



# Annual Drinking Water Quality Report 2018

# Tribal Water

Lac du Flambeau Tribal Water & Sewer Department  
PO Box 67 \* Lac du Flambeau, WI 54538 \* (715) 588-7887 e-mail: [svalliere@ldftribe.com](mailto:svalliere@ldftribe.com)

## Is My Water Safe?

During 2018, your tap water met all US Environmental Protection Agency (EPA) drinking water safety standards. Our tribe vigilantly safeguards its water supplies, and we are proud to report that our water system had no maximum contaminant level violations during the 2018 calendar year. This report will give you even more information about the safety of your water supply.

Please read on for additional information.

## Do I need to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-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 Drinking Water Hotline (800-426-4791).

## Where Does My Water Come From?

Your Tribal water supply originates as water beneath the surface of the Earth. This is called groundwater. Groundwater is naturally filtered as it travels through soil and gravel. Water for the Lac du Flambeau Main community system is supplied by five wells. Two of the wells are situated near the downtown pump building located at 553 Chicog Street. Three other wells are located at the West Flambeau pump building located at 1960 Old Prairie Rd. Chlorine is added at both sites before it is sent to the distribution system. Sodium hydroxide is added at the downtown pump house for pH adjustment. This is done to make the water less corrosive to plumbing components in

## INSIDE THIS ISSUE

Is My Water Safe?	1
Do I need to take Special Precautions?	1
Where does my water come from	1
What is Wellhead Protection?	2
Managing the Wellhead Protection Area	2
Why are there contaminants in my drinking water	2-3
How can I get involved	3
Source Water Assessment	3
Water Quality Data Table	4-5
Additional Health Information	6

your home. A free chlorine residual is maintained between .2 to .5 parts per million in all zones of the distribution system. This is done as a precaution to prevent illness due to bacteriological contaminants that may find its way into the system. The Chlorine residuals are tested daily and adjusted as necessary. Pressure and storage is provided by four steel water tanks. Two single pedestal elevated tanks, 50,000 and 150,000 gallons are located in the main community. An additional elevated sphere with a capacity of 250,000 gallons is located on Cemetery Road. A standpipe reservoir with a capacity of 57,000 gallons is located along Indian Village Road. Daily pumping rates average 130,000 gallons. The water distribution system consists of 6, 8, and 10 inch water mains. The majority of the water main is plastic (PVC) along with smaller amounts of ductile iron pipe. Service laterals, (pipe that connect your home to the main in the street) are copper or PE (polyethylene). All 5 of the current wells that feed the distribution system were constructed in 2010. The West Flambeau wells contribute 80 percent of daily water production with the downtown wells contributing the remaining 20 percent.

## What is Wellhead Protection?

Wellhead Protection is a planning and management approach designed to protect public groundwater supply systems from contamination. The purpose is to protect public water supply wells by controlling or managing all potential sources of contamination within a designated area surrounding the well or well field. The wellhead protection area is the part of the landscape that contributes water (and therefore possibly contaminants) to the public drinking water wells. The Tribal Natural Resources Department, together with the LDF Water & Sewer Department, collected baseline information about the groundwater flow patterns around the Lac du Flambeau Water Supply system. This information was then used to delineate a Wellhead Protection Area (WHPA) for a Ten Year Time of Travel around the LDF Main (Downtown) Wells, West Flambeau Wells. This tells us how long (in this case ten years) a contaminant will take until it begins to enter the community well system. The Wellhead Protection Areas needs to be properly managed for future development and current uses in order to protect the integrity of the surrounding groundwater.

Ground Water Quality Ground water is not as naturally protected as we once thought. Instead, contamination can begin at the surface, above the water table, or below the water table. Because the flow of ground water is slow and subject to little turbulence, contaminants are not easily diluted or dispersed, so pollution can last a long time and be difficult to remove.

Contaminants are natural or derived from human activities. They include natural minerals such as iron, calcium, and selenium; synthetic organic chemicals and hydrocarbons, such as solvents, pesticides, petroleum products; waste leachate; salts; bacteria; and viruses. They come from septic tanks, surface impoundment's (e.g., lagoons), agricultural activities, landfills, underground storage tanks abandoned wells, accidental or illegal dumping activities (like dumping waste oil) and highway deicing activities.

