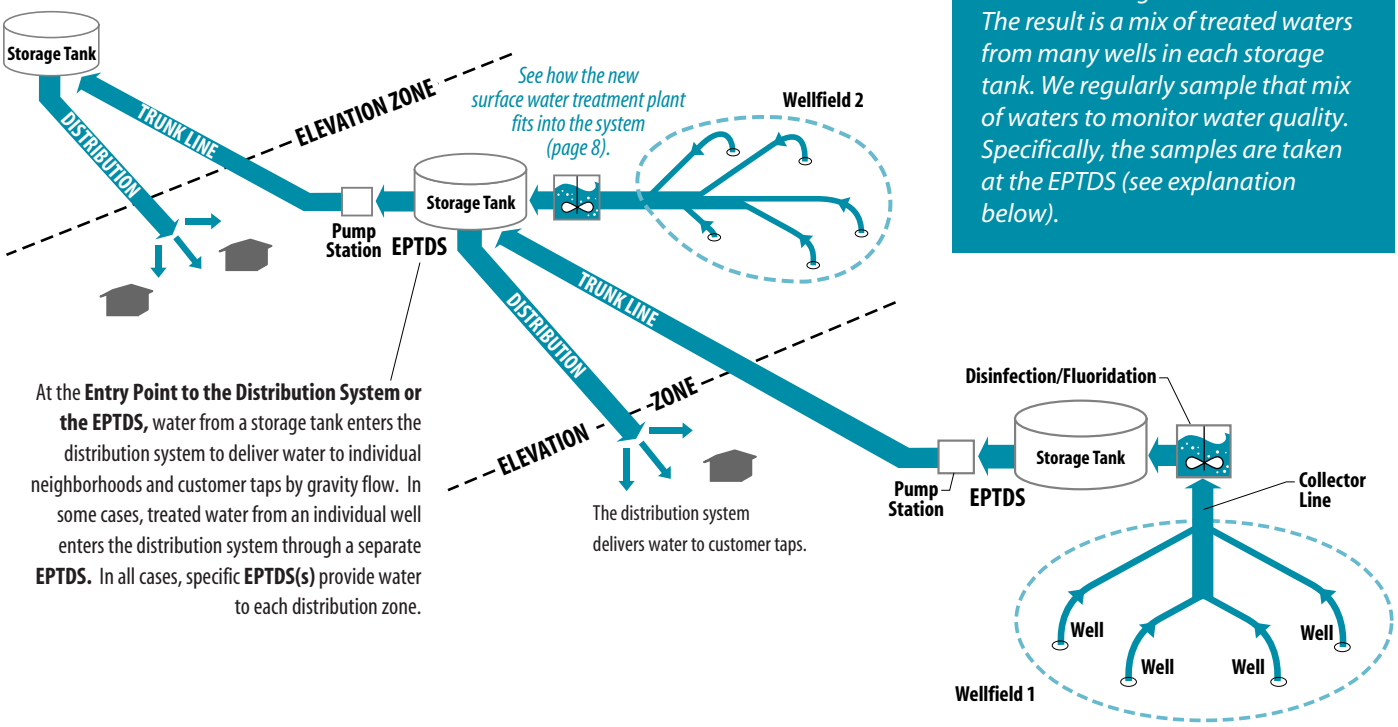
# Monitoring Water Quality - How it Works

Albuquerque Bernalillo County Water Utility Authority

Water is moved from the wells to storage tanks in large diameter pipelines. The water is treated along the way. Treatment includes:

- ***Disinfection*** with sodium hypochlorite. Generated on-site from table salt and water, the product is like weak household bleach.
- ***Fluoridation*** to prevent dental cavities. On most of the east side of the Rio Grande, fluoride is added. In Distribution Zones 13 and 14 on the map on page 7, no fluoride is added. The water contains sufficient fluoride when it is pumped from the ground. Likewise, all of the water pumped on the west side of the river contains sufficient natural fluoride.

