# SHESHEGWANING FIRST NATION

# ENVIRONMENTAL MANAGEMENT PLAN

*September 30, 2023; updated December 10, 2023*

# PREFACE

Our community has been gradually building its Land, Resources and Environment Department, undertaking the development of our "Community Footprint", a Land Use Plan, a Social Infrastructure Plan and several other studies and draft policies to provide tools in governing over our lands. As we gradually implement these new land governance tools, we intend to be ready so that activities on our lands do not occur haphazardly. Showcasing our culture, developing sustainable plans, and specifying durable and healthy development are all examples of components to our community planning. These tools, along with our Land Code, will be key in the development of our community.

For us, "Environmental Management" means managing how we as a community deal with various impacts on our environment, lands and resources, and how we mitigate the effects of the same impacts. These impacts are both from within and from without our community. The reason we want to govern over our environment is to conserve the same lands, environment and resources. Good environmental management relies on many things: How we treat our environment, how others treat our environment, how we establish policies (and implement them), how we monitor our environment, and, among other initiatives, how we eventually establish an environmental regulatory framework.

An environmental regulatory framework includes an environmental assessment and protection regime. Such a framework therefore includes a set of laws, regulations, permits and approvals that we can use to govern activities taking place

within our environment, including construction, road building or other types of activities or development, all with the purpose of assessing impacts (especially prior to approving development projects) while protecting the environment. With these governance tools, we will manage potential negative effects of development and other activities while increasing the benefits that go along with good environmental stewardship.

We presently have an “Interim Environmental Assessment Process”. This is a generic document, so we intend to develop a more community-specific process.

# ACKNOWLEDGMENTS

This report is the product of a great deal of community input from many directions. Without our Members actively participating, the report would not have been possible. This includes:

Our Elders and Knowledge Keepers: Albert Cada, Georgina Cada, Christine Endanawas, Joe Endanawas, Verna Hardwick, Elizabeth Laford, Joe Laford, Gladys Malley, Marie McLeod, Adeline Sampson, Sandra Sampson, and Amy Wabegijik.

Our Youth participants: Rhiana Endanawas, Gwenyth McLeod, Caeley Genereux and Kiara Genereux.

Our art contest participants; their drawings can be seen throughout this document! Kiara Genereux, Caeley Genereux, Gwenyth McLeod, Lorelei Niganiwina, Dustin Sampson, Lexa-Marie Roy, Peyton Riberdy, Isaac McLeod, Penelope Riberdy, Aaron McLeod, Jaxton Malley, Hailey Cyr, Bekodeh Dayfox, Landen Bell, Damien Dominic, Yuma Cada, Chanelle Cartegena, Isabella Wabegijik, Cole Panamick, Liyana Cartegena, Wynonna Wabegijik, Chanelle Cartegena, Winter Cyr, Thomas Panamick, Isabella Wabegijik and Aliyah Antoine.

Our Community Members, Land Department staff, Lands Committee, and our Council.

We also acknowledge and thank Jennifer Predie of the First Nation Land Management Resource Centre for her insightful review of this plan.

# CONTENTS

## 4. Issues, Concerns and Corresponding Strategies

### 4.1 Introduction

### 4.2 Our Health

*4.2.1 Potential Threats to our Health*

*4.2.2 Our Goals and Actions Related to the Health of our Community*

*4.2.3 Our Management Mechanisms*

*4.2.4 References, Examples and Guides*

*4.2.5 Community Awareness and Communications*

### 4.3 Our Cultural Resources

*4.3.1 Potential Threats to our Cultural Resources*

*4.3.2 Our Goals and Actions Related to the Threats on our Cultural Resources*

*4.3.3 Our Management Mechanisms*

*4.3.4 References, Examples and Guides*

*4.3.5 Monitoring and Reporting*

*4.3.6 Community Awareness and Communications*

### 4.4 Wildlife, Wildlife Habitat and their Protection

*4.4.1 Potential Threats to our Wildlife and their Habitats*

*4.4.2 Our Goals and Actions*

*4.4.3 Our Management Mechanisms*

**APPENDIX 'A' -** INTERIM ENVIRONMENTAL ASSESSMENT PROCESS

**APPENDIX 'B'** - Some Relevant Clauses - *FRAMEWORK AGREEMENT ON FIRST NATION LAND MANAGEMENT*

**APPENDIX 'C'** - Some Relevant Clauses - INDIVIDUAL AGREEMENT ON FIRST NATION LAND MANAGEMENT

**APPENDIX 'D' -** List of Potential APECs from "Phase I Environmental Site Assessment"

# 1. INTRODUCTION:

## Our Community and Environmental Management Planning


Drawing by: Lorelei Niganiwina

# 1. Introduction: Our Community and Environmental Management

## 1.1 Context

As stated in the above Preface, our community has been gradually building its Land, Resources and Environment Department, undertaking the development of our "Community Footprint", a Land Use Plan, a Social Infrastructure Plan and other studies and policies to provide tools in governing over our lands. As we gradually implement these new land governance tools, we intend to be ready so that activities on our lands do not occur haphazardly. Showcasing our culture, developing sustainable plans, and specifying durable and healthy development are all examples of components to our community planning. These tools, along with our Land Code, will be key in the development of our community and our reserve lands (figures 1 and 2).

In 1996, fourteen (14) First Nations signed the "Framework Agreement on First Nation Land Management" (the Framework Agreement). The Framework Agreement outlines what was at the time a new land management strategy, setting out the guidelines that enable First Nations to opt out of the land related provisions of the *Indian Act*. This means that signatory First Nations with an enacted Land Code have governance authority over their reserve lands, environment, and natural resources, as well as revenues generated on their reserve lands. Canada ratified

the Framework Agreement by enacting the *First Nation Land Management Act* (FNLMA) in 1996.

These events became key for our leadership to improve governance over our community as the Framework Agreement enables any First Nation, including ours, to become a signatory. Our community became a signatory to the Framework Agreement in 2017. As a signatory, we were required to draft and adopt a Land Code, all following the guidelines in the Framework Agreement. We did this relatively quickly and once our community adopted our Land Code in 2019, the Land Code replaced the land management provisions of the *Indian Act* that had previously applied to our community. This immediately enabled us to have greater decision-making authority on the management and use of our lands, resources and environment. We were finally able to govern over our lands without interference!


**Figure 1 – Our Reserve Lands** source: Google Earth

While the Framework Agreement does not refer to an Environmental Management Plan (EMP), as a community, we choose to have such a component to our governance plans. An EMP is a plan that aims to document, improve and maintain environmental quality and standards on our reserve lands. Included in our EMP are broad community principles for our lands, resources and environment as well as our related goals and general corresponding actions and strategies that will lead to a separate Implementation Plan in a further, closely related document.

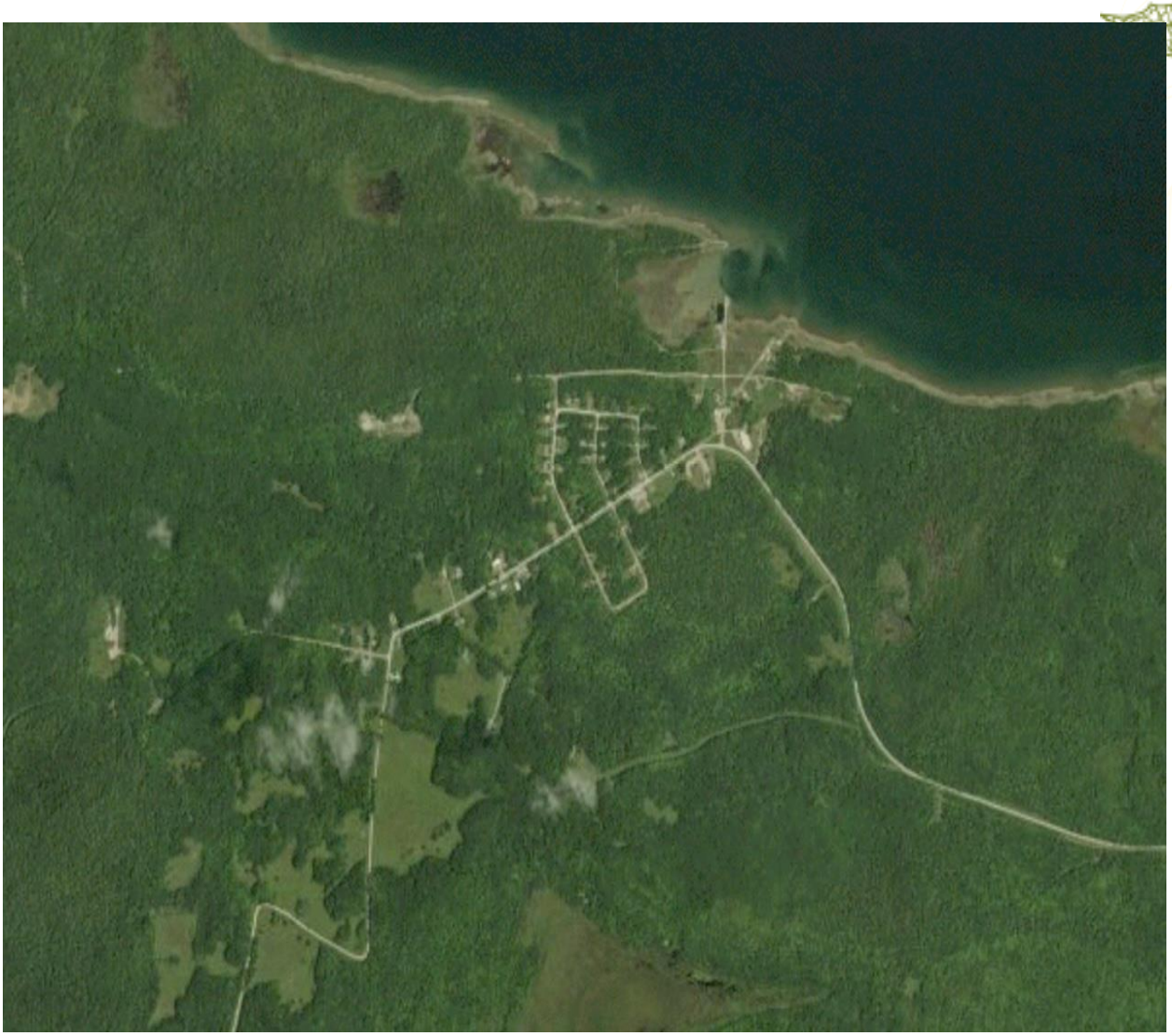


**Figure 2 – Our Community Core**

source: Google Earth

## 1.2 Environmental Management here at Sheshegwaning

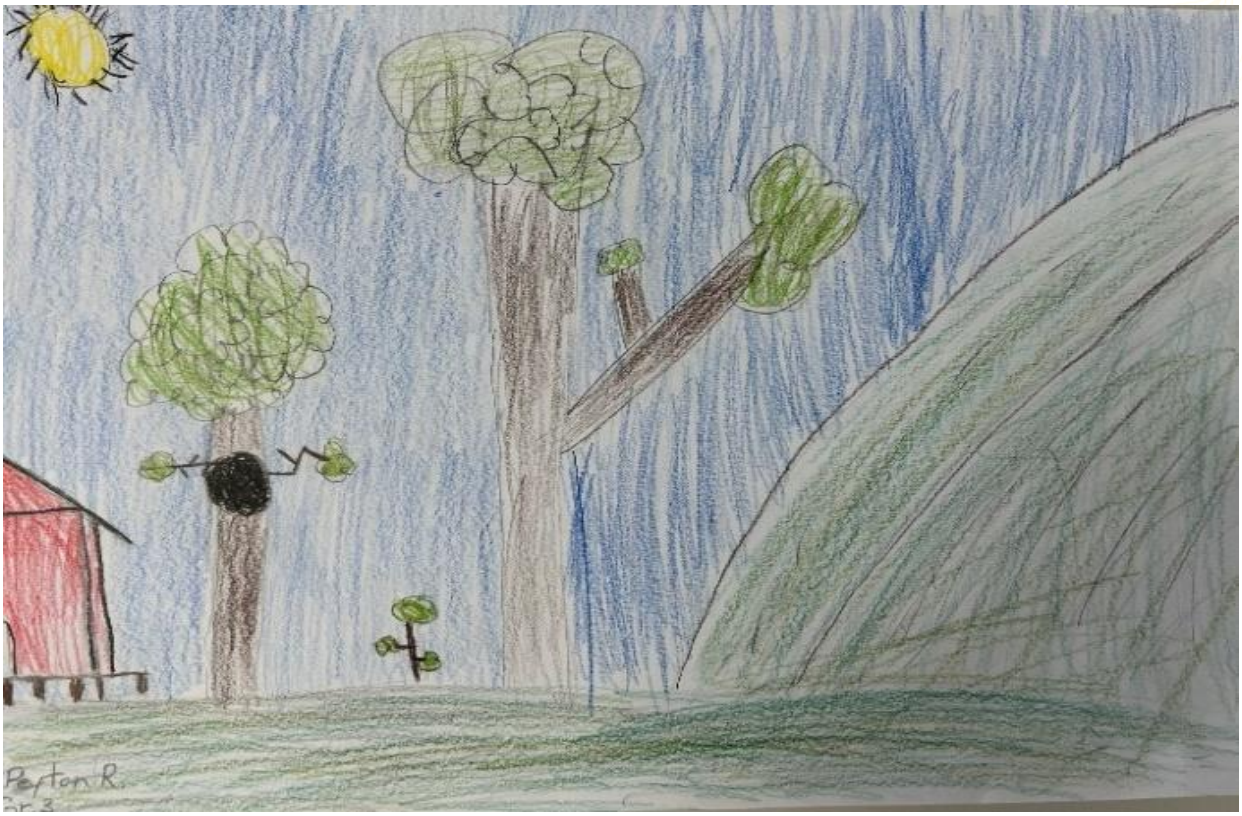
For us, “Environmental Management” means managing how we as a community deal with various impacts on our environment, lands and resources, and how we mitigate the effects of the same impacts. These impacts are both from within, and from without our community. The reason we want to govern over our environment is to conserve the same lands, environment and resources. Good environmental management relies on many things: How we treat our environment, how others treat our environment, how we establish policies and laws (and implement and follow them), how we monitor our environment, and ultimately how we establish an environmental regulatory framework.

