2013 Annual Drinking Water Quality Report

Message From The Public Works Manager

It's our mission to provide you with safe, reliable drinking water. We are committed to ensuring the quality of your drinking water by maintaining an excellent maintenance, operations, and monitoring program for the public drinking water supply. We work hard to provide you with safe drinking water with a minimum cost to the Tribe through doing a majority of the work in-house. Our staff are on-call 7 days a week, 24 hours a day to address issues that arise. We maintain an ongoing program to monitor the drinking water for specific contaminants on a regular basis according to an EPA defined schedule in order to ensure that your drinking water is safe. We are committed to providing educational information about the drinking water and are happy to answer any questions you may have about your drinking water system.

Kevin Snodgrass

Public Works Manager

About This Report

This report is a snapshot of your drinking water quality. Included are details about where your water comes from, what's in your water, how it compares to drinking water standards set by regulatory agencies, and what you can do to protect it. We're committed to providing you with information because informed customers are our best allies. This report is based on water quality data for the 2013 calendar year.

Inside this report:

Your Water Supply

The source water for the FPST water system is a groundwater aquifer. The water is drawn from a basalt aquifer that is approximately 4 miles wide by 15 miles in length. This groundwater aquifer is the sole source of drinking water for the Tribe. The City of Fallon, Churchill County, and Naval Air Station also draw their water from the same basalt aquifer. Groundwater from the basalt aquifer is pumped by wells that are 95 and 130 feet deep. After water is pumped from the groundwater aquifer source, it is treated at the Arsenic Treatment Plant prior to being delivered to your home.

How Does Water Get To My Faucet?

In a typical community water supply system, water is transported under pressure through a distribution network of buried pipes. Smaller pipes, called house service lines, are attached to the main water lines to bring water from the distribution network to your house. In our community water supply system, water pressure is provided by pumping water into storage tanks that store water at higher elevations than the houses they serve. After the water is treated, it travels through up to 13 miles of piping and is fed by gravity to every customer, including the distance across the desert from the colony to the reservation.

Our Treatment Process

The FPST water system uses a treatment process on raw water that's pumped from the groundwater aquifer source to ensure that our water meets federal water quality standards. The treatment process includes coagulation, microfiltration, and disinfection.

The coagulation process uses an iron based solution (ferric chloride) to neutralize particles in the water. Carbon dioxide is added to the water to lower the pH in order to enhance the treatment process. Arsenic binds to the solution to form larger clumps of particles. The larger clumps of particles precipitate out of the treated water system. After the water has gone through the coagulation process, the particles are removed from the water during a filtration process. The water passes through 0.1 micron thick filters that remove the remaining coagulated particles from the water. The treated water is aerated to strip the carbon dioxide and raise the pH again. During the disinfection process chlorine is added to the water as a disinfectant to prevent illness due to water-borne pathogens.

The arsenic treatment plant is an "on-demand" system, meaning it only needs to run when there is a demand for water, often only six hours per day. The arsenic treatment plant is capable of producing up to 500,000 gallons of treated water per day.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people such as people undergoing chemotherapy, people 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 and/or their care givers should seek advice about drinking water from their health care providers. 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 Drinking Water Hotline at 800-426-4791.

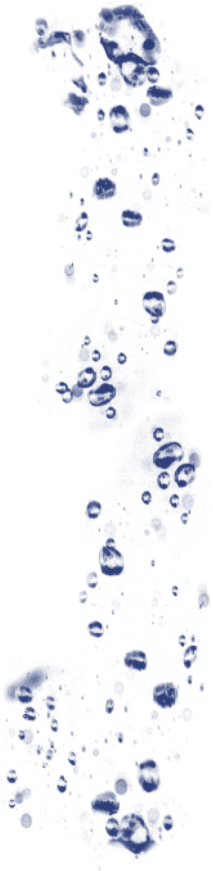
Drinking Water Contaminants

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 the water poses a health risk.

Sources of drinking water (both tap 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. The water can also pick up substances resulting from the presence of animal or human activity. Contaminants that may be present in source water 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 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 that may come from sources such as agriculture, urban storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants that 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 that must provide the same protection for public health.



