

# Environmental Management Plan

Animbiigoo Zaagi'igan Anishinaabek  
Final Report

May, 2023





AST	Above ground storage tank
CCME	Canadian Council of Ministers of the Environment
CEAA	<i>Canadian Environmental Assessment Act</i>
CEPA	<i>Canadian Environmental Protection Act</i>
CIRNAC	Crown-Indigenous Relations and Northern Affairs Canada
DST	DST Consulting Engineers Inc. (now Englobe)
EA	Environmental Assessment
ECCC	Environment and Climate Change Canada
EMP	Environmental Management Plan
ESA	Environmental Site Assessment
FCSAP	Federal Contaminated Sites Action Plan
GCDWQ	Guidelines for Canadian Drinking Water Quality
ISC	Indigenous Services Canada
ISWM	Integrated Solid Waste Management
LABRC	Lands Advisory Board Resource Centre
MTSA	Municipal Type Services Agreement
ON	Ontario
SPP	Source Protection Plans
USEPA	United States Environmental Protection Agency



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# 1 Environmental Management Plan and Introduction

## 1.1 Introduction

After becoming a signatory to the *Framework Agreement on First Nation Land Management (Framework Agreement)* in January 2017, Animbiigoo Zaagi'igan Anishinaabek ratified its Land Code in March 2021. This action allows the community to opt out of the land management portions of the *Indian Act* and returns the responsibility of land management and governance to the First Nation. While an Environmental Management Plan (EMP) is not a requirement under the *Framework Agreement*, they have proven to be useful tools for other First Nations as they develop regimes to meet their land stewardship goals and obligations. This EMP provides an outline to assist Animbiigoo Zaagi'igan Anishinaabek in identifying environmental issues, past, present, or future, that may affect the lands and community of Animbiigoo Zaagi'igan Anishinaabek and provide high-level direction in managing and/or resolving these issues.

## 1.2 Preparation of the Environmental Management Plan

A primary goal of the EMP is to guide the environmental management actions of Animbiigoo Zaagi'igan Anishinaabek to support the community in fulfilling their responsibilities under their newly ratified Land Code by developing its infrastructure, including upgrading its roads, bringing hydro to the community and surveying lots to allow community members to move and camp on the reserve lands. The EMP was prepared by Animbiigoo Zaagi'igan Anishinaabek, with support from Englobe Corp. (Englobe), and is intended to guide Animbiigoo Zaagi'igan Anishinaabek in protecting, preserving, and improving the environment for future generations. It will also support Animbiigoo Zaagi'igan Anishinaabek in creating an environmentally sustainable, self-sufficient community in meeting the community's environmental stewardship goals, as outlined in Section 2.0.

## 1.3 Meetings and Community Consultation

Throughout the development of the EMP, frequent communication between Animbiigoo Zaagi'igan Anishinaabek members and the community was a crucial component. A comprehensive list of recorded community meetings and consultation efforts has been summarized in Table 1.



**Table 1: Summary of meetings and consultation activities**

Date	Type	Location	Attendees	Purpose of Meeting
23/11/2021	Community Site Visit	Animbiigoo Zaagi'igan Anishinaabek First Nation	<ul style="list-style-type: none"> <li>James Nord (Animbiigoo Zaagi'igan Anishinaabek)</li> <li>Brooke Davison, Bob Wright, Ed Collins (Englobe EMP Team)</li> </ul>	Community site visit to improve Englobe's understanding of the site conditions
29/11/2021	Kickoff Meeting	Online Zoom meeting	<ul style="list-style-type: none"> <li>Cory Kozmik, Brenda Belmore, Crystal Restoule (LABRC EMP Team)</li> <li>Bart Metansinine, Alice Sasins, Joe Donio (Animbiigoo Zaagi'igan Anishinaabek EMP Team)</li> <li>Brooke Davison, Bob Wright, Ed Collins (Englobe EMP Team)</li> </ul>	Introduce the Animbiigoo Zaagi'igan Anishinaabek EMP Team to each other and discuss milestone scheduling
04/01/2022	Animbiigoo Zaagi'igan Anishinaabek EMP Team Meeting	Online Zoom meeting	<ul style="list-style-type: none"> <li>LABRC EMP Team</li> <li>Animbiigoo Zaagi'igan Anishinaabek EMP Team</li> <li>Englobe EMP Team</li> </ul>	Discussing community survey requirements and upcoming presentation
07/01/2022 and 08/01/2022	Community Meetings	Online Zoom meeting	<ul style="list-style-type: none"> <li>LABRC EMP Team</li> <li>Animbiigoo Zaagi'igan Anishinaabek EMP Team and membership</li> <li>Englobe EMP Team</li> </ul>	Inform elders and community membership regarding EMP process; collect input on environmental issues
10/01/2022	Animbiigoo Zaagi'igan Anishinaabek EMP Team Meeting	Online Zoom meeting	<ul style="list-style-type: none"> <li>LABRC EMP Team</li> <li>Animbiigoo Zaagi'igan Anishinaabek EMP Team</li> <li>Englobe EMP Team</li> </ul>	Meeting with the EMP Team to discuss the distribution of community surveys
18/01/2022	Animbiigoo Zaagi'igan Anishinaabek EMP Team Meeting	Online Zoom meeting	<ul style="list-style-type: none"> <li>LABRC EMP Team</li> <li>Animbiigoo Zaagi'igan Anishinaabek EMP Team</li> </ul>	Discuss the finalization of the EMP Work Plan



Date	Type	Location	Attendees	Purpose of Meeting
			— Englobe EMP Team	
04/02/2022	Animbiigoo Zaagi'igan Anishinaabek EMP Team Meeting	Online Zoom meeting	<ul style="list-style-type: none"> <li>— LABRC EMP Team</li> <li>— Animbiigoo Zaagi'igan Anishinaabek EMP Team</li> <li>— Englobe EMP Team</li> </ul>	Discuss results of the community survey with the Animbiigoo Zaagi'igan Anishinaabek EMP Team and discuss upcoming community meeting.
13/02/2022	Community Meeting	Online Zoom meeting	<ul style="list-style-type: none"> <li>— LABRC EMP Team</li> <li>— Animbiigoo Zaagi'igan Anishinaabek EMP Team and membership</li> <li>— Englobe EMP Team</li> </ul>	Discuss community survey results with membership, provided an updated schedule for completion of the Animbiigoo Zaagi'igan Anishinaabek EMP and answer any questions regarding the EMP.
08/03/2022	Community Meeting	Online Zoom meeting	<ul style="list-style-type: none"> <li>— LABRC EMP Team</li> <li>— Animbiigoo Zaagi'igan Anishinaabek EMP Team</li> <li>— Englobe EMP Team</li> <li>— Bobbi Eegunnkw (Nokiiwin EMP Team)</li> </ul>	Review progress with Animbiigoo Zaagi'igan Anishinaabek, gather feedback and further information.
11/10/2022	Animbiigoo Zaagi'igan Anishinaabek EMP Team Meeting	Online Zoom meeting	<ul style="list-style-type: none"> <li>— LABRC EMP Team</li> <li>— Animbiigoo Zaagi'igan Anishinaabek EMP Team</li> <li>— Englobe EMP Team</li> <li>— Meagan Hindman (Nokiiwin EMP Team)</li> </ul>	Review and make final revisions to the report.





# 2 Environmental Management Plan Goals, Objectives, and Issues

## 2.1 Goal of Environmental Management

The purpose of this document is to guide Animbiigoo Zaagi'igan Anishinaabek towards meeting its responsibility to govern and manage its land under the Land Code. The First Nation aims to ensure that human activities and community development are carried out with minimal negative impacts to the environment, building a prosperous and sustainable community that will support future generations.

## 2.2 Objectives of the EMP

- Identify issues that may threaten these environmental features and develop strategies to address issues identified by the community
- Identify applicable federal laws and regulations, and identify areas where new laws may be required
- Identify guidelines to be developed and/or policies to regulate human activities in order to protect the environment
- Promote wider community involvement in protecting the environment and foster sustainable community development

## 2.3 Animbiigoo Zaagi'igan Anishinaabek Environmental Issues

Animbiigoo Zaagi'igan Anishinaabek has identified a variety of issues concerning the environment and natural resources associated with Animbiigoo Zaagi'igan Anishinaabek lands. A comprehensive list of concerns was developed throughout the meetings, discussions, and community surveys between Animbiigoo Zaagi'igan Anishinaabek community and Englobe.

### Community Issue

### Potential Concerns

<b>Groundwater &amp; Surface Water Protection</b>	<ul style="list-style-type: none"><li>— Animbiigoo Zaagi'igan Anishinaabek lacks policies to protect drinking water quality</li><li>— Concerns about drinking water quality in Partridge Lake</li><li>— Lack of baseline studies and water quality monitoring</li><li>— Potential for sewage contamination to surface water due to limited or no stormwater management</li><li>— Wood waste from past logging in/near Partridge Lake</li></ul>
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	<ul style="list-style-type: none"> <li>– Erosion due to increased development and activities leading to increased sedimentation</li> <li>– Potential for sewage or fuel contamination of groundwater and surface water</li> </ul>
<b>Land Development</b>	<ul style="list-style-type: none"> <li>– No policies or enforcement mechanisms to ensure resource development on reserve land is performed sustainably</li> <li>– Limited information on available or existing resources for resource management</li> <li>– Development of new roads and subdivisions and increased human activity may threaten sensitive habitat or interfere with natural movement corridors for animals</li> <li>– Potential for herbicides/pesticides to impact local species</li> </ul>
<b>Natural and Cultural Resources</b>	<ul style="list-style-type: none"> <li>– Lack of protection for fish habitat and sustainable harvesting practices</li> <li>– Lack of protection for future/potential cultural sites</li> <li>– Lack of information about species at risk (SAR) and invasive species</li> <li>– Lack of information on abundance and potential contamination of traditional foods</li> </ul>
<b>Solid Waste Management</b>	<ul style="list-style-type: none"> <li>– Unauthorized dumping, burning, or storage of waste, including animal waste from fishing</li> <li>– No waste diversion programs currently in place which could lead to high impact on landfills due to absence of regional recycling</li> <li>– No separate disposal procedures for hazardous wastes, including household, commercial, and industrial hazardous wastes</li> <li>– Improper management and storing of solid wastes can lead to leachate by precipitation infiltrating solid waste and an overall degradation of the environment due to contaminants (air, soil, water)</li> <li>– Adverse effects on wildlife that are exposed to solid waste, consume solid waste or inhabit waste storage and disposal area</li> <li>– Improper storage of wood waste from sawmill could cause leachate to degrade nearby surface water quality</li> <li>– Animal waste throughout the reserve lands</li> </ul>
<b>Wastewater Management</b>	<ul style="list-style-type: none"> <li>– Improperly designed septic fields are a potential threat to the environment</li> <li>– Potential discharge of household sewage, industrial, and commercial wastewater into groundwater and surface water</li> </ul>



	<ul style="list-style-type: none"> <li>— Lack of community knowledge regarding wastewater treatment (i.e. what not to put down the drain)</li> <li>— Need for stable funding to retain qualified staff to inspect and maintain water treatment systems</li> </ul>
<b>Contaminated Land Management and Community Health</b>	<ul style="list-style-type: none"> <li>— Potential contamination of traditional foods sources due to contaminated soil and surface water</li> <li>— No Animbiigoo Zaagi'igan Anishinaabek policy or law for dealing with contaminated sites on Animbiigoo Zaagi'igan Anishinaabek lands, including who bears responsibility when contamination occurs</li> <li>— No Animbiigoo Zaagi'igan Anishinaabek policies to prevent importation of contaminated fill</li> <li>— Lack of community knowledge in blastomycosis within soil</li> </ul>
<b>Fuel Handling and Storage</b>	<ul style="list-style-type: none"> <li>— Potential for fuel spills relating to construction projects, personal and recreational use of fuel products, highway spills and future commercial or industrial operations on or near the reserve</li> <li>— Lack of community knowledge in safe fuel handling practices</li> <li>— Lack of laws to allow the enforcement of fuel exclusion zones, size limits, etc. and regulated refueling/storage area</li> </ul>
<b>Climate Change</b>	<ul style="list-style-type: none"> <li>— Lack of climate monitoring throughout the reserve</li> <li>— Lack of community knowledge of climate change</li> <li>— Issues pertaining to flooding from Partridge Lake</li> </ul>
<b>FireSmart/Emergency Response Plans</b>	<ul style="list-style-type: none"> <li>— Existing emergency response plans are not complete/outdated</li> <li>— Currently only one road in or out of the community</li> <li>— Lack of staff to enforce fire restrictions</li> <li>— Lack of enforcement policies for environmental laws, including applicable federal laws that require First Nation enforcement</li> </ul>

## 2.4 Animbiigoo Zaagi'igan Anishinaabek Potential Responses

There are several different options available to address environmental concerns, each with its own benefits and drawbacks. The five options, listed below, are compared in Table 2.

- Policies
- Guidelines and Best Management Practices
- Education and Outreach
- Monitoring and Reporting



## — Laws and regulations

- Federal: The laws and regulations listed under this heading apply to federal lands, including First Nations.
- Provincial: The Ontario laws and regulations listed under this heading apply to the lands surrounding Animbiigoo Zaagi'igan Anishinaabek and are provided for reference purposes. In Section 23.5 of the *Framework Agreement*, Animbiigoo Zaagi'igan Anishinaabek agrees to promote consistency in environmental regimes by harmonizing its regimes with those of the province of Ontario.
- Animbiigoo Zaagi'igan Anishinaabek: For those environmental regimes that require enforcement to ensure compliance, Animbiigoo Zaagi'igan Anishinaabek will draft environmental laws that apply to both members and non-members living and working on Animbiigoo Zaagi'igan Anishinaabek lands.