An environmental regulatory framework includes an environmental assessment and protection regime. Such a framework therefore includes a set of laws, regulations, permits and approvals that we can use to govern activities taking place within our lands, including construction, road building or other types of activities or development, all with the purpose of assessing impacts and protecting the environment. With these governance tools, we can manage the potential effects of the same developments (ideally, before development takes place), reducing negative results while increasing the benefits that go along with good environmental stewardship. We presently have an “Interim Environmental Assessment Process”, a copy of which is included in ‘Appendix ‘A’. This is a generic document, so we here intend to develop a more community-specific process. Part of an environmental regulatory framework also includes “environmental monitoring”. Simply put, environmental monitoring consists of tools that enable

the gathering of information – good or bad, about conditions on our lands, environment and resources. This includes establishing benchmarks to monitor change, gathering samples, estimating resource quantities, analyzing the same samples, interpreting the results of the analysis, and reporting on the results.

## 1.3 Purpose of this Document

We have developed this EMP to provide guidance from and for our community to draft a plan of action to eventually have a community managed environmental regulatory framework. Part of the present plan includes considering previous




Drawing by: Peyton Riberdy

environmental related work on our lands; a set of preliminary environmental areas of concern were therefore developed partially based on these. Another part of this EMP lists our community engagement activities, followed by the results of these meetings and activities. The same results enabled the preliminary list of concerns as well as a more detailed list.

Along with our environmental regulatory framework, we aim at supporting community Member compliance through awareness, education and monitoring and this too is discussed in the present document.

This Environment Management Plan outlines the basis for the development of our Environmental Regulatory Framework, including an Environmental Assessment and Protection law.

## 1.4 Our Land, Culture and Authorities

Our community setting is described in detail in our Community Footprint and we will not repeat it here. We are located on the northern shoreline of what is today referred to as Manitoulin Island, approximately 112 kilometers west of what we now call Little Current. Our traditional territory extends to the Manitoulin Island border and beyond, to the waters of what is today known as Lake Huron. Our ancestors regularly traveled across the lake and in this way they settled within this area of our traditional territory.

Our authority to govern over our lands flows from the creator and in turn our *Kchi-Naaknigewin* (our Constitution). In its preamble, it makes clear that we have

responsibilities related to our lands, resources and environment. This means that we need to be careful as to how we use the same lands, resources and environment.

Flowing from our constitution, we developed our Land Code which includes our Vision Statement regarding our lands and environment. Effective October 1, 2019, we became the governing body responsible for ensuring the environmental protection of our reserve lands. Under our Land Code, we are accountable to our Members for ensuring that our reserve lands and environment are protected for the benefit of our community; in fact, we can be held liable for any failures to uphold our duties with respect to environmental governance.

*"…We are the people of Sheshegwaning, of the Odawa Nation of Anishinaabek, who have been here since time immemorial, placed upon this continent by the Creator along with the gifts of our language, and spirituality, and religion, and the gifts of the Earth, Water, Air, and Fire. We have a sacred responsibility for the use and maintenance of these gifts the land provides and to live in harmony with the land and with each other, for our children and future generations…".*

from our *Kchi-Naaknigewin*

Our obligation to develop an environmental assessment and protection regime is outlined in the *Framework Agreement*, our *Land Code*, and in our *Individual Agreement* with Canada, which was also ratified by the community during our *Land Code* vote. We are required to develop the regime to ensure that an environmental assessment is conducted in appropriate cases where we are approving, regulating, funding or undertaking a project on our First Nation lands. We are also required to ensure that environmental assessment occurs as early as possible in the planning stages of a project before an irrevocable decision is made.

Under our *Land Code* and the *Framework Agreement,* we have the authority to enact an Environmental Assessment Law that outlines the environmental assessment (and protection) process we will use for all projects occurring on our reserve lands. Until such a law is enacted, the Individual Agreement specifies an Interim Environmental Assessment process that we must follow, which must be consistent with either CEAA 1992 or CEAA 2012, whichever we prefer. In CEAA 1992 and CEAA 2012, any reference to the Minister is replaced with our Council. Appendix 'A' outlines the Interim process, while Appendices 'B' and 'C' of this plan include the relevant clauses of the *Framework Agreement* and the Individual Agreement.[1]

[1] This report was drafted in large part based on *Sheshegwaning* First Nation community member input, research on our lands, resources and environment, research on other communities' lands and environment related policies, and especially as instructed by the community's Lands, Resources and Environment Committee. As such, it does not at all represent legal advice in any way.

## 1.5 Objectives of our Plan

There are several objectives to this EMP, including, among others:

- Developing in-house capacity in terms of dealing with our community's environmental concerns;
- Reviewing and summarizing past related work such as the "Phase I" and "Phase II" Environmental Site Assessments;
- Formulating objectives to achieve what we want in terms of our community's environmental well-being;
- Informing the community and engaging with our Members to discuss their environmental concerns, issues and how we should deal with them;
- Developing processes that will help reduce our liabilities related to the environment; and,
- Establishing a basis for the eventual development of an environmental assessment and protection regime as well as other related policies and laws.

## 1.6 Plan Process and Strategy

This plan is very much a community-driven process, with considerable community engagement. The plan's process and strategy are as follows:

i. Review and summarize prior environment-related work done in our community;
ii. Establish general principles related to our Lands, Resources and Environment;

iii. Prepare a list of preliminary environmental concerns, based on step “i” as well as community engagement;

iv. Using the materials derived from section “iii”, engage the community;

v. As the community is engaged, assemble a comprehensive list of environmental issues and concerns;

vi. Connect, as much as possible, each issue and concern within the following categories (These are in no particular order of importance):

1. General Environmental Issues or Concerns;
2. Wildlife and Habitat Protection;
3. Solid Waste and Solid Waste Management;
4. Our Septic Fields and Wastewater Management;
5. Groundwater and Surface Water Protection;


Drawing by: Isabella Wabegijik

6. Cultural Resources;
7. Soils and Potential Contaminants; and,
8. Community Health (as affected by environmental issues).

vii. For each of the above sections, identify the following:

1. Potential Threats related to the Issues and Concerns;
2. Management Mechanisms;
3. References, Examples and Guides;
4. Monitoring and Reporting (as necessary); and,
5. Community Communications (as necessary);

vii. Outline an Environment Environmental Management Strategy to achieve these goals; and,

ix. Set out the basis for the development of an Implementation Plan.

## 1.7 Vision and General Principles for our Land, Resources and Environment

Our community has a single Vision. This is because we feel that having different Visions for different plans reduces the importance of the community Vision. It is as follows:

*"…We collectively strive to be a self sufficient and prosperous community of balance and healthy families, guided by our* Anishnabek *culture and heritage for now and future generations."*

*Sheshegwaning* First Nation Community Vision

From earlier work and subsequent related community engagement done with Lands, Resources and Environment Department staff and the community, we can begin to establish a list of principles to guide governance over our environment and the development of this EMP. These include:

i) *Paramountcy of our Land Code:* We intend for our Land Code to be the main guiding document when it comes to managing and governing over our reserve lands, including our environment;

ii) *Using our "Community Footprint" as a Guide:* We have our Community Footprint which acts as our community plan. We intend on using it as

a guide in developing the present plan, as well as subsequent related policies and laws;

*iii)* *Using our Land Use Plan as a Guide:* We intend for our Land Use Plan to serve as a guide throughout the development of our lands;

*iv)* *Paramountcy of Elder and Knowledge Keeper advising, and consideration for any Archaeological and Traditional Use Evidence:* We intend on providing the opportunity for our Elders and Knowledge Keepers to form part of decision making on our environment, including the development of this EMP and future policies and laws;

*v)* *Codes and Standards*: We intend on making certain that any activity on any of our lands are based on any applicable standards, and meet or beat the expectations of Canadian environmental laws; and,

*vi)* *Cultural Identity:* We intend on developing and maintaining a very strong community identity through the way we manage and govern over our environment.

# 1.8 Community Engagement

## 1.8.1 *Introduction*

The workplan for our EMP includes considerable community engagement as the intent was for the community to guide the development of the EMP. We felt that with maximum community involvement, we would get a better list of environmental issues and concerns, a better idea on how to deal with the same issues and concerns, more community ownership over our environmental issues, and ultimately, more community involvement. The following Community Engagement Plan was designed for the most engagement as possible.

## *1.8.2 **Community Engagement Plan***

| Activities | Outcomes | Month/ Date | Completed |
|---|---|---|---|
| **1. Funding agreement signed** | *Finalize agreement with funders* | **September, 2022** | √ |
| **2. Project start meeting** | *Solicit initial ideas from staff* | **November, 2022** | √ |
| **3. Facebook page** | *Engage community Members.* | **November 2022 - July, 2023** | √ |
| | | | |
| **4. Land Committee meeting #1** | *Obtain ongoing advice from the Land Committee.* | **November, 2022 - July, 2023** | √ Feb 7 |
| **5. Community meeting #1** | *Inform our Members and gain initial thoughts and concerns* | **February, 2023** | √ Feb 7 |
| **6. School meetings** | *Inform our Youth and gain ideas / knowledge* | **January, February, 2023** | √ Feb 7; Mar 8 |
| **7. Elder's Lunches** | *Inform our Elders and gain ideas / knowledge and historical antecedents.* | **January, February, 2023** | √ Feb 8<br>√ Mar 9 |

| | | | |
|---|---|---|---|
| **8. 'Lands First Youth Initiatives' meetings** | *Inform the group and gain ideas / knowledge* | **February, 2023** | ✓ Feb 7<br>✓ Mar 8 |
| **9. Community meeting #2** | *Discuss progress and gain further related knowledge.* | **April, 2023** | ✓ Mar 8 |
| **10. Council Sessions** | *Approve EMP planning actions and final report* | **February, March, 2023** | ✓ Mar 7 |
| **11. Land Committee meeting #2** | *Discuss and facilitate participation while reviewing draft EMP.* | **March 2023** | ✓ Mar 8 |
| **12. Department Head meetings** | *Discuss and facilitate participation while reviewing draft EMP.* | **January – May, 2023** | ✓ Mar 8<br>✓ May 16 |
| | | | |

### *1.8.3 Engagement*

Our funding agreement for this project was signed in September, 2022, with the project beginning at the end of November, 2022. The first phase of the project involved the assembly and review of past community input when participating in past environmental related assessments and studies, all through the reports themselves. Community input therefore started a long time before the "official" start date of the EMP's development. This includes a Phase I Environmental Site Assessment [2], a Phase II Environmental Site Assessment [3], a Solid Waste Management Study and Landfill Assessment[4], our Capital Planning Study[5], the

[2] See full report: "Phase I Environmental Site Assessment - *Sheshegwaning* First Nation Reserve Lands". Arcadis – Design and Consultancy for Natural and Built Assets, December 21, 2018.
[3] See full report: "Phase II Environmental Site Assessment - *Sheshegwaning* First Nation". Dillon Consulting, January, 2021.
[4] See "*Sheshegwaning* First Nation – Solid Waste Management and Landfill Site Assessment" First Nations Engineering Services, September, 2021.
[5] See "Capital Planning Study", First Nations Engineering Services, September, 2006.

Landfill Rehabilitation Design study[6], a Geotechnical Investigation Report[7], and other reports such as our Asset Condition Report (ACRS)[8]. A list of preliminary issues was derived from these, with the overall list of issues and concerns including these, as well as "new" issues and concerns derived from community engagement activities. The related section below includes the list of preliminary issues.

Our Engagement Plan was designed for the most engagement as possible. Our community has been very fortunate with a small group of our Youth forming a "Land First Youth Initiative" group. Youth are the future in terms of lands governance and environmental management, and we wanted to include their concerns and their goals as much as possible within this plan.

From the ensemble of meetings and interviews we were able to develop a list of environmental concerns. Plants, including medicinal plants, wildlife species, including rabbits and others, and broader natural areas including the forest and the waters of Lake Huron are all part of the list. Disposal of items such batteries and as used household and vehicle oils, were also mentioned. Correspondingly, the solid waste disposal facility was often mentioned. Pollution of different types within the lake waters as well as pesticides delivered on the north shore (with planes turning above the island) were also of primary concern. Forest fires and lake levels are on Members' minds. And other concerns were articulated; these will be further outlined in Section 3 below.

[6] See "Landfill Rehabilitation Design", Trow Consulting Engineers Ltd., August, 2000.
[7] See "Geotechnical Investigation Report", First Nations Engineering Services and AMEC Earth & Environmental, November, 2006.
[8] See Asset Condition Report (ACRS), First Nations Engineering Services, September, 2019.

Our lands include several landscape features that are hosts to so many species and their habitats. There are woodlots, foreshore areas, wetlands, small streams, creeks, as well as a multitude of plants used for food and medicines, and wildlife, including several that may be at risk. The existence of some plants and wildlife species have decreased, while a few others have moved in, or increased. We aim to protect existing species, re-introduce other species (such as sweetgrass) to the lands, and ensure that invasive species are controlled as best as possible. The landfill site as well as septic beds were also noted as environmental concerns. Lake water, groundwater and well water were included in the discussions. Soils and soil quality, leaching and biodiversity in general were also brought up. And much broader issues were highlighted, including climate change, sustainability of resources, culture in general, and community health.

# 2. Recent Related Work

Drawing by: Aaron McLeod

# 2. Recent Related Work

## *2.1 Introduction*

This section discusses the main findings of some of the prior environmental related work within the *Sheshegwaning* First Nation lands. This includes, among others, a "Phase I Environmental Site Assessment" completed in 2018, a "Phase II Environmental Site Assessment completed in 2021, and a "Solid Waste Management Study and Landfill Assessment completed in 2023. This section's purpose is not to repeat the results of these studies; it is simply to render an impression of the types of environmental concerns that were previously identified. For greater detail therefore, the reader should closely consult the studies themselves. Other reports undertaken in the more distant past, include the "Phase II Environmental Issues Inventory *Sheshegwaning* First Nation Report", prepared by the LATHEM Group Inc. (January 1996), the "Environmental Issues Phase III, *Sheshegwaning* First Nation, DRAFT", also prepared by LATHEM Group Inc. (February 1997), and the "Landfill Rehabilitation Design for the *Sheshegwaning* First Nation", prepared by Trow Consulting Engineers Ltd. (August 4, 2000). Given that the Phase I (2018), the Phase II (2021) Environmental Site Assessments and the Solid Waste Management Study and Landfill Assessment (2023) are more recent, the 1996, 1997 and 2000 assessments are not discussed here.