### Managing the Wellhead Protection Area

Many wellhead protection area management programs can be implemented easily and at a low cost to the community. Management strategies can involve both regulatory and non-regulatory approaches. In

2001, the Lac du Flambeau Tribal People, through referendum vote, enacted the *Lac du Flambeau Wellhead Protection Ordinance*. Since this time, you may have seen signs indicating the boundary areas for the three (mentioned earlier) wellhead protection areas. The maps for these areas are on file at the LDF Mapping Office. Certain types of activities are prohibited within these areas. Protecting groundwater for future use is a wise, cost-effective step which not only saves money for the community but also provides for the protection of public health and the environment. Copies of the ordinance are available upon request at the Water Department Office or the Tribal Natural Resource Office.

### 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, microbial contaminants, such as viruses and bacteria, which 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 storm water run-off 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 storm water runoff, and residential uses. Organic Chemical Contaminants,

## Water Quality Data Table

### Why Are There Contaminants in my Drinking Water? *(Continued)*

Including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also, come from gas stations, urban storm water runoff, and septic systems. Radioactive contaminants 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 which 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?

We encourage you to become more involved in Tribal water issues. Please call for dates and times of meetings. We also encourage you to visit our office located at 2928 Hwy 47 for additional information about your drinking water.

### Source Water Assessment

During 2003 the Lac du Flambeau Water Resources Program initiated a source water assessment. The purpose of this report is to provide the community with pertinent drinking water data, hydraulic projections and procedures that will assist the Tribe in the protection of our Municipal Water supply from potential sources of contamination. The report is available at the Water Department or the Lac du Flambeau Tribal Natural Resource office.

### Terms and Abbreviations used below

<b>MCL</b>	Maximum Contaminant Level	The highest level of contaminate allowed in drinking water
<b>MCLG</b>	Maximum Contaminant Level Goal	The level of a contaminant in drinking water below which there is no known or expected risk.
<b>Ppm</b>	Parts Per Million	Same as mg/l 1 ppm would be the same ratio as 1 minute in 2 years
<b>Ppb</b>	Parts Per Billion	Same as ug/l 1 ppb would be the same ration as 1 minute in 2000 years
<b>AL</b>	Action Level	The concentration level of a contaminant which triggers treatment or other action.
<b>Pci/L</b>	Picocuries Per Liter	A measure of radioactivity
<b>Bacti</b>	Bacteriological Analysis	Check for coliform bacteria
<b>VOC</b>	Volatile Organic Contaminant	Man-made chemicals
<b>SOC</b>	Synthetic Organic Contaminant	Pesticides, herbicides, and various chemicals
<b>ND</b>	No Detect	
<b>IOC</b>	Inorganic Contaminant	Various elements and compounds

### Bacteriological Testing

Contaminants	Frequency	Sample Point	Mclg	Mcl	Level Found	Violation	Typical Source of Contaminant
Total Coliform Bacteria, E.Coli	Four Samples Each Month During 2018	Distribution System	0	0	No Detects	NO	Human and animal Waste

SOC							
Contaminants	Sample Point	Mclg	Mcl	Level Found	Sample Date	Violation	Typical Source of Contaminant
Di(2-ethylhexyl)phthalate (ppb)	Well 6,7,8	0	6	0.64	12/6/2016	NO	Discharge from rubber and chemical factories. <b>Next Sample 2019</b>