**Table 2: Options available to address environmental concerns developed through First Nations Land Management Resource Centre EMP Design Kick-Off Meeting (September 2021)**

	Description	Advantages	Disadvantages
Policies	Specific method or course of action to guide government	Flexible, easy to draft, and easily amended	Not legally enforceable and should be consistent with other policies
Guidelines and Best Management Practices	A set of instructions offering clear direction to minimize impacts	Provides clear directions for proper conduct of tasks	Not legally binding, can become complex
Education and Outreach	Communication of knowledge to improve awareness of issues and responses	Can result in positive change in attitudes and actions, and is adaptable	Not enforceable, requires thorough outreach program
Monitoring and Reporting	Collection and reporting of information on environmental quality	Provides measurable data that can be compared to guidelines, and allows for comparisons over time	Long-term commitment is needed, results may be difficult to interpret
Laws and Regulations	Enforceable, designed to achieve uniform compliance	Enforceable and authorized by the <i>Framework Agreement</i>	Inflexible, costly to draft, implement and enforce

It should be noted that due to jurisdictional limitations on the ownership of Partridge Lake and surrounding surface water bodies, Animbiigoo Zaagi'igan Anishinaabek cannot develop enforceable laws regarding surface water outside of Animbiigoo Zaagi'igan Anishinaabek boundaries.



# 3 Responses to Environmental Issues

## 3.1 Groundwater and Surface Water Protection

### 3.1.1 Key Features

The Animbiigoo Zaagi'igan Anishinaabek reserve encompasses a variety of surface water features, including several creeks, wetlands, and is adjacent to the southern portion of the Partridge Lake. Drinking water may be provided from Partridge Lake, therefore the surface water protection is essential.

### 3.1.2 Potential Environmental Threats

Potential environmental threats associated with groundwater and surface water protection have been identified and summarized below:

- Lack of monitoring to establish baseline water quality and evaluate effects of development
- Increased sedimentation from run-off in surface water due to construction
- Runoff from the application of pesticides and herbicides, stormwater and highway
- Potential contamination of waterbodies and source water from fuel or other chemical spills
- Leachate and runoff from waste management areas, including proposed waste transfer station and wood waste from sawmill, infiltrating groundwater and surface water bodies
- Contamination from nearby industry and new construction, including increased turbidity
- Historic use of contaminated fill within the privies around the campsite (as identified in the Phase I ESA, conducted by DST in 2019)
- Wood waste from historic logging activities is present on the lake
- Improperly constructed or poorly maintained septic fields

### 3.1.3 Management Goals & Objectives

- Develop and implement policies to protect drinking water sources from current and future potential contaminating activities
- Establish surface water monitoring programs to ensure safe drinking water access for Animbiigoo Zaagi'igan Anishinaabek community members
- Monitor surface and groundwater quality to track long-term trends and to assess the effectiveness management initiatives
- Prevent contamination of waterbodies for the protection of aquatic life and terrestrial
- Ensure compliance with applicable federal legislation



### 3.1.4 Management Regime

<p><b>Existing Laws &amp; Regulations</b></p>	<p><b>Federal</b></p> <ul style="list-style-type: none"> <li>— <i>Canadian Environmental Protection Act</i> (1999)</li> <li>— <i>Fisheries Act</i> (1985)</li> <li>— <i>Migratory Birds Convention Act</i> (1994)</li> <li>— <i>Safe Drinking Water for First Nations Act</i> (2013)</li> <li>— <i>Species at Risk Act</i> (2002) <ul style="list-style-type: none"> <li>— Critical habitat is any habitat necessary for the survival or recovery of a listed wildlife species, including aquatic species. Thus, contamination or other changes to surface water could be considered destruction of critical habitat under section 58.</li> </ul> </li> <li>— Protocol for Safe Drinking Water in First Nations Communities <ul style="list-style-type: none"> <li>— This protocol applies to drinking water systems that are funded in whole or in part by Indigenous Services Canada (ISC), and that serve five or more households, or are a public facility. While most households will be responsible for installing and maintaining their own well, public facilities including health clinics, band offices, schools, and Elders facilities must comply with the requirements of this protocol.</li> </ul> </li> </ul> <p><b>Provincial</b></p> <ul style="list-style-type: none"> <li>— <i>Clean Water Act</i> (2006)</li> <li>— <i>Environmental Protection Act</i> (1990)</li> <li>— <i>Lakes and Rivers Improvement Act</i> (1990)</li> <li>— <i>Nutrient Management Act</i> (2002)</li> <li>— <i>Ontario Safe Drinking Water Act</i> (2002) <ul style="list-style-type: none"> <li>— O. Reg. 169/03: Water Quality Standards</li> <li>— O. Reg. 170/03: Drinking Water Systems</li> </ul> </li> <li>— <i>Ontario Water Resources Act</i> (1990)</li> <li>— <i>Public Lands Act</i> (1990)</li> <li>— <i>Sustainable Water and Sewage Systems Act</i> (2002)</li> <li>— <i>Environmental Assessment Act</i> (1990)</li> <li>— <i>Environmental Bill of Rights</i> (1993)</li> </ul>
<p><b>Guidelines and Best Management Practices</b></p>	<p>Animbiigoo Zaagi'igan Anishinaabek will consider the following guidelines and best management practices when drafting environmental law, enacting groundwater and surface water protection policies, and planning educational initiatives.</p> <p>Several drinking water programs and best management practices can be found through:</p>



- Health Canada
- Indigenous Services Canada (ISC)
- Environment and Climate Change Canada (ECCC)
- Government of Ontario
- Conservation Ontario
- Municipalities

The Guidelines for Canadian Drinking Water Quality (GCDWQ) have been developed by Health Canada, various provincial and territorial authorities as well as Environment Canada. The GCDWQ address contaminants and physical characteristics of water. Guidelines have been developed to aid in providing safe drinking water in areas of federal jurisdiction and how to implement the GCDWQ: <https://www.canada.ca/en/health-canada/services/publications/healthy-living/guidance-providing-safe-drinking-water-areas-federal-jurisdiction-version-2.html>

The province of Ontario has developed a comprehensive framework to protect drinking water, from source to tap. Many regions and areas utilize this approach through Source Protection Plans (SPP) which encompass guidelines and policies to protect drinking water from source, treatment and distribution, and management and monitoring. The Lakehead Source Water Protection Plan is the closest SPP in proximity to Animbiigoo Zaagi'igan Anishinaabek lands. The Lakehead SPP contains a series of locally developed policies that protect current and future sources of municipal drinking water. Under the *Ontario Safe Drinking Water Act (2002)*, municipalities shall provide public annual reports for water quality where the most local reports can be found through the Municipality of Greenstone. <http://www.sourceprotection.net/images/Approved%20SPP.pdf>  
<http://www.greenstone.ca/content/drinking-water-quality-reports>

ISC has developed the “On-Reserve Source Water Protection Guide and Template” to assist First Nations in addressing the issue of drinking water contamination.  
<https://www.sac-isc.gc.ca/eng/1398369474357/1533667689697>

The Government of Canada has developed guidelines to protect drinking water using a multi-barrier approach covering protective measures from source to tap.  
<https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/water-quality/source-multi-barrier-approach-safe-drinking-water-health-canada.html>

Protective measures should also be considered for non-potable sources and surface water bodies that host aquatic life and/or that may be utilized for agricultural use, such as livestock water. The CCME has developed Canadian Water Quality Guidelines for the Protection of Aquatic Life and Protocols for Deriving Water Quality Guidelines for the Protection of Agricultural Water Uses.





	<p><a href="http://cegg-rcqe.ccme.ca/en/index.html#void">http://cegg-rcqe.ccme.ca/en/index.html#void</a></p> <p>The Ontario Ministry of Transportation's 2015 "Environmental Guide for Erosion and Sediment Control During Construction of Highway Projects" provides best management practices for protecting surface water from sediment-laden runoff from construction projects, including situations like snowmelt and significant rainfall events. This document can be found at the following address:</p> <p><a href="https://www.yumpu.com/en/document/read/52272875/environmental-guide-for-erosion-and-sediment-control-ontario">https://www.yumpu.com/en/document/read/52272875/environmental-guide-for-erosion-and-sediment-control-ontario</a></p> <p>A number of best management practices regarding sedimentation and erosion control, as well as storm water runoff can be found through the United States Environmental Protection Agency (USEPA). Runoff and pollution from industry as well as stormwater runoff can contain particulate matter that may adversely affect water quality and clarity by increasing turbidity and compromising physical parameters. Water quality impacts due to sedimentation, erosion and runoff can be managed through implementation of policies and regulations. Information on managing discharges from construction, industrial and municipal sources can be found through the USEPA.</p> <p><a href="https://www.epa.gov/npdes/npdes-stormwater-program">https://www.epa.gov/npdes/npdes-stormwater-program</a></p>
<b>Animbiigoo Zaagi'igan Anishinaabek Proposed Responses</b>	
<b>Laws, Policies and Actions</b>	<p>Subject to funding and available resources, Animbiigoo Zaagi'igan Anishinaabek will take the following actions and steps to improve quality to groundwater and surface water systems:</p> <ul style="list-style-type: none"> <li>— Develop an Environmental Protection Law that prohibits the release of contaminating substances into the environment and sets the standards (maximum allowable limits) for potentially contaminating substances in the environment. Animbiigoo Zaagi'igan Anishinaabek will consider adopting either the provincial or federal standards, whichever are stricter or more appropriate for the background conditions of the FN lands and waters.</li> <li>— Develop surface water and drinking water quality monitoring programs to identify possible impacts of development</li> <li>— Provide training and leadership initiatives including: <ul style="list-style-type: none"> <li>— Entry level course for drinking water operators</li> <li>— Operator training plans</li> <li>— Continuing education training for operators</li> <li>— Training and tools for First Nation leaders and managers</li> </ul> </li> <li>— Facilitate regulations to prevent illegal dumping into surface water bodies</li> <li>— Develop Environmental Assessment Law to protect surface waters from sedimentation and contamination from storm water run-off in</li> </ul>





	<p>areas of new construction for the purpose of creating clearing and construction buffers, phasing development activities, minimizing disturbed areas, using silt fencing, slope stabilization measures, or other erosion control methods commonly employed in the construction industry.</p> <ul style="list-style-type: none"> <li>— Protect wetlands by creating buffers</li> </ul> <p>As mentioned above, due to jurisdictional limitations on the ownership of Partridge Lake and surrounding surface water bodies, Animbiigoo Zaagi'igan Anishinaabek cannot develop enforceable laws regarding surface water outside of Animbiigoo Zaagi'igan Anishinaabek boundaries. Animbiigoo Zaagi'igan Anishinaabek should organize discussions with Department of Fisheries and Oceans and other government organizations to review any potential concerns regarding the use and activities of the surface water adjacent to Animbiigoo Zaagi'igan Anishinaabek.</p>
<b>Education</b>	<p>Community involvement in groundwater and surface water protection initiatives requires members to understand what is required of them and why their participation is essential. To ensure strong participation from the community, Animbiigoo Zaagi'igan Anishinaabek will enact the following educational measures:</p> <ul style="list-style-type: none"> <li>— Erect signage near water bodies, wetlands and in residential areas reminding members that all runoff from lawns and driveways makes its way into the streams and into Partridge Lake, including fertilizers and pesticides from lawns and chemicals used to wash cars.</li> <li>— Increase community capacity and understanding to promote and contribute to safe drinking water practices and watershed protection and management. Make information about septic field maintenance readily available at the band office</li> <li>— Inform community members about Animbiigoo Zaagi'igan Anishinaabek's policies regarding groundwater and surface water protection, and advise members on ways they can mitigate personal impact</li> </ul>
<b>Monitoring &amp; Reporting</b>	<p>The following monitoring and reporting strategies may be implemented by the Animbiigoo Zaagi'igan Anishinaabek to support groundwater and surface water resources:</p> <ul style="list-style-type: none"> <li>— Identify and document valuable surface water inventory</li> <li>— Develop baseline monitoring program to record water quality from valuable water resources, pending available funding, or work with a provincial or federal body (e.g., Health Canada or Indigenous Services Canada) to collect or access this data</li> <li>— Provide access to annual drinking water quality reports (available from <a href="http://www.greenstone.ca/content/drinking-water-quality-reports">http://www.greenstone.ca/content/drinking-water-quality-reports</a>)</li> <li>— Provide a telephone number to call to report illegal activities associated with contaminating water sources</li> </ul>



## 3.2 Land Development

### 3.2.1 Key Features

Animbiigoo Zaagi'igan Anishinaabek resides on 12.7 square kilometres of land after officially receiving its chosen land base after decades of negotiating with the Federal Government. The lands of Animbiigoo Zaagi'igan Anishinaabek were generally divided into three land uses in the Partridge Lake Land Use Plan as detailed; the eastern portion of the land and areas surrounding water bodies have been reserved as culture and environment land use, the southern portion of the land is reserved for economic development and the central portion of the land is reserved for the community/residential area.

Since receiving its land base in 2008, Animbiigoo Zaagi'igan Anishinaabek has been developing its reserve infrastructure, including upgrading its roads, bringing hydro to the community and surveying lots to help create an environmentally sustainable, self-sufficient community.