Additional Information About 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. The Fallon Paiute-Shoshone Tribe Public Works Department 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/safewater/lead/leadfactsheet.html

Additional Information About Arsenic

While your drinking water meets the EPA 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. The 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.

Understanding the Water Quality Data Chart

The Water Quality Report compares the quality of your tap water to EPA drinking water standards. The report includes information on all regulated drinking water contaminants that were monitored during the calendar year of 2013 and also includes some data from earlier monitoring years where applicable. A number of regulated chemicals and other compounds do not require annual monitoring and are tested for on a schedule provided by the US EPA.

The presence of these contaminants in the drinking water 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 US EPAs Safe Drinking Water Hotline (800) 426-4791 or by visiting the EPA's website at:

www.epa.gov/safewater/hfacts.html

Glossary of Terms

Action Level (AL)	The concentration of a contaminant which if exceeded, trigger treatment or other requirements which a water system must follow.
Maximum Contaminant Level (MCL)	Contaminant Level is the "Maximum Allowed" level of a contaminant in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology. MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one in-a-million chance of having the described health effect. All quantities in the MCL/AL column of this table are MCLs unless otherwise noted.
Maximum Contaminant Level Goal (MCLG)	The "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 and are non-enforceable public health goals.
National Primary Drinking Water Standards	The National Primary Drinking Water Standards are legally enforceable standards set by the EPA that apply to public water systems. Primary standards protect public health by limiting the levels of contaminants in drinking water.
National Secondary Drinking Water Standard	National Secondary Drinking Water Standards are non-enforceable guidelines regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. EPA recommends secondary standards but does not require systems to comply.
Not Detected (ND)	Contaminant was not detected in sample.
Parts per Billion (ppb)	One part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.
Parts per Million (ppm)	One part per million corresponds to one minute in two years or a single penny in $10,000.
Picocuries per Liter	Picocuries per liter (pCi/L) is a measure of the radioactivity in water.

2013 Water Quality Data

Contaminant	MCL Violation	Units	MCL/ AL	MCLG	Your Water	Range	Sample Year	Typical Source of Contaminant
Microorganisms								
Total Coliform	No	n/a	Absent	Absent	1 positive monthly sample	n/a	2013	Naturally present in the environment. *Note: Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.*
Fecal Coliform	No	n/a	Absent	Absent	All results negative	n/a	2013	Human and animal waste
Disinfection Byproducts								
Five Haloacetic Acids – Stage 1	No	ppb	60	60	7.9	n/a	2010	By-products of drinking water disinfection
Trihalomethanes Stage 1– Total	No	ppb	80	n/a	4.12	n/a	2013	By-products of drinking water disinfection
Inorganic Chemicals								
Arsenic	No	ppb	10	n/a	5.7*	ND-10	2013	Erosion of natural deposits; runoff from orchards, runoff from glass & electronics production wastes.
Chromium	No	ppb	100	100	1	n/a	2012	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Copper	No	ppm	AL 1.3	1.3	0.022	n/a	2012	Corrosion of household plumbing systems; erosion of natural deposits; leaching of wood preservatives
Cyanide	No	ppb	200	200	ND	ND	2012	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride	No	ppm	4	2**	0.7	n/a	2013	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead	No	ppb	AL 15	0	ND	ND	2012	Corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Mercury	No	ppb	2	2	ND	ND	2012	Erosion of natural deposits; refinery and factories discharges; runoff from landfills and croplands
Nitrate+ Nitrite (as Nitrogen)	No	ppm	1	1	ND	ND	2012	Runoff from fertilizer use; leaking from septic tanks, sewage; erosion of natural deposits
Selenium	No	ppb	50	50	2	n/a	2012	Petroleum discharges, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from mines
Sodium	n/a	ppm	n/a	n/a	240	n/a	2012	Erosion from natural deposits; salt water intrusion
Organic Chemicals								
Test results for all organic chemicals were a Non-Detect (ND) for all water samples during the last round of sampling for organic chemicals during in 2012.								
Radionuclides								
Adjusted Alpha Radiation (excluding Radon and Uranium)	No	pCi/L	15	0	1.9556*	1.5-2.33	2007	Erosion of natural deposits

