



COLLABORATIVE WATER ARRANGEMENTS BETWEEN FIRST NATIONS AND MUNICIPALITIES IN ONTARIO

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Social Sciences and Humanities
Research Council of Canada

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sciences humaines du Canada

Canada



LATORNELL
CONSERVATION SYMPOSIUM
CELEBRATING 25 YEARS

Research Team

Project Website: <https://www.isnrg.com/>



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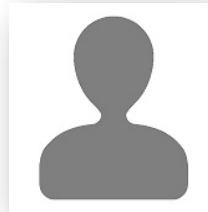
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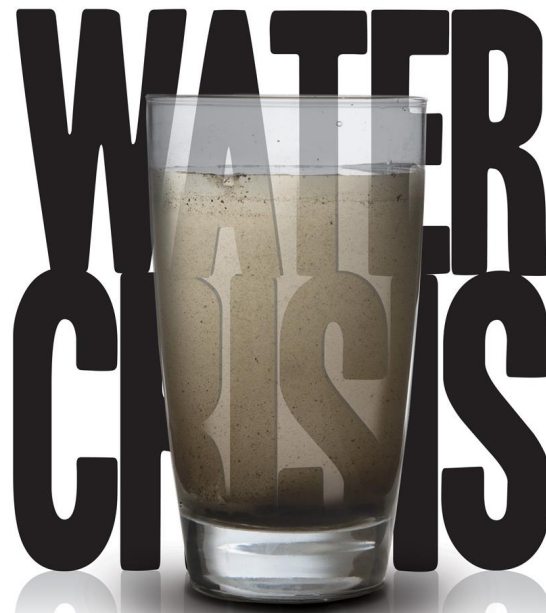


Doctoral Student
Recruitment Underway!
Rural Studies, Guelph
Or
Political Science, Western

**Community Research
Assistants (CRAs),
Collaborating
communities**

Outline

- Background and Need
- Policy Context
- Past Research
- Goal and Methodology
- Next Steps



TOO MANY FIRST NATIONS RESERVES DEALING WITH THIRD-WORLD CONDITIONS

http://www.vueweekly.com/water_crisis/

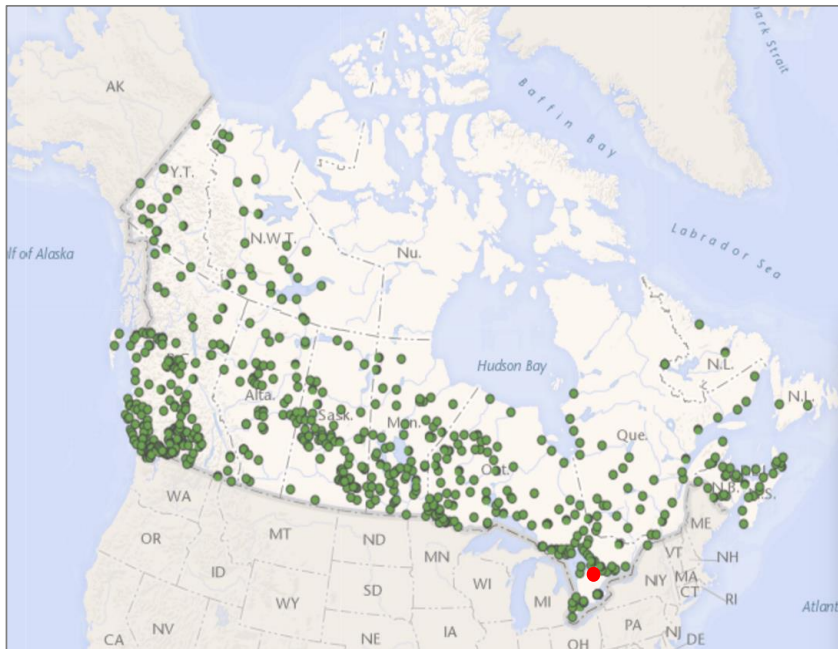
Context

- Across Canada
- Lack of access to safe drinking water
- Average 1 in 6 (100 out of ~600 communities)
- Chronic - some for 20 years+
- Crisis is a human rights issue comparable to third world conditions*
- Tremendous social, and economic implications for communities
- However, the socio-political landscape is changing – Aboriginal and treaty rights



