SOURCE WATER PROTECTION PLANNING

IN THREE NORTHERN COMMUNITIES

PRESENTED BY AUTUMN CARLSON
SUPPORTED BY DR. ROBERT PATRICK

International Centre for Northern Governance and Development

INTRODUCTION

The purpose of this project was to develop a needs assessment for a **source water protection** (SWP) plan for the tri-community area of the Town of La Ronge, The Village of Air Ronge, and the Lac La Ronge Indian Band (LLRIB).

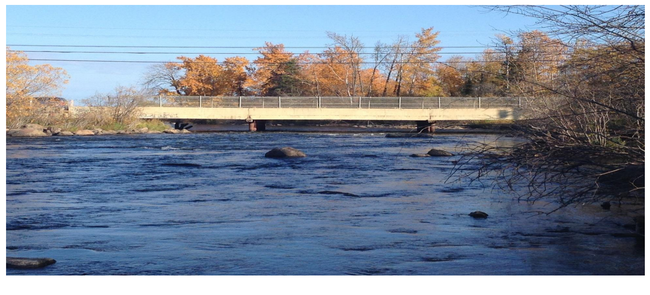
This is an important topic of study for Northern Saskatchewan because smaller communities and First Nations are more likely to have improper access to safe drinking water.

Remediating contaminated sources is much more expensive and difficult than preventative measures.

A multi-barrier approach, with **source water protection planning** as its first barrier, is the best way to mitigate risks and is an economically responsible approach for communities.

Research Questions:

- What are the threats to the source water supplies in the three communities?
- What measures might the three communities take in order to ensure a safe and sustainable drinking water supply?
- Would a SWP plan be beneficial to the tri- community?



METHODS

- Literature review
- Needs assessment from the analysis of interview data to determine:
  - Greatest risks to the water source
  - Possibilities for improvement

Key Findings

- Although water processing and delivery facilities for this area are new, and adequately managed, there are a number of existing and potential threats to the drinking water source, which should be mitigated.

Interviews revealed 3 major threats from past and present, local and upstream sources:

- Sewage leakage into the lake
- High toxic spill potential (radioactive materials, fuel, or chemicals) from transport trucks at the Montreal River Bridge
- Fuel entering the water via a number of sources.

RECOMMENDATIONS

The tri-community should:

- Establish a **source water protection** working committee.
- Develop a **source water protection plan.**
- Establish an advanced emergency spill response protocol with sufficient containment supplies.
- Make the Montreal River bridge less of a potentially hazardous zone.
- Excavate and decommission the holding areas north of town, adjacent to the lake, containing fuel-contaminated soil
- **Fully** upgrade the sewage treatment plant and mitigate other sources of sewage leaking into the lake.
- Move the TransWest water base and other fuel supplying marinas downstream of the drinking water intake area and regulate with yearly hydrocarbon testing of nearby waters.
- Implement public education programs on responsible water use and protection measures.

CONCLUSION

- Instituting these recommendations will help to ensure the safety of this communities drinking water supply.
- A **source water protection plan** is the environmentally and economically responsible choice for the tri-communities.