A serene landscape photograph of a sunset over a calm body of water. The sun is a bright, glowing orb on the horizon, casting a long, horizontal reflection across the water's surface. The sky is a gradient of warm colors, from deep orange near the horizon to a lighter, hazy yellow at the top. The shoreline in the background is lined with a dense forest of evergreen and deciduous trees, their silhouettes reflected in the water. In the foreground, the water's edge is marked by a collection of dark, jagged rocks of various sizes. The overall mood is peaceful and natural.

Environmental Management Plan

APRIL 27, 2022

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Section 1 - Overview

The EMP identifies NCN environmental priorities to develop and implement environmental strategies that include relevant legislation, development of NCN environmental laws, best management practices, guidelines, and protocols.

NCN's goals through the EMP will be to:

- Accommodate NCN population growth (e.g., housing, education, and infrastructure)
- Exercise NCN jurisdiction over its lands, environment, and resources
- Protect the health of NCN citizens and support an environment to thrive in
- Uphold and promote our culture and traditions, and our connection to the land
- Anticipate and adapt to the changing environment (e.g., climate change).

The intent of this EMP is to provide a roadmap for NCN to develop and implement environmental protection practices that are rooted in the foundational principles of the history, culture, and language of Nisichawayasi Nehethowuk.

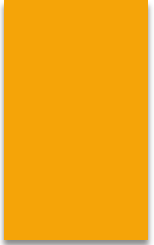
Section 2 – Climate Change

- ▶ The EMP outlines how climate change is linked to all the environmental concerns and threats identified as priorities by NCN citizens.
- ▶ Climate change will be a consideration in the development all proposed NCN management strategies and standards.

Section 3 – Training and Knowledge Enhancement

- ▶ It will be the responsibility of the current government, key staff, and the LER Department to ensure the environmental strategies are rolled out in accordance with existing and new regulations, NCN law development, and community capacity and awareness.
- ▶ NCN Governance Administration in collaboration with NCN LER shall formulate a 5 Year Training Plan to ensure that capacity development and training of local expertise is prioritized each year. Furthermore, the Environmental Coordinator shall take steps to plan and implement community-based initiatives to:
 - 1) Raise community awareness through workshops and guest speakers.
 - 2) Development of NCN environmental education courses and information (guidelines, standards, regulations)
 - 3) Deliver community-based training and education via workshops on all environmental priority areas.

Section 4 – NCN Environmental Priorities and Responsibilities



The intent of the EMP is to identify current management practices and identify new strategies, standards, and regulations that will ensure NCN lands are managed in an environmentally and culturally sustainable way to benefit our future generations.

The following are the key priority areas along with the recommended new management strategies to be implemented in addition to existing management practices over the next 5 years:

Environmental Priorities

- ▶ Each environmental priority in the EMP has been assessed and the management plan includes:
 1. Summary of the Issue
 2. Potential Threats/Concerns
 3. Current Resources including NCN's current practice and assigned leads
 4. Relevant legislation that may assist in the development of new laws, regulations, and standards
 5. New management strategies and standards

1. Legacy Issues

Canada remains responsible for the remediation of all environmental contamination that was existing prior to the adoption of the NCN Land Code. This responsibility will be for as long as it takes for Canada to remediate all of these legacy issues.

Potential Threats/Concern

The Phase 1 ESA identifies all the environmental concerns related to:

- ▶ Health and Safety
- ▶ Areas of Potential Environmental Concern
- ▶ Additional concerns that may impede management, prevention, monitoring, and development.

Current Resources

If there is an existing environmental problem on a NCN lands that had been identified prior to the ratification of the Land Code, Canada is responsible for the problem and liable for any of its actions or omissions that may have caused the problem. A list of these concerns are provided in Appendix A.

New Management Strategies and Standards

Development of Environmental Legacy Issues Regulation

- ▶ Under its future Environmental Protection Law, NCN will incorporate regulations for the outstanding legacy issues.
- ▶ NCN would trigger the steps of the Environmental Legacy Issues Regulation if the development or management of NCN lands and environmental are hindered by the outstanding legacy issues.
- ▶ If a legacy issue interferes with progress, NCN would enact its law and regulation to ensure Canada is responsive in the remediation of the legacy issue with prompt action and resources.

2. Safe Drinking Water

New water treatment facility designed to support population growth and community expansion for the next 30-40 years.

Potential Threats/Concerns

The most critical threat and concern is the potential for contamination to the water system. We must manage the following concerns/emergencies properly to avoid contamination and drinking water advisories:

- Water line breaks
- Equipment failure
- Poor Filtration
- Contamination to the source of treatment – flood waters, chemicals, germs, or another source
- Unexpected delays in treatment of the water

New Strategies and Standards

(1) Water System Design

- ▶ NCN will develop, adopt, and enforce drinking water systems that are located, designed, constructed, modified, maintained, and operated following applicable standards so that the drinking water they produce is safe, clean, and reliable. These requirements are typically detailed in permits.