### 3.2.2 Potential Environmental Threats

Possible threats to the environment associated with construction and development include the following:

- Development activities can affect wildlife through habitat degradation and fragmentation, water quality degradation, noise, light, vibrations, and increased human activity
- Development can affect water, air, soil quality and stability, etc.
- No existing policies or enforcement mechanisms to ensure on-reserve industrial activities comply with environmental goals of the community
- Clearing forested land and introducing impermeable surfaces (e.g. roads, roofs, driveways, parking lots, etc.) reduces the capacity of the land to absorb water and increases runoff, altering surface water flow patterns and potentially increasing soil erosion, and potentially leading to decreased surface water quality
- Runoff from the application of pesticides and herbicides during development

### 3.2.3 Management Goals

- Fulfill the community's infrastructure needs with minimum possible impact to the environment
- Update Land Use Plan to identify sensitive ecological areas and avoid construction in these areas
- Limit fragmentation by maintaining corridors between patches of habitat
- Ensure all resource management activities on Animbiigoo Zaagi'igan Anishinaabek lands adhere to Environmental Protection Law that will be developed
- Protect environmental receptors from application of pesticides and herbicides



### 3.2.4 Management Regime

<b>Existing Laws &amp; Regulations</b>	<p><b>Federal</b></p> <ul style="list-style-type: none"> <li>— <i>Canadian Environmental Protection Act</i> (1999)</li> <li>— <i>Canadian Environmental Assessment Act</i> (2012)</li> <li>— <i>Species at Risk Act</i> (2002)</li> <li>— <i>Migratory Birds Convention Act</i> (1994)</li> <li>— <i>Fisheries Act</i> (1985)</li> <li>— <i>Pest Control Products Act</i> (2002)</li> <li>— <i>First Nations Land Management Act</i> (1999)</li> <li>— <i>Safe Drinking Water for First Nations Act</i> (2013)</li> </ul> <p><b>Provincial</b></p> <ul style="list-style-type: none"> <li>— <i>Endangered Species Act</i> (2007)</li> <li>— <i>Clean Water Act</i> (2006)</li> <li>— <i>Ontario Water Resources Act</i> (1990)</li> <li>— <i>Lakes and Rivers Improvement Act</i> (1990)</li> <li>— <i>Public Lands Act</i> (1990)</li> <li>— <i>Environmental Bill of Rights</i> (1993)</li> <li>— <i>Ontario Safe Drinking Water Act</i> (2002) <ul style="list-style-type: none"> <li>— O. Reg. 169/03: Water Quality Standards</li> <li>— O. Reg. 170/03: Drinking Water Systems</li> </ul> </li> </ul>
<b>Guidelines and Best Management Practices</b>	<p>The National Building Code of Canada (2015) applies to all federally funded construction projects on reserve land. Enforcement of the building code is the responsibility of Chief and Council. Animbiigoo Zaagi'igan Anishinaabek will seek support for building inspections.  <a href="https://nrc.canada.ca/en/certifications-evaluations-standards/codes-canada/codes-canada-publications/national-building-code-canada-2015">https://nrc.canada.ca/en/certifications-evaluations-standards/codes-canada/codes-canada-publications/national-building-code-canada-2015</a></p> <p>The National Fire Code of Canada (2015) complements the National Building Code, and must be considered when constructing, renovating or maintaining buildings.  <a href="https://nrc.canada.ca/en/certifications-evaluations-standards/codes-canada/codes-canada-publications/national-fire-code-canada-2015">https://nrc.canada.ca/en/certifications-evaluations-standards/codes-canada/codes-canada-publications/national-fire-code-canada-2015</a></p> <p>The Protocol for ISC-Funded Infrastructure (2020) outlines the criteria for infrastructure funding under the Capital Facilities and Maintenance Program, including a list of the applicable federal statutes and regulations that apply to reserve lands. Support is available through ISC to understand and comply with these regulations.</p>



	<p><a href="https://www.aadnc-aandc.gc.ca/DAM/DAM-INTER-HQ-IH/STAGING/texte-text/protocol_2016_1476993446793_eng.pdf">https://www.aadnc-aandc.gc.ca/DAM/DAM-INTER-HQ-IH/STAGING/texte-text/protocol_2016_1476993446793_eng.pdf</a></p> <p>The Ontario Building Code (O. Reg. 332/12) is based on the National Building Code and contains variations specific to Ontario's conditions. While it is not necessary to adhere to the Ontario Building Code on reserve lands, these standards will be familiar to contractors who perform work off-reserve and may contain higher standards for energy efficiency.</p> <p><a href="https://www.ontario.ca/laws/regulation/120332">https://www.ontario.ca/laws/regulation/120332</a></p>
<b>Animbiigoo Zaagi'igan Anishinaabek Proposed Responses</b>	
<b>Laws, Policies and Actions</b>	<ul style="list-style-type: none"> <li>— Animbiigoo Zaagi'igan Anishinaabek will use the Interim Environmental Assessment Process from the Animbiigoo Zaagi'igan Anishinaabek Individual Agreement with Canada, until the community develops its own Environmental Assessment Law.</li> <li>— Zoning laws should be established to support the Land Use Plan to ensure that land and resource development occurs in appropriate areas, where impacts to the community and the environment are minimized. The Animbiigoo Zaagi'igan Anishinaabek Environmental Assessment law should be adhered to once it is developed.</li> <li>— Animbiigoo Zaagi'igan Anishinaabek will ensure that the Land Use Plan is updated as more information is gathered on the lands, ensuring that sensitive ecological or cultural areas are protected from the impacts of development (e.g. buffer zones, minimum setbacks from surface water bodies). Infrastructure development will involve Environmental Assessments (see section 4), erosion control plans or site-specific environmental management plans if necessary. This process could be linked to the development of the Animbiigoo Zaagi'igan Anishinaabek Environmental Assessment law that incorporates the requirement for a review of potential environmental impacts from a project or development before it occurs, in an effort to avoid, minimize, or compensate for those impacts.</li> <li>— Animbiigoo Zaagi'igan Anishinaabek will maintain pesticide/herbicide ban with HydroOne on reserve lands to ensure chemicals do not leech into the environment.</li> </ul>
<b>Education</b>	<p>Inform the community and contractors of the requirements, laws, and policies for future development. Publish this information in the Band Office and on the community website.</p> <p>Erect signage near water bodies, wetlands and in residential areas reminding members that all runoff from lawns and driveways makes its way into the streams and into Partridge Lake, including fertilizers, herbicides and pesticides from lawns.</p>
<b>Monitoring &amp; Reporting</b>	<p>As part of the requirements for development, ensure the appropriate permits are obtained and Environmental Assessments are conducted in the planning stages of the project. Ensure the appropriate inspections are completed throughout all phases of development.</p>



## 3.3 Natural and Cultural Resources

### 3.3.1 Key Features

The Animbiigoo Zaagi'igan Anishinaabek reserve encompasses a variety of natural heritage features, including forests, wetlands, several creeks, small lakes and a portion of Partridge Lake shoreline (Figure 1, Appendix A), as well as a variety of plants and wildlife, with potential for species at risk.

The protection of Indigenous species and habitat as well as cultural spaces are important to maintaining functional ecosystems. Animbiigoo Zaagi'igan Anishinaabek has also reserved two thirds of the reserve for conservation and traditional activities. Culture and Conservation areas have been set aside within the Land Use Management Plan.

### 3.3.2 Potential Environmental Threats

- No dedicated monitoring of local wildlife populations, particularly species that are of importance to community members, as these may differ from species of interest to provincial or federal bodies
- Lack of information about species at risk and invasive species
- Potential for future development to harm natural heritage features and negatively impact species and their habitats
- Damage to physical cultural resources from flooding, wildfire, or spills

### 3.3.3 Management Goals

Little information currently exists about the occurrence of valued species, wildlife and critical habitat, and species at risk within the Animbiigoo Zaagi'igan Anishinaabek reserve and surrounding area. A desktop review indicated the potential occurrence of Woodland Caribou (*Tarandus caribou*), but further investigations are needed in order to develop effective management strategies. The Animbiigoo Zaagi'igan Anishinaabek First Nations community will initiate the following studies and action plans in order to achieve their wildlife management goals:

#### Goals

- Protect wildlife and habitats in and around the community, including wildlife corridors
- Protect local wild food sources and traditional resources, including moose, fish, etc.
- Develop a strategy for addressing invasive species
- Implement an educational program for the community about fishing that includes traditional best management practices
- Perform a baseline assessment of species of concern and monitor the population over time
- Identify important cultural sites and develop a plan to protect them from potential threats



### 3.3.4 Management Regime

<p><b>Existing Laws &amp; Regulations</b></p>	<p>Animbiigoo Zaagi'igan Anishinaabek will not be developing their own laws for wildlife and habitat protection, however Federal laws affecting natural heritage features still apply, including,</p> <p><b>Federal</b></p> <ul style="list-style-type: none"> <li>— <i>Fisheries Act</i> (1985)</li> <li>— <i>Migratory Birds Convention Act</i> (1994)</li> <li>— <i>Species at Risk Act</i> (2002)</li> <li>— <i>Canadian Environmental Assessment Act</i> (2012) <ul style="list-style-type: none"> <li>— In Section 2(1), the potential environmental effects of a project are considered to include any effects on physical and cultural heritage</li> <li>— Parts of this act may be used to guide the EA law that Animbiigoo Zaagi'igan Anishinaabek will developed</li> </ul> </li> </ul> <p><b>Provincial</b></p> <ul style="list-style-type: none"> <li>— <i>Ontario Heritage Act</i> (1990)</li> <li>— <i>Endangered Species Act</i> (2007)</li> <li>— <i>Ontario Water Resources Act</i> (1990)</li> <li>— <i>Lakes and Rivers Improvement Act</i> (1990)</li> <li>— <i>Public Lands Act</i> (1990)</li> <li>— <i>Environmental Bill of Rights</i> (1993)</li> </ul>
<p><b>Guidelines and Best Management Practices</b></p>	<p>Animbiigoo Zaagi'igan Anishinaabek will maintain the moose wintering habitat as determined in the Land Use Management Plan.</p> <p>Animbiigoo Zaagi'igan Anishinaabek will also consider the following guidelines and best management practices when developing management strategies and planning educational initiatives:</p> <p>Guide to federally listed species at risk with links to descriptions of critical habitats, recovery strategies, management plans and action plans can be found at the following address:</p> <p><a href="https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry.html">https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry.html</a></p> <p>This guidance document outlines the requirements for an Environmental Review for proposed projects on First Nation reserve land. This guidance document is intended for proponents who are planning projects on First Nation reserve lands subject to the <i>Canadian Environmental Assessment Act, 2012</i> (CEAA 2012), see Section 4 of this EMP for further details:</p> <p><a href="https://www.sac-isc.gc.ca/eng/1345141628060/1612813855724">https://www.sac-isc.gc.ca/eng/1345141628060/1612813855724</a></p>



Best Management Practices for Aggregate Activities and Woodland Caribou.

[https://files.ontario.ca/mnr\\_sar\\_bmp\\_aggr\\_car\\_en\\_1.pdf](https://files.ontario.ca/mnr_sar_bmp_aggr_car_en_1.pdf)

Guide to Fisheries and Oceans Canada project review process to determine if projects in or near water may cause serious harm to fish and associated mitigation measures can be found at the following address:

<https://www.dfo-mpo.gc.ca/pnw-ppe/reviews-revues/request-review-demande-d-examen-003-eng.html>

The Northern Contaminants Program provides information that assists informed decision making by individuals and communities in their food use.

[https://science.gc.ca/eic/site/063.nsf/eng/h\\_7A463DBA.html](https://science.gc.ca/eic/site/063.nsf/eng/h_7A463DBA.html)

Guidelines to reduce risk to migratory birds and the application of federal legislation can be found at the following address:

<https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/reduce-risk-migratory-birds.html>

Guide to invasive species in Ontario and best management practices can be found at the following address:

<https://www.ontario.ca/page/invasive-species-ontario>

<https://www.ontarioinvasiveplants.ca/resources/best-management-practices/>

Guide to invasive species in Canada can be found at the following address:

<https://www.invasivespeciescentre.ca/>

An example that may be used to develop a policy for protecting cultural heritage sites is the Forest Management Guide for Cultural Heritage Values provided by the Ontario government. It offers definitions, data sources, and specific guidelines for establishing protective reserves around different types of heritage sites.

<https://www.ontario.ca/page/forest-management-cultural-heritage#section-5>

The Guidelines for Evaluating Human Health Impacts in Environment Assessment: Country Foods have been developed by Health Canada to provide generic guidance on predicting health risks associated with contamination of country foods such as fruit and fish in federal EA or proposed major resource and infrastructure projects:

<https://www.canada.ca/en/health-canada/services/publications/healthy-living/guidance-evaluating-human-health-impacts-country-foods.html>





Animbiigoo Zaagi'igan Anishinaabek Proposed Responses	
<b>Laws, Policies and Actions</b>	<p>Until Animbiigoo Zaagi'igan Anishinaabek establishes an Environmental Assessment Regime (see section 4), the community will follow the Interim EA process outlined in the Animbiigoo Zaagi'igan Anishinaabek Individual Agreement with Canada. The EA process will ensure that development will not negatively impact sensitive ecosystems or threatened species.</p> <p>Animbiigoo Zaagi'igan Anishinaabek Laws and Policies to be developed and followed include:</p> <ul style="list-style-type: none"> <li>— Environmental Assessment Law (to be developed) to protect wildlife resources</li> <li>— Hunting and Trapping Law (to be developed) within the Animbiigoo Zaagi'igan Anishinaabek lands.</li> <li>— Interim Environmental Assessment Process from the Animbiigoo Zaagi'igan Anishinaabek Individual Agreement with Canada will be followed until the Animbiigoo Zaagi'igan Anishinaabek develops its own Environmental Assessment Law.</li> </ul> <p>In order to ensure that cultural and natural heritage features, including plants, wildlife and habitats, are protected within the reserve and surrounding area, Animbiigoo Zaagi'igan Anishinaabek will enact the following:</p> <ul style="list-style-type: none"> <li>— Establish a policy for members of Animbiigoo Zaagi'igan Anishinaabek to prevent the use of nets within Partridge Lake.</li> <li>— Undertake a study to identify important cultural resources and spaces to create a map that identifies these sensitive locations. Animbiigoo Zaagi'igan Anishinaabek will develop an Environmental Assessment Law which that establishes a protective buffer against development around identified cultural sites and incorporate these sites into the updated Land Use Plan.</li> <li>— Identify and monitor any existing traplines throughout Animbiigoo Zaagi'igan Anishinaabek and inform community members about the locations if required.</li> <li>— Initiate a baseline assessment study to characterize and document the following natural heritage features within the reserve and surrounding area: <ul style="list-style-type: none"> <li>— Wildlife and vegetation communities</li> <li>— Species at risk and critical habitats</li> <li>— Valued species and critical habitats</li> <li>— Invasive species</li> </ul> </li> <li>— Initiate an assessment of the use of herbicides on the reserve and surrounding land and characterize potential impacts with options for mitigation and/or potential alternative measures.</li> </ul>