*e.g., Human Rights Watch, Suzuki Foundation, UN Special Rapporteur's report on Indigenous Peoples in Canada

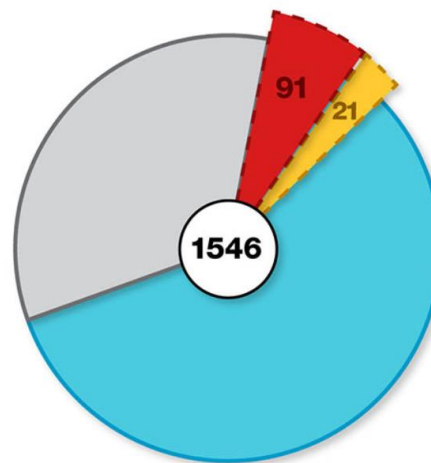
Geography and Scale



<http://fnpim-cipn.aandc-aadnc.gc.ca/index-eng.html>

- Federal jurisdiction on-reserve
- Provincial or territorial off-reserve

Drinking water systems on reserve



- 1546** drinking water systems on reserve
- 499** systems serve commercial and other facilities
- 1047** public drinking water systems included in the commitment by Indigenous Services Canada.
- 91** systems with long-term drinking water advisories supported by Indigenous Services Canada
- 21** systems closely monitored to prevent long-term advisories

As of January 23, 2018

Canada

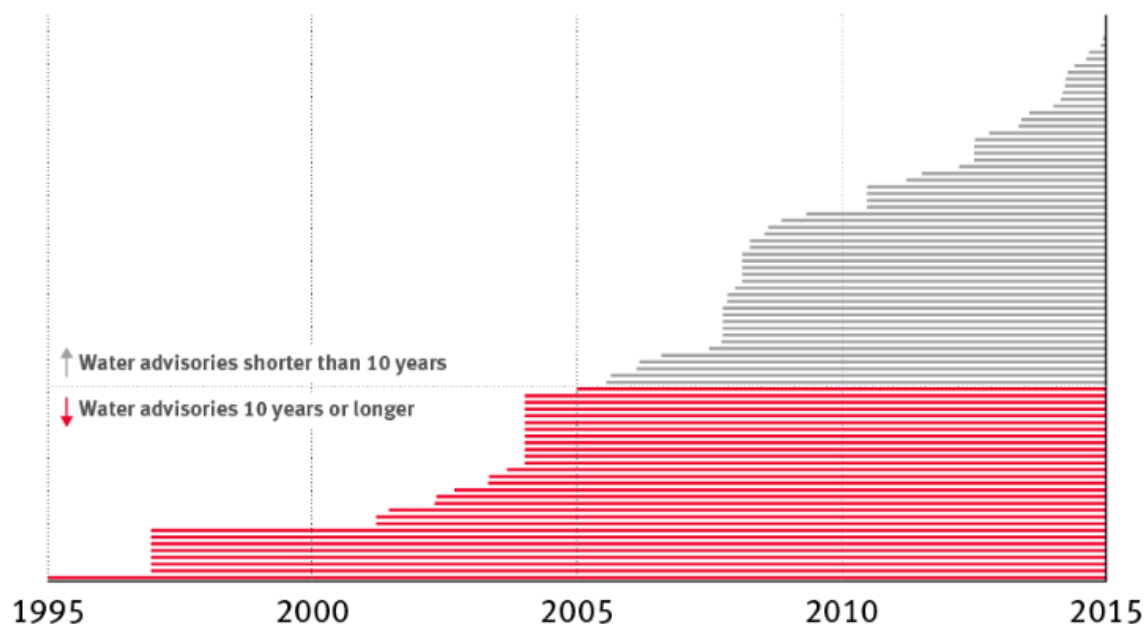
<https://www.aadnc-aandc.gc.ca/eng/1516741379405/1516741409130>

Ontario

“ Tainted water and broken systems on Ontario’s First Nations reserves are jeopardizing health, burdening parents and caregivers, and exacerbating problems on reserves. First Nations people have the same human rights to adequate water and sanitation as all Canadians, but in practice cannot access them. ”

