

## Santa Fe County Utilities

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Customer Service: 505-992-9870  
[www.santafecountynm.gov](http://www.santafecountynm.gov)

### Additional Information

This report provides details regarding our water quality and what it means. If you have any questions about this report, concerns regarding your water utility, or would like to learn more about the County's plans for the future water supply, please visit our website at: [www.santafecountynm.gov/public\\_works/utilities](http://www.santafecountynm.gov/public_works/utilities) or call us at 992-9870.

We want you, our valued customers, to be informed about your water supply and your water utility. If you want to become more involved in issues of water supply in our area, you are encouraged to attend meetings of our governing body, the Santa Fe County Commission, which occur on the second and last Tuesday of each month starting at 2:00 PM. Meeting agendas are posted at: [www.santafecountynm.gov/committees/board\\_of\\_county\\_commissioners\\_bcc](http://www.santafecountynm.gov/committees/board_of_county_commissioners_bcc)

Additionally, the Santa Fe County Water Policy Advisory Committee meets bi-monthly at 5:00 PM at the Public Works Complex, 424 NM Hwy 599 Frontage Rd. Contact the Santa Fe County Water Utilities Division at 992-9870 for additional information.



## Santa Fe County Utilities

### West Sector Public Water System

(NM3500926)

## 2014 Water Quality Report

## West Sector Public Water System 2014 Water Quality Report

### Introduction

Santa Fe County Utilities (SFCU) is pleased to present the 2014 Water Quality Report for the West Sector Public Water System to our customers and the public. A safe and reliable water supply is vital to our community and is one of the primary missions of Santa Fe County. The West Sector system supplies potable water to users outside of the western boundary of the City of Santa Fe and within the boundary of the Historic Village of Agua Fria. These areas include Las Campanas Estates I & II, Aldea, El Prado, La Serena, Los Sueños, Sonrisa, the North-west Ranches and the Vista Aurora Subdivision.

In 2014, the West Sector system's water quality was tested for over 80 contaminants. Of these, three samples analyzed for lead exceeded U.S. Environmental Protection Agency (EPA) or State drinking water quality limits. The exceedances are discussed in greater detail in the section titled Lead and Copper testing on page 3.

This report is designed to inform customers about where our water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of the water quality during calendar year 2014.

### Sources of Supply

The sources of water supply for both the City and County water systems are the same throughout the Santa Fe metropolitan area and include both ground and surface waters. In 2014, the West Sector system was served by four sources: (1) surface water from the Rio Grande, which is treated through advanced processes at the Buckman Regional Water Treatment Plant, (2) ground water from thirteen wells in the City's Buckman Well Field located approximately 15 miles northwest of Santa Fe, (3) surface water from the Santa Fe River, which is treated through conventional processes at the City's Canyon Road Water Treatment Plant, and; (4) ground water from eight active wells in the City's Well Field (mostly located in close proximity to the Santa Fe River). As you will see from the data in this report, much of the water quality testing is done on the sources of supply, while some is done on the water in the distribution system itself.

### En Español

Este reporte contiene información sobre el agua calidad en el Condado de Santa Fe del sur parte del el agua sistema cantidad. Si tiene alguna pregunta o duda sobre esta reporte, por favor llamar al Condado de Santa Fe Utilidad 505-992-9870.

### **Is my water safe?**

Although SFCU's water supply did exceed standards in one parameter, in 2014 the West Sector's drinking water supply largely complied with the U.S. Environmental Protection Agency (EPA) and New Mexico drinking water quality standards.

#### **Source Water Assessment & Availability:**

The New Mexico Environment Department (NMED) completed a Source Water Assessment of the City's Water Utility, which includes the sources of supply for the West Sector system, to determine source water protection areas and inventory contaminant sources. NMED concluded: "The Susceptibility Analysis of the City of Santa Fe water utility reveals that the utility is well maintained and operated, and drinking water sources are generally protected from potential contamination..." The susceptibility rank of the City's system, which includes the sources of supply for the West Sector system, is **moderately low**. A copy of the assessment is available by contacting NMED at 1-877-654-8720.

#### **Long-Term Supply Sustainability:**

The Buckman Direct Diversion (BDD), which includes the Buckman Regional Water Treatment Plant, was constructed and is operated under a cooperative agreement between the City, the County, the Las Campanas Water Cooperative and the Club at Las Campanas. The BDD, which came online in 2011, has significantly improved the long-term sustainability of the area's water supply and increases the community's resilience under drought conditions. Using treated surface water as our primary supply reduces unsustainable groundwater pumping, which helps ensure ground water will be available during times of drought.



