



Honour the Water: Source Water Protection with Mistawasis Nêhiyawak

School of Environment and Sustainability – University of Saskatchewan



Michael L urier Dawe, Graduate Candidate

Community Partner: Anthony Johnston, Special Projects, Mistawasis N hiyawak

Academic Advisor: Dr. Robert Patrick

Introduction

Water is essential to all life. The risk to both human health and the natural environment due to contamination of water sources is a concern for Mistawasis N hiyawak.

As a result, Mistawasis N hiyawak has decided to develop a Source Water Protection Plan (SWPP) to help safeguard their drinking water sources from contamination.

The broader purpose of the plan will be to ensure that their reserve and traditional lands are sustained as healthy environments.

Discussion



Source: AANDC 2013

- ✓ Source water protection is defined as the management of watersheds used to supply water – both surface and groundwater – to people (Shrubsole, 2004).
- ✓ Source water protection is an endless cycle that becomes increasingly efficient and effective as the plan is continually re-evaluated and re-designed
- ✓ A planning guidance and template developed by Aboriginal Affairs and Northern Development Canada (2013) will be used during the planning process.

Significance

The expectation is to incorporate text and design aspects that will help “indigenize” the final plan. This process will help to engage community members, especially local youth, to participate in this community effort to protect source water.

First Nations are well positioned to become leaders in drinking water protection planning in Canada

Objectives

This Source Water Protection Plan proposal contains five specific objectives;

- ✓ Create a Working Committee with invested community members
- ✓ Perform a Source Water Risk Assessment, and inventory potential contamination sources
- ✓ Create a risk ranking system and identify appropriate management actions
- ✓ Develop an implementation strategy
- ✓ Indigenize the Source Water Protection Plan uniquely for Mistawasis N hiyawak

Risk Assessment

Risks to source water are identified on a scale of likelihood of occurrence and impact of occurrence. Identified risks are given a numeric value to determine their overall risk ranking score

Likelihood of Occurrence (in next 5 years)	Impact of Occurrence (on human and ecosystem health)				
	Insignificant 1	Minor 2	Moderate 3	Severe 4	Catastrophic 5
Most Unlikely 1	1 “Low Risk”	2	3	4	5
Unlikely 2	2	4	6	8	10
Likely 3	3	6 “Medium Risk”	9	12	15
Probable 4	4	8	12	16 “High Risk”	20
Almost Certain 5	5	10	15	20	25

Source: AANDC, 2013

Projected Results

- ✓ A draft source water protection plan to Mistawasis N hiyawak outlining threats, risks, management actions and implementation to help protect drinking water quality as well as increase water awareness and improve water planning and management

Committee Members

- Daniels, Harold – Land Manager, Mistawasis N hiyawak
- Head, Linda – Health Representative, Mistawasis N hiyawak
- Head, Russ – Director of Public Works, Mistawasis N hiyawak
- Horsefall Michael – Public Works, Mistawasis N hiyawak
- Johnston, Anthony – Special Projects Mistawasis N hiyawak
- Kindrachuk, John – North Saskatchewan River Basin Council
- Ledoux, Calvin – Mistawasis N hiyawak Community Member
- Ledoux, Louis – Director of Operations, Mistawasis N hiyawak
- Pechawis, Greg – Mistawasis N hiyawak Council
- Pechawis, Leslie – Mistawasis N hiyawak Council
- Sanderson, Derek – Mistawasis N hiyawak Council
- Watson, Daryl – Mistawasis N hiyawak Chief