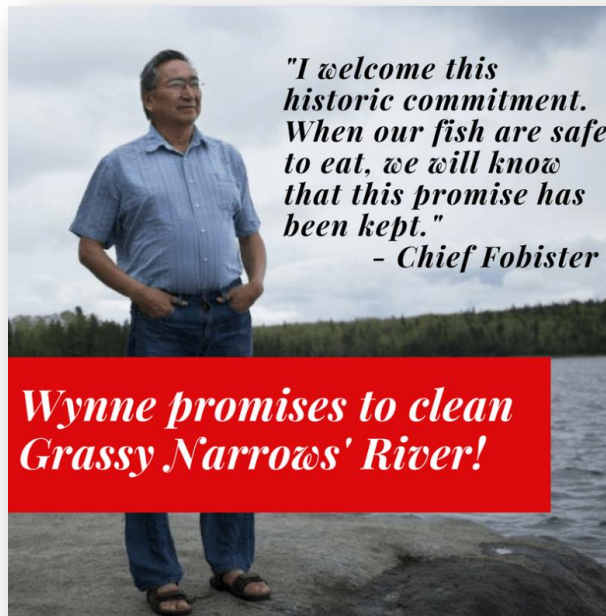
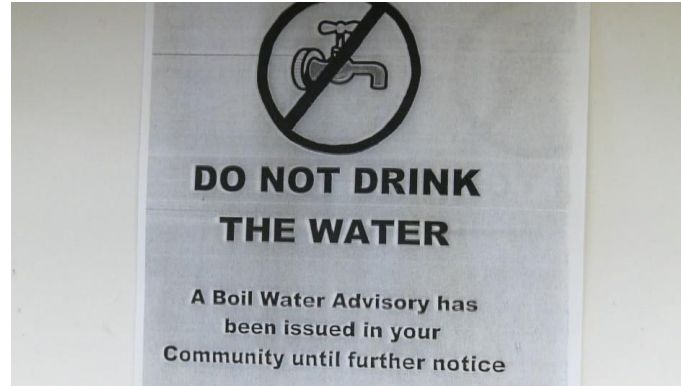
Amanda Klasing
Senior researcher, women's rights division
Human Rights Watch

Of all water advisories in 2015 in First Nation communities in Ontario, **36% have been in place for 10 years or more.**



Existing Research

- Infrastructure and facilities
- Operator training
- Source water studies
- Water governance
- Regulatory gap
- Cultural spiritual
- **Gaps exist**



Randy Moonias uses a wagon in the summer and a toboggan in the winter to make his way to the plant to fill up his bottles with water that has gone through the reverse osmosis system. (Martine Laberge/Radio-Canada)

Policy Response

- Federal government commitment to end long-term BWAs by 2021

“Since 2015, 40 boil water advisories were lifted but 26 others were added to the list”.

<https://www.cbc.ca/news/politics/liberal-first-nations-boilwater-advisories-1.450068>

'We must get this done': Liberals stick to First Nations water promise amid new boil-water advisories



Long-term advisories stand at 91 after list of systems getting federal support is expanded



John Paul Tasker - CBC News - Posted: Jan 23, 2018 1:18 PM ET | Last Updated: January 23

