



Navajo Tribal Utility Authority

An Enterprise of the Navajo Nation

2018 Annual Water Quality Report

LeChee

NTUA Annual Water Quality Report - Public Water System ID# NN0403006 Calendar Year 2018

Consumer Confidence Report 2018

The Navajo Tribal Utility Authority (NTUA) operates and maintains the public water system within your community. NTUA has created the Consumer Confidence Report to reassure our dedication and commitment in providing safe and quality potable water to you, our valued customer. Please take a few minutes to view this report and become familiar with your potable water.

The Consumer Confidence Report will provide valuable information about your potable water, such as, the type of water source, recent water quality detections, potential health effects, and governing drinking water standards and regulations. With water being an intricate part of our lifestyle, NTUA will continue to ensure the protection and quality of potable water served to your community.

Your Water Source...

NTUA provides potable water from several different sources. The majority of communities receive their potable water from ground water. Ground water is pumped from wells, ranging from several feet to hundreds of feet in depth, and treated to become potable water. Some communities receive their potable water from streams and springs. Stream and spring water is treated, as if it were ground water, to become potable water. However, some communities receive their potable water from surface water, such as, the Animas River, the San Juan River, Farmington Lake, and Lake Powell. Surface water is pre-treated, filtered, and post-treated to become potable water.

Safe Drinking Water Act...

In 1996, the Safe Drinking Water Act (SDWA) was amended to ensure public water systems provide safe drinking water to the public and meet drinking water quality standards. The United States Environmental Protection Agency (USEPA) is governed to oversee states, localities, and water suppliers who implement these drinking water standards. Pursuant to SDWA, USEPA established maximum contaminant levels, maximum contaminant level goals, action levels, and treatment techniques to protect public health from drinking water contamination. NTUA is also regulated by the Navajo Nation Environmental Protection Agency (NNEPA) and must also comply with Navajo Nation Primary Drinking Water Regulations (NNP-DWR).

NOTE: Drinking water, including bottled water, may reasonably be expected to contain minimal concentrations of some contaminants. The presence of contaminants does not necessarily indicate the drinking water poses a health risk. Information about contaminants and potential health effects can be obtained from the USEPA Safe Drinking Water Hotline (1-800-426-4791) or online at <http://www.epa.gov/safewater>.

This report is a snapshot of your water quality

Included are details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. We are committed to providing you with information because informed customers are our best allies.

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 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. The Environmental Protection Agency (EPA) and 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 (800-426-4791).

Why are there contaminants in my 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 Environmental Protection Agency's 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 from human activity including:

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, which 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, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems; and 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, EPA prescribes regulations that limit the amount of certain contaminants 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 for public health.

General Information...

It is important for you, our valued customer, to understand the potential occurrence and presence of contaminants within your potable water. As water flows on or beneath the surface of the earth, it dissolves naturally occurring minerals and pollutants produced from animal and/or human activity. These dissolved minerals and pollutants are called contaminants and could potentially be found in your potable water. Although, these contaminants may not necessarily pose a health risk to you, they may be of a particular risk to individuals with compromised immune systems. These individuals include persons diagnosed with cancer and undergoing chemotherapy, persons who have undergone organ transplants, persons with HIV/AIDS or other immune-deficiency disorders, and elderly and infants who may be prone to infection by these contaminants. These individuals should seek advice from their health care provider about consuming community potable water.

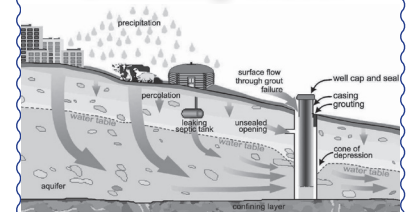
Where does my water come from?

Your water comes from 1 surface water sources.

NTUA'S Mission...

To provide safe and reliable affordable utility services that exceed our customers' expectation

Conserve Drinking Water



Your help is needed to keep drinking water clean! Keep rivers, lakes and stream free of trash! Never allow oil or gasoline to be poured on the ground!

There is the same amount of water on Earth as there was when the dinosaurs lived. Since then, water has either relocated or is in another form such as liquid, solid or gas.