	<ul style="list-style-type: none"> <li>— Develop a management plan to protect the natural heritage features within the reserve, with the incorporation of Traditional Knowledge, and minimize negative impacts associated with future developments and other on and off-site reserve activities.</li> <li>— Require appropriate environmental assessments (EAs) be conducted in the planning stages of development projects, in order to guide development plans and associated mitigation measures to protect natural heritage features, ensuring they are consistent with federal legislation and Animbiigoo Zaagi'igan Anishinaabek policies (including the Canadian Environmental Assessment Act; CEAA 2012).</li> <li>— Work with provincial and local governments to develop a management strategy to effectively deal with and prevent the spread of invasive species.</li> <li>— Animbiigoo Zaagi'igan Anishinaabek will seek out funding to create hatcheries to re-stock Partridge Lake.</li> </ul>
<b>Education</b>	<p>Various awareness programs can be initiated by Animbiigoo Zaagi'igan Anishinaabek to help increase community understanding in protecting natural heritage features and preventing the spread of invasive species:</p> <ul style="list-style-type: none"> <li>— Animbiigoo Zaagi'igan Anishinaabek will erect signage, where appropriate, to inform community members and visitors of the contemporary significance of certain heritage sites and the fishing policies.</li> <li>— Promote awareness of species at risk, and invasive species at community meetings and provide education and training events. Implement an educational program for the community about fishing that includes traditional best practices. Also include information that Animbiigoo Zaagi'igan Anishinaabek wants to avoid the use of netting to avoid overfishing Partridge Lake due to its small size.</li> <li>— Develop reference brochures to be distributed to community members that describe wildlife, vegetation, and species at risk present within the reserve and surrounding area, and how to identify and protect them, including activities that may have a direct or indirect negative impact. Include reference material on the Animbiigoo Zaagi'igan Anishinaabek website and post information boards at community buildings.</li> <li>— Develop reference brochures to identify and prevent the spread of invasive species and distribute to the community. Post signage in the reserve that identifies areas with invasive species and how to prevent their spread. Include reference material on the Animbiigoo Zaagi'igan Anishinaabek website and post information boards at community buildings.</li> <li>— Require mandatory EAs and environmental protection training to companies and organizations directly working with natural heritage</li> </ul>



	<p>features, and ensure they are familiar with applicable legislation and Animbiigoo Zaagi'igan Anishinaabek policies.</p> <ul style="list-style-type: none"> <li>— Animbiigoo Zaagi'igan Anishinaabek will educate membership of the Hunting and Trapping Law (to be developed) and post “No Hunting or Trapping” signs around reserve lands with the fines and infractions associated with the Law. Animbiigoo Zaagi'igan Anishinaabek should also promote sustainable harvesting practices and areas of significance prior to the implementation of the Hunting and Trapping Law.</li> </ul>
<b>Monitoring and Reporting</b>	<p>The effectiveness of the management plans and strategies should be assessed and reported on a regular and ongoing basis, with scheduled follow up surveys to guide adaptive management as necessary:</p> <ul style="list-style-type: none"> <li>— Species at risk monitoring and reporting</li> <li>— Valued species monitoring and reporting</li> <li>— Invasive species monitoring and reporting</li> </ul> <p>Mitigation measures implemented as part of the environmental assessment process for land development projects should be monitored and their effectiveness evaluated, with adaptive management as necessary</p>

## 3.4 Solid Waste Management

### 3.4.1 Key Features

Visitors on the Animbiigoo Zaagi'igan Anishinaabek lands currently must dispose of their solid waste at a waste receptacle near the Highway 11, see Figure in Appendix A, the receptacle is then taken to the nearby Longlac Landfill operated by the Municipality of Greenstone every two weeks from May until the end of September. There are currently no local recycling or waste diversion programs in place. A need for garbage receptacles throughout the reserve, especially in campground areas has been identified by the community to avoid littering. The Longlac Landfill is nearing capacity, and the Municipality of Greenstone is in the process of identifying suitable locations for a new, larger landfill to service the entire municipality. Animbiigoo Zaagi'igan Anishinaabek does not currently have a solid waste management plan although it is suggested a solid waste management plan be completed for the community.

Animbiigoo Zaagi'igan Anishinaabek would like to build a waste transfer station and recycling centre within the reserve lands. Solid waste will be collected weekly and stored at the transfer station and periodically transferred to the Beardmore Landfill, operated by the Municipality of Greenstone, under a future Municipal Type Service Agreement (MTSA). The Municipality of Greenstone is in the process of creating a new landfill in collaboration with the six First Nation communities within and surrounding the Municipality, which will eventually replace the Beardmore Landfill as the final destination for solid waste generated by Animbiigoo Zaagi'igan Anishinaabek.



### 3.4.2 Potential Environmental Threats

Potential environmental threats associated with Animbiigoo Zaagi'igan Anishinaabek's solid waste management have been identified and summarized below:

- Unauthorized dumping, burning, or storage of waste, including animal waste from fishing
- No waste diversion programs currently in place which could lead to increased impact on landfills
- Lack of community knowledge about waste management, including proper storage and disposal of common items such as batteries, car parts, waste oil, tires, or household hazardous materials
- Lack of public garbage receptacles, especially within campground areas
- Improper management and storing of solid wastes can lead to leachate by precipitation infiltrating solid waste and an overall degradation of the environment due to contaminants (soil, water)
- Adverse effects on wildlife that are exposed to solid waste, consume solid waste or inhabit waste storage and disposal area

### 3.4.3 Management Goals

- Provide stable and economical waste disposal methods that caters to residents and campers and minimizes negative environmental impacts
- Increase the amount of public garbage receptacles, especially in the campground areas
- Provide recycling centre at the transfer station site
- Ensure that hazardous waste is identified and managed appropriately in line with provincial guidelines
- Protect wildlife by preventing access to solid waste
- Ensure domestic animal waste is limited throughout public spaces on reserve
- Complete a solid waste management plan for the community

### 3.4.4 Management Regime

<b>Existing Laws and Regulations</b>	<b>Federal</b> <ul style="list-style-type: none"><li>— <i>Indian Act</i> (1985)<ul style="list-style-type: none"><li>— Indian Reserve Waste Disposal Regulation</li></ul></li><li>— <i>Canadian Environmental Protection Act</i> (1999)<ul style="list-style-type: none"><li>— Export and Import of Hazardous Waste and Hazardous Recyclable Materials</li></ul></li><li>— <i>Transportation of Dangerous Goods Act</i> (1992)</li></ul> <b>Provincial</b> <ul style="list-style-type: none"><li>— <i>Environmental Protection Act</i> (1990)<ul style="list-style-type: none"><li>— Part V: Waste Management</li></ul></li></ul>
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	<ul style="list-style-type: none"> <li>— O. Reg 85/16: Registrations Under Part II.2 of the Act - End-of-life-vehicles</li> <li>— O. Reg 351/12: Registrations Under Part II.2 of the Act - Waste Management Systems</li> <li>— O. Reg 232/98: Landfilling Sites</li> <li>— O. Reg. 102/94: Waste Audits and Waste Reduction Work Plans</li> <li>— O. Reg. 101/94: Recycling and Composting of Municipal Waste</li> <li>— R.R.O. 1990, Reg. 347: General - Waste Management</li> </ul> <p><b>Municipal</b></p> <ul style="list-style-type: none"> <li>— Municipality of Greenstone By-law 09-48 ("<u>Garbage By-law</u>")</li> <li>— Municipality of Greenstone By-law 05-66 ("<u>Animal Control By-law</u>")</li> </ul>
<p><b>Guidelines and Best Management Practices</b></p>	<p>Animbiigoo Zaagi'igan Anishinaabek will consider the following guidelines and best management practices when drafting environmental law, enacting waste management policies, and planning educational initiatives, until the community develops its own best management practices. These will come at a future date when a permanent residential population has been established and the specific needs of the community are better understood.</p> <p>The United States Environmental Protection Agency created an Integrated Solid Waste Management (ISWM) fact sheet. ISWM is a comprehensive program that focuses on waste prevention, followed by waste diversion, and then disposal either by landfilling or by incineration. The fact sheet outlines the following factors to consider when Animbiigoo Zaagi'igan Anishinaabek develops its solid waste management plan:</p> <p><u><a href="#">ISWM Fact Sheet</a></u></p> <ul style="list-style-type: none"> <li>— <b>Institutional</b> - Do existing laws and resources available provide the local government with the tools and authority to implement the ISWM plan?</li> <li>— <b>Social</b> - Consider types of waste, traditional methods of waste disposal, public knowledge of waste management and effective public education initiatives.</li> <li>— <b>Financial</b> - How will the waste management initiatives be funded?</li> <li>— <b>Economic</b> - Evaluate the anticipated costs of waste management activities, their effectiveness, and the potential for job creation.</li> <li>— <b>Technical</b> - The location of proposed facilities, the required equipment and training, transportation challenges, etc.</li> <li>— <b>Environmental</b> - Ensure that management activities will protect ground water and surface water, particularly when drinking water is at risk.</li> </ul>



	<p>The <a href="#">Zero Waste Hierarchy</a> presented by the Recycling Council of British Columbia (RCBC) offers a guide to strategies and policies for achieving a Zero Waste system (Appendix A). It expands the traditional 3 R's (Reduce, Reuse, Recycle) to include Re-consider, Recover, and Retain, and encourages everyone from policymakers to individuals to move from a linear use of resources to a closed-loop system, in which resources are recycled back into the production of new products instead of being discarded. This results in both less waste being discarded, and less raw materials used for production.</p>
<h3>Animbiigoo Zaagi'igan Anishinaabek Proposed Responses</h3>	
<p><b>Laws, Policies and Actions</b></p>	<p>Animbiigoo Zaagi'igan Anishinaabek Laws and Policies to be developed and followed include:</p> <ul style="list-style-type: none"> <li>— Environmental Protection Law (to be developed) to establish designated sites for fish and animal waste</li> </ul> <p>In addition to the factors included in the ISWM above, Animbiigoo Zaagi'igan Anishinaabek will consider the following initiatives:</p> <ul style="list-style-type: none"> <li>— Provide and maintain waste receptacles in public areas, including containers for cigarette butts</li> <li>— Maintain regularly scheduled “open” hours for members to drop off at waste transfer station once constructed</li> <li>— Progress towards providing weekly roadside pickup of residential solid waste</li> <li>— Establish a “re-use” centre to divert usable items from the landfill</li> </ul> <p>As stated in the ISWM above, Animbiigoo Zaagi'igan Anishinaabek should focus first on waste prevention, followed by waste diversion, and then disposal.</p> <p>Animbiigoo Zaagi'igan Anishinaabek will inquire about the LABRC Solid Waste Management (SWM) program funding.</p> <p>In order to ensure that solid waste generated within the community is disposed of appropriately, Animbiigoo Zaagi'igan Anishinaabek will enact the following:</p> <ul style="list-style-type: none"> <li>— Develop a solid waste management plan (see Integrated Solid Waste Management Plan guideline below) to determine appropriate waste diversion measures (e.g., recycling, composting)</li> <li>— Create a solid waste management law that outlines proper disposal of waste and prohibits dumping or open burning of waste on the reserve, including appropriate enforcement measures and penalties, and incorporates appropriate direction for disposal of hazardous waste</li> <li>— Responsibility for enforcement of the Animbiigoo Zaagi'igan Anishinaabek Animal Control By-Law pertaining to animal waste should be decided</li> <li>— Establish a program for the removal of derelict vehicles</li> </ul>



	<ul style="list-style-type: none"> <li>— Establish a local transfer station which includes a recycling center and work towards the long-term goal of waste pickup within the community</li> <li>— Coordinate household hazardous waste collection with the Municipality of Greenstone</li> </ul>
<b>Education</b>	<p>Community involvement in waste management initiatives requires members to understand what is required of them and why their participation is essential. To ensure strong participation from the community, Animbiigoo Zaagi'igan Anishinaabek will enact the following educational measures:</p> <p><b>1) To increase participation in waste diversion and appropriate waste storage/disposal:</b></p> <ul style="list-style-type: none"> <li>— Distribute the transfer station schedule to all Animbiigoo Zaagi'igan Anishinaabek households, and make it available online</li> <li>— Provide information on how to recycle (if this becomes available), compost food and yard waste, and otherwise reduce waste to be landfilled. This information may be communicated by written material, community workshops, clothing swaps, or other events</li> </ul> <p><b>2) To protect the environment from inappropriately disposed-of waste</b></p> <ul style="list-style-type: none"> <li>— Create anti-dumping signage (e.g., “Help us protect our lands; please don’t litter or dump waste”)</li> <li>— Organize periodic community clean-ups</li> <li>— Animbiigoo Zaagi'igan Anishinaabek will provide a pamphlet or handout, available online or in the band office, describing the rules provided within the Animal Control By-Law</li> <li>— Arrange for scheduled pick-up of larger items (e.g., couches, mattresses) and hazardous items to prevent them from being dumped inappropriately</li> <li>— Encourage community members to dispose of fish and other animal waste (i.e., skin, bones, etc.) in a traditional manner</li> </ul> <p>Animbiigoo Zaagi'igan Anishinaabek will post “No Dumping” signs around waterbodies and wetlands, and highlight fines associated with infractions.</p>
<b>Monitoring &amp; Reporting</b>	<p>Ongoing monitoring to track the effectiveness of solid waste management initiatives will inform future management decisions. Possible monitoring activities include the following actions:</p> <ul style="list-style-type: none"> <li>— Designate routine surveillance of potential/known dumping areas and inspection of authorized waste deposit sites (e.g., public trash cans, dumpsters, etc.)</li> <li>— Provide a telephone number to call to report illegal dumping</li> <li>— Conduct periodic waste audits to assess whether the amount and composition of residential waste is affected by diversion initiatives</li> </ul>



## 3.5 Wastewater Management

### 3.5.1 Key Features

There are no community wastewater systems in place on Animbiigoo Zaagi'igan Anishinaabek lands, and there are currently no plans to construct one to service new developments. If feasible, all wastewater will be managed through individual septic systems rather than through a communal sewer system. If a situation arises in which septic systems are not feasible, Animbiigoo Zaagi'igan Anishinaabek will consider alternatives, including a community wastewater system.