*From the valley to the heights, storage tanks are organized in trunks (example shown below). Pump stations move treated water from one storage tank to another. The result is a mix of treated waters from many wells in each storage tank. We regularly sample that mix of waters to monitor water quality. Specifically, the samples are taken at the EPTDS (see explanation below).*




At the **Entry Point to the Distribution System or the EPTDS,** water from a storage tank enters the distribution system to deliver water to individual neighborhoods and customer taps by gravity flow. In some cases, treated water from an individual well enters the distribution system through a separate **EPTDS.** In all cases, specific **EPTDS(s)** provide water to each distribution zone.

The distribution system delivers water to customer taps.

Results of Monitoring at

## Entry Points to the Distribution System

USEPA sets regulations that limit the amount of certain substances in drinking water. USEPA defines where and how often samples for each substance must be collected. **The table below shows the substances found in the most recent water quality testing done at Entry Points to the Distribution System (EPTDS) to comply with USEPA.**

| Substance | Sample Collection Year | Minimum Detected | Average Detected | Maximum Detected | Maximum Contaminant Level (MCL) | Maximum Contaminant Level Goal (MCLG) | Source |
|---|---|---|---|---|---|---|---|
| **Metals** | | | | | | | |
| Arsenic | 2007 | 1 Part Per Billion | 7 Parts Per Billion | 15 Parts Per Billion | 10 Parts Per Billion | Zero Parts Per Billion | Erosion of natural volcanic deposits. |
| | | | | **Note:** These arsenic values were effective December 31, 2008. Until then, the MCL was 50 Parts Per Billion and there was no MCLG. See map on page 7. | | | |
| Barium | 2007 | Not Detected | 0.1 Parts Per Million | 0.2 Parts Per Million | 2 Parts Per Million | 2 Parts Per Million | Erosion of natural deposits. |
| Chromium | 2007 | Not Detected | 2 Parts Per Billion | 12 Parts Per Billion | 100 Parts Per Billion | 100 Parts Per Billion | Erosion of natural deposits. |
| **Minerals** | | | | | | | |
| Fluoride | 2005 | 0.3 Parts Per Million | 0.7 Parts Per Million | 1.1 Parts Per Million | 4 Parts Per Million | 4 Parts Per Million | Erosion of natural deposits. On the east side of the river, fluoride is added to water to promote strong teeth. |
| **Nutrients** | | | | | | | |
| Nitrate | 2008 | Not Detected | 0.5 Parts Per Million | 2.0 Parts Per Million | 10 Parts Per Million | 10 Parts Per Million | Erosion of natural deposits. |
| **Organics** | | | | | | | |
| Di(2-ethylhexyl)phthalate | 2005 | Not Detected | Not Detected | 5.3 Parts Per Billion | 6 Parts Per Billion | Zero Parts Per Billion | A widely used plasticizer. Gloves used in sample collection and laboratory analysis are the suspected source. |
| **Radionuclides** | | | | | | | |
| Gross Alpha Particle Activity | 2004 | Not Detected | Not Detected | 5.7 picoCuries Per Liter | 15 picoCuries Per Liter | Zero picoCuries Per Liter | Erosion of natural deposits. |
| Uranium | 2004 | 1.8 Parts Per Billion | 4.1 Parts Per Billion | 9.3 Parts Per Billion | 30 Parts Per Billion | Zero Parts Per Billion | Erosion of natural deposits. |

# Monitoring Water Quality - *continued*

Albuquerque Bernalillo County Water Utility Authority

## Important Definitions for Reviewing the Tables

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**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 allow for a margin of safety.

**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.

**Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. The Action Level is compared to the concentration detected in the 90th percentile sample.

**picoCuries per liter:** A measure of radioactivity.

**Parts Per Million** = PPM **Parts Per Billion** = PPB

**Parts Per Million/Parts Per Billion or PPM/PPB:**

Just how small is a part per million or a part per billion?

Consider this: Compared to the 34,500-pound herd of five Asian elephants at the Rio Grande Zoo, a mouse (at 15-20 grams) would represent one part per million. A bee (at 10-22 milligrams) would represent one part per billion.