Today's concern is not running out of water because we will always have it. The CONCERN is PROTECTING the water from being contaminated!

Here's a FACT: What's dumped on the ground, poured down the drain, or tossed in the trash can pollute the sources of our drinking water.

ACTION: Take used motor oil and other automotive fluids to an automotive service center that recycles them. Patronize automotive centers and stores that accept batteries for recycling. Take leftover paint, solvents, and toxic household products to special collection centers.

Water Quality Table - LeChee - NN#0403006

The table below lists all of the drinking water contaminants detected during the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires monitoring for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

Contaminants	MCLG	MCL	Your Water	Range Low High	Sample Date	Violation	Typical Source
DISINFECTION BY-PRODUCTS							
Five Haloacetic Acids (HAA5) Units: ppb	N/A	60	35	8.3 52.6	2018	No	By-product of drinking water chlorination
Total Trihalomethanes (TTHMs) Units: ppb	N/A	80	76.6	45.1 88.3	2018	No	By-product of drinking water chlorination
Contaminants	MCLG	Action Level	Your Water	Range	Sample Date	A.L. Exceeded	Typical Source
LEAD AND COPPER RULE							
Copper Units: ppm - 90th Percentile	1.3	1.3	0.321	0 sites over Action Level	2017	No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Term and Definition - **ppm**: parts per million, or milligrams per liter (mg/L); **ppb**: parts per billion, or microgram per liter (ug/L); **positives samples**: positive samples/yr are the number of positive samples taken that year; **% positive samples/month**: percent of samples taken monthly that were positive; **N/A**: not applicable; **ND**: not detected; **NR**: monitoring not required, but recommended; **MCLG**: Maximum Contaminant Level Goal 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; **MCL**: Maximum Contaminant Level 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; **TT**: Treatment Technique is a required process intended to reduce the level of a contaminant in drinking water; **AL**: Action Level is the concentration of a contaminant which, if exceeded, trigger treatment or other requirements which a water system must follow; **Variances and Exemptions**: State or EPA permission not to meet an MCL or a treatment technique under certain conditions; **MRDLG**: Maximum residual disinfectant level goal. 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; **MRDL**: Maximum residual disinfectant level. The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants; **MNR**: Monitored Not Regulated; **MPL**: State Assigned Maximum Permissible Level; **mrem/yr**: Millirem per year

Special Education Statements

Additional Information for 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. PWS system 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 at 1-800-426-4791 or at <http://www.epa.gov/your-drinking-water/basic-information-about-lead-drinking-water>.

Microbiological Testing

Sampling Requirements	Sampling Conducted (month)	Total E. Coli Positive	Assessment Triggers	Assessments Conducted
2 Samples due monthly	12 out of 12	0	0	0

We are required to test your water regularly for signs of microbial contamination. Positive test results could lead to follow-up investigations called assessments and potentially the issuance of public health advisories. Assessments could lead to required corrective actions. The information below summarizes the results of those tests.

Table Definitions...

Action Level (AL): The concentration of copper and lead in potable water which determines if treatment requirements are necessary for a public water system.

Maximum Contaminant Level (MCL): The maximum permissible level of a contaminant in potable water which is delivered to any user of a public water system.

Maximum Contaminant Level Goal (MCLG): The maximum level of a contaminant in potable water at which no known or anticipated adverse health effect would occur, allowing for an adequate margin of safety.

Maximum Residual Disinfectant Level (MRDL): The maximum permissible level of a disinfectant in potable water which is delivered to any user of a public water system.

Maximum Residual Disinfectant Level Goal (MRDLG): The maximum level of a disinfectant in potable water at which no known or anticipated adverse health effect would occur, allowing for an adequate margin of safety.

Treatment Technique (TT): A required physical or chemical treatment process intended to reduce the level of a contaminant in potable water.

Locational Running Annual Average (LRAA): the arithmetic average of analytical results for samples taken at a specific monitoring location during the previous four calendar quarters.



For Additional Information or to get involved . . .