### 3.5.2 Potential Environmental Threats

Potential environmental threats associated with wastewater management have been identified and summarized below:

- Improperly designed septic fields are a potential threat to the environment
- Potential discharge of household sewage, industrial, and commercial wastewater into surface and ground water
- Lack of stable funding to retain qualified staff to inspect and maintain systems
- Potential for contamination of drinking water in Partridge Lake

### 3.5.3 Management Goals

- Ensure septic fields are installed according to national standards (CSA B65)
- Protect ground water and surface water from wastewater contamination
- Prevent damage to aquatic ecosystems due to wastewater contamination

### 3.5.4 Management Regime

<b>Existing Laws &amp; Regulations</b>	<p><b>Federal</b></p> <ul style="list-style-type: none"><li>— <i>Canadian Environmental Protection Act</i> (1999)</li><li>— <i>Safe Drinking Water for First Nations Act</i> (2013)<ul style="list-style-type: none"><li>— Regulations under this Act are in development through consultation with First Nations. The intent is for these regulations to harmonize First Nations water and wastewater regulations with those of the provinces and territories.</li></ul></li></ul> <p><b>Provincial</b></p> <ul style="list-style-type: none"><li>— <i>Environmental Protection Act</i> (1990)<ul style="list-style-type: none"><li>— R.R.O. 1990, Reg. 358: Sewage systems</li></ul></li><li>— <i>Ontario Building Code</i> (2012)</li></ul>
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	<ul style="list-style-type: none"> <li>○ Section VIII</li> </ul> <p>— <i>Clean Water Act</i> (2006)</p>
<b>Guidelines and Best Management Practices</b>	<p>The Environmental Public Health Program provides wastewater services to First Nations communities, including advice on design, construction and operation of wastewater systems, septic system inspection services, annual well testing services, and more. Animbiigoo Zaagi'igan Anishinaabek will adapt the Environmental Public Health Program on wastewater services to develop standards, guidelines and protocols for wastewater within the community.</p> <p><a href="https://www.sac-isc.gc.ca/eng/1583865272500/1583865325391#c3">https://www.sac-isc.gc.ca/eng/1583865272500/1583865325391#c3</a></p>
<b>Animbiigoo Zaagi'igan Anishinaabek Proposed Responses</b>	
<b>Laws, Policies and Actions</b>	<p><b>Animbiigoo Zaagi'igan Anishinaabek Policy</b></p> <p>— Animbiigoo Zaagi'igan Anishinaabek will develop a wastewater management law making it illegal to discharge wastewater into waterbodies and enforce fines for infractions</p> <p>The <i>Protocol for Decentralized Water and Wastewater Systems in First Nations Communities</i> (April 2010) provides requirements for ISC-funded, Band-managed septic systems. The protocol requires that decentralized wastewater systems conform to CSA B65 - National Installation Standard for Decentralized Wastewater Systems.</p> <p><a href="https://www.sac-isc.gc.ca/eng/1100100034991/1533666283450">https://www.sac-isc.gc.ca/eng/1100100034991/1533666283450</a></p> <p>All ISC-funded septic systems must be inspected during construction by a qualified inspector or an appropriate inspection agency. The Environmental Public Health Program provides inspection services to First Nations.</p> <p>Animbiigoo Zaagi'igan Anishinaabek will require all septic systems in the community to be inspected to ensure they meet the applicable code.</p>
<b>Education</b>	<p>Animbiigoo Zaagi'igan Anishinaabek will provide resources in the form of a brochure or information sheet, available online and in the band office, detailing proper septic system maintenance. The Environmental Public Health Program provides educational resources on septic system maintenance and risk reduction related to sewage discharge.</p> <p><a href="https://www.sac-isc.gc.ca/eng/1584477135878/1584477188866#c1">https://www.sac-isc.gc.ca/eng/1584477135878/1584477188866#c1</a></p> <p>Animbiigoo Zaagi'igan Anishinaabek will provide resources to the community in the form of a brochure or information sheet of what is appropriate and not appropriate to dispose of down the drain.</p>





	The <a href="#">Tips for Sewage Treatment System - FAQs</a> presented by the Thunder Bay District Health Unit (TBDHU) offers tips on how to best minimize grey water (gently used water from showers, washing machines and bathroom sinks but hasn't come into contact with human waste) output to avoid sewage issues.
<b>Monitoring &amp; Reporting</b>	Animbiigoo Zaagi'igan Anishinaabek will monitor waterbodies to inform the need for fines, penalties where illegal dumping may occur to enforce the wastewater management law (to be developed).

## 3.6 Contaminated Land Management and Community Health

### 3.6.1 Key Features

A Phase I Environmental Site Assessment conducted in 2019 by DST which identified the following two areas of potential environmental concern:

- Importation of fill of unknown quality at Camp #1
- TransCanada Pipeline Station

A Phase II ESA will not be conducted at this time to provide additional information on the presence and extent of contamination for these areas of concern.

### 3.6.2 Potential Environmental Threats

Potential issues regarding soil quality include the following:

- No Animbiigoo Zaagi'igan Anishinaabek policy for dealing with contaminated sites, including who bears responsibility
- No Animbiigoo Zaagi'igan Anishinaabek policies to prevent importation of contaminated fill
- Potential contamination from spills (i.e., fuel spills, chemical spills, etc.) including spills from the TC Energy Pipeline transfer station
- There is no current Environmental Protection Law enacted by Animbiigoo Zaagi'igan Anishinaabek
- Blastomycosis (a rare fungal infection usually acquired by breathing fungal *Blastomyces dermatitidis* or *Blastomyces gilchristii* spores which can cause health issues) within the soil on the reserve
- Contaminated traditional food

### 3.6.3 Management Goals

- Develop Animbiigoo Zaagi'igan Anishinaabek's Environmental Protection Law which will set a standard of substances in the environment before it is considered a contaminant and will protect Animbiigoo Zaagi'igan Anishinaabek from liability issues by establishing a law that will ensure that the "polluter pays" in the case of a spill or other contaminating activity



- Include soil deposit and removal laws under the Environmental Protection Law to ensure that imported soil meets CCME quality standards before being deposited on the reserve lands to prevent potential contamination
- Prevent future contamination through a combination of regulation, policies and educational initiatives
- Educate community members on blastomycosis

### 3.6.4 Management Regime

<b>Existing Laws &amp; Regulations</b>	<p><b>Federal</b></p> <ul style="list-style-type: none"> <li>— <i>Canadian Environmental Protection Act</i> (1999)</li> <li>— CCME Canadian Soil Quality Guidelines for the Protection of Environment and Human Health <ul style="list-style-type: none"> <li>— <a href="http://www.ccme.ca">Canadian Council of Ministers of the Environment   Le Conseil canadien des ministres de l'environnement (ccme.ca)</a></li> </ul> </li> <li>— <i>Health Canada Guidelines for Canadian Drinking Water Quality</i> <ul style="list-style-type: none"> <li>— <a href="https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/water-quality/guidelines-canadian-drinking-water-quality-summary-table.html">https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/water-quality/guidelines-canadian-drinking-water-quality-summary-table.html</a></li> </ul> </li> <li>— Federal Interim Groundwater Quality Guidelines for Federal Contaminated Sites <ul style="list-style-type: none"> <li>— <a href="https://publications.gc.ca/collections/collection_2014/ec/En14-91-2013-eng.pdf">https://publications.gc.ca/collections/collection_2014/ec/En14-91-2013-eng.pdf</a></li> </ul> </li> </ul> <p><b>Provincial</b></p> <ul style="list-style-type: none"> <li>— <i>Environmental Protection Act</i> (1990) <ul style="list-style-type: none"> <li>— O. Reg. 153/04: Records of Site Condition</li> </ul> </li> <li>— <i>Safe Drinking Water Act</i> (2002) <ul style="list-style-type: none"> <li>— O. Reg. 169/03: Ontario Drinking Water Quality Standards</li> </ul> </li> </ul>
<b>Guidelines and Best Management Practices</b>	<p>The Federal Contaminated Sites Inventory is a resource for identifying all known federal contaminated sites.</p> <p><a href="https://www.tbs-sct.gc.ca/fcsi-rscf/home-accueil-eng.aspx#:~:text=The%20Federal%20Contaminated%20Sites%20Inventory,arising%20from%20past%20use%20that">https://www.tbs-sct.gc.ca/fcsi-rscf/home-accueil-eng.aspx#:~:text=The%20Federal%20Contaminated%20Sites%20Inventory,arising%20from%20past%20use%20that</a></p>
<b>Animbiigoo Zaagi'igan Anishinaabek Proposed Responses</b>	
<b>Laws, Policies and Actions</b>	<p>Animbiigoo Zaagi'igan Anishinaabek Laws and Policies to be developed and followed include:</p> <ul style="list-style-type: none"> <li>— Animbiigoo Zaagi'igan Anishinaabek will develop an Environmental Protection Law that holds the “polluter” responsible for any action that causes soil, groundwater, or surface water on Animbiigoo Zaagi'igan Anishinaabek lands to be contaminated, including intentional</li> </ul>



	<p>dumping or accidental spills. There will be no consequences for community members who report a spill but are not responsible for but will be encouraged to take immediate action to stop or contain a spill if it is safe to do so.</p> <ul style="list-style-type: none"> <li>— This law will also prohibit the importation of soil or other fill material to the reserve that exceeds applicable standards developed by Animbiigoo Zaagi'igan Anishinaabek that are adapted from the Canadian Environmental Quality Guidelines put forth by the CCME, as well as the “Soil, ground water and sediment standards for use under Part XV.1 of the Environmental Protection Act”, as specified in the <i>Framework Agreement</i>. This law may include regulations requiring a permit before fill material over a certain volume is deposited within a 12-month period.</li> <li>— Buffers will be established and maintained around the pipeline transfer station and any areas that are to be developed for commercial and industrial uses.</li> <li>— Animbiigoo Zaagi'igan Anishinaabek will establish its own registry of contaminated sites to ensure that details of the contaminating activity and any remediation efforts are up to date.</li> </ul> <p>The Federal Contaminated Sites Action Plan (FCSAP) may provide funding for the remediation of federal contaminated sites that were contaminated through activities that occurred prior to April 1, 1998. There are many steps and requirements that must be met before FSCAP funding is provided.</p> <p><a href="https://www.canada.ca/en/environment-climate-change/services/federal-contaminated-sites/decision-making-framework.html">https://www.canada.ca/en/environment-climate-change/services/federal-contaminated-sites/decision-making-framework.html</a></p>
Education	<p>Laws and policies related to fill materials must be communicated to contractors and community members who are involved with construction or other development activities that require use of fill materials. This can be achieved by including the requirement in all contract documents signed by contractors, and by publishing a notice of the new law in the Band Office and on the community website.</p> <p>Animbiigoo Zaagi'igan Anishinaabek will establish a contact point (e.g., a phone number or email address) for individuals to report spills, illegal dumping, or other contaminating activities.</p> <p>Animbiigoo Zaagi'igan Anishinaabek will provide a pamphlet or handout, available online or in the band office, describing where blastomycosis is most likely to occur as well as the signs and symptoms of blastomycosis for humans and domestic pets.</p>



## 3.7 Fuel Handling and Storage

### 3.7.1 Key Features

At the time of this report's completion, there are no commercial fuel facilities located on the reserve. The following sections provide direction to ensure that any future fueling stations are constructed in accordance with the strictest environmental protection laws.

Non-commercial sources of petroleum products on the reserve may include Above Ground Storage Tanks (ASTs) for heating appliances and fuel for recreational vehicles stored in jerry cans.

### 3.7.2 Potential Environmental Threats

While fuel storage on Animbiigoo Zaagi'igan Anishinaabek lands is currently limited to jerry cans used to fuel recreational vehicles and sawmill equipment, this document considers possible future sources of fuel including ASTs or retail fuel outlets. Potential environmental threats associated with fuel storage and handling have been identified and summarized below:

- Fuel spills contaminating soil surface water and groundwater
- Lack of staff training at fuel facilities, lack of spill response training
- Poorly maintained facilities and tanks
- Regulatory gap for ASTs used for heating or emergency power on federal land
- No standard operating procedures/best practices
- Improper/unsafe location of tanks and fuel facilities

### 3.7.3 Management Goals

#### Present

- Increase community awareness of potential risks to the environment and to human health related to improper fuel use and storage

#### Future

- Develop fuel spill response plans
- Build a safe refuelling and storage area away from surface water
- Maintain a record of potentially contaminating activities
- Put safe work procedures into practice
- Abide by all requirements for location and installation of future fuel facilities and ASTs

### 3.7.4 Management Regime

<b>Existing Laws &amp; Regulations</b>	<b>Federal</b> — <i>Canadian Environmental Protection Act (1999)</i>
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	<ul style="list-style-type: none"> <li>— <i>Storage Tank System for Petroleum Products and Allied Petroleum Products Regulations</i> (2008)</li> <li>— <i>Transportation of Dangerous Goods Act</i> (1992) <ul style="list-style-type: none"> <li>— Transportation of Dangerous Goods Regulations</li> </ul> </li> </ul> <p><b>Provincial</b></p> <ul style="list-style-type: none"> <li>— <i>Technical Standards and Safety Act</i> (2000) <ul style="list-style-type: none"> <li>— O. Reg. 211/01: Propane Storage and Handling</li> <li>— O. Reg. 212/02: Gaseous Fuels</li> <li>— O. Reg. 213/01: Fuel Oil</li> <li>— O. Reg. 217/01: Liquid Fuels</li> <li>— O. Reg. 223/01: Codes and Standards Adopted by Reference</li> </ul> </li> </ul>
<p><b>Guidelines and Best Management Practices</b></p>	<p>Storage Tanks Systems for Petroleum Products and Allied Petroleum Products Regulations, Environment Canada (SOR/2008-197) applies to all storage tank systems located on First Nations Land and should be consulted.</p> <p>The Canadian Council of Ministers of the Environment (CCME) has created a document entitled "<u>Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products</u>" for use by owners of storage tanks, industry members, and government entities with authority to regulate petroleum storage tanks. The code provides a set of technical requirements and may be adopted by any authority having jurisdiction. Animbiigoo Zaagi'igan Anishinaabek will follow the recommendations outlined in the CCME code to govern the use of above-ground storage tanks by individuals and for the purpose of commercial fuel sales.</p> <p><a href="https://publications.gc.ca/site/eng/9.697762/publication.html">https://publications.gc.ca/site/eng/9.697762/publication.html</a></p> <p>Animbiigoo Zaagi'igan Anishinaabek will follow the recommendations outlined in the CCME code to govern the use of above-ground storage tanks by individuals and for the purpose of commercial fuel sales.</p> <p>The Technical Standards and Safety Authority (TSSA) has a Liquid Fuels Handling Code (2017) that should be consulted for Best Management Practices for handling requirements, reporting, record keeping, acceptable tank types etc. for a variety of liquid fuels associate with motive fuel applications.</p> <p>Animbiigoo Zaagi'igan Anishinaabek will utilize safe refueling and storage areas once constructed near the campground to avoid any potential spills impacting the soil and surface water within the area. Buffers will be put in place regarding fuel handling and storage around water bodies.</p>



