

# Sac and Fox Nation Consumer Confidence Report 2010

## **Is my water safe?**

Yes, we at Sac and Fox Nation Water Utility strive to keep your water safe by maintaining a staff of quality system operators, continuous system monitoring, and ongoing water analysis. We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's water quality. 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. 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 (800-426-4791).

## **Where does my water come from?**

Sac and Fox Nation gets its water by pumping water from the Ada-Vamoosa aquifer.

## **Source water assessment and its availability**

The 1996 amendments to the Safe Drinking Water Act, authorizes a Source Water Assessment Program to determine the susceptibility of a public drinking water supply to contamination. Sources of contaminants regulated by the Safe Drinking Water Act are required to be inventoried during the assessment process. The EPA Region 6 Source Water Protection Branch conducted the field portion of this assessment in August 2010. You can obtain a copy of Sac and Fox Nation's Source Water Assessment Report by contacting Sac and Fox Nation's Office of Environmental Services.

## **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 (EPA) 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:

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.

## **How can I get involved?**

Currently the best way to be involved is to be informed by reading this report or contacting the Office of Environmental Services for additional information.

## **Cross Connection Control Survey**

The purpose of this survey is to determine whether a cross-connection may exist at your home or business. A cross connection is an unprotected or improper connection to a public water distribution system that may cause contamination or pollution to enter the system. We are responsible for enforcing cross-connection control regulations and insuring that no contaminants can, under any flow conditions, enter the distribution system. If you have any of the devices listed below please contact us so that we can discuss the issue, and if needed, survey your connection and assist you in isolating it if that is necessary.

- Boiler/ Radiant heater (water heaters not included)
- Underground lawn sprinkler system
- Pool or hot tub (whirlpool tubs not included)
- Additional source(s) of water on the property
- Decorative pond
- Watering trough

## Monitoring and reporting of compliance data violations

The Sample for Disinfectant Byproducts Rule was taking on time, but at the wrong sampling location. A new sample will be taken at the correct location to correct this violation. Health effects unknown.

## 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. Sac and Fox Nation PWS 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 or at <http://www.epa.gov/safewater/lead>.

# Sac and Fox Nation Water System

## Water Quality Data Table

The table below lists all of the drinking water contaminants that we 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 requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

(Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future.)

### Disinfectants & Disinfection By-Products

<u>Contaminants</u>	<u>MCLG</u>	<u>MCL</u>	<u>HLD</u>	<u>Range</u>		<u>Sample Date</u>	<u>Violation</u>	<u>Typical Source</u>
				<u>Low</u>	<u>High</u>			
Haloacetic Acids (HAA5) (ppb)	NA	60	68	68	68	2008	No	By-product of drinking water disinfection
Total Trihalomethanes (TThm) (ppb)	NA	80	7.45	0	7.45	2010	No	By-product of drinking water disinfection

(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.)

**Inorganic Contaminants**

<u>Contaminants</u>	<u>MCLG</u>	<u>MCL</u>	<u>HLD</u>	<u>Range</u>		<u>Sample Date</u>	<u>Violation</u>	<u>Typical Source</u>
				<u>Low</u>	<u>High</u>			
Barium (ppm)	2	2	0.008	0.008	0.008	2010	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride (ppm)	4	4	0.38	0.38	0.38	2010	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate (ppm) (measured as nitrogen)	10	10	0.84	0.84	.84	2010	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium (ppb)	50	50	10	10	10	2010	No	Discharge from petroleum and metal refineries; erosion of natural deposits; Discharge from mines

**Radioactive Contaminants**

<u>Contaminants</u>	<u>MCLG</u>	<u>MCL</u>	<u>HLD</u>	<u>Range</u>		<u>Sample Date</u>	<u>Violation</u>	<u>Typical Source</u>
				<u>Low</u>	<u>High</u>			
Beta/Photon emitters (pCi/L)	0	50	25.7	2.39	25.7	2010	No	Decay of natural and man-made deposits
Combined Radium	0	5	0.9	0.5	0.9	2010	No	Erosion of natural deposits
Gross Alpha excluding radon and uranium (pCi/L)	0	15	40.4	0	40.4	2010	No	Erosion of natural deposits
Uranium (ug/L)	0	30	34	7.7	75.3	2010	No	Erosion of natural deposits

**Volatile Organic Compounds**

<u>Contaminants</u>	<u>MCLG</u>	<u>MCL</u>	<u>HLD</u>	<u>Range</u>		<u>Sample Date</u>	<u>Violation</u>	<u>Typical Source</u>
				<u>Low</u>	<u>High</u>			
Xylenes (ppm)	10	10	0.00054	0	0.00054	2010	No	Discharge from petroleum factories; Discharge from chemical factories

<u>Contaminants</u>	<u>MCLG</u>	<u>AL</u>	<u>HLD</u>	<u>Sample Date</u>	<u># Samples Exceeding AL</u>	<u>Exceeds AL</u>	<u>Typical Source</u>
<b>Inorganic Contaminants</b>							
Copper - action level at consumer taps (ppm)	1.3	1.3	0.114	2010	0	No	Corrosion of household plumbing systems; Erosion

**Violations table**

<u>Violation Type</u>	<u>Violation</u>	<u>Violation</u>	<u>Violation Explanation</u>
Haloacetic Acids Monitoring, Routine (DBP), Major*	1/1/2010	12/31/2010	We failed to test our drinking water for the contaminant and the period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period.
Total Trihalomethanes (TTHm) Monitoring, Routine (DBP), Major**	1/1/2010	12/31/2010	We failed to test our drinking water for the contaminant and the period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period.

\*Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

\*\*Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

<b>Unit Descriptions</b>	
<u>Term</u>	<u>Definition</u>
ug/L	ug/L : Number of micrograms of substance in one liter of water
mrem/yr	mrem/yr: millirem per year ( a measure of radioactivity)
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)
positive samples/month	positive samples/month: Number of samples taken monthly that were found to be positive
NA	NA: not applicable
ND	ND: Not detected

**Important Drinking Water Definitions**

<u>Term</u>	<u>Definition</u>
MCLG	MCLG: Maximum Contaminant Level Goal: 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	MCL: Maximum Contaminant Level: 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.
AL	AL: Action Level: The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.
HLD	Highest Level Detected

<b>Unit Descriptions</b>	
<b>Term</b>	<b>Definition</b>
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.

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MCL	MCL: Maximum Contaminant Level: 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	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfection 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	MRDL: Maximum residual disinfectant level. 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.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level

**For more information please contact:**

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