Contact Raquel Whitehorse, Supervisor, Navajo Tribal Utility Authority, PO Box 170, Fort Defiance, AZ 86504-0170, Phone: (928) 729-6239 Fax (928) 729-6249. For information about your public water system and potable water quality contact: Navajo Tribal Utility Authority, Environmental Compliance & Laboratory Department, P.O. Box 170, Fort Defiance, Arizona 86504, or give us a call at (928) 729-6207. For Utility Outages or Emergencies, please call: 1-800-528-5011

2018 Water Quality Data - City of Page, Arizona

Microbiological (RTCR)	TT Violation Y or N	Number of Positive Samples	Positive Sample(s) Month & Year	MCL	MCLG		Likely Source of Contamination
E.Coli	N	NA	NA	0	0		Human and animal fecal waste
Fecal Indicators (From GWR source) (coliphage, eterococci and/or E.Coli)	NA	NA	NA	0	0		Human and animal fecal waste
Surface Water Treatment Rule	TT Violation Y or N	Highest Level Detected	% Range (Low- High)	TT		Sample Month & Year	Likely Source of Contamination
Total Organic Carbon (ppm)	N	3.03		TT		Apr-18	Naturally Present in Environment
Turbidity (NTU), surface water only	N	0.095	0.035-0.095	TT		2018	Soil Runoff
Disinfectants	MCL Violation Yes or No	Running Annual Average (RRA)	Range of All Samples (Low-High)	MRDL	MRDLG	Sample Month & Year	Likely Source of Contamination
Chlorine/Chloramine (ppm)	N	0.98	0.55-1.64	4	0	2018	Water additive used to control microbes
Chlorine dioxide (ppb)	NA	NA	NA	800	0	NA	Water additive used to control microbes
Disinfection By-Products	MCL Violation? Yes or No	Running Annual Average (RRA) OR Highest Level Detected	Range of All Samples (Low-High)	MCL	MCLG	Sample Month & Year	Likely Source of Contamination
Haloacetic Acids (ppb) (HAA5)	N	39	33-47	60	N/A	2018	Byproduct of drinking water disinfection
Total Trihalomethanes (ppb) (TTHM)	N	62	49-82	80	N/A	2018	Byproduct of drinking water disinfection
Bromate (ppb), if treated with Ozone	NA	NA	NA	10	0	NA	Byproduct of drinking water disinfection
Chlorite (ppm), if treated with CLO2	NA	NA	NA	1	0.8	NA	Byproduct of drinking water disinfection
Lead & Copper	MCL Violation? Yes or No	90 th Percentile	Number of Samples Exceeds AL	AL	ALG	Sample Month Year	Likely Source of Contamination
Copper (ppm)	N	0.93	0	1.3	1.3	Jun-18	Corrosion of household plumbing systems, erosion of natural deposits
Lead (ppb)	N	<5	0	15	0	Jun-18	Corrosion of household plumbing systems, erosion of natural deposits
Inorganics Contaminant (Units)	MCL Violation? Yes or No	Running Annual Average (RRA) OR Highest Level Detected	Range of All Samples (Low-High)	MCL	MCLG	Sample Month Year	Likely Source of Contamination
Nitrate (ppm)	N	0.31		10	10	Mar-18	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite ² (ppm)	N	<0.1		1	1	Mar-15	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Antimony (ppb)	N	1		6	6	Mar-18	Discharge from petroleum refineries; fire retardants; ceramics, electronics and solder