Animbiigoo Zaagi'igan Anishinaabek Proposed Responses	
<b>Laws, Policies and Actions</b>	<p>Animbiigoo Zaagi'igan Anishinaabek Laws and Policies to be developed and followed include:</p> <ul style="list-style-type: none"> <li>— Animbiigoo Zaagi'igan Anishinaabek will develop an Environmental Protection Law that outlines a minimum distance is created and maintained between fueling activities and surface water bodies to avoid surface water contamination if a spill occurs</li> </ul> <p>Animbiigoo Zaagi'igan Anishinaabek will comply with all relevant federal legislation governing the use and storage of petroleum products. In regard to the following storage tank systems, which do not fall under federal regulations, Animbiigoo Zaagi'igan Anishinaabek will consider with the applicable provincial standards to ensure adequate environmental protection.</p> <ul style="list-style-type: none"> <li>— Storage containers with a capacity of less than 230 litres</li> <li>— Indoor storage tanks where the building supplies the required level of secondary containment</li> <li>— Maintain legislation compliance with regular inspections and maintenance checks</li> <li>— Pressurized tanks (e.g., propane)</li> <li>— Ensure ASTs that are used for heating or for emergency power generations are double walled with spill protection and comply with provincial standards.</li> <li>— Storage tanks systems regulated by the National Energy Board of the Canada Oil and Gas Operations Act</li> <li>— Ensure a minimum distance is maintained between fueling areas and surface water bodies</li> </ul> <p>Animbiigoo Zaagi'igan Anishinaabek will require that all industrial and commercial operations on the reserve whose staff are expected to handle fuel employ Standard Operating Procedures for fuel handling, including appropriate personal protective equipment, spill prevention measures, and spill response measures. These operations will also be required to provide a spill kit appropriate to the volume and type of fuel typically handled or stored on site, and all staff should be trained in the use of the spill kit.</p>
<b>Education</b>	<p>The use of safe fuel handling and storage practices by individuals as well as owners/employees of commercial fuel facilities are important in preventing spills. Band employees who are required to handle petroleum products as part of their duties will be trained in safe handling procedures and spill response measures as outlined in the guidelines above.</p> <p>The TSSA provides educational resources on the handling and storage of liquid fuel.</p>



	<a href="https://www.actforcleanwater.ca/media/1067/handling-and-storage-of-liquid-fuel.pdf">https://www.actforcleanwater.ca/media/1067/handling-and-storage-of-liquid-fuel.pdf</a>  Animbiigoo Zaagi'igan Anishinaabek will provide a pamphlet or handout, available online or in the band office, describing the types of approved containers for petroleum products for personal use and outlining safe handling practices, with special emphasis on handling fuel on or near bodies of water. Once a refueling and storage area is developed near the campground, residents will be provided further information on how to use said structures. Signage will also be placed in the refueling areas outlining the minimum distances that fuel handling can occur beside a surface water body.		
<b>Monitoring &amp; Reporting</b>	Individuals who handle petroleum products, particularly in remote or ecologically sensitive areas, should be familiar with when and who to call in case of a spill. Animbiigoo Zaagi'igan Anishinaabek will construct safe refueling areas to prevent potential spills from impacting the environment and will establish a phone number and reporting system in case of a spill. In Ontario, either of the following three numbers may be called in case of a leak or spill.		
	613 239-6065  Environment Canada  Environmental Emergencies	1-800-268-6060  Ministry of the Environment  Spills Action Centre	1-877-682-8772 (option 1)  Technical Standards & Safety Authority  Report an Incident

## 3.8 Climate Change

### 3.8.1 Key Features

First Nation communities are disproportionately impacted by climate change due to reliance on the land, and limit capacity to adapt, which can have significant negative effects of provisional and cultural services which threaten the well being of these communities. The effects of climate change could also lead to decline in species in which the community relies on for food such as moose, berries blueberries and fish. Due to the proximity of Animbiigoo Zaagi'igan Anishinaabek to Partridge Lake, there have already been accounts of flooding and low water levels within the area due to extreme changes in water levels and the area being controlled by a dam. Animbiigoo Zaagi'igan Anishinaabek must understand the potential effects of their environment and how to best manage for these changes.

### 3.8.2 Potential Environmental Threats

Potential environmental threats associated with the effects of climate change have been identified and summarized below:





- Possible flooding and/or droughts due to changing water levels
- Forest fires
- Loss of or reduced groundwater or surface water sources for drinking water
- Changes in weather patterns (snow, cold, heat, etc.)
- Lack of community knowledge of risks/threats of climate change

### 3.8.3 Management Goals

- Establish a monitoring program to track temperature and water level trends
- Protect all structures and roadways from effects of potential flooding by preparing a stormwater management plan
- Ensure potential threats from climate change are included in updated environmental emergency response plans
- Educate community members on climate change
- Design future infrastructure to withstand extreme weather events

### 3.8.4 Management Regime

<b>Existing Laws &amp; Regulations</b>	<b>Federal</b> <ul style="list-style-type: none"> <li>— <i>Department of the Environment Act</i> (1985)</li> <li>— <i>Canadian Environmental Protection Act</i> (1999)</li> </ul> <b>Provincial</b> <ul style="list-style-type: none"> <li>— <i>Climate Change Mitigation and Low-Carbon Economy Act</i> (2016)</li> </ul>
<b>Guidelines and Best Management Practices</b>	<p>The First Nation Adapt Program provides funding to First Nation communities located below the 60<sup>th</sup> parallel to assess and respond to climate change impacts on community infrastructure and disaster risk reduction including flooding, forest fires, drought, fisheries, and winter road failures.</p> <p><a href="https://www.canada.ca/en/environment-climate-change/services/federal-contaminated-sites/decision-making-framework.html">https://www.canada.ca/en/environment-climate-change/services/federal-contaminated-sites/decision-making-framework.html</a></p> <p>The Indigenous Community-Based Climate Monitoring program provides funding for long-term climate monitoring projects in Indigenous communities.</p> <p><a href="https://www.rcaanc-cirnac.gc.ca/eng/1509728370447/1594738205979">https://www.rcaanc-cirnac.gc.ca/eng/1509728370447/1594738205979</a></p>
<b>Animbiigoo Zaagi'igan Anishinaabek Proposed Response</b>	





<b>Laws, Policies and Actions</b>	<ul style="list-style-type: none"> <li>— Initiate a Traditional Ecological Knowledge study to characterize and document the response of the land to a changing climate affecting the reserve and surrounding area. This study may incorporate knowledge previously offered by Elders, historical records including photographs, or community meetings: <ul style="list-style-type: none"> <li>— Average seasonal temperatures</li> <li>— Seasonal water levels</li> </ul> </li> <li>— Animbiigoo Zaagi'igan Anishinaabek will establish a protective buffer within the Environmental Protection Law for development around waterbodies to prevent structures being affected by flooding.</li> <li>— Animbiigoo Zaagi'igan Anishinaabek will maintain fire breaks around infrastructure and continue to manage surrounding forested areas to prevent forest fires (e.g., removing balsam fir and dead trees).</li> </ul>
<b>Education</b>	<p>The Canadian Centre for Climate Services provides education resources climate services, climate changing trends, climate models, climate data, the role of climate information in decision-making and key climate change concepts.</p> <p><a href="https://www.canada.ca/en/environment-climate-change/services/climate-change/canadian-centre-climate-services/basics.html">https://www.canada.ca/en/environment-climate-change/services/climate-change/canadian-centre-climate-services/basics.html</a></p> <p>Animbiigoo Zaagi'igan Anishinaabek will provide educational training, pending funding, to the community members describing climate change and how the Animbiigoo Zaagi'igan Anishinaabek lands could potentially be affected.</p>
<b>Monitoring &amp; Reporting</b>	<p>Animbiigoo Zaagi'igan Anishinaabek will monitor seasonal water levels and temperature throughout the reserve.</p> <p>Animbiigoo Zaagi'igan Anishinaabek should also maintain reports regarding the frequency and severity of extreme weather events to inform future development and response plans within the community.</p>

## 3.9 FireSmart/Environmental Emergency Management

### 3.9.1 Key Features

In small or remote communities, responding, managing, and recovering from various types of emergencies can be challenging due to various circumstances, including but not limited to geographic location, frequency of occurrence, and socio-economic conditions. Canada's emergency management framework defines an emergency as *"a present or imminent event that requires prompt coordination of actions concerning persons or property to protect the health, safety or welfare of people, or to limit damage to property or the environment"*, (An Emergency Management Framework for Canada, 2011). While Animbiigoo Zaagi'igan Anishinaabek has a draft emergency response plan, it was indicated by



Lands Committee members that these plans are not complete and that many community members are unaware of them.

### 3.9.2 Potential Environmental Threats

Some of the environmental emergencies that can be prevented or mitigated by emergency response plans include:

- Flooding
- Wildfire
- Severe storms
- Fuel/chemical spills
- Access in and out of community

### 3.9.3 Management Goals

- Regularly update environmental emergency response plans with community concerns
- Ensure that emergency response plans are reviewed frequently and updated when necessary, and that the community is educated on their use
- Build a secondary road
- Increase staff to enforce fire restrictions
- Expand wildfire training for community members
- Collaborate with Greenstone to deliver additional services in case of emergency
- Create a chain of command and responders which establishes who the responsibility of emergencies falls on

### 3.9.4 Management Regime

<b>Existing Laws and Regulations</b>	<b>Federal</b> <ul style="list-style-type: none"><li>— <i>Emergency Management Act</i> (2007)<ul style="list-style-type: none"><li>— Defines the role of federal government departments in emergency management</li><li>— ISC and Health Canada recognize emergency management on reserves as applicable to their departmental duty</li></ul></li><li>— Emergency Management Assistance Program<ul style="list-style-type: none"><li>— The federal government has arranged for the province to aid in emergency preparedness and response to First Nations, in response to requests from ISC or First Nations communities</li></ul></li></ul>
	<b>Provincial</b> <ul style="list-style-type: none"><li>— <i>Forest Fires Prevention Act</i> (1990)</li></ul>



Animbiigoo Zaagi'igan Anishinaabek Proposed Responses	
<b>Laws, Policies and Actions</b>	<p>The following provides suggested policy objectives and framework to address Animbiigoo Zaagi'igan Anishinaabek's Emergency Management requirements and was developed to dovetail with the requirements of applicable Ontario provincial legislation and regulations, not limited to include the <i>Emergency Management and Civil Protection Act</i>, R.S.O. 1990, c.E.9, and its associated Order in Council, O.C. 1492/2005 dated September 21, 2005.</p> <p>Emergency Management must be developed through a risk management approach and include the following five key policy-based objectives:</p> <p><b><i>Prevention</i></b></p> <p>Prevention refers to elements and actions in the Emergency Management Plan that are implemented to prevent an emergency from taking place and/or reduce the extent of response and recovery activities. It may result in a long-term, cost-effective reduction of risk. Prevention measures include capital improvements, regulations, building codes and public education programs.</p> <p><b><i>Mitigation</i></b></p> <p>Mitigation refers to elements and actions in the Emergency Management Plan that are implemented to reduce or eliminate the negative impacts of an emergency. These elements and actions can also reduce the extent of response and recovery activities required. Mitigation measures typically include capital improvements, regulations, building codes and public education programs.</p> <p><b><i>Preparedness</i></b></p> <p>Preparedness refers to elements and actions in the Emergency Management Plan that are implemented to the emergency or disaster to ensure an effective response. Preparedness measures include plans, training, exercises, public education, alerting and notification systems, procedures, organization, infrastructure protection, and standards.</p> <p><b><i>Response</i></b></p> <p>Response refers to elements and actions in the Emergency Management Plan that are implemented to respond to the emergency. The objective of these actions is to ensure that the response is controlled, coordinated, and effective so that it minimizes impacts to public safety, and to property. When an emergency occurs, the initial response needs to focus on meeting the needs of people, life safety, and protecting property and the environment. This effort may last from a few hours to several days, depending on the nature of the emergency. As response activities start to</p>



diminish, the operational focus should shift from response to recovery as smoothly and as seamlessly as possible.

### ***Recovery***

Recovery refers to elements and actions in the Emergency Management Plan that are implemented to recover from the emergency. The objective of these measures is to assist individuals, businesses and communities to return to a state of normalcy. Recovery activities typically include environmental remediation, return of evacuees to their homes, emergency financial assistance, clean-up and rebuilding of lost or damaged infrastructure and critical incident stress counseling. Recovery activities usually begin as soon as the response begins and continue after the response activities cease.

Animbiigoo Zaagi'igan Anishinaabek will seek out funding to assist in the preparation of emergency response plans and initiatives.

The federal government provides funding for emergency management activities (prevention, preparedness, response and recovery) for First Nations communities on reserves through ISC's Emergency Management Assistance Program, (An Emergency Management Framework for Canada, 2017).

<https://www.sac-isc.gc.ca/eng/1534954090122/1535120506707>

Infrastructure Canada may provide funding for the construction of public infrastructure and/or modification or reinforcement of existing public infrastructure including natural infrastructure that prevent, mitigate or protect against the impacts of climate change, disasters triggered by natural hazards, and extreme weather. There are many steps and requirements that must be met before Infrastructure Canada considers funding.