## 2.2 *Phase I Environmental Site Assessment (2018)*

An inspection of our community was undertaken by a consulting firm from July 17 to 19, 2018. Observations made during the site inspection are here summarized.[9] Potentially contaminating activities listed in the Phase I report are included in Appendix "D" of this plan. This includes a list of APECs, or "Area of Potential Environmental Concern".


**Figure 3 – Community Facilities Locations** source: Phase I Environmental Site Assessment

[9] This is a brief summary; for a description of the methods and analysis of the potentially contaminated sites, see the full report: "Phase I Environmental Site Assessment - *Sheshegwaning* First Nation Reserve Lands". Arcadis – Design and Consultancy for Natural and Built Assets, December 21, 2018.

Based on the observations made during the Phase I report research, there is the potential that the following APECs, which are considered to be of moderate to high risk, may be contributing to adverse effects on the underlying soil and groundwater quality in our community (see Figure 3 for locations of community facilities):

- APEC 4 – Library/ Fitness Facility
- APEC 5 – Drop-in Centre
- APEC 6 – Public Works Garage
- APEC 8 – *Gamiing* Gas Bar and Convenience
- APEC 9 – Residential Property (Poplar Crescent)
- APEC 10 – Current Landfill Site
- APEC 11 – Old Landfill Site
- APEC 12 – St. Joseph's Church
- APEC 13 – Residential Areas
- APEC 15 – Septic Tile Bed Storage

There is also the potential that the following APECs, which are considered to be of low risk, may be contributing to adverse effects on the underlying soil and groundwater quality:

- APEC 1 – Health Centre
- APEC 2 – Water Treatment Plant
- APEC 3 – St. Joseph's *Anishnabek* School
- APEC 7 – Fire Hall
- APEC 14 – Band Office

- APEC 16 – *Nishin* Lodge
- APEC 17 – Entire Parcel
- APEC 18 – Auxiliary Office

The same report made the following recommendations:

1. The Landfill Site should be monitored for overflow of refuse and interactions with ground water and surface water features on the parcel;
2. The structures built before 1980 should be investigated for potential designated substances such as lead and asbestos;
3. The fuel tanks at the *Gamiing* Gas Bar should be registered with Environment and Climate Change Canada (ECCC), (if they are not already); and,
4. The fill piles observed throughout the community should be investigated for contaminants.

Drawing by: Isaac McLeod

Finally, it was recommended that a Phase II ESA should be conducted to investigate potential soil and groundwater impacts in the vicinity of the Library/Fitness Facility, the Drop-in Centre, the Public Works Garage, *Gamiing* Gas Bar and Convenience, the Current Landfill Site, the Old Landfill Site, and the Septic Tile Bed Storage Area. It was also recommended that the Phase II ESA include investigation of the fill piles mentioned above and investigation of the surface water quality in the vicinity of the Septic Tile Bed Storage Area.

### *2.3 Phase II Environmental Site Assessment (2021)*

A second inspection of our community was conducted in January, 2021 as a follow-up to the Phase I Environmental Site Assessment of 2018.[10] The Phase I ESA had recommended the further investigation of soil fill piles throughout our lands to determine the source and environmental quality of the fill, including stockpiles, and undertake the completion of a Phase II ESA to investigate potential soil and groundwater impacts in various locations throughout our lands.

The purpose of the Phase II ESA was therefore to assess soil, groundwater and surface water quality on our lands to assess whether any contaminants on, in or under the areas identified in the Phase I ESA are present at concentrations exceeding any applicable Federal guidelines (or Provincial standards where Federal guidelines do not exist). The Phase II ESA was completed in two stages: The first

[10] This is a brief summary. We here paraphrase and include relevant segments of the Phase II ESA report; for a description of the methods, analysis and recommendations of the potentially contaminated sites, see the full report: "Phase II Environmental Site Assessment - *Sheshegwaning* First Nation". January, 2021.

included the excavation of test pits to assess soil conditions at nine APECs identified in the Phase I ESA (see Appendix 'D' for the list). And the second stage included the installation of one groundwater monitoring well at our Drop-In Centre (APEC 5) and six monitoring wells throughout the community.

The first stage included the excavation of test pits and submission of soil and surface water samples for select laboratory analysis in the following places:

APEC 4: Library and Fitness Facility;
APEC 5: Drop-in Centre;
APEC 6: Public Works Garage;
APEC 9: Residential Property (Poplar Crescent);
APEC 10: Current Landfill Site;
APEC 11: Old Landfill Site;
APEC 12: St. Joseph's Church;
APEC 14: Band Office; and,
APEC 15: Septic Tile Bed Storage Area.

Soil and surface water samples were submitted for analysis of some or all of the following parameters:

Petroleum Hydrocarbons (PHC); Benzene, Toluene, Ethylbenzene and Xylenes (BTEX); Polycyclic Aromatic Hydrocarbons (PAH); and, Metals and Inorganics.

The following actions were also completed:

- Installation of groundwater monitoring wells into bedrock;
- Collection of three soil samples from the original excavation sidewall locations at APEC 9 (Residential Property) by excavating three additional test pits;

- Three additional shallow soil samples from the aboveground storage tank (AST) area and the excavation of two more test pits and submission of three soil samples at APEC 6 (Public Works Garage);
- Installation of three groundwater monitoring wells at APEC 10 (Current Landfill Site); and,
- Two additional test pits were excavated at APEC 6 (Public Works Garage) radially outward from the AST with samples placed on hold.

The second stage included borehole drilling, installation of groundwater monitoring wells, and submission of groundwater samples collected at the following locations:

- APEC 5 (Drop-In Centre). Installation of one groundwater monitoring well;
- Installation of up to six additional monitoring wells at APEC 6 and APEC 10 (Landfill site) based on the results of the test pit investigation in Stage 1. Groundwater samples analyzed for BTEX, PHCs, PAHs, VOCs, metals and/or inorganics (During the installation of groundwater monitoring wells at the landfill, three existing groundwater monitoring wells were located and sampled as part of this stage, with samples submitted for laboratory analysis);
- Based on vapour concentrations, as well as visual considerations, one to two most apparent “worst case” soil sample recovered from each test pit were submitted for select laboratory analysis of BTEX, PHCs, PAHs, VOCs, metals and/or inorganics. Groundwater samples collected from newly-installed and existing monitoring wells were submitted for BTEX, PHCs, PAHs, VOCs, metals and/or inorganics;
- All samples were analyzed and compared to applicable standards and guidelines.

Soil samples submitted for laboratory analysis satisfied applicable criteria, with the following exceptions:

- APEC6-TP1-SS2 collected at APEC 6 (Public Works Garage) between 0.4 and 0.8 mbgs had a concentration of PHC (F2) that exceeded the Provincial Table

1 SCS and PHC (F3) that exceeded the Provincial Table 1 SCS and the Federal CCME guidelines;
- APEC6-TP1-SS3, and duplicate DUP11, collected at APEC 6 between 0.8 and 1.0 mbgs had sodium adsorption ratios (SAR) that exceeded the Federal CCME guidelines; and,
- APEC6-TP5-SS2, a duplicate of APEC6-TP5-SS1, collected at APEC 6 between 0 and 0.5 mbgs had a concentration of PHC (F2) that exceeded the Provincial Table 1 SCS and PHC (F3) that exceeded the Provincial Table 1 SCS and the Federal CCME guidelines.

Groundwater samples submitted for laboratory analysis satisfied applicable criteria, with the following exceptions:

- MW102, collected at APEC 6, had concentrations of selenium and chloride that exceeded the CCME FIGQG and the CCME CWQG;
- MW103, collected at APEC 6, had concentrations of copper that exceeded the CCME FIGQG and the CCME CWQG, as well as selenium and chloride that exceeded the CCME FIGQG, CCME CWQG and the Provincial Table 1 SCS;
- MW201, collected at APEC 10 (Current Landfill), had a concentration of cyanide that exceeded the CCME FIGQG, CCME CWQG and the Provincial Table 1 SCS;
- MW202, collected at APEC 10, had concentrations of the following:
    - Arsenic exceeded the CCME FIGQG and the CCME CWQG;
    - Boron, copper, molybdenum, selenium, uranium, cyanide and chloride exceeded the CCME FIGQG, CCME CWQG and the Provincial Table 1 SCS; and,
    - Sodium exceeded the Table 1 SCS.
- OMW-1, collected at APEC 10, had concentrations of cadmium, copper and silver that exceeded the CCME FIGQG and the CCME CWQG; and,
- OMW-2, collected at APEC 10, had a concentration of cyanide that exceeded CCME FIGQG, CCME CWQG and the Provincial Table 1 SCS.

Surface water samples submitted for laboratory analysis satisfied applicable criteria, with the exception of surface water sample SW2, collected at APEC 15 (Septic Tile Bed Storage Area), which had a concentration of selenium that exceeded the PWQO.

The Phase II ESA concluded with the following recommendations:

- No further assessment or remediation is recommended at this time at APECs 4, 5, 9, 11, 12, 14 and 15;
- PHC impacts in soil at APEC 6 should be remediated and the adjacent AST and associated infrastructure should be decommissioned;
- A formal groundwater monitoring program should be established at the landfill site. This should include semi-annual collection of groundwater from the onsite wells and an annual report summarizing the findings;
- If salt is used within the SFN Lands for winter de-icing, best management practices should be followed in its storage, handling, and use to ensure public safety is maintained while minimizing the amount of salt released into the environment; and,
- The monitoring wells that are no longer in use should be maintained in accordance with *Ontario Regulation (O. Reg.) 903*. If they are no longer in use, the monitoring wells should be decommissioned by a licenced well contractor in accordance with *O. Reg. 903*.

### *2.4 Solid Waste Management Study and Landfill Assessment (2023)*

An assessment of our landfill site was undertaken during 2022, finalized in early 2023.[11] Our existing landfill site location is approximately two (2) kilometres from the community. Waste is picked up weekly, or Members can drop off their waste at the site during specific times; Members of other communities at times use the facility, without our authorization. We have a thirty (30) metre fire buffer, although

[11] This is a brief summary; for a description of the methods and assessment of our landfill site, see "*Sheshegwaning* First Nation – Solid Waste Management and Landfill Assessment – Final Report" First Nations Engineering Services Ltd., January 12, 2023.

it has not always been maintained. Monitoring wells that were installed several years ago (prior to 2001) have not been monitored regularly. The community has documented its concerns for wildlife at the site, creating a danger for our Members. Briefly, the Landfill Assessment portion of the 2023 study included the following tasks:

1. The installation of new and the repair of existing monitoring wells;
2. Monitoring groundwater (with existing and new wells);
3. Soil sampling;
4. Past work review;
5. Developing a Digital Terrain Model (DTM) from a drone survey; and
6. Estimating historic waste deposit and providing an estimate of remaining capacity.

The Landfill Assessment concluded the following:

1. The soil subsurface conditions consist of silt, sands, and gravel;
2. The groundwater levels recorded across the site inferred groundwater flow direction to the northeast;
3. Reported concentrations in the groundwater samples were submitted for analysis and satisfied the respective ODWQS parameters with the exception of dissolved organic carbon (DOC), iron, manganese, alkalinity and total dissolved solids at the active site;
4. Reported concentrations in the groundwater samples collected from the downgradient monitoring wells met the applicable Guideline B-7

criteria for all parameters analyzed with the exception of TDS, iron and arsenic;

5. The wells suggested some impacts to the area directly downgradient of the current waste deposits;

6. The estimated total waste was calculated to be 17,362 cubic metres. The estimated remaining capacity is of 22,638 cubic metres, and with the average annual estimated rate of added waste of approximately 543.4 cubic metres per year, landfill is expected to reach its maximum capacity of 40,000 cubic metres in forty-two (42) years; and,

7. Fill operations should be limited to the limits outlined in the report's "Figure 6" (see Figure 4 below).


**Figure 4 – Landfill - Fill Limit Areas**

The same assessment made the following recommendations (among others):

1. The community should initiate a search for a new waste management strategy;
2. Eventually, the present site should be closed progressively in such a way as to reach final grade to minimize infiltration and leachate generation; and,
3. A groundwater monitoring program should be continued on the existing monitoring well network of nine monitoring wells.

Finally, the report is consistent throughout and appears to completely echo the community's wishes. That is to say: To continue using the landfill site (with a recycling program to be developed). With this in mind, the consultants made calculations and concluded that "...The new projected volume of waste for the Sheshegwaning community for the next 20-years will only take up 12,049m2 of available space and only 9,469m2 after 2026. Based on this information and seeing as it was projected that there will be 13,125m2 of available space after 2026, the existing landfill site can meet the projected 20-year waste of the community within 3,656m2 of space available after 2041. This gives the First Nation plenty of time to implement a sustainable and long term solution if the amount of waste from the community increases in the future..." (p. 43).

With these calculations in mind, the authors then did a comparative analysis of different alternatives and arrived at the following conclusion:

"Through community consultation, the recommendation to continue utilizing the existing landfill site for solid waste disposal was preferred". The report continues with "The recommended solid waste management alternative is Alternative 1" Do Nothing with the inclusion of a recycling program..." (p. 56).

The whole seems confirmed in the Executive Summary's fifth paragraph and it is worth including it here: "These alternatives were presented to the community for input through community meetings and an online survey. A majority of respondents were in support of continuing operation of the community landfill, Alternative 1: Do Nothing was modified to include the implementation of a Recycling program. Alternatives were also scored on several criteria, including ease of maintenance, land requirements, environmental impacts, economic impacts and costs. Alternative 1 scored the highest based on the criteria" (p.1).