A mouse represents one part per million

A bee represents one part per billion

## Sodium in Drinking Water

Average sodium levels for all distribution zones range from 23 to 69 PPM. The system-wide average is 39 PPM. For more information on variation of sodium and other substances, visit www.abcwua.org.

## Lead in Drinking Water

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 Water Authority 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.

### USEPA Special Notice for Immuno-compromised Persons

*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 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.*

USEPA sets regulations that limit the amount of certain substances in drinking water. USEPA defines where and how often samples for each substance must be collected. **The table below shows the substances found in samples collected at customer taps throughout the distribution system in 2007 or 2008.**

## Distribution System Monitoring at Customer Taps

| Substance Detected | Acceptable Level? | DETAILED INFORMATION | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Source | Year of Samples | Minimum Detected | Average Detected | Maximum Detected | Maximum Contaminant Level *(or equivalent)* | Maximum Contaminant Level Goal *(or equivalent)* |
| **Microbiological** | | | | | | | | |
| **Total Coliform** | **Yes** | Coliforms are bacteria that are normally present in the environment. | 2008 | - | - | 1 of 214 samples or 0.5% of samples taken in a month had detectable total coliform bacteria. No total coliform bacteria was detected in any repeat sample at any location. | Presence of coliform bacteria in 5.0% or more of samples in any month. | 0% of samples with detectable coliform bacteria. |
| **Disinfectants** | | | | | | | | |
| **Chlorine** | **Yes** | Disinfectant (sodium hypochlorite). | 2008 | 0.3 PPM | 0.8 PPM | 1.8 PPM | 4 PPM *(MRDL)* | 4 PPM *(MRDLG)* |
| **Disinfection By-Products** | | | | | | | | |
| **Total Trihalomethanes** | **Yes** | By-product of chlorination. | 2008 | 7 PPB | 12 PPB | 18 PPB | 80 PPB | Not Applicable |
| Dibromochloromethane | | | 2008 | 3.1 PPB | 4.5 PPB | 7.3 PPB | Not Applicable | 60 PPB |
| Bromoform | | | 2008 | 2.7 PPB | 4.2 PPB | 6.9 PPB | Not Applicable | Zero |
| Bromodichloromethane | | | 2008 | 1.2 PPB | 2.3 PPB | 4.6 PPB | Not Applicable | Zero |
| Chloroform | | | 2008 | 0.4 PPB | 0.8 PPB | 1.8 PPB | Not Applicable | 70 PPB |
| **Haloacetic Acid** | **Yes** | By-product of chlorination. | 2008 | 1 PPB | 4 PPB | 9 PPB | 60 PPB | Not Applicable |
| Dichloroacetic Acid | | | 2008 | 0 PPB | 0.5 PPB | 0.8 PPB | Not Applicable | Zero |
| Trichloroacetic Acid | | | 2008 | 0 PPB | 0 PPB | 0.1 PPB | Not Applicable | 20 PPB |
| Monochloroacetic Acid | | | 2008 | 0 PPB | 1.7 PPB | 6.7 PPB | Not Applicable | 70 PPB |
| Monobromoacetic Acid | | | 2008 | 0 PPB | 1.1 PPB | 4.2 PPB | Not Applicable | Not Applicable |
| Dibromoacetic Acid | | | 2008 | 0 PPB | 1.0 PPB | 2.3 PPB | Not Applicable | Not Applicable |
| **Lead & Copper** | | **Source** | **Year of Samples** | **90th Percentile** | **No. of Samples that Exceed Action Level** | **Maximum Detected** | **Action Level** | **Maximum Contaminant Level Goal** |
| **Copper** | **Yes** | Corrosion of household plumbing. | 2007 | 0.2 PPM | Zero | 0.2 PPM | 1.3 PPM | 1.3 PPM |
| **Lead** | **Yes** | Corrosion of household plumbing. | 2007 | 0 PPB | Zero | 12 PPB | 15 PPB | 0 PPB |

# Arsenic Compliance Achieved

**When rocks, minerals, and soil erode, they release naturally occuring arsenic into ground water. Arsenic occurs in varying amounts in ground water throughout Albuquerque. For many years, the Water Authority and its predecessors have worked hard to meet the challenge of the USEPA's lower arsenic standard of 10 PPB.**

## The Arsenic Exemption

The New Mexico Environment Department (NMED) granted the Water Authority an exemption to the new arsenic standard which became effective in January 2006. As a result, the MCL remained at 50 PPB until December 31, 2008. The Arsenic Compliance Strategy requirements described below were completed.