[Infrastructure Canada - Disaster Mitigation and Adaptation Fund: Applicant guide](#)

ISC is the department responsible for reimbursing eligible costs for all emergency management activities on First Nations reserves (Emergency Management Act, 2007).

Under the Emergency Management Assistance Program, reimbursement for emergency management activities on reserves is dispersed directly to provinces, territories, third parties, non-governmental organizations, or First Nations governments, depending on who is providing the services (Emergency Management Act, 2007). During an emergency, eligible response costs might include equipment used during the emergency response, rental of special equipment, and accommodations for contractors or consultants.



	<p>According to ISC, First Nations, third parties, or other levels of government must apply and prepare a proposal for the project in order to be reimbursed for costs associated with mitigation and emergency preparedness (Emergency Management Act, 2007).</p> <p>— Animbiigoo Zaagi'igan Anishinaabek will also request emergency plan documents from outside agencies that are applicable to the land area such as Ministry of Transportation and TC Energy to ensure community safety during an emergency.</p>
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## 4 Environmental Assessment

Under sections 23.2 and 23.4 of the *Framework Agreement*, an Environmental Assessment regime is required after a Land Code is adopted. An Environmental Assessment (EA) is an analysis to determine if there may be potential impacts (biological, cultural, physical, and socioeconomic) caused by a proposed development project and where mitigation efforts may be applied. An EA will be required for developmental projects or land-disturbing activities on Animbiigoo Zaagi'igan Anishinaabek lands.

At minimum, an EA report should describe the project and the environmental setting, identify the potential environmental effects associated with the project, and establish effective mitigation measures to eliminate or reduce the severity of the impacts. Animbiigoo Zaagi'igan Anishinaabek's EA law will provide the community with the power to practice environment due diligence prior to developmental projects and provide feedback to improve project design and construction on the community's own terms.

### 4.1 Interim Environmental Assessment Regime

The Animbiigoo Zaagi'igan Anishinaabek Individual Agreement on First Nation Land Management with Canada requires that Animbiigoo Zaagi'igan Anishinaabek implement an Interim EA process until the community can develop and implement its own EA law. Animbiigoo Zaagi'igan Anishinaabek will implement an EA regime consistent with the *Canadian Environmental Assessment Act (2012)* (CEAA 2012). However, at the time of this document's completion, Bill C-69 has received Royal Assent, and will repeal CEAA 2012 and replaced it with the *Impact Assessment Act* (IAA). Animbiigoo Zaagi'igan Anishinaabek may consider the IAA as an alternative EA regime in the future, until the development of the Animbiigoo Zaagi'igan Anishinaabek Environmental Assessment Law.

#### 4.1.1 Criteria for an Environmental Assessment Law

Animbiigoo Zaagi'igan Anishinaabek will develop its own EA law to meet the following criteria:

- An EA should be triggered for any project that could affect biological, cultural, physical and socioeconomic conditions on Animbiigoo Zaagi'igan Anishinaabek lands



- The EA will identify potential environmental effects that may result from any future developments or land-disturbing activities, recommend mitigation measures to reduce or eliminate those effects, and communicate those effects to the community
- The EA process should engage community members and other affected parties and provide support when needed to achieve meaningful consultation
- The EA report should consider improvements and mitigation measures in response to possible threats associated with proposed projects
- The process should avoid redundancy in order to remain effective and cost-efficient
- The EA process should occur early in the planning stages of a project as a decision-making tool before an irrevocable decision is made that allows the project to proceed
- The process should require project-specific goals and deadlines

## 5 Environmental Protection

Under sections 23.2 and 23.4 of the *Framework Agreement*, an Environmental Protection regime is required after a Land Code is adopted. An Environmental Protection (EP) law will prohibit the release of contamination substances into the environment which is required to protect natural resources, soils, water and groundwater throughout Animbiigoo Zaagi'igan Anishinaabek lands.

Animbiigoo Zaagi'igan Anishinaabek will develop an EP law and set standards (maximum allowable limits) for potentially contaminating substances in the environment. contamination parameter standards in soil, groundwater and air.

### 5.1.1 Criteria for an Environmental Protection Law

Animbiigoo Zaagi'igan Anishinaabek will develop its own EP law to meet the following criteria:

- EP contamination standards should be developed for all parameters soils, water, groundwater and air that meets or exceeds the current provincial standards
- The EP law will apply to both members and non-members living and working on Animbiigoo Zaagi'igan Anishinaabek lands to ensure adequate environmental protection
- The EP law will hold the “polluter” responsible for any action that causes natural resources to be contaminated, including intentional dumping or accidental spills
- Prohibit the importation of soil or other fill material that exceeds the developed Animbiigoo Zaagi'igan Anishinaabek standards
- Outlines land use planning requirements accompanied by environmental protection requirements to ensure impacts to the community and the environment are minimized
- The process should require project-specific goals and deadlines to ensure the law is completed and enforced in a timely manner. The process should also outline the parties that are responsible for implementing the law.



# 6 Environmental Management Plan Implementation

## 6.1 EMP Implementation Participants

The following is a list of the participants involved in the implementation of the EMP and a description of their responsibilities:

**Animbiigoo Zaagi'igan Anishinaabek Chief and Council:** authorize and participate in law development, officially adopt EMP, approve budgets and hiring decisions, manage financial aspects of EMP-related initiatives

**Lands Staff Administration:** Council may delegate administrative authority to staff to carry out functions necessary for day-to-day administrative operations of Land and natural resources. The staff will also administer the EMP and complete funding applications for projects and additional staff.

**Lands Committee:** The Lands Committee will assist Council with the development of the Land administration system, advise Council and its staff on matters respecting Animbiigoo Zaagi'igan Anishinaabek Land, recommend Land laws, resolutions policies and practices respecting Animbiigoo Zaagi'igan Anishinaabek Land to Council, consult with Members and non-Members on Animbiigoo Zaagi'igan Anishinaabek Land issues, make recommendations on the resolution of those issues to Council, oversee meetings of Members, community approvals and ratification votes; and perform such other duties as may be delegated or assigned by the resolution of Land law under this Land Code

**Animbiigoo Zaagi'igan Anishinaabek community members:** participate in educational initiatives, comply with laws and policies enacted under the EMP, and participate in the EA process

**Technical consultants:** provide support and potentially training to Animbiigoo Zaagi'igan Anishinaabek members to conduct monitoring programs, and conduct environmental studies, EAs and other technical work as needed

**Legal counsel:** draft environmental laws as specified by Chief and Council to meet the needs outlined in the EMP, and support enforcement and adjudication actions if required

**Federal agencies:** enforce federal laws and regulations, provide funding through ISC and CIRNAC

**Provincial agencies:** enforce provincial laws and regulations on provincial lands outside the reserve, respond to environmental emergencies on-reserve

**Local government:** the Municipality of Greenstone and neighbouring First Nations may collaborate to conduct wider-scale environmental monitoring projects, deliver services, and respond to regional environmental issues





## 6.2 Implementation Challenges

At the time of writing, Animbiigoo Zaagi'igan Anishinaabek has a Lands Management Committee who will be responsible for overseeing the implementation of the EMP. Implementing the EMP will allocate additional responsibility to the Lands Management Committee at a time when significant development is planned for Animbiigoo Zaagi'igan Anishinaabek lands.

Additional staffing resources will be necessary to ensure that the additional workload is manageable. Potential positions, full- or part-time, include:

- Environment Officer
- Environmental Technician
- Enforcement Officer

The implementation of the EMP will require familiarity of a variety of federal and provincial legislation and will involve a strong understanding of how different types of legislation interact. A lack of experienced, trained staff could result in delays to the implementation of the EMP, errors, or oversights.

### 6.2.1 Increasing Staff Capacity

Animbiigoo Zaagi'igan Anishinaabek will enact the following measures to increase the environmental capacity of its staff:

- Identify specific positions, develop job descriptions, and outline hiring practices to ensure Animbiigoo Zaagi'igan Anishinaabek staff are prepared to fulfill EMP implementation
- Identify suitable candidates to take part in training programs for positions such as “Environmental Officer” and “Environmental Technician”
- Allocate funding to train community members
- Establish job shadowing opportunities for youth in environmental fieldwork

### 6.2.2 Available Funding

Animbiigoo Zaagi'igan Anishinaabek should explore all potential avenues for additional funding that is mentioned throughout Section 3 of the EMP and is outlined below:

#### First Nations Land Management

Funding is also available through EMP Implementation Plan Funding from the First Nations Land Management for ongoing operations including land, environment, and natural resource management, including training and professional development programs. Initiatives covered by the program include:

- Land management
- Development of environmental laws
- Staffing requirements and training.

<https://www.sac-isc.gc.ca/eng/1327090675492/1611953585165>





## **Solid Waste Management**

Funding is available through the LABRC for solid waste management.

[Solid Waste Management Courses • First Nations Land Management Resource Centre \(RC\) \(labrc.com\)](#)

## **Environmental Public Health Program**

The Environmental Public Health Program provides wastewater services to First Nations communities, including advice on design, construction and operation of wastewater systems, septic system inspection services, annual well testing services, and more. Animbiigoo Zaagi'igan Anishinaabek will adapt the Environmental Public Health Program on wastewater services to develop standards, guidelines and protocols for wastewater within the community.

<https://www.sac-isc.gc.ca/eng/1583865272500/1583865325391#c3>

## **Federal Contaminated Sites Action Plan**

The Federal Contaminated Sites Action Plan (FCSAP) may provide funding for the remediation of federal contaminated sites that were contaminated through activities that occurred prior to April 1, 1998. There are many steps and requirements that must be met before FSCAP funding is provided.

<https://www.canada.ca/en/environment-climate-change/services/federal-contaminated-sites/decision-making-framework.html>

## **First Nation Adapt Program**

The First Nation Adapt Program provides funding to First Nation communities located below the 60<sup>th</sup> parallel to assess and respond to climate change impacts on community infrastructure and disaster risk reduction including flooding, forest fires, drought, fisheries and winter road failures.

<https://www.canada.ca/en/environment-climate-change/services/federal-contaminated-sites/decision-making-framework.html>

## **Indigenous Community-Based Climate Monitoring**

The Indigenous Community-Based Climate Monitoring program provides funding for long-term climate monitoring projects in Indigenous communities.

<https://www.rcaanc-cirnac.gc.ca/eng/1509728370447/1594738205979>

## **Emergency Management Assistance Program**

The federal government provides funding for emergency management activities (prevention, preparedness, response and recovery) for First Nations communities on reserves through ISC's Emergency Management Assistance Program, (An Emergency Management Framework for Canada, 2017).

<https://www.sac-isc.gc.ca/eng/1534954090122/1535120506707>

## **Disaster Mitigation and Adaptation Fund**

Infrastructure Canada may provide funding for the construction of public infrastructure and/or modification or reinforcement of existing public infrastructure including natural infrastructure that prevent, mitigate or protect against the impacts of climate change, disasters triggered by natural hazards, and extreme weather. There are many steps and requirements that must be met before Infrastructure Canada considers funding.

[Infrastructure Canada - Disaster Mitigation and Adaptation Fund: Applicant guide](#)

## **Nation Rebuilding Program**



Funding is available through Crown-Indigenous Relations and Northern Affairs Canada to assist Indigenous communities in reconstituting their nations. Funding is provided annually for up to five years and can support a variety of projects including training and capacity building, community consultation, engagement and information processes, and cultural reclamation activities.

<https://www.rcaanc-cirnac.gc.ca/eng/1530880050808/1530880135933>

## 6.3 Drafting Environmental Laws

Section 23 of the Animbiigoo Zaagi'igan Anishinaabek Land Code calls for the existence of a Lands Committee which will be responsible for recommending Land Laws to Council to address environmental protection and environmental assessment, land use planning and zoning, as well as any other matter referred to the committee by Council. While federal environmental protection laws continue to apply on First Nation land, under the *Framework Agreement*, Animbiigoo Zaagi'igan Anishinaabek is able to develop and enact its own environmental protection laws to strengthen on-reserve regulations to match or exceed the provincial laws that apply outside reserve boundaries. Animbiigoo Zaagi'igan Anishinaabek recognizes that collaboration with local, provincial, and/or federal governments may provide additional resources or opportunities for a cohesive environmental protection regime.

The procedure for creating Land Laws is described in Section 7 of the Animbiigoo Zaagi'igan Anishinaabek Land Code. A law may be proposed by the Chief, a Councillor, or by a representative of the Lands Committee or other body or authority composed of Members that is authorized by Council to do so. Regarding the laws proposed in the EMP, the Lands Management Committee will draft these laws with the support of legal counsel and Lands Management Staff and introduce them at Council meetings as soon as is practicable.

## 6.4 Capacity Building and Staff Training

Implementing the EMP may require additional resources and technical skills beyond that available to Animbiigoo Zaagi'igan Anishinaabek's current staff. Animbiigoo Zaagi'igan Anishinaabek will develop an outline for writing Requests for Proposal and a consultation selection process that will ensure that the appropriate technical specialists are retained to assist with various activities. Over time, Animbiigoo Zaagi'igan Anishinaabek will develop a list of qualified consultants to assist with the implementation of the EMP. Animbiigoo Zaagi'igan Anishinaabek will ensure that job shadowing opportunities are offered for Animbiigoo Zaagi'igan Anishinaabek members whenever possible to eventually allow Animbiigoo Zaagi'igan Anishinaabek staff to take on a greater role in the technical aspects of implementation such as water quality monitoring programs and the design of EAs.

Animbiigoo Zaagi'igan Anishinaabek will seek funding from the sources outlined in Section 5.2.2 to provide additional training for current staff and deliver educational opportunities to members who are interested in participating in environmental monitoring.



## 6.5 Implementation Schedule

A detailed implementation schedule will be determined within 6 months of the EMP's adoption. Table 3 below presents the strategies for each task.