Oddly, the following sentence seems in error and this may have caused confusion with some readers of the report. The following paragraph reads: "Based on this comparison it is recommended the First Nation contract out the services to haul the waste off the reserve..." But this is not the alternative that was chosen. Without reading the Executive Summary, one understands the community's wishes, the calculations confirming the available space for the community's wishes, and the recommended Alternative (Alternative 1). Yet when you read the final lines of the Executive Summary, we have somehow jumped to "Alternative 6".

This potential error will be re-visited in our implementation actions within the Implementation Plan drafted as a separate document.

## 2.5 Recent Related Work - Conclusion

Related environmental work has included Phases I and II Site Assessments, a Solid Waste Management and Landfill Assessment, as well as other studies and assessments throughout the past decade. These include the studies listed in this section's introduction as well as components of our Capital Planning Study[12], a Landfill Rehabilitation Design project[13], a Geotechnical Investigation Report,[14] and sections of an Asset Condition Report (ACRS)[15]. These studies and assessments included input from Council, Lands, Resources and Environment Department (and other) staff, community Members, and others. A task is specifically identified in our Implementation Plan, highlighting the need to follow-up with the recommendations and conclusions of ESA Phases I and II; similarly, a discussion of the need to clarify the Solid Waste Management Study and Landfill Assessment recommendations is included within the Implementation Plan.

[12] See "Capital Planning Study", First Nations Engineering Services, September, 2006.
[13] See "Landfill Rehabilitation Design", Trow Consulting Engineers Ltd., August 2000.
[14] See "Geotechnical Investigation Report", First Nations Engineering Services and AMEC Earth & Environmental, November, 2006.
[15] See Asset Condition Report (ACRS), First Nations Engineering Services, September, 2019.

# 3. Preliminay List of Environmental Issues and Concerns


Drawing by: Thomas Panamick

# 3. Preliminary List of Environental Issues and Concerns

### *3.1 Introduction*

From our past assessments and studies we know that that there remain APECs; these are included in the above section's discussion, as well as in Appendix 'D' for the Phase II ESA. A chart including these forms part of our Implementation Plan. From our meetings with our Elders, Lands, Resources and Environment staff, the community's Lands Committee, and discussions with others, we can readily identify a list of further environmental issues and concerns. While general and "big picture", they are valid. These include, among many possible others, the following:

### *3.1 Preliminary List of Environmental Issues*

1. *Potential Forest fires:* The risk of forest fires is very real for our community. We are surrounded by a forest and beyond maintaining and enhancing our existing fire break corridor, we require a strategy in the event of a threat from a major fire.

2. *Pollution in lake waters near our community water intake:* We are clearly not the only community relying on lake water for drinking, fishing and other uses. This means that we are not the only community contributing to the many changes the same water is undergoing. We require a set of actions to deal with any contaminants and / or pollutants within the water.

3. *Lake Water Rising:* Still related to the lake waters, we know that these will most probably rise in the future. We need to take steps to mitigate the effects of rising tides in the medium term.

4. *Climate Change:* The effects of climate change are being felt throughout the Manitoulin landscape. Temperature fluctuations, for example, are becoming more extreme. We need to prepare for eventual changes that will affect our resources and wildlife.

5. *Old / unused oil tanks:* Throughout past assessments and studies, there has been a concern voiced by the community over unused home heating oil tanks and the possibility of leaks from these. A strategy is required to mitigate this.

6. *Prior oil leaks*: Community Members mentioned oil leaks from discarded or unused home heating oil tanks and abandoned vehicles. Past studies have not necessarily identified all of these. There may remain some related spills and leaks yet to be discovered. We will need to plan for this.

7. *Possible chemical spills at the water treatment plant*: While the water treatment plant is in very good condition, a plan to mitigate and react to any chemical spill is required.

8. *Presence of contaminated soil*: Previous analysis of soils confirm the presence of PHCs, PAHs and IACR at concentrations exceeding applicable criteria. For example, laboratory detection limits for BTEX at the Public Works garage exceeded applicable criteria until a very recent clean-up. Other unacceptable concentrations of chemicals persist, as outlined in the Phases I and I ESA. We require a strategy to mitigate further contamination and clean existing contamination.

9. *Landfill site – leaching*: Previous analysis of soils confirm leaching (of soil water) from the existing landfill site towards the lake. We require a strategy to mitigate further leaching.

10. *Landfill site – presence of animals*: Community Members have indicated that the there are risks associated with the presence of animals (bears and coyotes) at our landfill site. A strategy to keep the latter out of the site is required.

11. *"Old" landfill site*: Elders indicate that an old, now unused landfill site exists on our lands. We have not been able to locate or map it yet. The same site may be allowing leaching towards the lake. This potential environmental risk remains to be investigated.

12. *Old church*: We have a church building within the community that has been decommissioned and is a fire hazard. The building will require removal.

13. Chemical / contaminant traces identified in Phases I and II ESA reports: From the ESA reports, we know that traces of contaminants persist in several areas of our lands (see above). We require a strategy to more closely identify, confirm and develop mitigation strategies.

### *3.2 Conclusion – Preliminary List of Environmental Issues*

Our past assessments and studies have generated a set of APECs, and our meetings with Elders, the community's Lands Committee and others, enabled us to confirm a list of broader environmental concerns. We also know that specific issues remain, many listed in our Phases I and I Environment Site Assessments; we have deliberately chosen to not repeat the latter two reports for this plan and the reader is directed to access these as necessary. Our Implementation Plan lists the related APECs and other concerns.


Drawing by: Wynonna Wabegijik

# 4. Issues, Concerns and Corresponding Strategies


Drawing by: Winter Cyr

# 4. Issues, Concerns and Corresponding Strategies

## *4.1 Introduction*

With the list developed through Member meetings and interviews, we have a picture of the primary concerns that our Members have in terms of environmental issues on our reserve lands. Many of these stem from decades of neglect through "reserve management", *Indian Act* rule. There are undoubtedly others that will come to light as our Members have more time to reflect on the lists; these may be included in future revisions of this plan. The following categories encompass our concerns, regrouped to better manage our corresponding mitigating strategies.

## *4.2 Our Health*

It goes without saying that the health of our Members if paramount. This is related to many environmental factors such as our drinking water, our traditional foods and medicines, the air we breathe, and the earth itself. These are all linked to the categories that will follow in this report. Our Community Footprint and development standards also address many of our environmental concerns; following the Footprint's Implementation Plan will be key in maintaining good community health.

### 4.2.1 Potential Threats to our Health

Some of the most important environmental concerns that may affect our health identified by our Members include the following:

i. Our drinking water, including lake water quality and maintaining our water treatment plant quality;
ii. Food availability for our Members (food security);
iii. Our soils and potential contaminants;
iv. Our traditional and medicinal foods;
v. The air we breathe outside our homes; and,
vi. The air we breathe inside our homes (mold, etc.).

4.2.2 Our Goals and Actions Related to the Health of our Community

i. Continue with the implementation of our Community Footprint;
ii. Communicate to our Members the value and importance of our traditional and medicinal plants;
iii. Develop a process to monitor, test and protect our traditional and medicinal plants, fish forest foods, animals for contaminants; and,
iv. Develop a process to monitor, test and protect the air (inside and outside our homes) we breathe for contaminants.

4.2.3 Our Management Mechanisms

i. Laws / Regulations

Canada's laws continue to apply, as well as our (future) environmental regulatory framework, including an environmental assessment and protection regime.

Canada's Laws (among others)

i. *Canadian Environmental Assessment Act (2012)*

(Section 2(1) includes acknowledgement that potential environmental effects of projects are considered to include any effects on physical and cultural heritage);

ii. See relevant sections below for laws and regulations on drinking water and protecting wildlife and wildlife habitat;

*Sheshegwaning* First Nation Laws (among possible others)

i. Environmental Assessment and Protection Laws (to be developed); and,
ii. Interim Environmental Assessment Process.

*Sheshegwaning* First Nation Policies (among possible others)

i. Develop a policy on Elders assisting in processes to monitor, test and protect our traditional foods and medicines;
ii. Develop a resource monitoring program, including traditional and medicinal plants and foods, our water, and our environment in general;

Drawing by: Lexa-Marie Roy

iii. Develop, implement and enact *Sheshegwaning*-specific environmental assessment process consistent with the Canadian Environmental Assessment Act (CEAA 2012). Until then, we intend to continue to follow the Interim Process outlined in our Individual Agreement with Canada (see Appendix 'A'), and,

iv. Develop strategies to work more closely with jurisdictions (including other First Nation communities), provincial and federal agencies to develop strategies to improve our community's health. With a clear communications strategy, for example, we expect better relations with our "environment partners".

### 4.2.4 References, Examples and Guides

i. Evaluating Human Health Impacts in Environmental Assessment:
Country Foods (2018)
https://www.canada.ca/en/healthcanada/services/publications/healthyliving/guidance-evaluating-human-health-impacts-country-foods.html

ii. First Nations Food, Nutrition and Environment Study Regional Report for Ontario 2011-2012 (2014)
http://www.fnfnes.ca/download

### 4.2.5 Community Awareness and Communications

i. We intend to develop a communications strategy for our Members to gain a working knowledge of environmental issues that may affect their individual or our community's health;

ii. We also intend to develop a communications strategy that outlines “how tos” to protect our environment in any way we can, both in the short term and in the long term in order to protect our health; and,

iii. We intend to post signs that highlight our environmental concerns and corresponding policies and laws.

## 4.3 Our Cultural Resources

Our community’s environment is closely connected to our cultural resources; whether it be specific geographical locations within the landscape, traditional and medicinal plants, or our water and soil, all are connected and all are linked to our culture and traditional practices.

### 4.3.1 Potential Threats to our Cultural Resources

Throughout the past centuries, several events made it such that our cultural practices and traditions sites were placed under a great deal of pressure due through colonizing and missionizing. The two processes (colonizing and missionizing) also affected our environment. Farming, logging and fishing, among other activities, were closely linked to the colonial apparatus and religious missions. As these activities intensified, so too did the pressure on our important traditions, including cultural sites and resources.

Gradually, and very much with the help of our Elders and knowledge keepers, we are in the process of regaining traditional practices and identifying and locating important cultural spaces, including working on our cemeteries and sacred grounds.

Some of our key cultural resources include the following:

i. Our three (3) cemeteries, one of which is located on our waterfront, and all of which require protection (through new fencing), and close attention in terms of missing or worn tombstones awaiting identification;
ii. A community garden, including medicinal plants;
iii. Variously distributed medicinal plant sites;
iv. Our traditional maple sugar grounds;
v. Our pow wow grounds;
vi. Our sacred grounds; and,
vii. Ancestral cabins and homes located in remote areas.

These cultural resources, as well as others not identified in this report, are central to our community's history and way of life. They clearly must be protected from negative environmental effects. Sites located within our waterfront and shoreline areas are at high risk of degradation, should the lake's level rise or periodically flood. Other cultural practices, including gathering, hunting, and fishing are threatened by environmental change such as climate change, surface water contamination and degradation, development, increased traffic, forest fires, or other environmental emergencies.

Threats to our cultural resources include the following:

i. Loss of Elders and Knowledge Keepers and their collective cultural memories;

ii. Loss of cultural resources due to environmental change (loss of traditional and medicinal plants, for example);

iii. Damage to cultural resources due to physical events such as forest fires and flooding;

iv. No clear process to include traditional knowledge in development decisions and approvals; and,

v. Provincial, federal and other jurisdictional processes that do not include (in any significant way) traditional knowledge, thereby damaging and / or destroying our cultural resources.


Drawing by: Chanelle Cartegena

### 4.3.2 Our Goals and Actions Related to the Threats on our Cultural Resources

We have not yet completed a comprehensive analysis of all cultural resources within our community. This includes cultural activities, traditional and medicinal plants species and their counts from year to year, animal species and their increases or decreases, and species-at-risk. Nor do we have clear related information for the lands bordering our own.

It is the intent of our community to undertake, through our Lands, Environment and Resources Department, the development of the following management tools:

i. With the help of our Elders and other knowledgeable community Members, more clearly identify important cultural resources;
ii. Develop a plan to protect our cultural resources from potential threats;
iii. Develop a Forest Use Plan; and,
iv. Develop a process to ensure the inclusion of traditional knowledge and culture resources protection in development approval processes.

### 4.3.3 Our Management Mechanisms

Laws / Regulations

Canada's laws continue to apply, as well as our (future) environmental regulatory framework, including an environmental assessment and protection regime.

Canada's Laws (among others)

i. *Canadian Environmental Assessment Act* (2012)
(Section 2(1) includes acknowledgement that potential environmental effects of projects are considered to include any effects on physical and cultural heritage)

Ontario's Laws (for reference only; Ontario's laws will not apply)

i. *Ontario Heritage Act (1990)*

*Sheshegwaning* First Nation Laws (among possible others)

i. Environmental Assessment and Protection Laws (to be developed); and,
ii. Interim Environmental Assessment Process.

*Sheshegwaning* First Nation Policies (among possible others)

i. Develop a policy on Elder Knowledge gathering and use in development approvals and processes;
ii. Develop a policy on identifying Cultural Resources and produce a map that identifies culturally sensitive locations;
iii. Develop a policy that provides for a buffer around cultural sites;
iv. Enhance and update our Land Use Plan to protect our Cultural Resources.
v. Develop a policy to encourage traditional practice and the use of Cultural Resources;
vi. Develop, implement and enact *Sheshegwaning*-specific environmental assessment and protection process consistent with the Canadian Environmental Assessment Act (CEAA 2012).

Until then, we intend to follow the Interim process outlined in our Individual Agreement with Canada (see Appendix 'A'); and,

vii. Develop strategies and processes to work more closely with jurisdictions (including other First Nation communities), provincial and federal agencies to develop strategies to protect our Cultural resources.

#### 4.3.4 References, Examples and Guides

Some key reference sources will used as guides. These include, among others, the Forest Management Guide for Cultural Heritage Values:

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

#### 4.3.5 Monitoring and Reporting

We intend to, at a minimum:

i. Monitor and report on environmental conditions deemed to be negatively affecting our cultural resources, traditional practices and related plant and animal species;
ii. Monitor and report on environmental conditions deemed to be affecting traditional medicinal plants; and,
iii. Implement measures to mitigate adverse environmental conditions.

