
Themes & Trends in Community Based Monitoring Projects in the Mackenzie River Basin

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Introduction

22

Reports

11

Communities

2

Years

RESEARCH QUESTIONS

Looking at the similarities, differences, and themes in regard to the information collected from across the

Value of Water Quality

“**Well-being** of Akaitcho people is based almost entirely on the **cultural and spiritual connection to the land and water**. From healthy eating, to physical activity, to keeping the mind sharp; all these are honed from the skills that Dene people have on the land. Healthy food comes from hunted game, gathered fruits and medicines, and fish from the lakes and rivers.” (Akaitcho Territorial Government Report, 2017)

"Artillery Lake, Fort Reliance, Lady of the Falls in the Lockhart River, and Pike's Portage, among others, are very important areas to the Łutsel K'e Denesoline. **Maintaining the health of the water and fish in those areas is of paramount importance to the community.**" (Łutsel K'e Dene First Nation Report, 2016)

Fish Health Importance

“We are very lucky in this area because... we can rely on fish, or whales, or caribou, or moose, or muskrats...**The Inuvialuit are very resilient people and were able to survive relying on the land and everything that it provides.**” – *Richard Binder, Inuvik, NT (FJMC 2016-17 Report)*

" **Fish are so important to us. We need to protect and take care of them.** That is why we still have our ancestors' cabins – because of the fish. We need to protect the fish." -- *Madelaine Champlain (2016-17 WRRB Report)*

"**Today as in the past, people in Wahtì rely on fish as an important source of healthy food.** Store-bought options are very expensive and often less nutritious. It is well known that for a healthy diet it is essential to include country foods, such as fish. **And with caribou less available, fish becomes an even more important food resource...**" -- *2016-17 WRRB Report*

Decreasing Water Levels

“But back then we used to have like a 70, or 25 you know just to go to those back lakes? Now we can't even make it into those back lakes, because they're, it's **either dried out**, or we can't go through a certain spot cause it's dry. Can't even go, **we have to go a different route...**”

Michelle Gruben

(Inuvialuit Fisheries Joint Management Committee Report, 2017)

Lower water levels and increased sand bars - Water levels were discussed in almost every interview. 22 (of 29) participants mentioned changes in water levels. Most of these people discussed lower water levels, though some discussed higher water at the time due to lots of rains, and some discussed noticing water levels rising and falling more than they used to.”

(Gwich'in Renewable Resources Board Report, 2017)



“No water in both Fort Chipewyan harbours”
Mikisew Cree Report 2016

Fear of Contaminants

Change 2: **Contaminated water** toward the west side of Lake Athabasca. Limited access to traditional hunting and fishing areas.

Change 3: Mining and uranium tailings seepage. **Unhealthy drinking water.**

(Prince Albert Grand Council, 2017 Report)

Fears of mercury poisoning in Williston Reservoir and Peace River. Since BC Hydro placed warnings and signage pertaining to **mercury levels in fish** created by sediments buried under water in the reservoir.

(Treaty 8 First Nations of BC, 2016 Report)



Effects of Disturbance

"All the **burned land flows into the lake** in the spring when the snow is melting and there were so many large ashes falling to the lake. **The lwe are being harmed.**"

Jimmy Nitsiza

(Wek'èezhii Renewable Resources Board Report, 2017)

Change 1: The Bennett Dam had a **noticeable change in the water levels of the Slave River and the Mackenzie River**. For people in Akaitcho, especially on the south side of the lake, and on the Slave River, there is serious concern about Site C dam having the same impact. They are worried about releases of water as well, especially in the winter, because it has the **potential to create "double ice"** where there is a gap between the levels of ice. This is very dangerous for travel."