Arsenic ¹ (ppb)	N	5		10	0	Mar-18	Erosion of natural deposits, runoff from orchards, runoff from glass and electronics production wastes
Asbestos (MFL)	N	<0.37		7	7	Jan-13	Decay of asbestos cement water mains; Erosion of natural deposits
Barium (ppm)	N	0.072		2	2	Mar-18	Discharge of drilling wastes; discharge from metal refineries; Erosion of natural deposits
Beryllium (ppb)	N	1		4	4	Mar-18	Discharge from metal refineries and coal- burning factories; discharge from electrical, aerospace, and defense industries
Cadmium (ppb)	N	0.5		5	5	Mar-18	Corrosion of galvanized pipes; natural deposits; metal refineries; runoff from waste batteries and paints
Chromium (ppb)	N	1		100	100	Mar-18	Discharge from steel and pulp mills; Erosion of natural deposits
Cyanide (ppb)	N	25		200	200	Mar-18	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories
Fluoride (ppm)	N	0.29		4	4	Mar-18	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Mercury (ppb)	N	0.2		2	2	Mar-18	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills and cropland
Selenium (ppb)	N	5		50	50	Mar-18	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium (ppm)	N	67		N/A	N/A	Mar-18	Erosion of natural deposits
Thallium (ppb)	N	1		2	0.5	Mar-18	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories
<p>¹Arsenic 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. If arsenic is less than or equal to the MCL, your drinking water meets EPA's standards. EPA's standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water, and continues to research the health effects of low levels of arsenic. ²Nitrate 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.</p>							
Synthetic Organic Chemicals (SOC)	MCL Violation? Y or N	Running Annual Average (RRA) OR Highest Level Detected	Range of All Samples (Low-High)	MCL	MCLG	Sample Month Year	Likely Source of Contamination
2,4-D (ppb)	N	1		70	70	Mar-18	Runoff from herbicide used on row crops
2,4,5-TP (a.k.a. Silvex) (ppb)	N	2		50	50	Mar-18	Residue of banned herbicide
Acrylamide	NA	NA		TT	0	NA	Added to water during sewage/wastewater treatment
Alachlor (ppb)	N	<1		2	0	Mar-18	Runoff from herbicide used on row crops
Atrazine (ppb)	N	<0.05		3	3	Mar-18	Runoff from herbicide used on row crops
Benzo (a) pyrene (PAH) (ppt)	N	20		200	0	Mar-18	Leaching from linings of water storage tanks and distribution lines
Carbofuran (ppb)	N	<0.5		40	40	Mar-18	Leaching of soil fumigant used on rice and alfalfa
Chlordane (ppb)	N	<0.1		2	0	Mar-18	Residue of banned termiticide
Dalapon (ppb)	N	1		200	200	Mar-18	Runoff from herbicide used on rights of way
Di (2-ethylhexyl) adipate (ppb)	N	<0.6		400	400	Mar-18	Discharge from chemical factories
Di (2-ethylhexyl) phthalate (ppb)	N	<0.6		6	0	Mar-18	Discharge from rubber and chemical factories