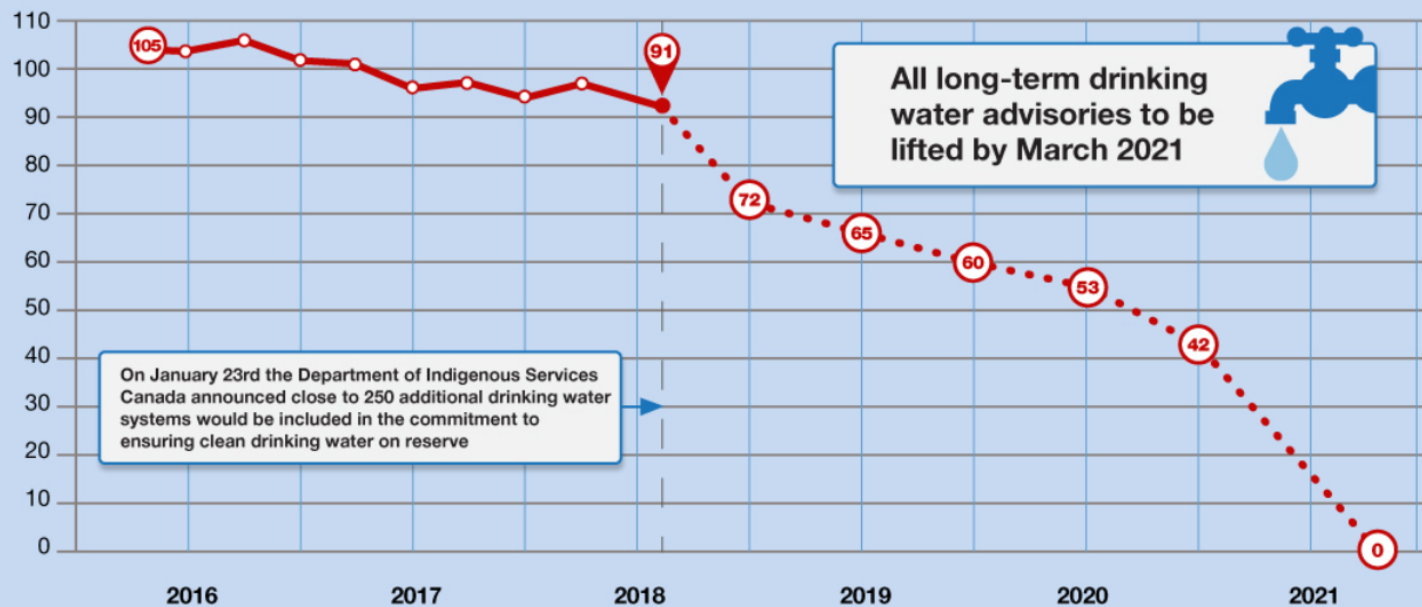




Indigenous Services Minister Jane Philpott said the federal government will end long-term boilwater advisories by March 2021, despite the addition of 250 more drinking water systems to its list. (Adrian Wyld/Canadian Press)

As part of its goal to end long-term boil water advisories for First Nations reserves, the federal government has added nearly 250 more drinking water systems to its list of those eligible for public monies, meaning it will have to address many more advisories than it originally intended.

Long-term drinking water advisories on public systems on reserve

Last updated January 23, 2018



-  Current number of long-term drinking water advisories affecting public systems on reserve
-  Long-term drinking water advisories in place, past and forecast

Canada

THE RESEARCH

Shared belief among the research team...

- Required are many solutions for the **diversity** across Canada
- Grounded in **practice and reality**
- Add to the creation of a **toolkit** of solutions
- **No one-size fits all!**



Foundations



*Do water collaborative agreements
with neighbouring communities reduce
drinking water risk on reserves in
Canada?*



Collaborative Agreements

Lipka and Deaton, 2016

- Empirical study across Canada
- Yes!

ARTICLE INFO

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 Municipal Type Agreements (MTAs)
 Standards
 Public

1. Introduction

The quality of drinking water on Canadian First Nations' reserves¹ is of widespread concern to First Nations and non-First Nations people alike. As of 2011, 39% of drinking water systems on Canadian reserves were classified as "high risk", which implies that they are not adequately equipped to deal with exposure to contamination [31]. Boil water advisories (BWAs) are a common indicator of drinking water quality issues, and saw a 35% increase in prevalence in First Nation communities between 2006 and 2014 [20,46]. A BWA is an announcement issued when "the water in a community's water system is contaminated with faecal pollution indicator organisms (such as *Escherichia coli*) or when water quality is questionable due to operational deficiencies (such as inadequate chlorine residual)" [23], and requires that tap water be brought to a "rolling boil" for a minimum of one minute in order for it to be rendered safe for human consumption [21,23]. BWAs can range from weeks to years in duration, and are only rescinded once the contamination event or operational deficiency has been resolved². Many BWAs on First Nations' reserves are long-term,

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² A reserve is a "tract of land, the legal title to which is held by the Crown (or the Canadian federal government), set apart for the use and benefit of (a First Nation) [band]" [1].
³ BWAs issued in response to evidence of bacteriological water quality conditions are rescinded when two consecutive bacteriological tests, collected a minimum of 24 hours apart, produce negative results for the problem contaminant. Preliminary studies are rescinded when two consecutive bacteriological tests, collected a minimum of 24 hours apart, produce negative results for the problem contaminant. Preliminary studies, agreement templates, workshops, etc.) to First Nations and municipalities interested in forming these contracts [11,15].