#### 4.3.6 Community Awareness and Communications

We intend to develop a communications strategy for our Members to develop a working knowledge on ways of protecting our cultural resources throughout our lands.

We also intend to protect our landscapes and natural areas, while working towards promoting Traditional Knowledge through education and training events. This will include sharing knowledge with our Members through signage, workshops and other knowledge sharing activities.

### 4.4 Wildlife, Wildlife Habitat and their Protection

Harvesting of foods such as deer and other wildlife remains key to our culture's traditions. The wildlife on our lands relies closely on the conditions of natural habitats. This means that ecosystems need to remain intact and, as much as possible, untouched or at the very least, fully protected. The protection of animals and plants therefore is inseparable. And when we consider that many plants are harvested for medicines and food, the protection of ecosystems is paramount.


Drawing by: Dustin Sampson

### 4.4.1 Potential Threats to Wildlife and their Habitats

Potential environmental threats associated with wildlife and wildlife habitat on our lands include the following:

i. Declines in wildlife species, including deer, turtles, rabbits, frogs, bees, ducks, partridges, minks and otters. Salmon, perch and whitefish population are also declining;
ii. Increases in 'new' species, including raccoons, porcupines, ticks and beavers, among others;
iii. Declines in plant species, including traditional and medicinal plants such as black ash, sweetgrass, penny royal, whippoorwill, gooseberries, *mishcuuse*, wild plums, high bush berries, raspberries, haw berries, pin cherries, pinters, rose hips, apple trees, pear trees, grapes, strawberries, morales, fiddleheads, cedar, birch, juniper, sumac, crab trees and "seven sisters";
iv. Increases in plant species, such as pussywillows, poplar trees;
v. No monitoring of wildlife health and wildlife numbers;
vi. No traditional knowledge applied to wildlife and habitat protection;
vii. No "Species at Risk" list that specifically considers our lands;
viii. Several unprotected habitat areas;
ix. No guidelines for development to protect wildlife and their habitats;
x. Chemical uses in forestry and agriculture affecting wildlife and wildlife habitat; and,

xi. Concerns regarding herbicides sprayed from planes and along power lines.

### 4.4.2 Our Goals and Actions

There is no detailed information regarding the wildlife species on our lands. This includes species, species counts from year to year, species-at-risk, habitats and habitats under stress. Nor does it appear to exist for the lands bordering our reserve.

It is the intent of the community to undertake, through our "Fisheries and Wildlife Committee", the development of the following management tools:

i. Inventory wildlife within our reserve lands and surrounding lands;
ii. Develop a Forest Use Plan;
iii. Develop a strategy to protect wildlife and their habitats, including wildlife corridors;
iv. Develop a strategy to protect medicinal plants, traditional foods and other resources; and,
v. Initiate discussions with provincial bodies regarding herbicides sprayed from planes.

### 4.4.3 Our Management Mechanisms

Laws / Regulations

Canada's laws continue to apply, as well as our (future) environmental regulatory framework, including an environmental assessment and protection regime.

Canada's Laws (among others)

i. *Fisheries Act* (1985)
ii. *Species at Risk Act* (2002)
iii. Canadian Environmental Assessment Act (2012)

*Sheshegwaning* First Nation Laws (among possible others)

i. Environmental Assessment and Protection Laws (to be developed); and,
ii. Interim Environmental Assessment Process.

*Sheshegwaning* First Nation Policies (among possible others)

i. Enhance and update our Land Use Plan to protect the landscapes, habitats and wildlife corridors;
ii. Develop a Forest Use Plan;
iii. Develop a policy on researching and assessing the use of herbicides and pesticides on lands within and beyond our community;
iv. Develop strategies to slow the decline of wildlife, fish and plant populations;
v. Develop, implement and enact *Sheshegwaning*-specific environmental assessment process consistent with the Canadian Environmental Assessment Act (CEAA 2012). (Until then, we intend to follow the Interim process outlined in our Individual Agreement with Canada); and,
vi. Develop strategies and processes to work more closely with jurisdictions (including other First Nation communities), provincial and federal agencies to develop strategies to prevent the spread of invasive species.

4.4.4 References, Examples and Guides

Some key reference sources will be used as guides. These include the following, among others:

i. Guide to federally listed species at risk: https://www.canada.ca/en/environment-climate-change/services/species-riskpublic-registry.html
ii. Guide to Fisheries and Oceans Canada project review process: http://www.dfo-mpo.gc.ca/pnw-ppe/fpp-ppp/guide-eng.html
iii. Guide to invasive species in Ontario: https://www.ontario.ca/page/invasive-species-ontario https://www.ontarioinvasiveplants.ca/resources/best-management-practices/
vii. Guide to invasive species in Canada: https://www.invasivespeciescentre.ca/

### 4.4.5 Monitoring and Reporting

No plan works well without consistent monitoring and reporting. We intend to, at a minimum:

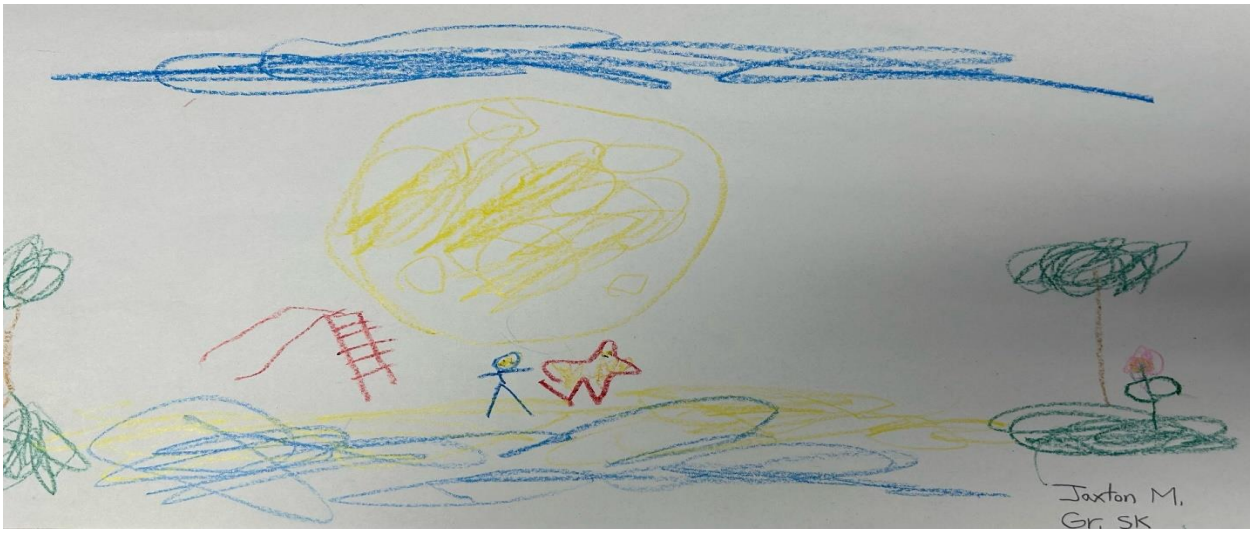
i. Monitor and report on environmental conditions deemed to be affecting species, habitats and habitat corridors;
ii. Monitor and report on environmental conditions deemed to be harming medicinal plants;
iii. Monitor and report on species at risk;
iv. Monitor and report on traditional and medicinal plants;
v. Monitor and report on invasive species; and,
vi. Measures implemented to mitigate adverse environmental conditions.

### 4.4.6 Community Awareness and Communications

We intend, through our Fish and Wildlife Committee, to develop a communications strategy for our Members to gain a working knowledge of the species that are decreasing or increasing, and to know about our strategies to protect the same species, their habitats and / or the eco-systems within which they live.

We also intend to protect our landscapes and natural areas, while working towards promoting Traditional Knowledge through education and training events. This will include sharing knowledge with our Members on sustainable hunting, gathering and fishing practices.

We intend on developing brochures that contain information on wildlife, wildlife habitats, vegetation, eco-systems, medicinal plants and species at risk within out community and surrounding lands.




Drawing by: Jaxton Malley

We intend to post signs that identify wildlife habitats, eco-systems, traditional and medicinal plants species at risk, and invasive species, including throughout our trail network.

We intend to support training of our Members to work on environmental issues, assessments, and monitoring and reporting methods.

### 4.5 Soil Quality

Soil quality remains key to our ways of living. We live and play on it, grow medicines and food from it, our water flows on its surface and within its depths, and our wildlife feeds from what grows from it. The quality of our soils is therefore key; contaminants, for example, can spread quickly and affect us profoundly.

#### 4.5.1 Potential Threats to the Quality of our Soil

i. Old / unused oil tanks;
ii. Prior oil leaks;
iii. Possible chemical spills at the water treatment plant;
iv. Presence of contaminated soil (Previous analysis of soils confirm the presence of PHCs, PAHs and IACR at concentrations exceeding applicable criteria);
v. "Old" landfill site;
vi. Small (household) landfill sites no longer used;
vii. Septic systems and septic tile bed material;
viii. PCBs from various sources: PCBs (such as those existing in electrical transformers); and,

ix. No policy or law on “fill”.

4.5.2 Our Goals and Actions

i. Follow-up with all recommendations from prior environmental related studies;
ii. Inspect and assess potential spills at water treatment plant;
iii. Inspect and assess potential contaminated at “old” landfill site, abandoned household landfill sites, septic tile deposits and PCBs; and,
iv. Develop related policies and / or laws to reduce liability on our community, including a law on “fill” and soil contamination, among others.

4.5.3 Our Management Mechanisms

Laws / Regulations

Canada’s laws continue to apply, as well as our (future) environmental regulatory framework, including an environmental assessment and protection regime.

Canada’s Laws (among others)

i. *Canadian Environmental Protection Act* (1999)
ii. *Canadian Environmental Assessment Act* (2012)
iii. CCME Canadian Soil Quality Guidelines for the Protection of Environment and Human Health

Ontario’s Laws (for reference only; Ontario’s laws will not apply)
i. *Environmental Protection Act (1990)*

*Sheshegwaning* First Nation Laws (among possible others)

i. Environmental Assessment and Protection Laws (to be developed);
ii. "Fill and Deposit of Soil" Law; and,
iii. Interim Environmental Assessment Process.

*Sheshegwaning* First Nation Policies (among possible others)

i. Enhance and update our Land Use Plan to protect the land parcels from contamination;
ii. Develop policy on registration of contaminated sites within our lands;
iii. Develop, implement and enact *Sheshegwaning*-specific environmental assessment process consistent with the Canadian Environmental Assessment Act (CEAA 2012). (Until then, we intend to follow the Interim process outlined in our Individual Agreement with Canada); and,
iv. Develop strategies and processes to work more closely with jurisdictions (including other First Nation communities), provincial and federal agencies to develop strategies to prevent the spread of invasive species.

### 4.5.4 References, Examples and Guides

Some key reference sources will be followed or used as guides. These include the following, among others:

i. Canada's Federal Contaminated Sites Inventory: https://www.tbs-sct.gc.ca/fcsi-rscf/home-accueil-eng.aspx

### 4.5.5 Monitoring and Reporting

We intend to, at a minimum:

i. Monitor and report on environmental conditions deemed to be affecting our soils; and,
ii. Develop measures implemented to mitigate adverse environmental conditions.

### 4.6 Groundwater and Surface Water

As with soils, water quality, including groundwater and surface water, remains key to our way of life. We depend on water to grow medicines and food, and our wildlife feeds from what grows from it. The quality of our groundwater and surface water can be fragile, with a single contaminated spill possibly altering our lives within just a brief period of time; contaminants, for example, can spread quickly and affect us profoundly. Our community's waterscape includes creeks, streams, wetlands and a great deal of Lake Huron shoreline. Springs are also part of the same system and while we have an excellent water treatment plant, protecting all our water is key.

#### 4.6.1 Potential Threats to the Quality of our Groundwater and Surface Water

i. Potential contamination from old landfill site(s);
ii. Potential contamination from septic beds;
iii. Potential contamination by spills (fuel spills and chemical spills, for example);
iv. Lack of monitoring to establish baseline water quality;
v. Lack of monitoring of traditional areas around our natural springs;

vi. Potential contamination from pesticides and herbicides infiltrating groundwater and surface water;
vii. Potential contamination from leachate and runoff from existing landfill site; and,
viii. Potential contamination by nearby fish farm.

### 4.6.2 Our Goals and Actions

i. Follow-up all recommendations from prior land-related studies (See above for recommendations made in Phases I and II ESAs);
ii. Inspect and assess potential spills at water treatment plant;
iii. Inspect and assess potential contamination at “old” landfill site, abandoned household landfill sites, septic tile deposits and PCBs;
iv. Develop Environmental Protection law that addresses the contamination risks to reduce liability on our community;
v. Ensure close compliance with applicable legislation;

Drawing by: Bekodeh Dayfox

vi. Develop law to protect water sources from potential contamination;
vii. Develop policy for monitoring water quality to track long-term trends; and
viii. Develop law to protect fish and wildlife from water contamination.

### 4.6.3 Our Management Mechanisms

#### Laws / Regulations

Canada's laws continue to apply, as well as our (future) environmental regulatory framework, including an environmental assessment and protection regime.