Continue... 2018 Water Quality Data - City of Page, Arizona

Dibromochloropropane (ppt)	N	0.019		200	0	Mar-18	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards
Dinoseb (ppb)	N	<0.2		7	7	Mar-18	Runoff from herbicide used on soybeans and vegetables
Diquat (ppb)	N	<0.4		20	20	Mar-18	Runoff from herbicide use
Dioxin [a.k.a. 2,3,7,8-TCDD] (ppq)	N	<5		30	0	Aug-18	Emissions from waste incineration and other combustion; discharge from chemical factories
Endothall (ppb)	N	<5		100	100	Mar-18	Runoff from herbicide use
Endrin (ppb)	N	<0.01		2	2	Mar-18	Residue of banned insecticide
Epichlorohydrin	NA	NA		TT	0	NA	Discharge from industrial chemical factories; an impurity of some water treatment chemicals
Ethylene dibromide (ppt)	N	<10		50	0	Mar-18	Discharge from petroleum refineries
Glyphosate (ppb)	N	<6		700	700	Mar-18	Runoff from herbicide use
Heptachlor (ppt)	N	<10		400	0	Mar-18	Residue of banned termiticide
Heptachlor epoxide (ppt)	N	<10		200	0	Mar-18	Breakdown of heptachlor
Hexachlorobenzene (ppb)	N	<0.05		1	0	Mar-18	Discharge from metal refineries and agricultural chemical factories
Hexachlorocyclo pentadiene (ppb)	N	<0.05		50	50	Aug-18	Discharge from chemical factories
Lindane (ppt)	N	<10		200	200	Mar-18	Runoff/leaching from insecticide used on cattle, lumber, gardens
Methoxychlor (ppb)	N	<0.05		40	40	Mar-18	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa
Oxamyl (a.k.a. Vydate) (ppb)	N	<0.5		200	200	Mar-18	Runoff/leaching from insecticide used on apples, potatoes and tomatoes
PCBs [Polychlorinated biphenyls] (ppt)	NA	NA		500	0	Mar-18	Runoff from landfills; discharge of waste chemicals
Pentachlorophenol (ppb)	N	<0.04		1	0	Mar-18	Discharge from wood preserving factories
Picloram (ppb)	N	<0.1		500	500	Mar-18	Herbicide runoff
Simazine (ppb)	N	<0.05		4	4	Mar-18	Herbicide runoff
Toxaphene (ppb)	N	<0.5		3	0	Mar-18	Runoff/leaching from insecticide used on cotton and cattle
Volatile Organics (VOC)	MCL Violation? Y or N	Running Annual Average (RRA) OR Highest Level Detected	Range of All Samples (Low-High)	MCL	MCLG	Sample Month Year	Likely Source of Contamination
Benzene (ppb)	N	<0.5		5	0	Mar-18	Discharge from factories; leaching from gas storage tanks and landfills
Carbon Tetrachloride (ppb)	N	<0.5		5	0	Mar-18	Discharge from chemical plants and other industrial activities
Chlorobenzene (ppb)	N	<0.5		100	100	Mar-18	Discharge from chemical and agricultural chemical factories
o-Dichlorobenzene (ppb)	N	<0.5		600	600	Mar-18	Discharge from industrial chemical factories
p-Dichlorobenzene (ppb)	N	<0.5		75	75	Mar-18	Discharge from industrial chemical factories
1,2-Dichloroethane (ppb)	N	<0.5		5	0	Mar-18	Discharge from industrial chemical factories
1,1-Dichloroethylene (ppb)	N	<0.5		7	7	Mar-18	Discharge from industrial chemical factories
cis,1,2-Dichloroethylene (ppb)	N	<0.5		70	70	Mar-18	Discharge from industrial chemical factories
trans-1,2-Dichloroethylene (ppb)	N	<0.5		100	100	Mar-18	Discharge from industrial chemical factories
Dichloromethane (ppb)	N	<0.5		5	0	Mar-18	Discharge from pharmaceutical and chemical factories
1,2-Dichloropropane (ppb)	N	<0.5		5	0	Mar-18	Discharge from industrial chemical factories
Ethylbenzene (ppb)	N	<0.5		700	700	Mar-18	Discharge from petroleum refineries
Styrene (ppb)	N	<0.5		100	100	Mar-18	Discharge from rubber and plastic factories; leaching from landfills
Tetrachloroethylene (ppb)	N	<0.5		5	0	Mar-18	Discharge from factories and dry cleaners
1,2,4-Trichlorobenzene (ppb)	N	<0.5		70	70	Mar-18	Discharge from textile-finishing factories
1,1,1-Trichloroethane (ppb)	N	<0.5		200	200	Mar-18	Discharge from metal degreasing sites and other factories
1,1,2-Trichloroethane (ppb)	N	<0.5		5	3	Mar-18	Discharge from industrial chemical factories
Trichloroethylene (ppb)	N	<0.5		5	0	Mar-18	Discharge from metal degreasing sites and other factories
Toluene (ppm)	N	<0.5		1	1	Mar-18	Discharge from petroleum factories
Vinyl Chloride (ppb)	N	<0.3		2	0	Mar-18	Leaching from PVC piping, discharge from chemical factories
Xylenes (ppm)	N	<0.5		10	10	Mar-18	Discharge from petroleum or chemical factories
Radionuclides	MCL Violation? Y or N	Running Annual Average (RRA) OR Highest Level Detected	Range of All Samples (Low-High)	MCL	MCLG	Sample Month Year	Likely Source of Contamination
Beta/Photon Emitters (mrem/yr.)	NA	NA		4	0	NA	Decay of natural and manmade deposits
Alpha 4000)	N	2.5 + 0.7		15	0	2009	Erosion of natural deposits
Combined Radium-226 & -228 (pCi/L)	N	<0.04		5	0	2009	Erosion of natural deposits
Uranium (µg/L)	N	<0.04		30	0	2009	Erosion of natural deposits