

2010 Annual Drinking Water Quality Report

The Tahlequah Public Works Authority is pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the quality of water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. Our water source is surface water from the Scenic Illinois River. The river supplies surface water to the city's 7 million gallon per day treatment facility located at 2260 Riverview Drive on the east side of Tahlequah. The Tahlequah Water Treatment & Pumping Facility supplies potable water to 5 water districts, The Cherokee Nation and Sequoyah High School Complex, and the City of Tahlequah in Cherokee County.

This report shows our water quality and what it means. In our effort to supply you with the safest possible product, the Water Treatment Facility chlorinates the water supply for disinfection of viruses and bacteria. Fluoride is also added to enhance dental protection. The levels of these two additives are monitored daily to ensure proper dosages are being added. If you have any questions about this report or concerning your water quality, please contact Kenneth Johnson, Chief Operator and Superintendent at the Tahlequah Water Treatment & Pumping Facility- 918/456-2123. We want you, our valued customer to be informed about your water utility. You are welcome to attend any of our regularly scheduled meetings. They are held at the UTILITIES BUILDING located at 101 North College Ave., Tahlequah. Please contact the office at 918/456-2564 to request the date and time of any particular meeting.

The Tahlequah Water Treatment & Pumping Facility routinely monitors for constituents in your drinking water according to Federal and State laws. The following table shows the results of our monitoring for the period of January 1 to December 31, 2010. Some of the data may be more than one year old because the State allows us to monitor for some contaminants less often than once per year.

DEFINITIONS:

- *Maximum Contaminant Level (MCL)* - 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)* - 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.
- *Action Level (AL)* - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- *Treatment Technique (TT)* A required process intended to reduce the level of a contaminant in drinking water.
- *Parts per million (ppm) or Milligrams per liter (mg/l)* - one part of contaminant per million parts of water. This level corresponds to one minute in two years or a single penny in \$10,000.
- *Parts per billion (ppb) or Micrograms per liter (ug/l)* - one part of contaminant per billion parts of water. This level corresponds to one minute in 2,000 years or a single penny in \$10,000,000.
- *Nephelometric Turbidity Unit (NTU)* - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
- *Picocuries per liter (pCi/L)* - picocuries per liter is a measure of the radioactivity in water.
- *Non-Detects (ND)* - Laboratory analysis indicates that the constituent is not present.

MCLs 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 sources of drinking water are subject to potential contamination by constituents that are naturally occurring or are man-made. 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.

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/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

In our continuing efforts to maintain a safe and dependable water supply it may be necessary to make improvements in your water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements

For more information on the services we provide please visit our website at: <http://www.tpwa.cityoftahlequah.com/>
Please call our office if you have questions at 456-2564.

**WATER QUALITY DATA
2010**

MICROBIOLOGICAL CONTAMINANTS

Substance	MCL	Maximum Level Detected	EPA MCLG (EPA Goal)	2010 Violations	Sources of Contaminant
Total Coliform Bacteria	15 (fifteen) monthly samples monitored per month.	0 samples tested positive in year 2010	0% of monthly samples testing positive for coliform	None	Naturally present in the environment

Substance	MCL	Maximum Level Detected	Lowest Monthly Percentage	2010 Violations	Sources of Contaminant
Turbidity	TT ≤ 0.3 NTU in ≥ 95% of monthly samples taken and TT ≤ 1 NTU in a single sample	0.29 NTU in any single sample in year 2010	≤0.3 NTU in 100.0% of all samples taken within one month	None	Agriculture, Geological soil runoff

RADIOCHEMICAL CONTAMINANTS

Substance	MCL	Maximum Level Detected	2010 Violations	Sources of Contaminant
Alpha Emitters	15 pCi/L	1.69 pCi/L	None	Erosion of Natural Deposits
Beta/Photon Emitters	50 pCi/L	3.45 pCi/L	None	Decay of Natural Deposits

TOTAL TRIHALOMETHANES (Stage 2 DBP Rule)

Substance	MCL	Highest Quarterly Running Average	Range of Detections	2010 Violations	Sources of Contaminant
Total Trihalomethanes	80 ppb	42 ppb	17.3 ppb to 56.3 ppb	None	Chlorination By-Product

TOTAL Haloacetic Acids (Stage 2 DBP Rule)

Substance	MCL	Highest Quarterly Running Average	Range of Detections	2010 Violations	Sources of Contaminant
Total Haloacetic Acids	60 ppb	21.00 ppb	10.8 ppb to 29.4 ppb	None	Chlorination By-product

INORGANIC CONTAMINANTS

Substance	MCL	Maximum Level Detected	EPA MCLG (EPA Goal)	2010 Violations	Sources of Contaminant
Barium	2 ppm	0.027 ppm	2 ppm	None	Drilling waste, natural erosion
Fluoride	4 ppm	1.16 ppm	4 ppm	None	Erosion of natural deposits; water additive which promotes strong teeth
Nitrate (NO ₃) As Nitrogen	10 ppm	2.0 ppm	10 ppm	None	Runoff from fertilizer use, septic tanks or sewage

LEAD AND COPPER (Regulated at Customer Tap)

Substance	Action Level *	90% Sample Detection	2010 Violations	Sources of Contaminant
Lead	15 ppb	7 ppb	None	Corrosion of home water pipes
Copper	1.3 ppm	0.24 ppm	None	Corrosion of home water pipes

* Action Level – 90% of samples must be below this level.