### **Why are there contaminants in my drinking water?**

The sources of all drinking water (tap water and even 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 or suspends naturally occurring and man-made substances. These substances can 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 may be naturally-occurring or result from urban storm-water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, and farming.

**Pesticides and herbicides**, that 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 by-products of industrial processes and petroleum production and can also come from gas stations, urban storm water runoff, and septic systems.

**Radioactive contaminants**, which can be naturally occurring, man-made from nuclear facilities and atmospheric deposition from former above-ground testing, or be the result of oil and gas production, and mining activities.

**Intentionally added substances:** Water from all four supply sources for the West Sector system is disinfected with chlorine to protect against waterborne pathogens. To protect consumers' teeth, fluoride may also be added at levels generally recommended by public health professionals.

In order to ensure that tap water is safe to drink, state and federal regulations limit the amount of certain contaminants allowed in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection of public health.

### **Do I need to take special precautions?**

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as individuals 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. Health care providers should advise you about certain risks associated with tap water if you have an immune compromising condition. EPA/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 Water Drinking Hotline (1-800-426-4791)**.

#### **Important Drinking Water Definitions:**

**MCL: Maximum Contaminant Level** - The "Maximum Allowed" (MCL) is 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.

**MCLG: Maximum Contaminant Level Goal** - The "Goal" (MCLG) is 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.

**AL: Action Level** - the concentration of a contaminant, which, if exceeded, triggers treatment or other requirements which a water system must follow.

**TT: Treatment Technique** - a treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

**ppm: Parts per million (ppm) or milligrams per liter (mg/L)** - one part (contaminant) in a million parts (water).

**ppb: Parts per billion (ppb) or micrograms per liter (µg/L)** - one part (contaminant) in a billion parts (water).

#### **Contaminant Specific Information:**

##### **Arsenic**

The drinking water standard for arsenic is 10 ppb. The West Sector's drinking water supply met this standard throughout 2014 (please see Table 3 on page 4 of this document for the levels of arsenic measured in 2014). Arsenic occurs naturally in the earth's rock crust. When these arsenic-containing rocks, minerals, and soil erode, they release arsenic into ground water. While our drink-

ing water meets EPA's standard for arsenic, it does contain low levels of arsenic. The EPA standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA 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.

##### **Nitrates**

The West Sector's drinking water supply meets the federal drinking water standard of 10 ppm for nitrates. Nitrates have been detected in some of the City Wells above 5 ppm. Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should seek advice from your health care provider concerning nitrate in drinking water.

##### **Microbial and Disinfection By-products Rule**

The Microbial and Disinfection By-products Rule is a set of interrelated regulations that address risks from microbial pathogens and disinfection by-products (DBPs). The rule focuses on public health protection by limiting exposure to known carcinogenic DBPs, specifically total trihalomethanes (TTHM) and five haloacetic acids (HAA5), which can form in water through disinfectants (e.g. chlorine) used to control microbial pathogens. In 2014, the West Sector system had one compliance sampling location for TTHM and a separate location for HAA5. Each of these locations was sampled once each

*(Continued on page 3)*

(Continued from page 2)

quarter throughout the year. The analytical results for DBPs must be below the MCL (0.060 ppm for HAA5 and 0.080 ppm for TTHM). Based upon the samples that were collected, the data in Table 1 indicates that the West Sector system's water met the MCL standards.

**TABLE 1—Results of Disinfection By-Product Testing for 2014**

West Sector Disinfection By-Product Results	Units	MCL	MCLG	Results	Range		Typical Source
					Low	High	
Total Haloacetic Acids (HAA5)	ppb	60	NA	12.4	9.7	18.3	By-product of drinking water chlorination.
Total Trihalomethanes (TTHM)	ppb	80	NA	54.5	46.4	62.3	By-product of drinking water chlorination.

**Lead and Copper Testing**

Tests for lead and copper are taken from customer taps located throughout the West Sector system. 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 house plumbing. Santa Fe County Utilities is responsible for providing high quality, low corrosivity 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 a period between 30 seconds and 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have its quality 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>

Lead and copper samples were last collected on September 4, 2014 and the results of those samples are reported in Table 2 (top, right on this page). Three of the 10 routine lead samples that we collected in 2014 exceeded the action level. In response to this problem, SFCU performed (and continues to perform) a number of activities required under the Lead and Copper Rule and has also taken voluntary actions to better understand the situation. These activities include:

- 1) Investigating the potential causes for the elevated lead levels,
- 2) Resampling the sites where elevated lead was detected (where appropriate and permitted),
- 3) Collecting samples for lead and copper in our source water and monitoring the corrosivity of our source water and distribution system water, and
- 4) Providing public notifications and education concerning the exceedances and the hazards of lead.

