

Social Sciences and Humanities Research Council of Canada Conseil de recherches en sciences humaines du Canada



COLLABORATIVE WATER SERVICES BETWEEN FIRST NATIONS AND MUNICIPALITIES IN ONTARIO

KNOWLEDGE GENERATION AND MOBILIZATION ACROSS THE **PROJECT LIFE CYCLE**



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DEPARTMENT OF FOOD, AGRICULTURAL AND RESOURCE ECONOMICS Bethany Lipka November 25th, 2019 UofG McLaughlin Library, Scholars Studio

PROJECT LIFE CYCLE



Time

PROJECT LIFE CYCLE



Time

Image adapted from: Pinto, Jeffery K. 2019. Project Management – Achieving Competitive Advantage (Fifth Edition). Pearson: New York, NY. Pp. 12.

CONCEPTUALIZATION



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WATER SHARING IN ONTARIO CONTEXT

- Water quality issues on Ontario First Nations
 - 46% of water systems on Ontario First Nations can be classified as 'high risk' (Neegan Burnside, 2011)
 - As of November 2019: 43 long-term drinking water advisories impacting 24 First Nation communities in Ontario – 75% of all advisories (ISC, 2019)
- Ontario municipalities also facing challenges
 - Uncertainty regarding actual state of aging infrastructure (OSCWA 2018)
 - Key recommendations from Walkerton Inquiry Report and Water Strategy Expert Panel Report remain unaddressed, particularly related to financing and operational capacity (OSWCA 2018)



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LIPKA AND DEATON (2015)

- First Nations with water sharing agreements were 11% less likely to be under a BWA
- Water sharing agreements also reduced the likelihood of failing to meet federal health (by 18%) and aesthetic (by 38%) water quality guidelines



First Nation Water Systems with Independent Supply (Neegan Burnside, 2011) [n=628]



LIPKA AND DEATON (2015)

- Water sharing most likely to emerge for First Nations with: 1) smaller populations, 2) larger population densities, and 3) are less geographically remote
- Assessment of geographic feasibility identified 25 Ontario First Nations that could be sharing water



Collaborative Water Services Between First Nations and Municipalities in Ontario (www.isnrg.com)

- Five year SSHRC funded project involving an interdisciplinary team of researchers using a mixed-methods approach
- Key Research Questions:
 - Why do these relationships emerge in some situations and not others?
 - Is there potential scope to expand water sharing in Ontario?
 - Could water sharing be part of the portfolio of solutions needed to address drinking water quality on First Nations?



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PLANNING



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Empirical analysis contextualizes and informs case studies

Empirical Analysis

Sample: 850 water systems in 428 communities (114 First Nations, 314 municipalities)

Aim:

-characterize extent of water sharing in Ontario -identify factors (social, economic, geographic, etc.) influencing water sharing and water quality

Key Research Questions

 Are First Nations less likely to engage in water sharing than municipalities, controlling for important determining factors?
 Does water sharing improve quality outcomes for municipalities and First Nations, controlling for other factors affecting quality?

Case Study Analysis

Case study region: selected based on community interest, and informed by previous empirical assessment of geographic feasibility of water sharing

Aim:

-explore the nature and challenge of water provision, and attitudes toward water and water sharing
-explore perceived limitations to safe water provision and water sharing

Key Research Questions:

 Why do communities choose to pursue or not pursue water sharing arrangements when geographically feasible?
 How do community attitudes toward water sharing agreements vary, and why?

Case study analysis enhance empirical analysis with grounded knowledge

WORK BREAKDOWN

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DATA MANAGEMENT PLAN:



EXECUTION



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Benchmarking



Municipal Water Data Collection

BENCHMARKING

FOI Request Timeline

Aug 27 2019	FOI Request Submitted to municipality
Aug 30 2019	Acknowledgement of Request Received; request for deposit
September 5 2019	Response and Fee Deposit Submitted to municipality
September 24 2019	Acknowledgement of Receipt of deposit received; notice of extension on answering request in full
October 21 2019	Final decision letter from municipality received; request for final payment
October 23 2019	Final payment submitted to municipality
October 29 2019	Receipt of final payment and notice of record release received
October 31 2019	Records received in the mail

LESSONS LEARNED REPOSITORY

- Organizational process assets
 - Formal and informal policies, procedures and guidelines
- Environmental factors
 - Internal and external organizational environment factors that influence project success
 - Ex. organizational culture, infrastructure, networks, existing resources, etc.
- Project administration tools
 - Templates (ex. budget, schedule, recruitment)
 - Communication/engagement strategies



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KNOWLEDGE MOBILIZATION PLAN

- Project Website (www.isnrg.com)
- Plain language summaries of research results
- Peer-reviewed publications
- Book
- Podcast
- Op-ed
- Publicly available dataset
- Data 'stories'



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THANK YOU, I AM HAPPY TO ANSWER ANY QUESTIONS!



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REFERENCES

ISC. 2019. Ending long-term drinking water advisories [website]. <u>https://www.sac-isc.gc.ca/eng/1506514143353/1533317130660</u> (accessed 11 November 2019.

Lipka and Deaton. 2015. Do water service provision contracts with neighbouring communities reduce drinking water risk on Canadian reserves? *Water Resources and Economics*, 11(2015): 22-32. <u>https://bit.ly/2TZfvsh</u> (accessed 23 February 2018).

MOE. 2011. Chief Drinking Water Inspector Annual Report 2009-2010 [pdf]. Queen's printer for Ontario. <u>http://bit.ly/2fooMsg</u> (accessed 18 January 2018).

Neegan Burnside. 2011. National Assessment of First Nations Water and Wastewater Systems – Ontario Regional Roll-Up Report. Report prepared for AANDC. <u>https://bit.ly/2RyObVI</u> (accessed 18 January 2018).

OSCWA. 2018. The State of Ontario's Water and Wastewater Infrastructure [pdf]. <u>https://bit.ly/2mrHWUm</u> (accessed 24 September 2019).



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