**Requirement 1: Continued protection of public health** during the time of the exemption by blending ground water to keep quarterly arsenic concentrations at all EPTDS below the 35 PPB excess exposure level allowed by law.

**What was done to meet the requirement?** By selectively pumping wells, arsenic concentrations were lowered.

To lower the arsenic concentration even more, water with low arsenic concentrations is pumped between storage tanks. Some water lines were reconfigured and new pump stations were constructed to create more blending opportunities.

**Requirement 2. Construction of an Arsenic Removal Demonstration Plant on the West Side.**

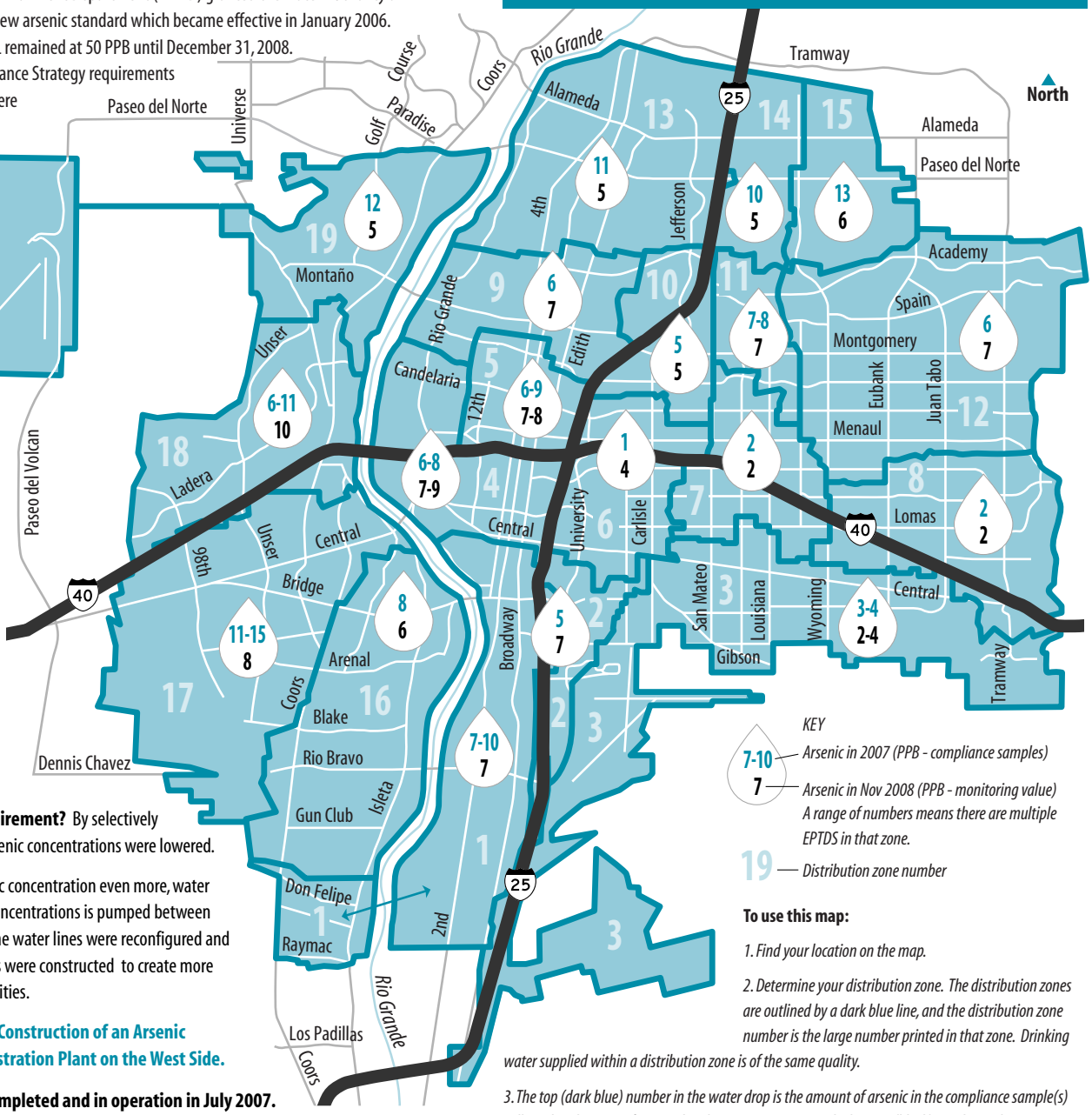
**The plant was completed and in operation in July 2007.** The plant removes arsenic from water pumped from two West Side wells. The plant is used in combination with the San Juan-Chama Drinking Water Project pipelines to carry the low arsenic water to other storage tanks across the West Side.