* Average of all results taken during the reporting period.
** Secondary Drinking Water Standard

Monitoring and Reporting Violations

Contaminant Name Rule	Type of Violation	Begin/End Date	Comments	Steps Taken to Correct the Violation	Return to Compliance / Date	Action Comment
Total Coliform	Minor monitoring/ reporting violation for routine bacteriological monitoring	8/1/2013 8/31/2013	2 reported of the 5 required after positive result in the month prior	Report all future required results	Yes 10/1/2013	Conducted subsequent required monitoring

History of Arsenic Standard Compliance

For many years, the drinking water served by the FPST's public water system contained arsenic in concentrations of approximately 100 parts per billion (ppb).

In March 2000, The Environmental Protection Department issued the Recommendation to Use Alternative Water For Drinking due to a high level of arsenic. On January 22, 2001, the EPA adopted a new MCL for arsenic in drinking water at 10 ppb, replacing the old standard of 50ppb. Public water supply systems were required to comply with the new MCL by January 23, 2006.

In 2003, the Tribe applied for and was awarded EPA Drinking Water Tribal Set-Aside Grant funding to supplement Indian Health Service funds for the construction of arsenic treatment facilities. In January of 2005 the Arsenic Treatment Plant was placed into service and successfully reduced arsenic levels from the range of 90 to 120 ppb to less than 10 ppb. The total construction cost was just under $1.8 million dollars, including design and start-up.

Currently, the Tribe's drinking water is in compliance with the MCL for Arsenic on average over a twelve month period.

How Can I Get Involved?

We value your comments and feedback about the Tribal water system. The water system is governed by the Fallon Business Council which meets on the second and fourth Tuesday of every month beginning at 5:30 pm at the FPST Administrative Conference Room.

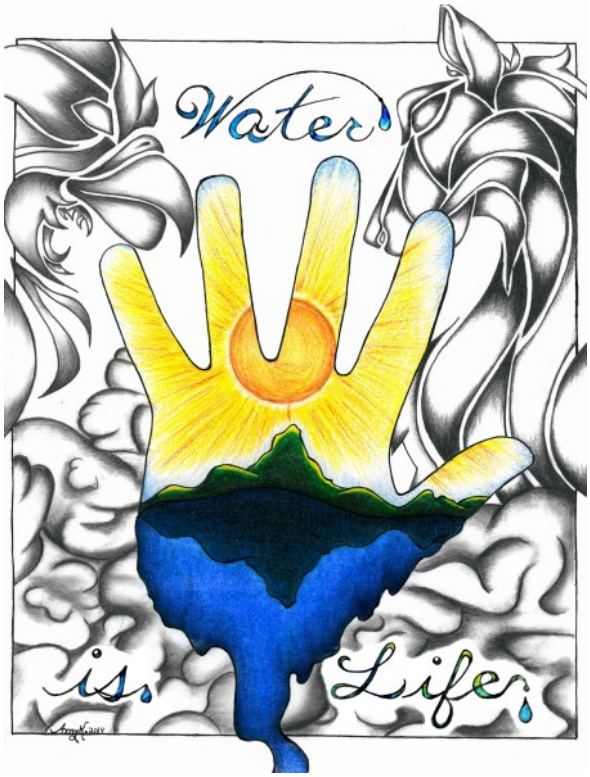
For more information about this document or to report a problem, contact the Public Works Department. We rely on information from the community about problems with the water system. If you notice a water break, or any other problem with the water supply system please call to let us know. Your help is appreciated!

