

ANNUAL DRINKING WATER QUALITY REPORT

Southern Ute Indian Tribe Water Treatment Plant

Operated by the Southern Ute Utilities Division of the Southern Ute Indian Tribe
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OVERVIEW

We are pleased to present our Annual Water Quality Report. Our goal is to provide you with a safe and dependable supply of drinking water. This report contains information about our water quality for the last calendar year.

WATER SOURCE

The Pine River is the source of the water treated at the Southern Ute Indian Tribe's Water Treatment Plant. At the time of this publication, Vallecito Reservoir is expected to stay full throughout the coming irrigation season and should again provide us with excellent water. The high quality river water and our modern Water Treatment Plant will assure very high quality water to all of our customers.

EPA REQUIRED TESTING

The Tribe's Water Treatment Plant routinely tests for contaminants in your drinking water in accordance with Federal and State laws. These tests are required by the EPA (Environmental Protection Agency) for any public drinking water supply. The tests are very thorough and cover most natural and man-made pollutant including: **bacteriological tests** for spores like Giardia Lamblia; tests for **radioactive contaminants** from natural soil deposits; **inorganic contaminant tests** for metals; **synthetic organic contaminant tests** for herbicides and pesticides; and **volatile organic contaminant tests** for man-made chemicals such as gasoline and solvents.

The attached table shows the results of the Utilities Division's monitoring for the period of January 1st to December 31st, 2011. We are proud to announce again this year that the water from our Water Plant is very safe and has continued its longstanding record of **zero** violations of the EPA's quality requirements since 1985. Please look at the third column on the table below. The letter "N" means that we had no violations for the tests.

VOLUNTARY FLUORIDE PROGRAM

Not only is our water safe but it also contains the minimum amount of fluoride needed to reduce dental cavities. Fluoride makes teeth cavity resistant, especially in young children. This is an added cost of about \$4,000 per year to the Tribe.

In order to ensure that tap water is safe to drink, the EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The following list provides terms, abbreviations and definitions used in the attached table:

Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.

P/A – presence or absence of coliform bacteria.

Parts per million (ppm) or Milligrams per liter (mg/l) - one ppm corresponds to one minute in

two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter - one ppb corresponds to one minute in 2,000 years, or a single penny in \$10 Million.

Parts per trillion (ppt) or Nanograms per liter (nanograms/l) - one ppt corresponds to one minute in 2 Million years, or a single penny in \$10 Billion.

Parts per quadrillion (ppq) or Picograms per liter (picograms/l) - one ppq corresponds to one minute in 2 Billion years or one penny in \$10 Trillion.

Picocuries per liter (pCi/L) - a measure of the radioactivity in water.

Million Fibers per Liter (MFL) - measure of the presence of asbestos fibers that are longer than 10 micrometers.

Nephelometric Turbidity Unit (NTU) - units used to measure water clarity. Turbidity in excess of 5 NTU is just noticeable to the average person.

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

Treatment Technique (TT) - (mandatory language) this is a required process intended to reduce the level of a contaminant in drinking water.

Maximum Contaminant Level (MCL) - (mandatory language) 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) - (mandatory language) 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.

TEST RESULTS

The 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. Some of our data (e.g., for organic contaminants), though representative, is more than one year old. Chemicals, which were tested for, but not detected, are included in the tables with ND in the level detected column.

Although the **Southern Ute Indian Tribe** is regulated by the EPA, these testing requirements meet the criteria of the Colorado State Health Department.

Contaminant	Sample Date	Violation Y/N	Level Detected	Unit Measurement	MC LG	MCL	Likely Source of Contamination
Microbiological Contaminants							
1. Total Coliform Bacteria	2/month	N	Absent	P/A	0	Presence of col. bacteria in 5% of monthly samples	Naturally present in the environment
2. Fecal coliform and <i>E.coli</i>	N/A	N	Not tested because absent in above test	P/A	0	A routine sample & repeat sample are total coliform positive, & one is also fecal coliform or <i>E.coli</i> positive	Human and animal fecal waste
3. Turbidity Percent of readings below MCL	Continuous	N	100	NTU	N/A	TT	Soil runoff
Radioactive Contaminants							
4. Beta/photon emitters	11/03	N	ND	pCi/L	0	50	Decay of natural and man-made deposits