**Requirement 3. Completion of the Surface Water Treatment Plant.**

**Construction was completed and drinking water was produced by the new plant in December 2008.** More information on the surface water treatment plant is included in this report.

## Arsenic Monitoring Results: Compliance Achieved

*The water system is made up of 19 distinct distribution zones. Water within each zone is of the same quality. Samples were analyzed for arsenic every three months to monitor arsenic concentrations at the EPTDS. To illustrate results, the map below shows 2007 and November 2008 results. By the end of 2008, all arsenic concentrations in all distribution zones met the new arsenic standard.*




*KEY*

*7-10 / 7 — Arsenic in 2007 (PPB - compliance samples) / Arsenic in Nov 2008 (PPB - monitoring value) A range of numbers means there are multiple EPTDS in that zone.*

*19 — Distribution zone number*

**To use this map:**

*1. Find your location on the map.*

*2. Determine your distribution zone. The distribution zones are outlined by a dark blue line, and the distribution zone number is the large number printed in that zone. Drinking water supplied within a distribution zone is of the same quality.*

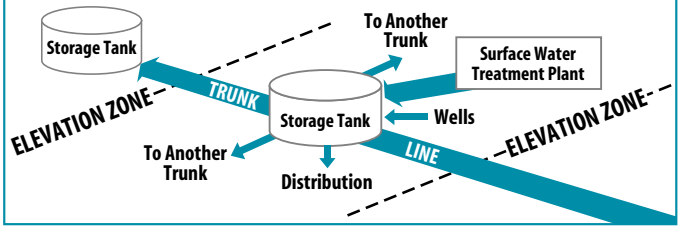
*3. The top (dark blue) number in the water drop is the amount of arsenic in the compliance sample(s) collected at the EPTDS for your distribution zone in 2007. The bottom (black) number is the monitoring value for November 2008.*

*4. A single number for arsenic in a water drop indicates there is a single EPTDS for that distribution zone. If a range of numbers is given for a distribution zone, there are multiple EPTDS to that distribution zone.*

***For information on water quality in your distribution zone, visit our web page at www.abcwua.org or call the Water Quality Information Line at 857-8260.***

***FAQ: If the new surface water treatment plant is on the east side of the river, how does the low arsenic water get across the river and all around town?***

Water moves in trunk lines that run from low to high ground, and down major streets. Now we have a system of north/south pipelines that connect all the trunk lines. They help distribute low arsenic water (the treated surface water, and water from low arsenic wells) throughout the system, on both sides of the river.