Kevin Snodgrass
Public Works Manager
Phone: (775) 427-9954

Hydrant Flushing

The Public Works Department regularly flushes fire hydrants on the reservation for several reasons. The Volunteer Fire Department requires flow tests to make sure hydrants are ready to be used in case of an emergency. The Public Works Department conducts system flushing to prevent a deterioration in water quality due excessive nitrites, or the presence of coliform bacteria because of the presence of stagnant water in the system. During water system flushing events it is not uncommon to see an increase in sediment and iron for a short time after the flushing event. This is done to ensure safe drinking water in the system. If you are experiencing discolored water and are wondering if the hydrants were flushed recently, please contact the Public Works Department.

Quality of Water is Quality of Life



Each and every one of us depends on the sustaining properties of water every day. Water nourishes our cells and quenches our thirst. Our fragile wetland environment here in the parched desert also depends on clean water supplies in order to provide a place for wildlife and aquatic creatures to live.

Our drinking water comes from a ground water source called an aquifer. Although we pull the water from the ground through wells, it is not completely cut off from the lakes, rivers, and streams at the surface. Water flows in a great cycle. The rain or snow from the clouds falls on the earth and pools into streams that feed into larger bodies of water. Streams flow into rivers and keep going until they reach the lowest point. Oceans, lakes, and wetlands hold the water until it seeps into the earths aquifers underground or evaporates back into the air to form clouds again.

In a similar way, water cycles through our bodies and sustains life. Our bodies require water to carry out biological processes and to remove the build up of toxins in our tissues and organs.

Some people say that water is the oldest medicine. As native people we have always had a close relationship with water. Today, in our increasingly fast paced world, water is no less important to life. Protecting our precious water resources in the Nevada desert is growing even more important.

Everything eventually flows to the lowest point. For us that means that everything eventually flows into our wetlands. Keep this in mind when you see litter, spilled oil, or other contaminants. With each rain, the water continues to flow in it's great cycle. With each rain the water picks up contamination we place on the ground into other bodies of water and into our aquifers that eventually supply the very water we rely on for life.

You can make a real difference in protecting the quality of life here by protecting water quality. Start with picking up litter and cleaning up spills around your home. Encourage your neighbors to do the same. Big changes can come from small actions.

If you want to learn what the Environmental Department is doing to protect water quality or if you would like to volunteer to make a difference, please call the Environmental Department at

(775) 423-0590.

Fallon Paiute-Shoshone Tribe

Environmental Protection Department
1011 Rio Vista Drive
Fallon, NV 89406

Take Back The Tap

The precious resource of tap water is often taken for granted. Your tap water is available 24 hours a way, 7 days a week, 365 days a year. Your tap water meets all safe drinking water standards and is affordable at less than a penny per gallon. In comparison, bottled water is over a thousand times more expensive and does not always meet the same standards for safe water as your tap water does. Drinking tap water is a wise and economical choice. It is also a good environmental decision and will help to prevent pollution from plastic bottles. Consider purchasing a good water bottle and hydrating with the safe, refreshing water that comes right from your tap.

Summer Water Conservation

During the hot summer months, water demand surges putting water delivery systems under added pressure to meet demand. During the summer months our water system struggles to meet the growing demand for water. Increased demand means higher costs. In order to help us meet the need for clean drinking water and avoid higher operation and maintenance costs, we are asking you to help us by conserving water.

Water conservation is an important issue for everyone, everywhere. But, it is especially important for us, here in the desert during the hot summer months. You can do a lot to help protect our precious water resources for the next seven generations. Start small and do your part to ensure that we all have access to save, clean, and affordable drinking water.

Here are a few ideas for how you can conserve water at home. Remember, every drop counts!

- Fix leaky faucets.
- Replace shower heads with low-flow heads. There are some nice ones on the market!
- Upgrade your toilet to a more efficient model.
- Water your lawn in the cool morning or evening hours.
- Only run your dishwasher or laundry with full loads.
- Turn off the water when you don't need it when you are washing dishes, brushing your teeth, or shampooing your hair.
- Consider reusing some of your household greywater on your landscape. (You will need to use appropriate soaps to do this.)
- Capture rainfall and runoff in rain gardens to water landscape plants.
- Replace your lawn with a water retention and conservation landscape with native berry bushes and other low-water-use plants.