(2) Water Treatment Plant

- ▶ NCN Water Treatment Operators will be certified at a level equal to or greater than that class of system requirements.

(3) Distribution of Water and Collection of Wastewater by Truck

- ▶ NCN will develop, adopt, and enforce standards for the distribution of water and collection of wastewater by truck.
- ▶ Bulk water delivery containers and cisterns will be designed and constructed to applicable standards.
- ▶ Collection of wastewaters by truck by licensed professionals. Hauled sewage will be discharged in keeping with applicable standards.

3. Rivers and Lakes

- ▶ Primary source of NCN water and food. Need to assess sediment, water quality, erosion, nutrients, and sub-surface drain; and determine the impact of land management practices on water quality.

Potential Threats/Concerns

Adverse effects from Churchill River Diversion

Displacement and drowning of wildlife due to unnatural erosion of shorelines

Decrease in oxygen production, increase in carbon dioxide in the atmosphere

Dying/Disappearing of islands due to exceedingly high erosion

Endangerment of Sturgeon due to river changes

Fluctuation of water levels, erosion, sediment load, excess turbidity

Septic Tanks

Groundwater

Unpermitted dumping

Landfill

Irrigation

Fuel Storage Tanks

Wastewater Treatment Plant

Residential & Commercial Dev

Surface Impoundment

Animal feedlots (geese, ducks)

New Strategies and Standards

1.Environmental Law Development

- ▶ NCN will enact an Environmental Law that includes source water protection.
- ▶ Including production, treatment, and storage of water
- ▶ Guide the development and adoption of NCN Water Quality Monitoring Standards.
- ▶ The enforcement authority may be delegated to other government administrative bodies such as a board or committee, with a risk management officer .

2. Water Protection Body

- ▶ NCN may establish a Source Water Protection Council/Steering Committee to identify threats and issues and develop legal measures that are acceptable to the community.

3. Development of NCN Water Source Protection Plan

- ▶ NCN will develop a strategic document for a Water Source Protection Plan

4. Fisheries Resource Management

- ▶ NCN aims to maintain or enhance fish populations and habitats, monitor harvest and habitat alterations, and allocate resources for the best return.

- ▶ **Potential Threats/Concerns**

Human activities such as land development and hydro dam construction are the main contributors to fisheries' habitat loss and/or degradation. Inconsistent water levels can create harmful alteration, disruption, or destruction of fish habitat.

New Strategies and Standards

1. NCN Land Guardians

Local land guardians and community groups will encourage fisheries conservation and education in the community. NCN will continue to monitor and assess all aspects of the terrestrial and aquatic habitat in its Resource Management Area:

- ▶ Commercial fishing – Spring, Fall, Winter commercial fishing seasons. containment of hazardous material spillage, emergency plan
- ▶ Recreational Angling –appropriate signs for hazardous angling areas, litter disposal containers.
- ▶ Domestic Fishing –develop a licencing program that will authorize licensees to harvest fish for food, monitored by land guardians
- ▶ Sedimentation/Erosion –continued partnership with the MB Hydro bank stabilization program
- ▶ Pollution – NCN will Implement hazardous materials protocol for spill containment;
- ▶ Mercury – NCN will continue its partnership with the Provincial Mercury monitoring program.
- ▶ Lake Debris – NCN will continue its partnership with the MB Hydro Debris management program. NCN land guardians can assist in mapping and recording daily routes for debris collection
- ▶ Aquatic Invasive Species (AIS) – Main issue of AIS is Freshwater Mussel movement.

5. Wildlife and Vegetation

- ▶ NCN is committed to managing wildlife populations and vegetative habitats in a sustainable manner that protects the well-being and safety of community members while protecting the sustainability of the ecosystem.
- ▶ Wildlife Safety – black bear and wolf populations can be problematic. They are also affected by the human activities and come into the community to look for food.
- ▶ As the number of species in an ecosystem begins to decline, the system becomes less and less able to respond to and recover from disturbances caused by human activities.
- ▶ Illegal hunting and trapping also become a threat due to overharvesting and depletion of wildlife populations.

