

trackingchange

Local and Traditional Knowledge in Watershed Governance

Water Security in Alberta and Northwest Territories

Drinking Water and Dene Tha' First Nation



Many First Nations across Canada face challenges in ensuring the drinking water they have from the land and in their communities is safe to drink. In northern Alberta, there are many factors that can impact the level of water quality due to the extensive extractive industries, such as oil and gas and pulp mills, that occur within the region. A research team was sent out to find out what are the perspectives of **Dene Tha' First Nation**? Do people feel the water they drink in their homes is safe? How concerned are people about the water they drink from the land (lakes, rivers, streams)?

Water Security can be defined as the sustainable use and protection of water resources that integrates acceptable levels of water risk to ecosystems and humans, while providing access to water of proper quantity and quality that can support livelihoods, economic development, human and ecosystem health, national security and protection against water-related hazards (Wheater and Gober, 2013; Bakker and Morinville, 2013).

Research Activities

Research was carried out by Neal Spicer and Molly Chisaaky in Aug 2016. Brenda Parlee supervised the project at the University of Alberta.

Under the guidance of the Band Council, 49 residents of **Dene Tha' First Nation** were interviewed about a variety of questions about their drinking water including water from the land and water people drink while traveling on the land.

Funding was provided by the Government of the Northwest Territories, Water Economics, Policy and Governance Network (WEPGN), and the Tracking Change project (SSHRC) at the University of Alberta.

How do residents of Dene Tha' First Nation understand Drinking water quality in their region?

In general, many community members do not think that their drinking water is safe and are not confident in both quality and access to water in their community and on the land. Most people in the communities receive their drinking water from in-ground water cisterns. However, the majority of households do not drink the tap water, especially those that are not on the pressurized supply lines.

Many community members travel on the land to hunt, fish, pick berries or to just to relax. *When traveling on the land, most people more often bring water with them than drinking water from natural sources.*

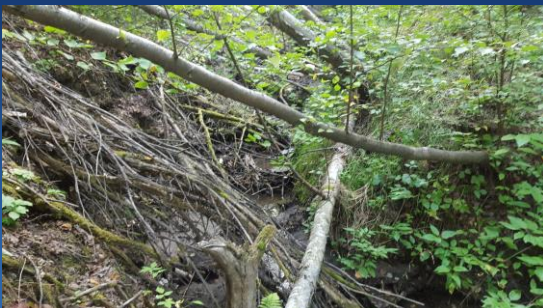
The research showed that:

- The majority of community members typically do not drink tap water within their home or natural source water while on the land;
- Women are typically more concerned about the quality of water and are more likely to drink bottled water within the home;
- People are very concerned about oil and gas contamination and pollution for natural sources of water;
- Younger people are less likely to drink bottled water within the home.



Boil Water Advisories

From time to time, “Boil Water Advisories (BWAs)” are issued by the Government to protect residents from potential illness. Members of the communities will sometimes receive BWAs when their cistern tests positive for bacterial contamination.



Dene Tha' First Nation members typically do not drink natural water sources from the land (e.g., lakes rivers and streams) and bottled water is often used by most of the residents while on the land participating in traditional activities.

Traveling on the land is important to the subsistence economy and culture of the community. Most people traveling on the land reported do not feeling safe when drinking most natural sources.

However, community members will sometimes use specific sources such as muskeg water, rain water, snow water, ice water, and spring water sites for sources of drinking water while on the land or within the home.

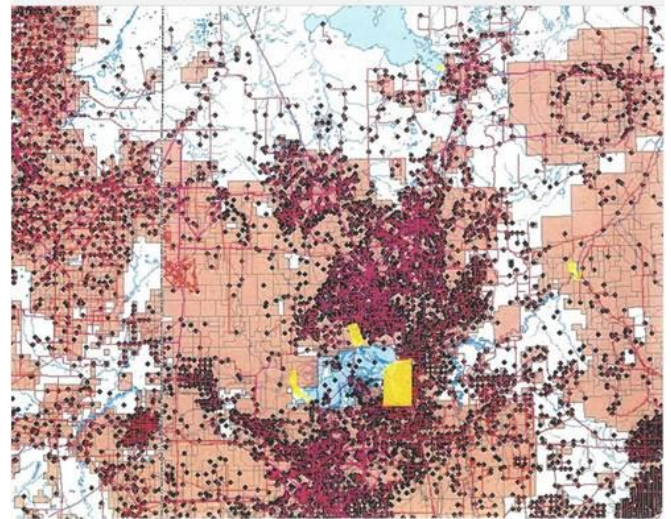
Concerns about drinking water on the land

Many people in the community are concerned about contamination from extractive processes, including oil and gas activity and forestry, that impacts natural water sources that are throughout the traditional territory of the Dene Tha' First Nation.



Pipeline Oil Spill near Zama City Alberta
<https://www.theglobeandmail.com/report-on-business/industry-news/energy-and-resources/northern-alberta-pipeline-was-only-five-years-old-before-toxic-spill/article12536856/>

Resource development in the Hay River Basin is a major concern for many communities living in this sub-basin of the Mackenzie River Watershed. In addition to pipelines and associated pipeline spills, forestry activities and mining activity have changed the quality and flow of water in the region, according to previous research (Wray 2016). These cumulative effects have had additional implications for the First Nation's economy, culture and relationship to the land (Wray 2016).



Each black dot represents an oil well within a section of the DTFN Territory, which is large, spanning up to the NWT border and including Gregoire Lake (not included).



Are people switching to bottled water?

Safe drinking water is important to the health, economy and culture of the community. Unfortunately, due the problems associated with the drinking water, the majority of people within the Dene Tha' First Nation that were interviewed regularly drink bottled water while in their homes.

Normally Drinks at Home:	Male	Female
<i>DTFN</i>		
Bottled water	12	20
Tap water	6	7
Both Tap/Bottled water	3	0
Other	1	0
<i>Total Respondents</i>	22	27
Normally Drinks On Land		
<i>DTFN</i>		
Bottled	18	22
Bottled/Natural Source Water	2	2
Bring Tap Water	0	2
Natural Source Water	2	1
<i>Total respondents</i>	22	27

Many sources of natural water are considered to be unsafe by a number of community members and a large percentage of people regularly drink bottled water while on the land.

Why do people drink bottled water when on the land?

- Oil and Gas
- Pollution
- Water is dirty
- Sawmill
- Problems with fish
- Taste
- Told natural water not safe
- Garbage in the water sources



Father Merriman's shrine spring water is considered safe by many of the community members of Dene Tha' First Nation.

References

Bakker, K. and Morinville, C. (2013). The governance dimensions of water security: a review. Philosophical Transactions of the Royal Society A. 371.201301167. Doi: 10.1098/rsta/2013.0116

Wheater, H. & Gober, P. (2013). Water security in the Canadian Prairies: science and management challenges. Philosophical Transactions of the Royal Society A, 371:20120409. doi:10.1098/rsta.2012.0409



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