



Sac and Fox Nation Consumer Confidence Report 2011

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?

The best way to be involved is to be informed by reading this report or contacting Environmental Specialist Jeremy Fincher of the Office of Environmental Services for additional information at 918-968-0046.

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. Here are few examples of what a cross-connection may look like.



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

We routinely monitor for the presence of an array of drinking water contaminants. The annual average of the quarterly tests results we received for our system during period of March, 2010 and February, 2011 exceeded the MCL for Uranium. This was first explained in a public notice issued in April, 2011. At that time actions were taken to reduce the uranium concentration below the MCL. As a result, the concentration has been lowered and maintained below the MCL.

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>.

Additional Information for Copper

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's disease should consult their personal doctor.

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.)

| <u>Contaminants</u> | <u>MCLG</u> | <u>MCL</u> | <u>Your Water</u> | <u>Range</u> | | <u>Sample Date</u> | <u>Violation</u> | <u>Typical Source</u> |
|---|-------------|------------|-------------------|--------------------|-------------------------------|--------------------|-----------------------|---|
| Disinfectants & Disinfection By-Products | | | | | | | | |
| Haloacetic Acids (HAA5) (ppb) | NA | 60 | 2.72 | NA | NA | 2011 | No | By-product of drinking water disinfection |
| Total Trihalomethanes (TThm) (ppb) | NA | 80 | 79.1 | NA | NA | 2011 | No | By-product of drinking water disinfection |
| <i>(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.)</i> | | | | | | | | |
| Inorganic Contaminants | | | | | | | | |
| Barium (ppm) | 2 | 2 | 0.007 | NA | NA | 2011 | No | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits |
| Fluoride (ppm) | 4 | 4 | 0.22 | NA | NA | 2011 | No | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories |
| Nitrate (ppm) (measured as nitrogen) | 10 | 10 | 0.57 | NA | NA | 2011 | No | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |
| Radioactive Contaminants | | | | | | | | |
| Beta/Photon emitters (pCi/L) | 0 | 50 | 6.87 | 1.56 | 10.6 | 2011 | No | Decay of natural and man-made deposits |
| Combined Radium | 0 | 5 | .621 | -0.077 | 1.976 | 2011 | No | Erosion of natural deposits |
| Gross Alpha excluding radon and uranium (pCi/L) | 0 | 15 | 14.47 | 3.21 | 34.1 | 2011 | No | Erosion of natural deposits |
| Uranium (ug/L) | 0 | 30 | 41 | 3.29 | 140 | 2011 | YES | Erosion of natural deposits |
| Volatile Organic Compounds | | | | | | | | |
| Xylenes (ppm) | 10 | 10 | 1.52 (ppb) | NA | NA | 2011 | No | Discharge from petroleum factories; Discharge from chemical factories |
| Inorganic Contaminants | | | | | | | | |
| <u>Contaminants</u> | <u>MCLG</u> | <u>AL</u> | <u>Your Water</u> | <u>Sample Date</u> | <u># Samples Exceeding AL</u> | <u>Exceeds AL</u> | <u>Typical Source</u> | |

| | | | | | | | |
|--|-----|-----|-------|------|---|----|--|
| Copper - action level at consumer taps (ppm) | 1.3 | 1.3 | 0.114 | 2010 | 0 | No | Corrosion of household plumbing systems; Erosion of natural deposits |
|--|-----|-----|-------|------|---|----|--|

Violations table

| Violation Type | Violation Begin | Violation End | Violation Explanation |
|----------------|-----------------|---------------|--|
| Uranium | | | |
| MCL, Average | 1/1/2011 | 12/31/2011 | Water samples showed that the amount of this contaminant in our drinking water was above its standard(called maximum contaminant level and abbreviated as MCL) for the period indicated. |

Some people who drink water containing uranium in excess of the MCL (30ug/L) over many years may have an increased risk of getting cancer and kidney toxicity.

Unit Descriptions

| Term | Definition |
|------------------------|--|
| 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

| Term | Definition |
|------|---|
| 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. |

For more information please contact:

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