SFCU will take additional actions in the future, including:

- 1) Collecting 20 samples for lead and copper during two sampling events in 2015, and
- 2) Continuing to monitor the corrosivity of our source water and distribution system water.

Our investigation, water quality monitoring and the first round of lead and copper results from 2015 indicate that the three samples from 2014 that exceeded the action level did not relate to a widespread corrosivity problem in the West Sector water supply. The most recent results indicate that the water supply is largely non-corrosive and current lead and copper levels are compliant. Ongoing sampling and monitoring will be conducted to ensure that this remains to be the case. Please know that SFCU is committed to approaching this problem objectively and with our customer's health and safety as our foremost concern.

**TABLE 2— Results of Lead and Copper Testing for 2014**

West Sector Lead & Copper Results	Units	MCL	MCLG	Your Water (90th percentile)	No. of Samples Exceeding the AL	Sample Date	Violation	Typical Source
Copper	ppm	AL = 1.3	1.3	0.79	0 of 10	9/4/2014	No	Erosion of natural deposits, corrosion of household plumbing systems.
Lead	ppb	AL = 15	0	30	3 of 10	9/4/2014	Yes	Erosion of natural deposits, corrosion of household plumbing systems.

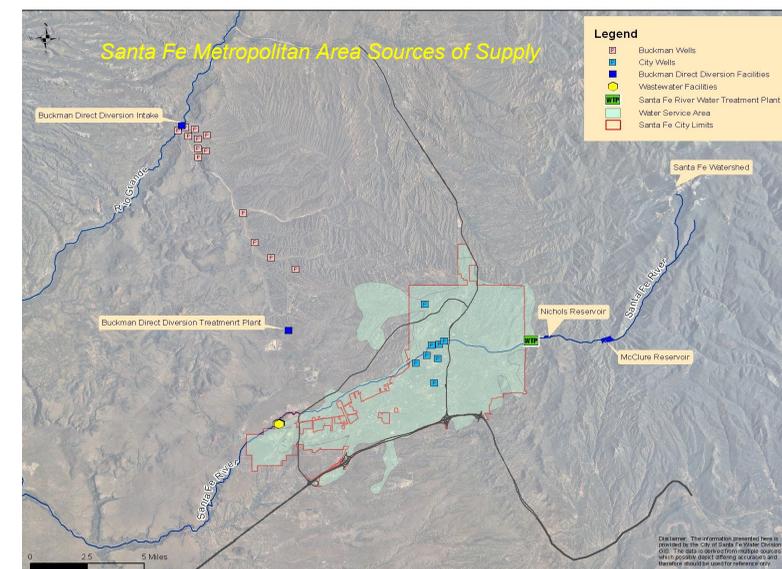
**Lead and Copper Action Level**

The lead and copper levels reported are values for the 90<sup>th</sup> percentile. In this case, 10 samples were collected and the results were ranked from the lowest to the highest. the results for the 9th highest sample represent the 90th percentile.

**Cryptosporidium**

*Cryptosporidium* is a protozoan parasite that is common in surface waters. In the environment, it primarily exists as an oocyst (microscopic egg), which is the transmission stage of the organism. Ingestion of *Cryptosporidium* may cause cryptosporidiosis, an abdominal infection. *Cryptosporidium* is introduced into our source waters via wild animal populations. Although the organism is readily removed by the advanced treatment process utilized at the BDD facility, the oocyst is resistant to chemical disinfectants like chlorine. The primary reason for testing for *Cryptosporidium* is to determine if additional treatment is required. Any new water system treating surface

water such as BDD is required to monitor *Cryptosporidium* for 24 consecutive months. At the BDD, the untreated raw Rio Grande water *Cryptosporidium* test results range from 0 to 0.4 oocysts/L.