ABSTRACT

In 2011, 39% of drinking water systems on Canadian First Nations' reserves were classified as high risk [31]. In recent years some First Nations have contracted water services from neighbouring communities through "Municipal Type Agreements", or "MTAs". Using a unique data set of 804 First Nations' water systems, we explore both factors that influence participation in MTAs, and the effect of participation on the likelihood that a First Nations' water system will be under a boil water advisory. Our empirical analysis consists of two probit models. The first model describes the likelihood that a First Nation will participate in a MTA. The second First Nations' water system will be under a boil water advisory. Our primary finding is that participation in a MTA significantly reduces the likelihood that a First Nations' water system will be under a boil water advisory. This is an important consideration when developing incentives or institutions that influence infrastructure collaboration between First Nations and non-First Nation communities.
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persisting for twelve months or longer [35,48].

The challenges of providing adequate drinking water services in rural areas are legion, and these challenges – finance, economies of scale, planning capacity, etc. – are not isolated to First Nations' communities. Approximately 15.4% and 14.4% of non-First Nation Canadian drinking water systems are ranked "fair" and "very poor", respectively, for the condition of their pipes, plants, reservoirs, and pumping stations [16]. The estimated replacement cost for these insufficient drinking water systems is \$25.9 billion, or \$2082 per Canadian household.

In recent years, some First Nations have sought partnerships with neighbouring non-First Nation communities for the provision of drinking water services on their reserves. These partnerships, of varying degrees, are referred to as "Municipal Type Agreements" (MTAs), take the form of a contract between a First Nation Band³ and the local government of a neighbouring municipality or township, Aboriginal Affairs and Northern Development Canada (AANDC), the Canadian Federation of Municipalities (CFM), and

⁴ A First Nation Band is a body of First Nations people "for whose collective use and benefit lands have been set apart or money is held by the Crown, or (a body of First Nations people) declared to be a Band for the purposes of the Indian Act" [1].
⁵ AANDC encourages MTAs in situations where they are the least cost alternative form of service delivery [24,5].

⁶ The CFM promotes MTAs through the "First Nations – Municipal Community Partnership Plan" (CFMP), which provides resources (i.e. toolkits, case studies, agreement templates, workshops, etc.) to First Nations and municipalities interested in forming these contracts [11,15].

In Ontario (which contains 12 active MTAs), 25 First Nations reserves fall within a feasible distance to a potential collaborative agreement but do not have one