Canada's Laws (among others)

i. *Canadian Environmental Protection Act* (1999)
ii. *Canadian Environmental Assessment Act* (2012)
iii. *Fisheries Act* (1985)
iv. *Safe Drinking Water for First Nations Act* (2013)
v. *Species at Risk Act* (2002)
vi. Protocol for Safe Drinking Water in First Nations Communities

Ontario's Laws (for reference only; Ontario's laws will not apply)

i. *Clean Water Act (2006)*
ii. *Environmental Protection Act (1990)*
iii. *Lakes and Rivers Improvement Act (1990)*
iv. *Nutrient Management Act (2002)*
v. *Ontario Safe Drinking Water Act (2002)*
vi. O. Reg. 169/03: Water Quality Standards
vii. O. Reg. 170/03: Drinking Water System

viii. *Public Lands Act (1990)*
ix. *Sustainable Water and Sewage Systems Act (2002)*
x. *Environmental Assessment Act (1990)*
xi. *Environmental Bill of Rights (1993)*

*Sheshegwaning* First Nation Laws (among possible others)

i. Our (future) environmental regulatory framework; and,

ii. Interim Environmental Assessment Process

*Sheshegwaning* First Nation Policies (among possible others)

i. Enhance and update our Land Use Plan to protect the land parcels from water contamination;
ii. Develop policy on registration contaminated sites within our lands;
vii. Develop, implement and enact a *Sheshegwaning*-specific environmental law consistent with the Canadian Environmental Assessment Act (CEAA 2012). (Until then, we intend to follow the Interim process outlined in our Individual Agreement with Canada);
iii. Develop law to prevent illegal dumping into surface waters;
iv. Develop a monitoring program for drinking water quality; and,
v. Develop law to protect surface waters from sedimentation and contamination from storm and other water run-off.

### 4.6.4 References, Examples and Guides (among possible others)

Some key reference sources will be followed or used as guides. These include the following, among others:

i. Canada's Federal Contaminated Sites Inventory: https://www.tbs-sct.gc.ca/fcsi-rscf/home-accueil-eng.aspx

ii. Guidelines for Canadian Drinking Water Quality (GCDWQ), developed by Health Canada, various provincial and territorial authorities. https://www.canada.ca/en/health-canada/services/publications/healthyliving/guidance-providing-safe-drinking-water-areas-federal-jurisdiction-version-2.html

iii. "On-Reserve Source Water Protection Guide and Template": https://www.aadnc-aandc.gc.ca/eng/1398369474357/1398369572276#chp1

iv. Canadian Council of Ministers of the Environment (CCME) guidelines to protect drinking water: https://www.ccme.ca/en/resources/water/from_source_to_tap_the_multi_barrier_approach.html

### 4.6.5 Monitoring and Reporting

We intend to, at a minimum:

i. Monitor and report on environmental conditions deemed to be affecting our waters;
ii. Develop measures to mitigate adverse environmental conditions;
iii. Develop signage near water bodies for Members to know about runoff that can make its way into our streams and Lake Huron, including pesticides from third parties;
iv. Develop a monitoring program to identify and document surface water inventory and their related features;
v. Develop a monitoring program to record water quality;
vi. Provide annual drinking water quality reports to our Members and jurisdictional bodies;
vii. Develop a policy for communicating and assisting our Members regarding water issues on reserve. See for example: https://www.canada.ca/en/indigenous-services-canada/services/firstnations-inuit-health/reports-

publications/health-promotion/toolkitindividual-wells-first-nations-health-canada-2010.html

### 4.7 Solid Waste

The volume of solid waste generated by our community is at approximately 8600 m3 over 20 years. At the time of the last study on our solid waste facility, it was estimated that we can handle the waste we generate at least until 2026. A Solid Waste Management Plan will identify the most appropriate methods for dealing with solid waste over the next 20-year period. There are currently no recycling or other waste reduction programs in effect.

#### 4.7.1 Potential Threats due to the Solid Waste that we generate:

i. Potential contamination from existing landfill site;
ii. Potential negative impacts on wildlife exposed to contaminants;
iii. Potential contamination from leachate and runoff;
iv. Potential fire hazard due to overgrown brush near waste material;
v. Lack of monitoring of existing sampling wells;
vi. Lack of monitoring, assessment and follow-up of third party illegal dumping (see below for related law development);
vii. Lack of community knowledge (proper disposal of items such as batteries, waste oil, tires, paint, and do on); and,
viii. Lack of recycling strategies.

#### 4.7.2 Our Goals and Actions

i. Establish process to install recycling station;
ii. Develop recycling strategy;

iii. Plan for new fence to protect wildlife from contaminated waste;
iv. Develop strategy to monitor our landfill and lands for illegal dumping;
v. Develop waste reduction and recycling communications plan for our Members; and,
vi. Develop strategy to manage hazardous waste such as batteries, used oils and paint.

### 4.7.3 Our Management Mechanisms

#### Laws / Regulations

Canada's laws continue to apply, as well as our (future) environmental regulatory framework, including an environmental assessment and protection regime.

Canada's Laws (among others)

*i.* *Canadian Environmental Protection Act* (1999)
ii. *Canadian Environmental Assessment Act* (2012)
iii. Indian Reserve Waste Disposal Regulation
    a. Export and Import of Hazardous Waste and Hazardous Recyclable
    Materials
iv. *Transportation of Dangerous Goods Act* (1992)
v. *Migratory Birds Convention Act (1994)*

Ontario's Laws (for reference only; Ontario's laws will not apply)

i. *Environmental Protection Act (1990)*
    a. Part V: Waste Management
    b. O. Reg. 85/16: Registrations Under Part II.2 of the Act

– End-of-life-vehicles

c. O. Reg. 351/12: Registrations Under Part II.2 of the Act – Waste Management Systems
d. O. Reg. 232/98: Landfilling Sites
e. O. Reg. 102/94: Waste Audits and Waste Reduction Work Plans
f. O. Reg. 101/94: Recycling and Composting of Municipal Waste
g. Revised Regulation of Ontario (R.R.O.) 1990, Reg. 347: General – Waste Management

*Sheshegwaning* First Nation Laws (among possible others)

i. Our (future) environmental regulatory framework;

ii. Law on illegal dumping and other solid waste issues; and,

iii. Interim Environmental Assessment Process.


Drawing by: Hailey Cyr

*Sheshegwaning* First Nation Policies (among possible others)

i. Enhance and update our Land Use Plan to protect our lands from solid waste related contamination by, for example, more clearly delimiting the landfill site in terms of access and allowable fill areas;
ii. Develop, implement and enact *Sheshegwaning*-specific environmental assessment process consistent with the Canadian Environmental Assessment Act (CEAA 2012). (Until then, we intend to follow the Interim process outlined in our Individual Agreement with Canada);
iii. Develop policy on the removal of abandoned or condemned buildings; and,
iv. Develop a monitoring program for our solid waste facility.

### 4.7.4 References, Examples and Guides (among possible others)

Some key reference sources will be followed or used as guides. These include the following, among others:

i. Canada's Federal Contaminated Sites Inventory: https://www.tbs-sct.gc.ca/fcsi-rscf/home-accueil-eng.aspx

### 4.7.5 Monitoring and Reporting

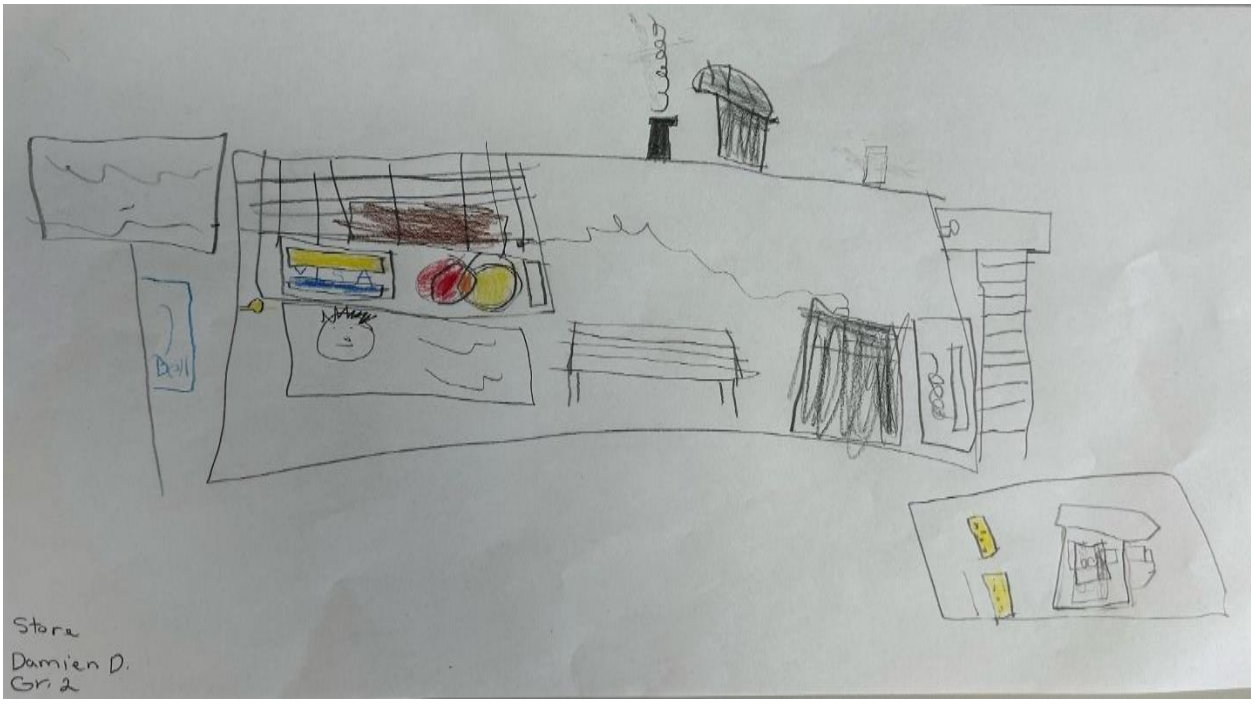
We intend to, at a minimum:

i. Develop a monitoring and reporting process on environmental conditions within and around our landfill site;
ii. Develop measures to be implemented to mitigate adverse environmental conditions at our landfill site;
iii. Develop signage near our landfill site for Members to learn about options in terms of hazardous materials disposal and the re-use of other materials;
iv. Provide and maintain waste receptacles in public areas;

v. Establish a “re-use” location for usable items from the landfill site;
vi. Establish surveillance of potential illegal dumping areas; and,
vii. Develop waste audit process to assess amount and composition of residential waste.

### 4.8 Wastewater

We do not have a comprehensive wastewater system. For the time being, we have no plan to construct one, even for new developments. This is because our community is small and new developments are correspondingly small in scale. This means that our wastewater is handled through individual septic systems instead of using a sewer system and lagoon. Eventually, should the community increase to a size where a wastewater system is feasible, then we will consider one.




Drawing by: Damien Dominic

At present, the installation and maintenance of septic systems is the responsibility of individual house owners, or with the community for community-owned houses and buildings. All our community septic systems must comply with the *Protocol for Decentralised Water and Wastewater Systems in First Nations Communities* (see below), while the same protocol does not apply to individually owned houses.

### 4.8.1 Potential Threats from our Wastewater

i. Discharge of household sewage and commercial wastewater into the surface and groundwater;

### 4.8.2 Our Goals and Actions

i. Ensure septic tanks and beds are inspected and installed according to Canada's standards (CSA B65);
ii. Ensure that surface and groundwater are protected from wastewater contamination; and,
iii. Ensure that we do not negatively affect aquatic ecosystems due to wastewater contamination.

### 4.8.3 Our Management Mechanisms

Laws / Regulations

Canada's laws continue to apply, as well as our (future) environmental regulatory framework, including an environmental assessment and protection regime.

Canada's Laws (among others)

i. *Canadian Environmental Protection Act* (1999)
ii. *Safe Drinking Water for First Nations Act (2013)*

Canada's Policies (among others)

*Protocol for Decentralised Water and Wastewater Systems in First Nations Communities* (April 2010) (requires that decentralized wastewater systems conform to CSA B65 – National Installation Standard for Decentralised Wastewater Systems: https://www.aadnc-aandc.gc.ca/DAM/DAM-INTER-HQ/STAGING/textetext/dsp_1100100034992_eng.pdf

Ontario's Laws (for reference only; Ontario's laws will not apply)

i. *Environmental Protection Act (1990)*
   a. R.R.O. 1990, Reg. 358: Sewage systems
ii. *Ontario Building Code (2012)*
   a. Section VIII
ii. *Clean Water Act (2006)*

*Sheshegwaning* First Nation Laws (among possible others)

i. Develop, implement and enact *Sheshegwaning*-specific environmental assessment process consistent with the Canadian Environmental Assessment Act (CEAA 2012). (Until then, we intend to follow the Interim process outlined in our Individual Agreement with Canada); and,
ii. Interim Environmental Assessment Process.

*Sheshegwaning* First Nation Policies (among possible others)

i. Develop, implement and enact *Sheshegwaning*-specific environmental protection regime. (Until then, we intend to follow the Interim process outlined in our Individual Agreement with Canada).

### 4.8.4 References, Examples and Guides (among possible others)

Some key reference sources will be followed or used as guides. These include the following, among others:

i. Canada's guidelines on design, construction and testing of septic systems: www.canada.ca/en/indigenous-services-canada/services/first-nationsinuit-health/health-promotion/environmental-public-health.html

### 4.8.5 Monitoring and Reporting

We intend to, at a minimum:

i. Develop a monitoring and reporting process on environmental conditions affecting wastewater; and,
ii. Develop measures to be implemented to mitigate adverse environmental conditions at wastewater sites.

Drawing by: Yuma Cada

# 5. Our Environmental Monitoring, Assessment and Protection Processes


Drawing by: Isabella Wabegijik

# 5. Our Environmental Monitoring, Assessment and Protection Processes

## *5.1 Environmental Monitoring*

Environmental monitoring is key to understanding how our environment is changing (for better or worse) over time. Monitoring involves the gathering of information, including baseline information; it will help us with our decision making as we consider development, protection and re-generation options, as well as our community's overall health. We will also be able to respond quickly, should there be related emergencies or sudden decreases of species populations, for example. Monitoring allows for key information needed for management of our lands, resources and environment, as well as overall governance of our community.

Monitoring is a group effort, requiring the input (and observations) of all our Members, other knowledgeable individuals and experts, as well as any third party operating within our reserve lands (and surrounding lands, as much as possible). This will be a challenge for our community as working with third parties to ensure that they too are involved in environmental monitoring is not a simple exercise. The best environmental monitoring processes are the ones that involve as many partners as possible, the highest quality in the design of development projects, and well-detailed reporting.

