

# Southern Ute Indian Tribe Water Treatment Plant

## Annual Drinking Water Quality Report

For Calendar Year 2016

*Public Water System ID:* 080890001

**Esta es información importante. Si no la pueden leer, necesitan que alguien se la traduzca.**

We are pleased to present to you this year's water quality report. Our constant goal is to provide you with a safe and dependable supply of drinking water. Please contact the Utilities Office at (970)563-5500 with any questions about the Drinking Consumer Confidence Rule (CCR), for public participation opportunities that may affect the water quality or for information on the Source Water Assessment Plan.

### General Information

All 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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791) or by visiting <http://water.epa.gov/drink/contaminants>.

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 of infections. These people should seek advice about drinking water from their health care providers. For more information about contaminants and potential health effects, or to receive a copy of the U.S. Environmental Protection Agency (EPA) and the U.S. Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and microbiological contaminants call the EPA Safe Drinking Water Hotline at (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:** viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants:** salts and metals, which 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:** may come from a variety of sources, such as agriculture, urban storm-water runoff, and residential uses.
- Radioactive contaminants:** can be naturally occurring or be the result of oil and gas production and mining activities.
- Organic chemical contaminants:** including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and also may come from gas stations, urban storm water runoff, and septic systems.

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

### Lead in Drinking Water

If present, elevated levels of lead can cause serious health problems (especially for pregnant women and young children). It is possible that lead levels at your

home may be higher than other homes in the community as a result of materials used in your home's plumbing. If you are concerned about lead in your water, you may wish to have your water tested. 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. Additional information on lead

in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at <http://www.epa.gov/safewater/lead>.

## Our Water Source

<u>Source</u>	<u>Source Type</u>
<b>Los Pinos River</b>	<b>Surface Water</b>

The source of the water treated at the Southern Ute Indian Tribe is the Los Pinos River, also called the Pine River. At the time of this publication, Vallecito Lake is expected to stay full throughout the coming irrigation season, leaving us with excellent quality water that we have been used to in years past. The higher quality river water, together with a modern water treatment plant, will assure even higher quality to all of our customers.

### Voluntary Fluoride Program

Not only is the water safe, but it also has a measured amount of Fluoride added to it to reduce Dental Carries (cavities) in any users who drink the water. Fluoride acts on teeth much like Calcium in bones to make them stronger, especially in young children. This is an added cost of about \$4,500 per year to the Tribe.

### Terms and Abbreviations

- **Maximum Contaminant Level (MCL)** – The highest level of a contaminant allowed in drinking water.
- **Treatment Technique (TT)** – A required process intended to reduce the level of a contaminant in drinking water.
- **Action Level (AL)** – The concentration of a contaminant which, if exceeded, triggers treatment and other regulatory requirements.
- **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 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 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.
- **Violation (No Abbreviation)** – Failure to meet a Colorado Primary Drinking Water Regulation.
- **Formal Enforcement Action (No Abbreviation)** – Escalated action taken by the State (due to the risk to public health, or number or severity of violations) to bring a non-compliant water system back into compliance.
- **Variance and Exemptions (V/E)** – Department permission not to meet a MCL or treatment technique under certain conditions.
- **Gross Alpha (No Abbreviation)** – Gross alpha particle activity compliance value. It includes radium-226, but excludes radon 222, and uranium.
- **Picocuries per liter (pCi/L)** – Measure of the radioactivity in water.
- **Nephelometric Turbidity Unit (NTU)** – Measure of the clarity or cloudiness of water. Turbidity in excess of 5 NTU is just noticeable to the typical person.
- **Compliance Value (No Abbreviation)** – Single or calculated value used to determine if regulatory contaminant level (e.g. MCL) is met. Examples of calculated values are the 90<sup>th</sup> Percentile, Running Annual Average (RAA) and Locational Running Annual Average (LRAA).
- **Average (x-bar)** – Typical value.
- **Range (R)** – Lowest value to the highest value.
- **Sample Size (n)** – Number or count of values (i.e. number of water samples collected).

- **Parts per million = Milligrams per liter (ppm = mg/L)** – One part per million corresponds to one minute in two years or a single penny in \$10,000.
- **Parts per billion = Micrograms per liter (ppb = ug/L)** – One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
- **Parts per trillion = Nanograms per liter (ppt = ng/L)** – One part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.
- **Parts per quadrillion = Picograms per liter (ppq = pg/L)** – One part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.
- **Not Applicable (N/A)** – Does not apply or not available.