5. Alpha emitters	11/06	N	1.44	pCi/L	0	15	Erosion of natural deposits
6. Combined radium	Not Required			pCi/L	0	5	Erosion of natural deposits
Inorganic Contaminants							
7. Antimony	2/05	N	<.0005	ppb	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
8. Arsenic	10/08	N	<.0005	ppb	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
9. Asbestos	6/11	N	<0.12	MFL	7	7	Decay of asbestos cement water mains; erosion of natural deposits
10. Barium	2/05	N	0.0412	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
11. Beryllium	2/05	N	<.0005	ppb	4	4	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
12. Cadmium	2/05	N	<.00005	ppb	5	5	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
13. Chromium	2/05	N	<.0048	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
14. Copper - 90 th Percentile Action Level exceeding	08/09	N	0.13	ppm	1.3	AL =1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
15. Cyanide	7/11	N	<0.005	ppb	200	200	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
16. Fluoride	5/11	N	0.75	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
17. Lead - 90 th Percentile Action Level	08/10	N	<.002	ppm	0	AL =15	Corrosion of household plumbing systems, erosion of natural deposits
18. Mercury (inorganic)	2/05	N	<.0002	ppb	2	2	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
19. Nitrate / Nitrite (as Nitrogen)	8/11	N	<0.02	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
20. Selenium	2/05	N	<.0135	ppb	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
21. Thallium	2/05	N	<.00005	ppb	0.5	2	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories
Synthetic Organic Contaminants including Pesticides and Herbicides							
22. 2,4-D	6/11	N	<0.1	ppb	70	70	Runoff from herbicide used on row crops
23. 2,4,5-TP (Silvex)	6/11	N	<0.1	ppb	50	50	Residue of banned herbicide
24. Acrylamide	Not Required			N/A	0	TT	Added to water during sewage/wastewater treatment
25. Alachlor	6/11	N	<0.1	ppb	0	2	Runoff from herbicide used on row crops
26. Atrazine	6/11	N	<0.1	ppb	3	3	Runoff from herbicide used on row crops
27. Benzo(a)pyrene (PAH)	6/11	N	<0.02	nanograms/l	0	200	Leaching from linings of water storage tanks and distribution lines

28. Carbofuran	6/11	N	<0.9	ppb	40	40	Leaching of soil fumigant used on rice and alfalfa
29. Chlordane	6/11	N	<0.1	ppb	0	2	Residue of banned termiticide
Contaminant	Sample Date	Violation Y/N	Level Detected	Unit Measurement	MC LG	MCL	Likely Source of Contamination
30. Dalapon	6/11	N	<1.0	ppb	200	200	Runoff from herbicide used on rights of way
31. Di (2-ethylhexyl) adipate	6/11	N	<0.6	ppb	400	400	Discharge from chemical factories
32. Di (2-ethylhexyl) phthalate	6/11	N	<0.6	ppb	0	6	Discharge from rubber and chemical factories
33. Dibromochloropropane	6/11	N	<0.01	ppt	0	200	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards
34. Dinoseb	10/5	N	<0.1	ppb	7	7	Runoff from herbicide use on soybeans and vegetables
35. Diquat	6/11	N	<0.4	ppb	20	20	Runoff from herbicide use
36. Dioxin [2,3,7,8-TCDD]	10/05	N	ND	ppq	0	30	Emissions from waste incineration and other combustion; discharge from chemical factories
37. Endothall	6/11	N	<9.0	ppb	100	100	Runoff from herbicide use
38. Endrin	6/11	N	<0.01	ppb	2	2	Residue of banned insecticide
39. Epichlorohydrin	Not Required			N/A	0	TT	Discharge from industrial chemical factories; an impurity of some water treatment chemicals
40. Ethylene dibromide	6/11	N	<0.01	ppt	0	50	Discharge from petroleum refineries
41. Glyphosate	6/11	N	<6.0	ppb	700	700	Runoff from herbicide use
42. Heptachlor	6/11	N	<.04	ppt	0	400	Residue of banned termiticide
43. Heptachlor epoxide	6/11	N	<0.02	ppt	0	200	Breakdown of heptachlor
44. Hexachlorobenzene	6/11	N	<.1	Ppb	0	1	Discharge from metal refineries and agricultural chemical factories
45. Hexachlorocyclo-pentadiene	6/11	N	<.1	Ppb	50	50	Discharge from chemical factories
46. Lindane	6/11	N	<0.02	ppt	200	200	Runoff/leaching from insecticide used on cattle, lumber, gardens
47. Methoxychlor	6/11	N	<0.1	ppb	40	40	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock
48. Oxamyl [Vydate]	6/11	N	<1.0	ppb	200	200	Runoff/leaching from insecticide used on apples, potatoes and tomatoes
49. PCBs [Polychlorinated biphenyls]	6/11	N	ND	ppt	0	500	Runoff from landfills; discharge of waste chemicals
50. Pentachlorophenol	6/11	N	<0.04	ppb	0	1	Discharge from wood preserving factories
51. Picloram	6/11	N	<0.1	ppb	500	500	Herbicide runoff
52. Simazine	6/11	N	<0.07	ppb	4	4	Herbicide runoff
53. Toxaphene	6/11	N	<1.0	ppb	0	3	Runoff/leaching from insecticide used on cotton and cattle