**TABLE 3—West Sector System Source of Supply 2014 Water Quality**

Contaminant	Units	MCL	MCLG	City Well Field <sup>e</sup>	Sample Date	Buckman Tank <sup>f</sup>	Sample Date	Canyon Road WTP	Sample Date	Buckman RWTP	Sample Date	Violation	Typical Source
<b>Organic Contami-</b>													
1,1,1-Trichloroethane	ppb	200	200	0.1	2014	ND	2014	ND	2014	ND	2014	No	Discharge from metal degreasing sites and other
1,1-Dichloroethylene	ppb	7	7	0.21	2014	ND	2014	ND	2014	ND	2014	No	Discharge from industrial chemical factories.
1,2-Dichloroethane	ppb	5	zero	0.20	2014	ND	2014	ND	2014	ND	2014	No	Discharge from industrial chemical factories.
Ethylene Dibromide	ppb	0.05	zero	0.007	2014	ND	2014	ND	2014	ND	2014	No	Discharge from petro refineries.
Tetrachloroethylene	ppb	5	zero	0.28	2014	ND	2014	ND	2014	ND	2014	No	Discharge from factories and dry cleaners.
<b>Inorganic Contaminants</b>													
Arsenic	ppb	10	0	4.0 (1.0 - 4.0)	2014	2	2014	ND	2014	ND	2014	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production
Barium	ppm	2	2	0.8 (0.1 - 0.8)	2014	ND	2014	ND	2014	0.070 (0.044 -	2014	No	Discharge from drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Bromate	ppb	10	zero	NA	NA	NA	NA	NA	NA	3.7	2014	No	Byproduct of drinking water disinfection.
Chromium	ppb	100	100	1	2014	ND	2014	ND	2014	ND	2014	No	Discharge from steel and pulp mills. Erosion of
Fluoride	ppm	4	4	0.16 (0.14 - 0.16)	2014	0.4	2014	0.12	2014	0.31 (0.24 - 0.31)	2014	No	Erosion of natural deposits. Water additive which promotes strong teeth. Discharge from fertilizer and aluminum factories.
Selenium	ppb	50	50	ND	2014	ND	2014	ND	2014	1.1	2014	No	Discharge from steel/metals factories. Discharge from plastic and fertilizer factories.
Nitrate [as N]	ppm	10	10	7.54 (3.00 - 7.54)	2014	0.4	2014	ND	2014	0.16 (0.15 - 0.16)	2014	No	Fertilizer runoff. Leaching from septic tanks. Sewage. Erosion from natural deposits.
<b>Radioactive Contaminants</b>													
Gross Alpha Emitters	pCi/L	15	0	4.4	2014	4.2	2014	ND	2014	1.2	2014	No	Erosion of natural deposits.
Gross Beta/Photon	pCi/L	50 <sup>a</sup>	NA	1.5	2014	2.3	2014	1.4	2014	2.45	2014	No	Decay of natural and man-made deposits.
Radium 226/228	pCi/L	5	0	0.77	2014	0.07	2014	0.18	2014	0.308	2014	No	Erosion of natural deposits.
Uranium	ppb	30	0	2.0	2014	2.0	2014	ND	2014	1.0	2014	No	Erosion of natural deposits.
<b>Surface Water Contaminants</b>													
Turbidity <sup>d</sup> (highest single measurement)	NTU	TT = 1.0	0	NA	NA	NA	NA	0.52	2014	0.99	2014	No	Soil runoff.
Turbidity <sup>d</sup> (lowest monthly % meeting limits)	NTU	TT = % <0.3 NTU	0	NA	NA	NA	NA	99.4%	2014	99.4%	2014	No	Soil runoff.
Total Organic Carbon (TOC)	NA	TT (35%-	NA	NA	NA	NA	NA	47% to 62% removal <sup>b</sup>	2014	NA	NA	No	Naturally present in the environment.

**Notes:**  
a. EPA considers 50 pCi/L to be the level of concern for beta particles .  
b. Alternative compliance criteria used to meet TOC removal require-  
c. The range represents the highest and low values within the Compliance Period indicated. Range values are not given if only one sample was taken during the range period.  
d. Turbidity is a measure of the cloudiness of water. It is monitored as a good indicator of the effectiveness  
e. City Well Field: Alto, Agua Fria, Ferguson, Osage, Santa Fe, St.  
f. The Buckman tank contains water from Buckman Wells 1-13, the Buckman Regional Water Treatment Plant and the Northwest Well.

**Key to Units, Terms and Abbreviations**  
NA: Not Applicable  
ND: Not Detected  
NTU: Nephelometric Turbidity Units  
ppm: parts per million, or milligrams per liter (mg/l)  
ppb: parts per billion, or micrograms per liter (µg/l)  
pCi/L: picocuries per liter (a measure of radioactivity)  
TT: A Treatment Technique standard was set instead of an Maximum Contaminant Level

**2014 West Sector System Source of Supply Water Quality Table (Table 3)**

Table 3 presents a list of contaminants, which:

- 1) Have associated primary Maximum Contaminant Levels (MCLs) that are regulated, and;
- 2) Were detected in the West Sector source of supply in testing conducted by the City and New Mexico Environment Department.

The table includes only those constituents found above detection limits during 2014 sampling, or during sampling in previous years if not analyzed during 2014. The EPA requires monitoring for certain contaminants less than once per year because the concentrations are not expected to vary significantly from year to year. As the producer of the source of supply, the City is required to test for over 80 contaminants, and **the vast majority of these contaminants were not found above detection limits.** Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these 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 Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800) 426-4791, or visiting [www.epa.gov/safewater](http://www.epa.gov/safewater) .