### Detected Contaminants

The Southern Ute Water Treatment System routinely monitors for contaminants in your drinking water according to Federal Law. The following table(s) show all detections found in the period of January 1 to December 31, 2016 unless otherwise noted. The Environmental Protection Agency (EPA) requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. Therefore, some of our data, though representative, may be more than one year old. Violations and Formal Enforcement Actions, if any, are reported in the next section of this report.

**Note:** If no tables appear in this section then no contaminants were detected in the last round of monitoring.

Disinfectants Sampled in the Distribution System						
Contaminant Name	Year	Range Low – High	Unit of Measure	MRDL	MRDL Violation	Typical Sources
Chlorine	2016	0.16 - 0.81	ppm	4.0	No	Water additive used to control microbes

Summary of Disinfectants Sampled in the Distribution System				
Contaminant Name	Results	TT Requirement	TT Violation	Typical Sources
Chlorine	<u>Lowest monthly</u> percentage of samples meeting TT requirement: 100%	For any two consecutive months, At least 95% of samples (per month) must be detectable	No	Water additive used to control microbes

Lead and Copper Sampled in the Distribution System								
Contaminant Name	Time Period	90 <sup>th</sup> Percentile	Sample Size	Unit of Measure	90 <sup>th</sup> Percentile AL	Sample Sites Above AL	90 <sup>th</sup> Percentile AL Exceedance	Typical Sources
Copper	7/21/2015	0.277	10	ppm	1.3	0	No	Corrosion of household plumbing systems; Erosion
Lead	7/21/2015	0.8	10	ppb	15	0	No	Corrosion of household plumbing systems; Erosion of natural deposits

Disinfection Byproducts Sampled in the Distribution System									
Name	Year	Average	Range Low – High	Unit of Measure	MCL	MCLG	Highest Compliance Value	MCL Violation	Typical Sources
Total Haloacetic Acids (HAA5)	2016	38.8	38.8	ppb	60	N/A	38.8	No	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHM)	2016	36.1	36.1	ppb	80	N/A	36.1	No	Byproduct of drinking water disinfection
Chlorite	2016	0.038	0 - 0.309	ppm	1.0	0.8	0.309	No	Byproduct of drinking water disinfection

Disinfectants Sampled at the Entry Point to the Distribution System							
Contaminant Name	Year	Average	Range Low – High	Unit of Measure	TT/MRDL Requirement	TT/MRDL Violation	Typical Sources
Chlorine	2016	1.02	0.54 - 1.52	ppm	TT = No more than 72 hours with a residual below .2 mg/L	No	Water additive used to control microbes
Chlorine Dioxide	2016	0.047	0 - 0.166	ppm	MRDL = 0.8	No	Water additive used to control microbes

**Summary of Turbidity Sampled at the Entry Point to the Distribution System**

Contaminant Name	Sample Date	Level Found	TT Requirement	TT Violation	Typical Sources
Turbidity	Continuous	<u>Highest single</u> measurement: 0.186 NTU	Maximum 1 NTU for any single measurement	No	Soil Runoff
Turbidity	Continuous	<u>Lowest monthly</u> percentage of samples meeting TT requirement for our technology: 100%	In any month, at least 95% of samples must be less than 0.3 NTU	No	Soil Runoff

**Inorganic Contaminants Sampled at the Entry Point to the Distribution System**

Contaminant Name	Year	Average	Range Low – High	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Antimony	2013	0.9	0.9	ppb	6	6	No	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Barium	2013	0.0273	0.0273	ppm	2	2	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride	2016	0.67	0.54 – 0.72	ppm	4	4	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate	2016	<0.020	<0.020	ppm	10	10	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite	2016	< 0.020	< 0.020	ppm	1	1	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

**Unregulated or Secondary Contaminants\*\***

\*\*Secondary standards are non-enforceable guidelines for contaminants that may cause cosmetic effects or aesthetic effects (such as taste, odor, or color) in drinking water.

Contaminant Name	Year	Average	Range Low – High	Unit of Measure	Secondary Standard
Sodium	2016	2.98	2.98	ppm	N/A
Nickel	2013	.0008	.0008	ppm	N/A

**No Violations or Formal Enforcement Actions**