Note: not all had chronic DWAs

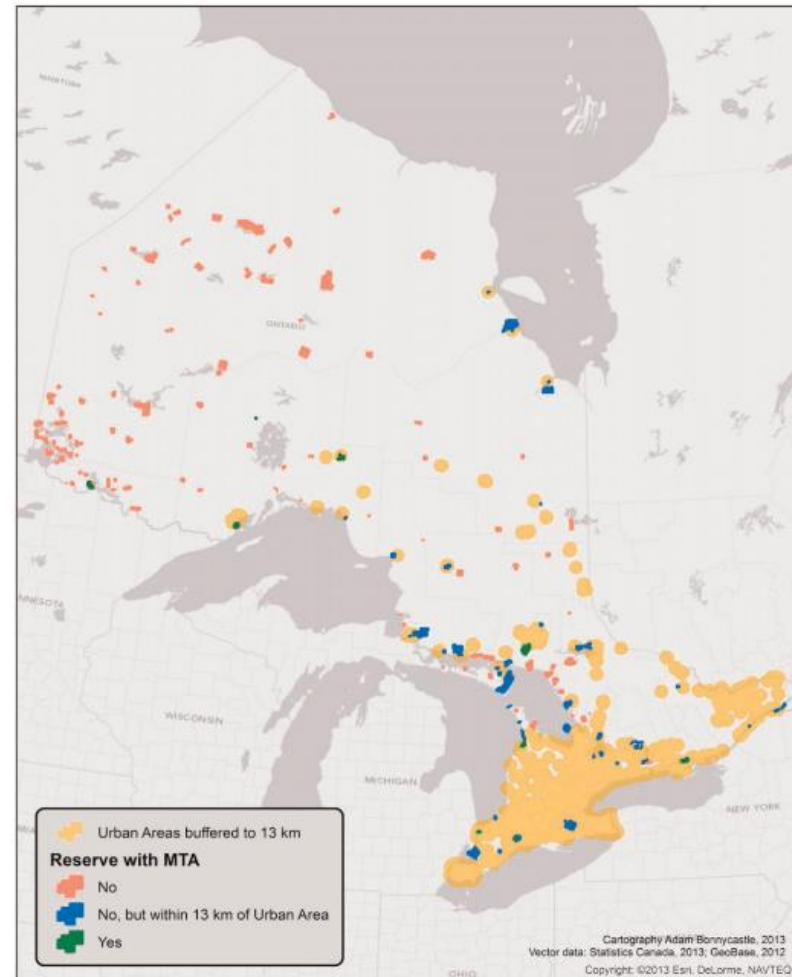
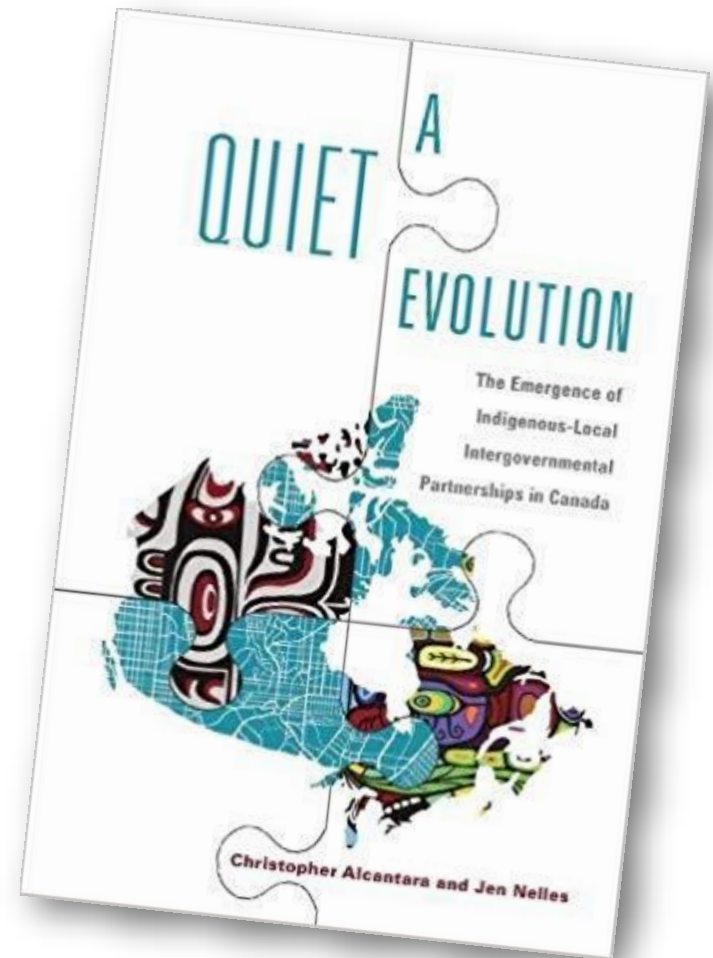


Fig. 2. First Nations' reserves in Ontario (MTA participants and non-participants) and their proximities to population centres.
Source: Author and data references contained in figure.

Alcanatara and Nelles, 2017

Intergovernmental Cooperation

Examines the roots of intergovernmental cooperation between Indigenous communities and the various levels of government in Canada