A *Sheshegwaning* First Nation specific environmental monitoring process should include, at a minimum, the following:

i. Collecting baseline data on groundwater conditions, previously installed monitoring wells, species at risk, traditional and medicinal plant conditions, among others (our starting point);

ii. Training staff and community Members;

iii. Elder knowledge and advice;[16]

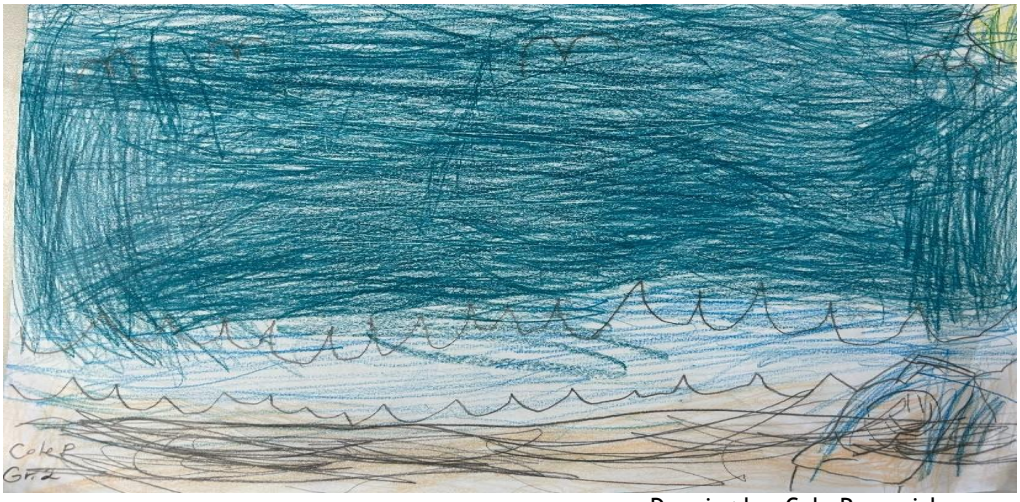
iv. Accurate assessments of potential development projects and / or potential environmental effects;

v. Accurate assessments of the impacts of past activities on our lands;

vi. Consideration and compliance with applicable laws and / or regulations;

vii. Communications with staff and our Members regarding environmental emergencies and constant and consistent monitoring; and,

viii. Education, training and up-to-date related knowledge.



Drawing by: Cole Panamick

[16] Our Elders and other knowledgeable community individuals possess a great deal of knowledge, passed down, regarding the environment and the relationship between ecosystems, plants, wildlife, wildlife habitats, and humans. This knowledge must be used to complement any scientific monitoring. A Traditional Use Study or Aboriginal Traditional Knowledge Study will document and inform community Member knowledge.

### *5.2 Environmental Assessment and Protection*

An Environmental Assessment is a process that provides an analysis to see and understand if there are potential impacts caused by proposed specific development activities. These impacts could be cultural, biological, socioeconomic or physical. Impacts are assessed, and mitigation measures are developed for each potential impact. Our intent is to undertake an Environmental Assessment for proposed development activities taking place on our lands. This means that we need a process.

An Environmental Assessment report generated through an Environmental Assessment Process describes the project, lists the potential environmental effects, and then identifies corresponding actions to eliminate (or reduce, at a minimum) the effects. It is central to Environmental Protection.

Our Individual Agreement with Canada commits us to develop an Environmental Assessment law. It also commits our community to implement an Interim Environmental Assessment process until the community can develop and implement its own Environment Assessment law. The *Canadian Environmental Assessment Act (2012)* was chosen as the interim Environment Assessment process for us to use.

Our community's corresponding law will provide us with the powers that we will need in order to ensure that we can consider environmental consequences of

projects, mitigate the same consequences, reduce our liabilities (by practicing due diligence) and ensure that meaningful community input is provided and acted upon.

### *5.3 Environmental Assessment and Protection Laws*

At a minimum, our community's Environmental Assessment and Protection Laws will allow Council to make informed decisions regarding the potential adverse effects of a project before that project occurs, as well as protect the environment. These will include consideration for the following, among several other aspects:

i. Take place whenever a development project might affect the cultural, biological, physical or socioeconomic circumstances within our community lands;


Drawing by: Liyana Cartegena

ii. Include the knowledge, advice and concerns of our Elders as well as engage the whole of our community;

iii. List any potential environmental effects resulting from the proposed development activity;

iv. Communicate the potential impacts, and corresponding mitigating measures to community Members;

v. Develop changes, improvements and other mitigation measures corresponding to the potential impacts or effects; and,

vi. Provide for the protection of the environment.

# 6. Implementation and Next Steps


Drawing by: Chanelle Cartegena

# 6. Implementation and Next Steps

## *6.1 Implementation*

The *Sheshegwaning* First Nation Land Code specifies that we have a Lands Committee in place that can direct and advise on our land, resources and environmental matters. This includes the drafting of policies and laws that the same committee marshals until the policies are adopted and laws are enacted. These include, among others, laws that address environmental matters, land use planning, and the matrimonial real property law that we have recently finalized. While Canada's environmental protection laws to some extent continue to apply on *Sheshegwaning* First Nation reserve lands, as signatories to the Framework Agreement, we can enact environmental laws that aim to close any gaps between Canada's regulations that apply on our lands and Ontario's laws that apply on the lands surrounding our reserve lands. This is what we intend to do.

The way we intend to create our environmental laws is described in our Land Code. Our Lands Committee will ensure that any environmental-related laws are drafted and vetted by our legal counsel, and then present these laws to Council. We have chosen to develop our Implementation Plan as a separate activity in order to continue to involve our Members as much as possible. Once the same Implementation Plan has been completed, it will remain flexible, pending feedback and input from our Members as we gradually develop related policies, processes and laws. That is to say that our Members will determine the exact steps, their order of priority, the actions required by each step, the key results or outcomes from the actions that are expected by the Members, and the responsible staff

responsible for implementing the actions. The Implementation Plan is therefore being developed as a separate document.

### *6.2 Next Steps*

We intend to take the following general steps as we continue with the development of our environmental management planning:

i. December, 2023:
Council adopts the Environmental Management Plan;

ii. December, 2023:
Lands, Resources and Environment Department staff set out the specific actions to be undertaken (devising our detailed Implementation Plan);

iii. January, 2024:
Council approves the Implementation Plan;

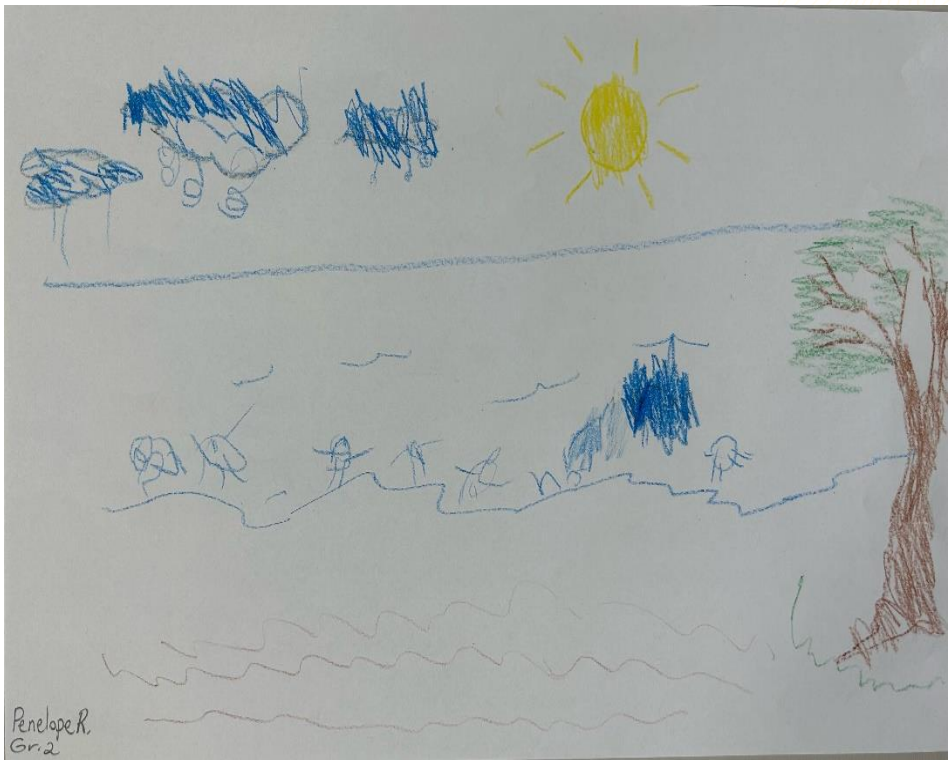
iv. January - March, 2024:
Guidelines and communications materials for our Members, outlining our community's EMP Implementation Plan steps, prepared by Lands, Resources and Environment staff;

v. March – October, 2024:
Lands, Resources and Environment Department staff hold regular meetings with Members and Council to communicate progress, obtain feedback, and update the Implementation Plan, if required by the community and Council;

vi. March – October, 2024:
Lands, Resources and Environment Department staff, with Member and Council input, prepare draft document to provide a starting point for the community's legal counsel to develop Environmental Assessment and Protection laws;

vii. October - December, 2024:
Lands, Resources and Environment Department Director engages legal counsel to prepare Environmental Assessment and Protection laws and related policies, as required; and,

viii. January, 2025 - onwards:
Lands, Resources and Environment staff undertake a review of the Implementation Plan, continue to implement the EMP while communicating progress to the community and Council, obtaining feedback and updating the Implementation Plan.




Drawing by: Penelope Riberdy

# 7. Conclusion


Drawing by: Landen Bell

# 7. Conclusion

This Environmental Management Plan is meant to be a "beginning" for our community to take on governance and responsibility over our environment, including our lands and resources. As more of our Members return, and as we gradually allow development to take place, we will develop policies and laws, and we will re-visit the Implementation Plan complementing this document to adjust our actions as required, especially as our Members and Council become more aware of the impacts that our "new" guidelines, policies and laws might have.

Our purpose is not to have onerous guidelines, policies and laws for our Members; it is to ensure that we assess, mitigate and monitor our environment as new projects are considered (approved, or not approved) and as we continue to enjoy living on our lands.

Drawing by: Aliyah Antoine

**Appendix 'A'**

**INTERIM ENVIRONMENTAL ASSESSMENT PROCESS**

**Guidance Document for Operational First Nations**

First Nations operating under their Land Code have the responsibility to ensure that an Environmental Assessment (EA) is conducted, in appropriate cases, where the First Nation is **approving, regulating, funding, or undertaking** a project on First Nation Land. The *Framework Agreement on First Nations Land Management* allows First Nations to develop an EA Process, through law, to ensure that EAs are conducted for all projects occurring on First Nation land. First Nations developing an EA law should ensure that their EA process is appropriate given the staff and resources available to the First Nation, that it contains a community consultation process, and that all environmental factors important to the First Nation are considered in the assessment.

Until such a time as a First Nation develops and enacts an EA law, a First Nation's Individual Agreement with Canada specifies that EAs must be conducted using an "**Interim Environmental Assessment Process**". Details of the Interim EA process are typically contained in Annex "F" of the Individual Agreement, and most specify that the First Nation's Interim EA process must be consistent with either CEAA (1992) or CEAA 2012. With the new federal Impact Assessment Act (IAA) now in force, it can be assumed that First Nations may also elect to use a process consistent with that legislation.

The following information is intended to assist First Nations in developing and implementing their Interim EA process, and is provided for guidance purposes only. First Nations may elect to use an alternative approach to making an EA determination under their Interim EA process.

*Interim EA Process Determination*

1. First Nation chooses an Interim EA Process consistent with either CEAA (1992) or CEAA 2012 (see **Annex 1** for a comparison of CEAA (1992) and CEAA 2012). Note that once a First Nation has selected which version of CEAA they would

like to be consistent with for their Interim EA process, it is recommended that all EAs are conducted in the same manner.

*Project Initiation*

2. Proponent submits a project description to First Nation Lands Department. To assist proponents in preparing a project description, the First Nation may want to consider developing a template or form that clearly outlines the information that must be submitted. Annex 2 contains an example of the type of information that should be included for the project description.

*Is an EA Required?*

3. The First Nation determines if an EA is required:
   a) To determine if an EA is required when using an Interim EA process consistent with CEAA (1992):
      a. If the project is on the Exclusion List[17], then no EA is required.
      b. If the project is not on the exclusion, an EA is Required.
   b) To determine if an EA is required when using an Interim EA process consistent with CEAA 2012:
      a. If the project is on the Designated Project List[18], it requires a full, in-depth EA.
      b. If project is occurring on reserve lands and is not on the Designated Project List, a screening level assessment is required.

*Proponent Notification*

4. The First Nation notifies proponent:
   a. If no EA is required, the First Nation notifies the proponent that they can proceed with their project.
   b. If an EA is required, the First Nation notifies the proponent that an EA is required and proceeds with the Interim EA Process.

*Community Consultation*

---

[17] ***Exclusion List Regulations, 2007 (CEAA (1992)***: https://www.canlii.org/en/ca/laws/regu/sor-2007-108/latest/sor-2007-108.html

[18] ***Designated Projects List (CEAA 2012):*** https://laws-lois.justice.gc.ca/eng/regulations/SOR-2012-147/page-3.html#h-782948

5. The First Nation posts a public notice, that includes the project description, notifying Membership that a potential on-reserve project is undergoing an EA and that Council will be required to make an EA decision. The notice should instruct Members to contact the First Nation Lands Department if there are any concerns. The First Nation can determine where and how notifications are posted ( e.g., on their website, in newsletters, in public places, etc.).

*EA Criteria*

6. The First Nation provides the proponent with the EA criteria, which is a list of factors to be considered in the EA. When determining the factors to be considered in the EA, the First Nation should determine the level of assessment required (i.e., simple assessment/screening level assessment, or detailed assessment/full EA), and environmental, social and cultural factors that are important to the First Nation. **Annex 2** contains examples of factors to be considered in the EA based on the level of assessment.

*Proponent Prepares the EA Report*

7. The Proponent (or an environmental consultant hired by the proponent), conducts an EA based on the EA criteria provided by the First Nation and submits the EA Report to the First Nation for review.