IOC							
Contaminants	Sample Point	Mclg	Mcl	Level Found	Sample Date	Violation	Typical Source of Contaminant
Arsenic (ppb)	Wells 6,7,8	0	10	1.3	11/27/2018	NO	Erosion of Natural Deposits, Runoff from orchards, glass and electronic production.
Barium (ppm)	Wells 6,7,8	2	2	0.0073	11/27/2018	NO	Discharge of drilling waste, Discharge from metal refineries, erosion of natural deposits.
Barium (ppm)	Wells 9,10	2	2	0.016	11/27/2018	NO	Discharge of drilling waste, Discharge from metal refineries, erosion of natural deposits.
Chromium (ppb)	Wells 6,7,8	100	100	0.00052	11/27/2018	NO	Erosion of natural deposits: Mining operations electroplating of metals.
Chromium (ppb)	Wells,9,10	100	100	1.1	11/27/2018	NO	Erosion of natural deposits: Mining operations electroplating of metals.
Fluoride (ppm)	Wells 6,7,8	4	4	0.067	11/27/2018	NO	Additive for dental health, natural deposits. <b>Fluoride not added to LdF Drinking Water</b>
Copper (ppb) 90 <sup>th</sup> Percentile	Distribution System	0	AL= 1300	120	9/7/2016	NO	Erosion of natural deposits: Corrosion of household plumbing systems, from wood preservatives. <b>Next Sample 2019</b>
Lead (ppb) 90 <sup>th</sup> Percentile	Distribution System	0	AL= 15	1.2	9/7/2016	NO	Corrosion of household plumbing systems, lead solders. <b>Next Sample 2019</b>
Nitrate (ppm)	Well 6	0	10	0.12	6/1/2018	NO	Natural Deposits agriculture activity septic tanks.
Nitrate (ppm)	Well 7	0	10	0.042	6/1/2018	NO	Natural Deposits agriculture activity septic tanks.
Nitrate (ppm)	Well 8	0	10	0.063	6/1/2018	NO	Natural Deposits agriculture activity septic tanks.
Nitrate (ppm)	Well 9	0	10	1.6	6/1/2018	NO	Natural Deposits agriculture activity septic tanks.
Nitrate (ppm)	Well 10	0	10	2.8	6/1/2018	NO	Natural Deposits agriculture activity septic tanks.

VOC							
Contaminants	Sample Point	Mclg	Mcl	Level Found	Sample Date	Violation	Typical Source of Contaminant
VOC	Well 6, 7, 8	0	80	ND	11/20/2017	NO	Man made and naturally occurring compounds
VOC	Well 9 & 10	0	80	ND	11/20/2017	NO	Man made and naturally occurring compounds

## Disinfection Byproducts

Contaminants	Sample Point	Mclg	Mcl	Level Found	Sample Date	Violation	Typical Source of Contaminant
Total Haloacetic Acid (HAA5) ppb	Distribution System Site #1 Cemetery Rd.	0	60	4	8/6/2018	NO	Chlorination
Total Haloacetic Acid (HAA5) ppb	Distribution System Site #2 Little Pines Rd.	0	60	6.1	8/6/2018	NO	Chlorination
Total Trihalomethanes (TTHM) ppb	Distribution System Site #1 Little Pines Rd.	0	80	8.8	8/6/2018	NO	Chlorination
Total Trihalomethanes (TTHM) ppb	Distribution System Site #2 Cemetery Rd.	0	80	14	8/6/2018	NO	Chlorination

## Radionuclides

Contaminant	Sample Point	Mclg	Mcl	Level Found	Sample Date	Violation	Typical Source of Contaminant
Gross Alpha pCi/L	Wells 6,7,8	0	15	0.922+/- 0.782	12/6/2016	NO	Erosion of natural deposits of certain minerals that are radioactive and may emit a form of radiation known as alpha radiation.
Gross Alpha pCi/L	Wells 9,10	0	15	0.922+/- 0.782	12/6/2016	NO	Erosion of natural deposits
Radium 226, total pCi/L	Wells 9, 10	0	5	0.242+/- 0.354	12/6/2016	NO	Erosion of natural deposits
Radium 228, total pCi/L	Wells 9,10	0	5	0.274+/- 0.345	12/6/2016	NO	Erosion of natural deposits
Uranium ug/L	Wells 9,10	0	30	0.189+/- 0.007	12/6/2016	NO	Erosion of natural deposits

## Additional Health Information

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 Lac du Flambeau Tribal Utility 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 until it gets noticeably colder before using for drinking or cooking. Never drink, cook or prepare baby formula with water from the hot water tap. 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 1(800) 426-4791 or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead) This report was prepared by Scott Valliere, Water & Sewer Utility Manager. You may contact Scott at our office located at 2928 Hwy 47 or by the phone number/email address below.

Phone (715) 588-7887

E-mail [svalliere@ldftribe.com](mailto:svalliere@ldftribe.com)