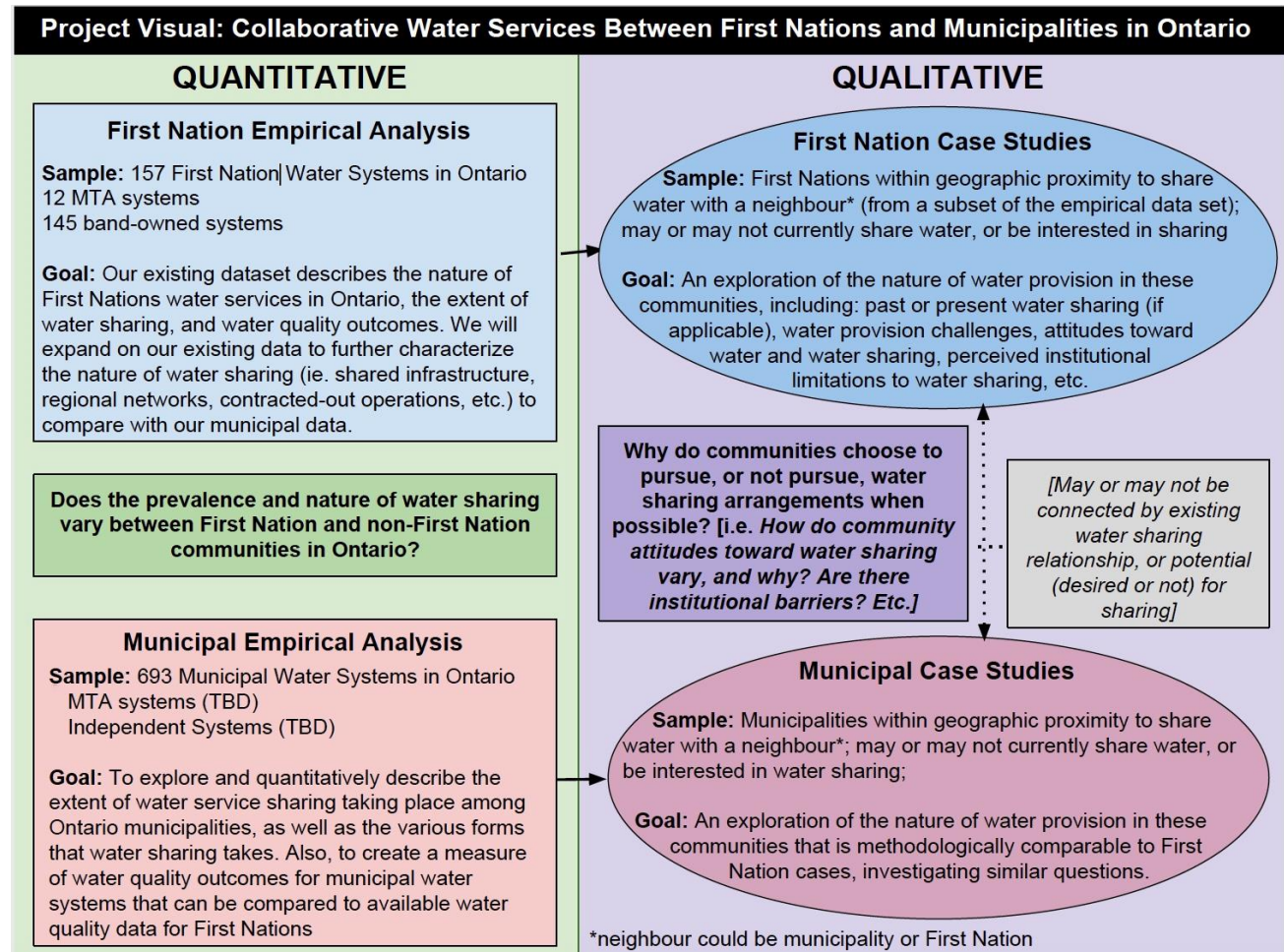


Broad Research Goal

To explore the potential for collaborative water arrangements between First Nations and municipalities in Ontario.

Methodology

- Interdisciplinary
- Iterative and integrative
- Mixed methods
 - Quantitative
 - **Qualitative**
- Grounded theory
- Case-based
- Community engaged



Anticipated Outcomes

- Assessment of water sharing as one possible solution
- Add to the broader portfolio of solutions needed to address drinking water quality problems on-reserve
- Enhanced cross-community understanding and dialog
- Contributions to policy and academic debate
- Expand beyond “water collaboration” – other collaborative opportunities
- Opportunities to address the broader scope of water security within a holistic framework



Next Steps...Key Milestones

YEAR 1 -2 (now)

- Research team meeting – November 2018
- **Community outreach for Case Study 1 identification – November and on-going**
- **Doctoral recruitment – Initiated – begin Fall 2019**
- Case study 1 – Community engagement for co-design and ethics – Winter 2018
- Case study 1 – Community researcher and grad research conduct interviews

YEAR 3 to 5

- Case Study 2
- Case Study 3



Thank you, Nia:wen, Miigwetch

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