(Akaitcho Territory Government Report, 2017)

Low water affects the ability of Mikisew Cree First Nation (MCFN) members to reach traditional use areas along transportation routes. This access has been **disrupted by hydroelectric development along the Peace River, the exploitation of the Oil Sands and further exacerbated by climate change.**

(Mikisew Cree First Nation Report, 2016)

Reduced Access to Fishing

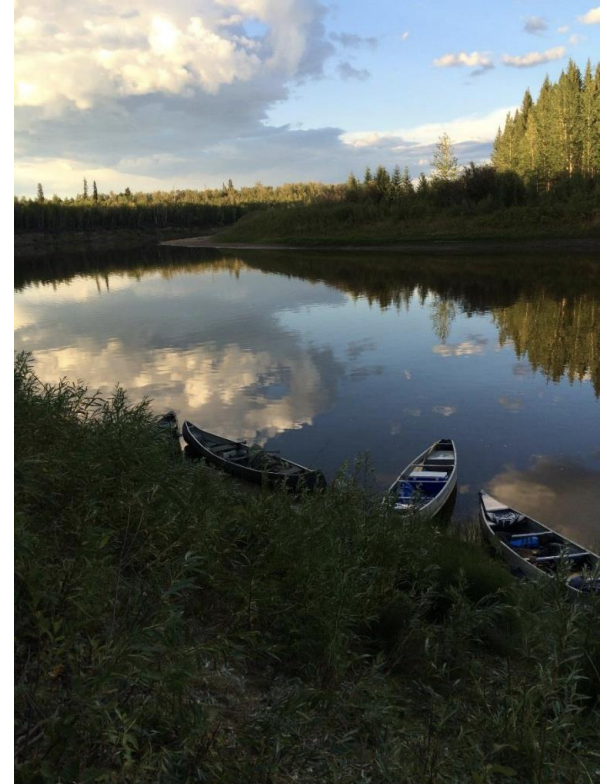
“Most people don’t fish in the Peace anymore because **they’re scared to eat that fish because of the mercury...**

There’s private property all along the banks from Hudson Hope Fort St John so unless you own a boat, there’s not many spots to fish from the banks...”

-- *Thomas Hale, SFN fisher* (2016 Treaty 8 Tribal Association of BC Report)

“... **reduced ice thickness in certain areas can make it less safe to travel to some places.** This change has been observed in the last 5-10 years.” (2016 FJMC Report)

“And now it is that the gas cost too much and some don’t have boats...**It is just too expensive for gas... to go anyplace**” -- *Clara Day, Inuvik, NT* (2016 FMJC Report)



Kátł'odeeche First Nation Report, 2017

Fish Population Changes

“Long ago we used 5.5 inch nets because **there used to be big Lih (whitefish). The lih are getting smaller.** We now use 4.5 to 5 inch nets. Since the 2014 fire, our hwe are getting smaller. I think it is the smoke and ash...” -- *Elder Joe Champlain* (2016-17 WRRB Report)

“**Overfishing...The number of fish seems to diminish the further downstream.** In tributary rivers...it is common knowledge among local fishers that **fish populations are in rapid decline...**This change has been observed since the mid 1960’s after the first dam was built on the Peace River.” – *Treaty 8 Tribal Association of BC Report*

“Some harvesters are observing **reduced harvest rates for Broad Whitefish and Burbot** (Loche) harvested in the Mackenzie River Delta, as well as **new observations of chum salmon** in the area. This change has been observed more regularly in the past 5 years..” -- *2016 FJMC Report*



“Paddling downriver just above Ndu”
Kát’łodeeche
First Nation
Report, 2017

Changing Fish Health

“...**We do see more parasites in the fish at Shingle...people notice more soft skin...** like so soft you can't even cut the darn thing... Salmon I've never ever seen any parasites. Char, maybe the odd one, the odd like worm in there. Rarely in whitefish....**Loche is got that ugly liver and eggs...**” -- *Michelle Gruben (2017-18 FJMC Report)*

“I notice the difference in the loche, not sick or nothing, but **the eggs are not ready like they should be, too late in the season,** they should be ready...they are just white, some are ready, some are white...” -- *Deninu K'ue First Nation (2016 ATG Report)*

“**There are different fish now and deformed ones too.** I have seen some fish with two heads too...About four years ago, Jules and myself set a net out on the lake, **we caught a small trout and it's back was bent in a weird way** and that is the second time I saw strange fish like that from the lake....” -- *Mercredi, 2017-18 Prince Albert Grand Council Report*

Recommendations of Communities

- Mitigating negative impacts of disturbance and development
- Reconnecting youth to culture and protecting resources
- More research tailored to the needs of community



“Making camp at Góht’ádáh Nádehya”
Kát’łodeeche First Nation Report, 2017

Conclusion



“Example of Kát’odeh river bank”
Kát’łodeeche First Nation Report, 2017