*Review of EA Report*

8. The First Nation reviews the EA report provided by the proponent. If necessary, the First Nation may want to request assistance from a technical specialist to assist in this review (the First Nation may want to consider specifying in their Interim EA process that the proponent is responsible for costs associated with hiring a technical specialist to complete the review).

   *Request for Additional Information*

   a. If additional information or studies are required, the First Nation should notify the proponent and provide them a list of the outstanding information. The proponent is responsible for gathering that information and updating the EA report, as appropriate.

*Community Consultation on EA Report*

9. The First Nation posts a copy of the EA report for public review in the same manner as was done in Step 5 above. A deadline for comments and details of where comments should be submitted should be included with this posting. If significant concerns are received, the First Nation may want to conduct community meetings with the proponent to discuss those concerns (the First Nation may want to consider specifying in their Interim EA process that the proponent is responsible for costs associated with community consultation). A summary of the results of community consultation should be included with the EA report for consideration by Council when making their EA decision.

*EA Decision*

10. Based on the EA report and after considering the results of community consultation and any other recommendations from the First Nation's committees and departments, the Council of the First Nation Council makes an EA determination:

    Is the project likely to cause significant adverse environmental effects, taking into account mitigation?

    a. If no, the project may proceed as planned.
    b. If yes, are those effects justified under the circumstances?
        i. If effects are justified, the project may proceed as planned.
        ii. If effects are not justified, the project cannot proceed as planned.

*Notice of EA Decision*

11. First Nation advises proponent and posts a public notice to the Membership of the EA decision:
    a. Council has determined that the project, taking into account mitigation measures, is not likely to result in significant adverse environmental effects. The proponent may proceed with the project as planned, provided they obtain any other necessary permits, approvals, etc. prior to commencing work.
    b. Council has determined that the project, taking into account mitigation measures, is likely to result in significant adverse environmental effects, but those effects are justified under the circumstances. The proponent may proceed with the project as planned, provided they obtain any other necessary permits, approvals, etc. prior to commencing work.

c. Council has determined that the project, taking into account mitigation measures, is likely to result in significant adverse environmental effects, and those effects are not justified under the circumstances. The proponent may not proceed with the project as planned.

## APPENDIX 'B'

## SOME RELEVANT CLAUSES
## *FRAMEWORK AGREEMENT ON FIRST NATION LAND MANAGEMENT*

The Framework Agreement states that:

18.2 The following examples illustrate some of the First Nation laws contemplated by the Parties:

(c) laws on environmental assessment and protection;

23.2 The Parties intend that there should be both an environmental assessment and an environmental protection regime for each First Nation.

23.4 The environmental assessment and protection regimes will be implemented through First Nation laws.

25. ENVIRONMENTAL ASSESSMENT

25.1 Subject to clause 27, a First Nation will, with the assistance of the Lands Advisory Board and the appropriate federal agencies, make best efforts to develop an environmental assessment process within one year after the First Nation's land code comes into force, or within such longer period as the Minister and the First Nation may agree to.

25.2 The First Nation and the Minister will, in the individual agreement referred to in clause 6, address how to conduct the environmental assessment of projects on First Nation land during the interim period until the First Nation's environmental assessment process is developed.

25.3 The First Nation's environmental assessment process will be consistent with requirements of the Canadian Environmental Assessment Act.

## APPENDIX 'C'

## SOME RELEVANT CLAUSES
## *INDIVIDUAL AGREEMENT ON FIRST NATION LAND MANAGEMENT*

The Individual Agreement on First Nation Land Management, agreed by Canada and Sheshegwaning and ratified by community approval on June 15, 2019, sets out the interim environmental assessment process in Annex "F".

(1) In this Annex,

(a) "CEAA (1992)" means the Canadian Environmental Assessment Act, S.C. 1992, c. 37 [repealed, 2012, c. 19, s. 66], as it read immediately prior to its repeal;

(b) "CEAA 2012" means the Canadian Environmental Assessment Act, 2012, S.C. 2012, c. 19, s. 52, as amended from time to time.

(2) This Annex sets out the environmental assessment process that will apply to projects on First Nation Land until the enactment and coming into force of First Nation Laws on that subject.

(3) The First Nation shall conduct an assessment process in respect of every project on First Nation Land consistent with:

(a) CEAA (1992), or

(b) CEAA 2012.

(4) Notwithstanding clause (3), the First Nation is not required to conduct an additional environmental assessment if the First Nation decides to adopt an environmental assessment that Canada conducts in respect of that project.

(5) If the First Nation elects to use a process consistent with CEAA (1992), the following applies:

(a) When the First Nation is considering the approval, regulation, funding or undertaking of a project on First Nation Land that is not

described in the exclusion list as defined in CEAA (1992), the Council of the First Nation shall ensure that an environmental assessment of the project is carried out in accordance with a process that is consistent with that of CEAA (1992). Such assessment shall be carried out as early as practicable in the planning stages of the project before an irrevocable decision is made.

(b) The First Nation shall not approve, regulate, fund, or undertake the project unless the Council has concluded, taking into consideration the results of the environmental assessment, any economically and technically feasible mitigation measures identified as necessary during the assessment, and any public comments received during the assessment, that the project is unlikely to cause any significant adverse environmental effects or that any such effects are justifiable under the circumstances.

(c) If the First Nation approves, regulates, funds, or undertakes the project, the First Nation shall ensure that all mitigation measures referred to paragraph (b) above are implemented at its expense or it is satisfied that another person or body will ensure their implementation. The Council shall also consider whether a follow-up program, as defined in CEAA (1992), is appropriate in the circumstances and if so, shall design a follow-up program and ensure its implementation.

(6) If the First Nation elects to use a process that is consistent with CEAA 2012, the following applies unless it is inconsistent with any amendments made to CEAA 2012 in the future or any legislation that replaces CEAA 2012:

(a) If the project is a “designated project” as defined in CEAA 2012, the First Nation shall conduct an environmental assessment of that project in accordance with a process that is consistent with that of CEAA 2012.

(b) If the project is a “project” as defined in section 66 of CEAA 2012, the First Nation shall not carry out the project on First Nation Land, or exercise any power or perform any duty or function conferred on it under the Land Code or a First Nation law that would permit the

project to be carried out, in whole or in part, on First Nation Land, unless the Council of the First Nation determines that the carrying out of the project

(i) is not likely to cause significant adverse environmental effects as defined in CEAA 2012; or

(ii) is likely to cause significant adverse environmental effects and the Council decides that those effects are justified in the circumstances.

(7) All processes shall be conducted at the expense of the First Nation or of the proponent of the project.

(8) The provisions in this Annex are without prejudice to any environmental assessment process that the First Nation may develop in accordance with the Act and the Framework Agreement for incorporation in First Nation laws respecting environmental assessment.

## APPENDIX 'D'

## List of Potential APECs from "Phase I Environmental Site Assessment"

***APEC 1* – Health Centre*:***

• Presence of a 1,360 L AST, likely containing heating oil, on the western exterior of the building.

• The AST was reported to be in good condition with no evidence of leaks or spills; however, a concrete pad was the only secondary containment.

***APEC 2 – Water Treatment Plant***

• Presence of a chemical storage room and chlorination system suggests the usage and storage of chemicals related to the water filtration system and low lift station within the Pumphouse.

• Presence of a chlorine day tank. Surface staining was observed near the chlorine day tank, which could be indicative of tank spills or leaks.

• A >1,000 L diesel fuel AST was observed to be in fair condition with a concrete basin providing secondary containment.

• A backup emergency generator containing an unknown volume of diesel fuel was also observed.

***APEC 3 – St.* Joseph's *Anishnabek* School**

• Presence of a double-walled 2,275 L AST, likely containing heating oil, at the western exterior of the building. The AST was reported to be in good condition with no evidence of leaks or spills. Aside from the double-walled tank, a concrete pad was the only secondary containment beneath the tank.

***APEC 4 – Library/ Fitness Facility***

• One (1) 1,111 L heating oil AST is present in the building's basement, which was observed to be in fair condition with no secondary containment.

• Historical 935 L heating oil ASTs in the building's basement

• Historical school fire during the early-mid 1960s due to a kerosene leak.

***APEC 5 – Drop-in Centre***

• One (1) 910 L AST of furnace oil at the western exterior of the building in absence of evident secondary containment.

• Historical presence and subsequent spill of 910 L furnace oil due to the damage of a 910 L AST at the western exterior of the building.
• Historical 935 L AST of heating oil at the western exterior of the building. The condition of the former AST is unknown.
• Accidental filling of a drinking water well with heating/ furnace oil on the north side of the property in 1964.
• Analysis of soils from 0.2 and 0.5 m bgs confirmed the presence of PHCs, PAHs and IACR at concentrations exceeding applicable criteria.

***APEC 6 – Public Works Garage***

• One (1) 2,200 L AST of diesel at the western exterior of the building in absence of evident secondary containment.
• 1,111 L AST of heating oil/ lubricating oil in the interior of the building in absence of evidence secondary containment.
• Waste storage, disposal, and generation of household wastes, anti-freeze, and oils on-site.
• Possible historical presence of PCBs in light ballasts. A 1996 report recommended inspecting light ballasts at the Public Works Garage for PCBs (Lathem, 1996).
• Possible historical spills of fuel within the interior of the Public Works Garage and the western gravel lot evidenced by surface staining.
• Vehicle maintenance, including earth-works equipment, and storage on-site.
• Analysis of soils from 0.2 and 0.5 m bgs confirmed the presence of PAHs and PHCs at concentrations exceeding applicable criteria. The laboratory detection limits for BTEX also exceeded the applicable criteria.

***APEC 7 – Fire Hall***

• One (1) 1,000 L AST, likely containing diesel fuel or heating oil, inside the building. The tank was reported to be in fair condition with no evidence of leaks or spills; however, there was no evident secondary containment.
• Household wastes, along with lumber and scrap metal were stored around the exterior of the building and into the surrounding forested lot.

***APEC 8 – Gamiing Gas Bar and Convenience***

• One (1) 9,000 L gasoline double-walled AST and associated underground piping to the fuel pump. No staining was observed under the tank; however,

the secondary containment consisted of the double walled tank and a concrete pad, which would not contain a major spill.
• ~500 – 682 L furnace oil AST in the basement.
• Two (2) historical 4,540 L ASTs of fuel (likely gasoline).
• Soil samples collected from this location at depths of 0-0.2 m and 0.2-0.5 m were reported to meet the applicable criteria for BTEX, PHCs and PAHs.

***APEC 9 – Residential Property (Poplar Crescent)***
• Two (2) inactive ~1,000 L furnace oil ASTs at the eastern exterior of the building; no secondary containment was observed.
• Historical spill of ~1,000 L of furnace oil onto the ground surface of the property.
• Soil samples collected from this location at depths of 0-0.2 m and 0.2-0.5 m were reported to meet the applicable criteria for BTEX, PHCs and PAHs.

***APEC 10 – Current Landfill Site***
• Waste storage and disposal of household and community wide-wastes.
• Possible historical spills from on-site or imported material evidenced by surface staining.
• Historical contamination of "other organics"; confirmatory samples were not submitted.
• Analysis of soils from 0.2 and 0.5 m bgs confirmed the presence of metals, inorganics and PHCs at concentrations exceeding applicable criteria.

***APEC 11 – Old Landfill Site***
• Waste storage and disposal of household and community wide wastes. This landfill was reportedly closed in the mid-1960s and appears to have been located south of the Septic Tile Bed Storage. The Old Landfill Site was not assessed by Arcadis during the site visit as the exact location was unknown.
• It was reported in the Phase II Environmental Inventory Report (Lathem, 1996) that the waste primarily consisted of cans and bottles placed at surface, most of which were removed; however, it is possible that other wastes were also deposited such as drums or old appliances. As of 1996, the Old Landfill Site was being used as a skidder landing by loggers and no evidence of contamination was observed.

***APEC 12 – St. Joseph's Church***

• Historical 909 L AST of heating oil along the exterior of the on-site building (Lathem, 1996). The historical condition of this tank is unknown. The tank was not present during the Arcadis site inspection.
• The interior of this building was not assessed during the Phase I ESA.
• This APEC has been ranked moderate due to the unknown details of the historical AST.

***APEC 13 – Residential Areas***
• ~1,000 L ASTs of furnace oil for heating throughout the community.
• Septic systems are present throughout *Sheshegwaning* First Nation reserve lands within residential homes and community buildings. It is possible that fuels or solvents have been emptied down the drains at the buildings with tile beds and that any contaminants could have seeped out of the tile beds into adjacent waterbodies.
• Historically, generated waste was stored at the exterior of residential homes if not sent to the then active Landfill Site.
• Individual residential buildings were beyond the scope of this Phase I ESA. The above comments are based on general observation or information obtained during interviews.

***APEC 14 – Band Office***
• Fill and stockpile material of unknown quantity and quality west of the on-site building.

***APEC 15 – Septic Tile Bed Storage***
• Importation of fill material and stockpiles of unknown quality from septic tile beds throughout the community.
• Soil samples collected from this location at depths of 0-0.2 m and 0.2-0.5 m were reported to meet the applicable criteria for BTEX, PHCs, PAHs, metals, inorganics, and PCBs.

***APEC 16 – Nishin Lodge***
• Presence of a furnace oil AST of unknown volume and fill pipes at the northeastern portion of the on-site building. The AST was not observed during the site inspection.
• Fill and stockpile material of unknown quantity and quality at the northeastern exterior of the onsite building.

***APEC 17 – Entire Parcel***

• Pole-mounted transformers throughout the community; the current and historical PCB
concentration in the transformers could not be confirmed.

***APEC 18 – Auxiliary Office***

• ~1,000 L AST, likely containing heating oil, at the exterior of the building; no secondary containment was observed.

***APEC 19 – Warehouse Building***

• Supplies for the Public Works Garage are stored inside the Warehouse Building, including several bags of urea, tires, wooden pallets, air compressors, jerry cans of various sizes and unknown contents, cans of paint, and lumber.

• Staining was observed on the concrete floor.

• This APEC is considered to be low risk as no cracks were observed in the vicinity of the stains.