The following tasks are presented in the suggested order of completion:

- Chief and Council adopt the EMP
- Review EMP with Chief, Council, and Lands Committee, and determine which actions, policies, and laws are of the highest priority
- Determine the type of resources required (additional staff, technical assistance, new funding) to implement each section of the EMP
- If possible, assign sections of the EMP to existing staff as appropriate. Use the remaining sections to determine what new roles will need to be filled and to write the job descriptions for these new positions
- Seek out and secure funding to create new positions and hire staff
- Engage legal counsel to prepare environmental protection laws in the order determined by Chief and Council
- Animbiigoo Zaagi'igan Anishinaabek staff prepare policies, guidelines, best management practices, and educational materials
- Begin to distribute educational materials to the community, erect educational signage, initiate outreach programs
- Staff member responsible for coordinating the EMP's implementation conducts 3-year review and prepares report on progress and proposed changes to the EMP

**Table 3: Implementation Plan Schedule**

Strategy	Type	Key Result	Cost	Responsible Party	Priority	Timeline
Development of Environmental and Environmental Assessment Laws						
Develop Environmental Protection Law	Law	Create a draft document of the Environmental Protection Law	High	Chief and Council & Legal Council	High	Year 1
Develop Environmental Assessment Law	Law	Create a draft document of the Environmental Assessment Law	High	Chief and Council & Legal Council	High	Year 1
Groundwater and Surface Water Protection						
Training Initiatives	Education	Provide training for water treatment operators	High	Lands Manager	High	Year 2



Strategy	Type	Key Result	Cost	Responsible Party	Priority	Timeline
Develop water quality monitoring	Program	Baseline established to identify possible impacts of development	Moderate	Technical Consultants	Moderate	Year 3
Land Development						
Educate community	Education	Erect signage near water bodies and wetlands informing members regarding runoff	Low	Lands Staff Administration	Low	Year 3
Natural and Cultural Resources						
Develop Hunting and Trapping Law	Law	Ban hunting and trapping throughout Animbiigoo Zaagi'igan	High	Chief and Council & Legal Council	High	Year 1
Identify Existing Traplines	Action	Identify and monitor any existing traplines throughout Animbiigoo Zaagi'igan Anishinaabek and inform community members about the locations if required.	Low	Lands Committee	High	Year 1
Prevent the use of Nets in Partridge Lake	Policy	Establish a policy which will include education for members of Animbiigoo Zaagi'igan Anishinaabek to prevent the use of nets within Partridge Lake	Low	Chief and Council & Legal Council	High	Year 1
Hatchery	Funding	Seek funding to create hatcheries to re-stock Partridge Lake	High	Lands Staff Administration	High	Year 1
Cultural Resources Study	Study	Initiate a study to identify important cultural resources to create a map which identifies sensitive locations	Moderate	Technical Consultants	Moderate	Year 3
Baseline Assessment and Management Plan	Plan	Initiate a baseline study to characterize and document natural heritage features within the reserve. Develop a plan to protect natural heritage features within the reserve.	Moderate	Technical Consultants	Moderate	Year 3
Educate Community	Education	Create awareness programs to increase community understanding in protecting natural heritage features through signage, community meetings and brochures. Animbiigoo Zaagi'igan Anishinaabek will also educate members on	Low	Lands Committee	Moderate	Year 4



Strategy	Type	Key Result	Cost	Responsible Party	Priority	Timeline
		sustainable harvest practices and areas of significance.				
Invasive Species Prevention	Plan	Work with provincial and local governments to develop a management strategy to effectively deal with and prevent the spread of invasive species	Low	Lands Committee with Federal and Provincial Agencies	Low	Year 5
Solid Waste Management						
SWM Funding	Funding	Inquire about the LABRC SWM program funding	High	Council	High	Year 1
Develop Solid Waste Management Law	Law	Outline proper disposal of waste and prohibit dumping or open burning of waste on the reserve, including appropriate enforcement.	High	Chief and Council & Legal Council	High	Year 1
Develop Animal Control By-Law	Law	Outline proper disposal practices of animal waste, including appropriate enforcement.	High	Chief and Council & Legal Council	High	Year 1
Public Receptacles	Plan	Provide and maintain waste receptacles in public areas	Moderate	Lands Staff Administration	Moderate	Year 2
Waste Transfer Station	Plan	Construct a waste transfer station and maintain regularly scheduled "open" hours for drop off waste	High	Chief and Council & Legal Council	High	Year 2
Community Involvement	Education	Educate community members in waste diversion and appropriate waste storage/disposal and post anti-dumping signage	Low	Lands Committee	Moderate	Year 4
Wastewater Management						
Waterbody Monitoring	Monitor	Waterbodies will be monitored to inform the needs for fines, where illegal dumping may occur to enforce the wastewater management law.	Low	Lands Staff Administration	High	Ongoing
Develop Wastewater Management Law	Law	Make it illegal to discharge wastewater into waterbodies and enforce fines for infractions	High	Chief and Council & Legal Council	High	Year 1



Strategy	Type	Key Result	Cost	Responsible Party	Priority	Timeline
Septic System Inspections	Plan	All septic systems in the community will be inspected to ensure they meet the applicable code	High	Technical Consultants	High	Year 1
Septic System Maintenance	Education	Provide resources detailing proper septic system maintenance	Low	Lands Committee	Moderate	Year 2
Contaminated Land Management and Community Health						
Contact Point	Education	A contact point will be established for individuals to report spills.	Low	Chief and Council	High	Year 1
Establish Buffers	Plan	A registry of contaminated sites (if applicable) will be created. Buffers will be established and maintained around the registered contaminated sites, the pipeline transfer station and any areas that are to be developed for commercial and industrial uses.	Low	Lands Staff Administration	Moderate	Year 3
Fuel Handling and Storage						
Establish Fueling Zones	Plan	Refueling and storage areas for fuel will be constructed near the campground and residents will be provided information on how to use said structures	Low	Lands Staff Administration	High	Year 1
Comply with Legislation	Plan	Animbiigoo Zaagi'igan Anishinaabek will comply with the Storage Tanks Systems for Petroleum Products and Allied Petroleum Products Regulations, Environment Canada (SOR/2008-197) which applies to all storage tank systems located on First Nations Land. Any tanks input in Animbiigoo Zaagi'igan Anishinaabek must follow the legislation detailed above and maintain regular inspections and maintenance checks	Low	Lands Staff Administration	High	Year 1
Staff Training	Education	Animbiigoo Zaagi'igan Anishinaabek staff will receive the training as necessary to handle fuel in compliance with	Moderate	Lands Staff Administration	High	Year 2



Strategy	Type	Key Result	Cost	Responsible Party	Priority	Timeline
		industrial and commercial operational standards				
Climate Change						
Climate Monitoring	Study	Water and air temperature, as well as water levels will be monitored on a monthly basis throughout the reserve	Low	Lands Staff Administration	Low	Ongoing
Traditional Ecological Knowledge	Study	Initiate a Traditional Ecological Knowledge study to characterize and document the response of the land to a changing climate affecting the reserve and surrounding area. This study may incorporate knowledge previously offered by Elders, historical records including photographs, or community meetings	Moderate	Technical Consultants	Low	Year 3
Climate Education	Education	Pending funding, educational training on climate change will be provided to the community to learn how Animbiigoo Zaagi'igan Anishinaabek could potentially be affected	Moderate	Lands Staff Administration	Low	Year 5
FireSmart/Emergency Management						
Emergency Management	Program	Emergency Management must be developed through a risk management approach and include the following five key policy-based objectives: prevention, mitigation, preparedness, response and recovery	Low	Lands Committee	High	Year 1
Road	Plan	Build a secondary road into the community for emergency use	High	Chief and Council	High	Year 1
Increase Emergency Services	Plan	Expand or regularly update wildfire training for community members and collaborate with Greenstone to deliver additional services in case of emergency	High	Chief and Council	High	Year 1
Community Emergency Response	Plan	Create a chain of command and responders which establishes who the responsibility of emergencies falls on	High	Chief and Council	High	Year 1



## 7 Closing

This EMP is designed to provide a starting point for Animbiigoo Zaagi'igan Anishinaabek leadership and staff as the community takes on the responsibility of governing its lands under the Land Code. As the community grows and develops and members begin to live on Animbiigoo Zaagi'igan Anishinaabek lands year-round, this document may need to be revisited and adapted to reflect changing conditions.

The EMP should be treated as a working document to be updated as goals and objectives are achieved, and the management capacity of the community develops. It is recommended that the EMP be reviewed after three years to reflect progress made and to assess the effectiveness of the management regimes. Individual sections may be reviewed more or less frequently based on changes to the reserve, changes in government policy, or progress towards developing Animbiigoo Zaagi'igan Anishinaabek's Environmental Protection Laws.





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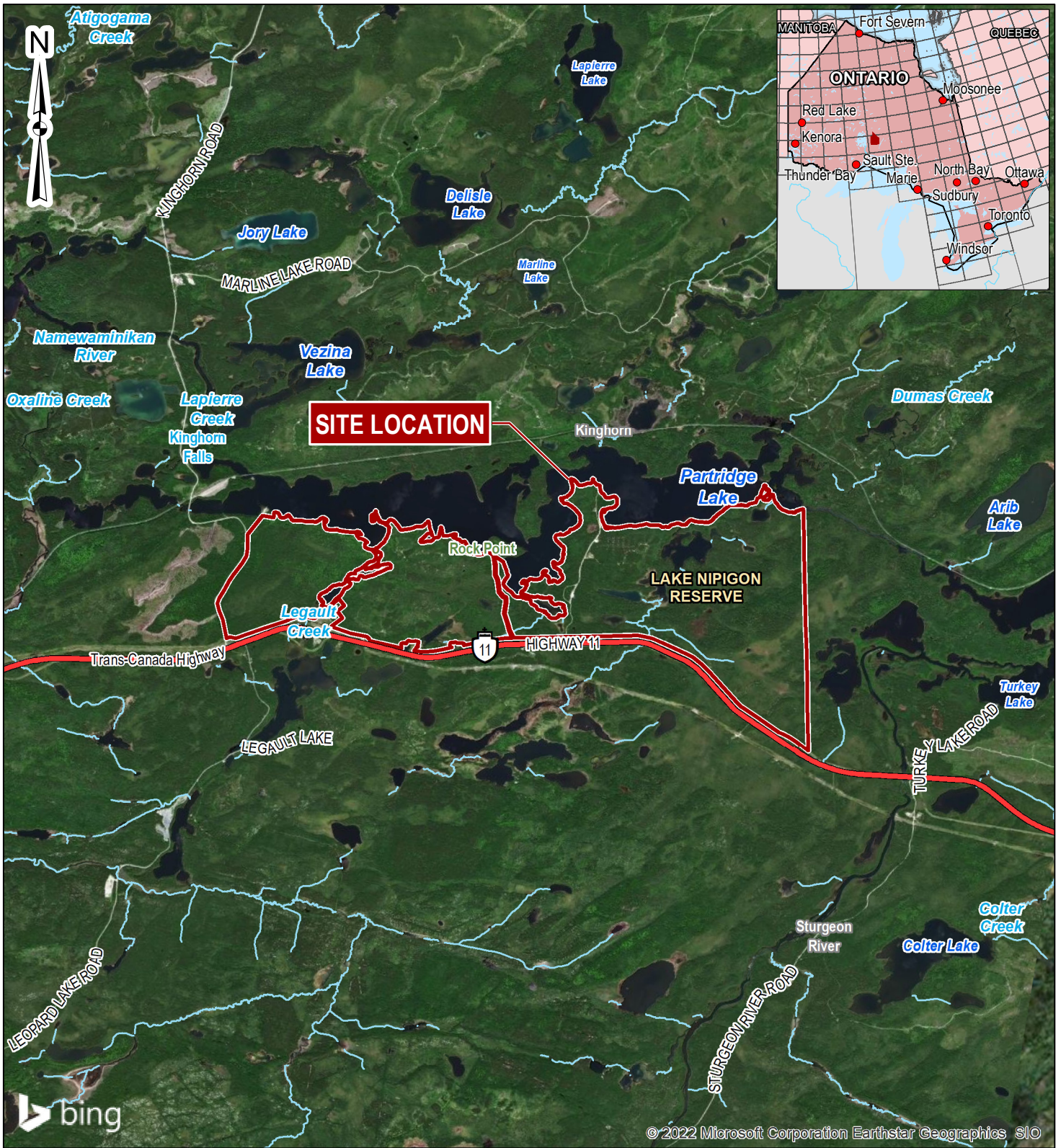


# Appendix A

## Figures







Note

1. This drawing shall be read in conjunction with the associated technical report.

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A2022-10-28

RevisionDate

Preliminary

Issue

-

Approval


Client

Animbiigoo Zaagi'igan Anishinaabek

Site

Lake Nipigon Reserve, Greenstone, ON

ENGLOBE



Report Title

Environmental Management Plan

Designed By

B.D.

Date

October, 2022

Drawing Title

Site Location

Drawn By

C.M.

Project No.

02202677.000

Approved By

-

Figure No.

1

Scale

1:75,000



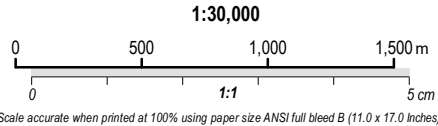
APPROX. DATE OF IMAGERY: 9/19/2021

Drawing: Figure 02 - Site Plan Folder: A:\GIS\02111807 AZA EMP\Map Documents\Figure 02 - Site Plan.mxd Friday, October 28, 2022 @ Time: 12:51:43 PM by Christopher Mitchell



- Notes**
1. This drawing shall be read in conjunction with the associated technical report.
  2. Coordinate System: NAD 1983 CSRS UTM Zone 16 U  
Projection: Transverse Mercator  
Datum: North American 1983 CSRS

- Legend**
- Communication Line
  - Hydro Line
  - Natural Gas Pipeline
  - Watercourse
  - Wetland
- Land Use Designation**
- Community
  - Culture and Environment
  - Economic Development



A	2022-10-28	-	-
Revision	Date	Issue	Approval
Client			
Animbiigoo Zaagi'igan Anishinaabek			
Site			
Lake Nipigon Reserve, Greenstone, ON			
Report Title			
Environmental Management Plan			
Drawing Title			
Site Plan			
Designed By		Scale	
B.D.		1:30,000	
Drawn By		Date	
C.M.		October, 2022	
Approved By		Project No.	
-		02000000.000	
Figure No.		2	

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community