Volatile Organic Contaminants

54. Benzene	6/11	N	<1	ppb	0	5	Discharge from factories; leaching from gas storage tanks and landfills
55. Carbon tetrachloride	6/11	N	<1	ppb	0	5	Discharge from chemical plants and other industrial activities
56. Monochlorobenzene	6/11	N	<1	ppb	100	100	Discharge from chemical and agricultural chemical factories

57. o-Dichlorobenzene	6/11	N	<1	ppb	600	600	Discharge from industrial chemical factories
58. p-Dichlorobenzene	6/11	N	<1	ppb	75	75	Discharge from industrial chemical factories
59. 1,2 Dichloroethane	6/11	N	<1	ppb	0	5	Discharge from industrial Chemical factories.
60. 1,1 – Dichloroethylene	6/11	N	<1	ppb	7	7	Discharge from industrial chemical factories
61. cis-1,2-Dichloroethylene	6/11	N	<1	ppb	70	70	Discharge from industrial chemical Factories
62. trans – 1,2 –Dichloroethylene	6/11	N	<1	ppb	100	100	Discharge from industrial chemical factories
63. Dichloromethane	6/11	N	<1	ppb	0	5	Discharge from pharmaceutical and chemical factories
64. 1,2-Dichloropropane	6/11	N	<1	ppb	0	5	Discharge from industrial chemical factories
65. Ethylbenzene	6/11	N	<1	ppb	700	700	Discharge from petroleum refineries
66. Styrene	6/11	N	<1	ppb	100	100	Discharge from rubber and plastic factories; leaching from landfills
67. Tetrachloroethylene	6/11	N	<1	ppb	0	5	Leaching from PVC pipes; discharge from factories and dry cleaners
68. 1,2,4 –Trichlorobenzene	6/11	N	<1	ppb	70	70	Discharge from textile-finishing factories
69. 1,1,1 – Trichloroethane	6/11	N	<1	ppb	200	200	Discharge from metal degreasing sites and other factories
70. 1,1,2 –Trichloroethane	6/11	N	<1	ppb	3	5	Discharge from industrial chemical factories
71. Trichloroethylene	6/11	N	<1	ppb	0	5	Discharge from metal degreasing sites and other factories
72. TTHM [Total trihalomethanes]	8/11	N	35.4	ppb	0	80	By-product of drinking water chlorination
73. Toluene	6/11	N	<1	ppm	1	1	Discharge from petroleum factories
74. Vinyl Chloride	6/11	N	<1	ppb	0	2	Leaching from PVC piping; discharge from chemical factories
75. Xylenes	6/11	N	<3	ppm	10	10	Discharge from petroleum factories; discharge from chemical factories

**NO VIOLATIONS OCCURRED IN ALL OF THE ABOVE TESTING PARAMETERS
FOR THE SOUTHERN UTE TRIBE’S WATER SUPPLY IN 2011.**

GENERAL INFORMATION ABOUT DRINKING WATER

All sources of drinking water are subject to potential contamination by naturally occurring or man-made constituents. Those constituents can be microbes, organic or inorganic chemicals, or radioactive materials. 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 at 1-800-426-4791.

Nitrate: 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, and detected nitrate levels are above 5 ppm, you should ask advice from your health care provider. The Tribe’s Nitrate level tested at 0.1 parts per million. You do not need to worry about Nitrate in the water received from the Southern Ute Indian Tribe.

Lead: 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. Southern Ute Water Treatment 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 drinking 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>.

Immuno-compromised persons: Some people may be more vulnerable to contaminants in drinking water than the general public. 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 from their health care providers about drinking water

More specific information: EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and microbiological contaminants are available from the Safe drinking Water Hotline above.

Please call Hayes Briskey or Kelly Jesse at our Utilities Office at (970) 563-5500 if you have any questions about your domestic water or our operation. We can provide tours for individuals or groups (school classes) who would like to understand more about our water system.