## Regulated Substances we test for and have not detected (including Pilot Treatment Plant finished water):

**Inorganic Chemicals**

| | | |
|---|---|---|
| Asbestos (not applicable for Pilot Plant) | Cadmium | Nitrite |
| Antimony | Cyanide | Selenium |
| Beryllium | Mercury | Thallium |

**Organic Chemicals**

| | | |
|---|---|---|
| Alachlor | cis-1,2-Dichloroethylene | Methoxychlor |
| Atrazine | trans-1,2-Dichloroethylene | Oxamyl (Vydate) |
| Benzene | Dichloromethane | Polychlorinated biphenyls (PCBs) |
| Benzo(a)pyrene | 1,2-Dichloropropane | Pentacholorophenol (PCP) |
| Carbofuran | Dinoseb | Picloram |
| Carbon Tetrachloride | Dioxin (waived) | Simazine |
| Chlordane | Diquat | Styrene |
| Chlorobenzene | Endothall | Tetrachloroethylene |
| 2,4-D | Endrin | Toluene |
| Dalapon | Ethylbenzene | Toxaphene |
| 1,2-Dibromoethane (EDB) | Ethylene dibromide | 2,4,5-TP (Silvex) |
| 1,2-Dibromo-3-chloropropane (DBCP) | Glyphosate | 1,2,4-Trichlorobenzene |
| Di(2-Ethylhexyl)adipate | Heptachlor | 1,1,1-Trichloroethane |
| o-Dichlorobenzene | Heptachlor epoxide | 1,1,2-Trichloroethane |
| p-Dichlorobenzene | Hexachlorobenzene | Trichloroethylene |
| 1,2-Dichloroethane | Hexachlorocyclopentadiene | Vinyl Chloride |
| 1,1-Dichloroethylene | Lindane | Total Xylenes |

**Microbiological Contaminants** Fecal Coliform

**Radiological Chemicals** Radium 226 Radium 228

**For the Pilot Treatment Plant finished water, these additional Regulated Substances were not detected:**

**Inorganic Chemicals**

| | | |
|---|---|---|
| Barium | Copper | Nitrate |
| Chromium | Lead | |

**Microbiological Contaminants**

| | | |
|---|---|---|
| Total Coliform | Total Organic Carbon | Bromate |

**Radiological Chemicals**

| | |
|---|---|
| Gross Alpha Particle Activity | Uranium |

## Arsenic Health Effects

USEPA has revised the Maximum Contaminant Level from 50 PPB to 10 PPB. For the Water Authority, the new standard became effective December 31, 2008. Because water in some locations did not meet the new 10 PPB standard for a portion of 2008, consumers need to be aware of USEPA's health effects language for arsenic.

### USEPA arsenic health effects language:

***For water containing greater than 5 PPB of arsenic and up to and including 10 PPB of arsenic:*** *While your drinking water meets USEPA's standard for arsenic, it does contain low levels of arsenic. USEPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. USEPA continues to research the health effects of low levels of arsenic, which is a metal known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.*

***For water containing greater than 10 PPB of arsenic, but not greater than 50 PPB of arsenic:***
*Some people who drink water containing arsenic in excess of the new MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.*

*It takes about three hours for water to travel from the diversion dam (pictured on left) to the settled water ponds at the surface water treatment plant. After settling for at least a day in the ponds, it only takes two or three hours of treatment to produce the clean, finished drinking water pictured on the right.*


## Unregulated Substances we must test for, but did not detect:

| | | |
|---|---|---|
| 1,3-dinitrobenzene | Acetochlor oxanilic acid (OA) | Metolachlor OA |
| 2,2',4,4',5,5'-hexabromobiphenyl | Alachlor | N-nitrosodiethylamine |
| 2,2',4,4',5,5'-hexabromobiphenyl ether | Alachlor ESA | N-nitrosodimethylamine |
| 2,2',4,4',5-pentabromodiphenyl ether | Alachlor OA | N-nitrosodi-n-butylamine |
| 2,2',4,4',6-pentabromodiphenyl ether | Dimethoate | N-nitrosodi-n-propylamine |
| 2,2',4,4'-tetrabromodiphenyl ether | Hexahydro-1,3,5-trinitro-1,3,5-triazine | N-nitrosomethylethylamine |
| 2,4,6-trinitrotoluene | Metolachlor | N-nitrosopyrrolidine |
| Acetochlor | Metolachlor ESA | Terbufos Sulfone |
| Acetochlor ethanesulfonic acid (ESA) | | |