

Beyond Physical: Impacts of Water Regulations in First Nations Communities

Principal Investigator – Dr. Lalita Bharadwaj, University of Saskatchewan, 2012-2015

Challenge

In Standing Buffalo Dakota First Nation, there is increasing pressure on water resources by increased cottage development, sewage disposal to the river system, management of the Qu'Appelle and Gardiner Dams, impacting water flows and levels and increased flooding events.

At the time this project was initiated, the community had serious concerns about the impacts of a proposal from a multinational potash mining company to withdraw water from Katepwa Lake for use in mining operations. The community was concerned with the impact on water quality, water level, and traditional and cultural activities pertaining to water. Initial meetings with Chief and Council also revealed that seasonal flooding threatens human safety, homes, and critical infrastructure, and the implementation of emergency measures puts considerable strain on the Band's resources. Shortly after this research project began, the mining company withdrew their proposal to withdraw water.

However, Standing Buffalo remained interested in exploring the significance of water to the community and the ways in which water (and the surrounding natural environment) is important and valuable to the community's culture and traditions. Given the geographic location of the reserve, there are ongoing and potentially increasing impacts related to water that could arise from both anthropogenic and natural changes in the environment

Project

This project is part of a larger community-based participatory program established between the Federation of Saskatchewan Nations, Lalita Bharadwaj and the Safe Water for Health Research Team, which was initiated in 2011 to explore the health impacts of drinking water regulations on First Nations reserves.

It explores the social and cultural aspects of how water is significant to and how water issues impact a First Nation community, which is generally understudied in academic literature. Research is carried out in the form of a partnership with the Band, promotes two-way learning, and is culturally relevant and respectful to the community.

Primarily research was conducted with Standing Buffalo First Nations in the Southeast region of Saskatchewan and has been extended to include Liard First Nations in the Yukon.

Additional support of the project has allowed the work plan to extend into hydrogeological mapping of the First Nations watershed, as well as, the collection and analysis of private water samples. This will increase relevance and relation to Health Risks associated with current drinking water supplies in the community.

Outputs

Anticipated Outputs include:

- Pamphlet, 2015.
- Report to Stakeholders, 2015

This research has resulted in scholarly journal publications and end-user reports:

- Case Study, Standing Buffalo First Nations, 2014
- Basdeo, M., Bharadwaj, L. (2013). Beyond Physical: Social Dimensions of the Water Crisis on Canada's First Nations and Considerations for Governance. *Indigenous Policy Journal* 23 (4): 1-13.
- Morrison, A., Bradford, L., Bharadwaj, L. (2015). "Quantifiable Progress of the First Nations Water Management Strategy 2001-2013: Ready for Regulation?" *Canadian Water Resources Journal*, Volume 40, Issue 4, Pages 352-372.
- Bharadwaj, L. (2014). doi: 10.4137/EHI.S10869. eCollection 2014. A framework for building research partnerships with first nations communities. *Environ Health Insights* 2014 May 8;8:15-25.

Research team hosted and attended a series of workshops and community events in order to mobilize research efforts and disseminate information to end-users.

Outcomes

Outcomes include:

- Strengthened relationships with partners through the development of Ethical Research Guidelines for Working with First Nations Communities.
- Engaged in productive community goal oriented research, which strengthened relationships with end-users.
- Increased opportunity for research with the extension of research partnership outside of Saskatchewan with the Liard First Nations.

Research Team and Partners:

Research Team:

Dr. Lalita Bharadwaj, University of Saskatchewan

Partners:

Federation of Saskatchewan Indian Nations (FSIN)

First Nations Inuit Health Branch

Saskatchewan Ministry of Environment

Safe Water for Health Research Team

Yukon College

Yukon Research Center

Liard First Nations

Indigenous People Health Research Centre
Standing Buffalo First Nation
Health and Social Development Secretariat

Highly Qualified Personnel (HQP):

Maya Basdeo
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