New Strategies and Standards

1. Development of Wildlife Management Strategy

- ▶ Identify or develop and maintain wildlife, migration corridors
- ▶ Incorporate traditional knowledge related to species and their habitats; and any additional environmentally valuable resources, such as existing or potential wildlife corridors.
- ▶ Identify significant wildlife habitat areas and refuges
- ▶ Work with local RMA, First Nations Safety Officer and NCN Land Guardians on safety measures regarding problem wildlife
- ▶ Encourage community engagement and stewardship groups to provide input to development proposals for Wildlife and Vegetation Resource Use

2. Development of a Wildlife Management Law

- ▶ Establish regulations and standards for:
 - ▶ Mitigation of wildlife exposure to the community residents.
 - ▶ Aquatic invasive plant species and animal species regulations
 - ▶ Invasive terrestrial plant and animal species.
 - ▶ Safe hunting and trapping.

6. Land Development

Pre-Development

The LER is responsible for coordinating and processing all pre-application and development applications. The LER application process shall focus on providing safe, efficient, visually appealing, and environmentally friendly developments while effectively managing the development process through land-use planning.

Potential Threats/Concerns

- ▶ Land development puts greater demands on NCN's infrastructure systems and local resources. Pre-development environmental effects may include potential impacts by:
- ▶ Pollution
- ▶ Increased water consumption
- ▶ Increased wastewater production
- ▶ Social impacts
- ▶ Cultural impacts
- ▶ Impacts on well-being and way of life of NCN citizens

New Strategies and Standards

- ▶ Integrate Phase I and II Environmental Site Assessments

- ▶ Establishment of NCN Impact Assessment Advisory Body/Steering Committee

- ▶ NCN will develop impact assessment tools in accordance with NCN Standards; Incorporate development approval process to regulate the construction, alteration, repair, moving or demolition of buildings and structures.

- ▶ Development and implementation of NCN Impact Assessment Tool

- ▶ **Development of NCN Impact Assessment Law**

- ▶ Development of an NCN law that sets the standards and guidelines for:

- ▶ Social environmental impacts

- ▶ Health impacts

- ▶ Cultural impacts

- ▶ Economic impacts

- ▶ Environmental impacts

- ▶ Example: The law may regulate, prohibit, and impose requirements in relation to:

- ▶ Trees

- ▶ Protection of the natural environment

- ▶ The removal of soil and the deposit of soil or other material

- ▶ **Development and Implementation of NCN Impact Assessment Training**

- ▶ Incorporate the Land Guardians and FNSOs mandates to include the implementation of these standards and laws. Expand the scope of service and delegated authority.

7.Land Development - Development and Construction

NCN will ensure that all development and construction activities follow all environmental legislation and regulations

Potential Threats/Concerns

With any change in land use, such as land development, there may be potential environmental effects including but not limited to:

- ▶ Water quality
- ▶ Net greenhouse gas emissions
- ▶ Air quality
- ▶ Biodiversity
- ▶ Waste generation/Litter
- ▶ Contamination from hazardous materials and hazardous goods
- ▶ Pollution from construction sites
- ▶ Disruption to social well-being (violence, addictions)

New Strategies and Standards

1. Development and Implementation of NCN Development Standards

- ▶ NCN will ensure any construction activity follows applicable environmental standards to have minimal impact. Development of standards and implementation of best practices that include:
 - ▶ developmental licenses, permits, and approvals; and detailed in construction permits.
 - ▶ Development checklists for environment, health, and safety
 - ▶ Performance bond – hold back within; confirm the contract if the regulations are not met.
 - ▶ Construction Environmental Impact Assessment has been completed before any major development.

8.Land Development

Post-Development

- ▶ NCN will ensure routine inspections are completed for every construction project.

Potential Threats/Concerns

- ▶ Threats and concerns in the post-development stage may include:
- ▶ Deterioration and irreversible damage to the natural and societal systems
- ▶ Transport of hazardous materials or goods
- ▶ Jobsite hazards
- ▶ Increased consumption of water and energy resulting in increased demands on local infrastructure systems.

New Strategies and Standards

1. Development of Post-Development Site Inspection Standards

- ▶ NCN will incorporate building and site inspection plans; proceed with the issuance of fines for non-compliance; and/or cancellation of permits

9.Environmental Emergency Issues

- ▶ Any sudden-onset disaster or accident resulting from natural, technological, or human-induced factors, or a combination of these
- ▶ Severe environmental damage as well as harm to human health and/or livelihoods.
- ▶ These can also result from floods, fires, extreme hot/cold weather and severe rain or ice storms, land contamination, water contamination, etc..

New Strategies and Standards

1. Mandated Emergency Management/Response Team

- ▶ Identifying and becoming more aware of hazards in their community and adopting appropriate emergency management programs.

2. Enhance the NCN Emergency Response Plan to include:

- a) Risk Management - effective prevention, preparedness, response, and recovery.
- b) Environmental Emergencies Education - increase NCN community knowledge and awareness of environmental emergencies and empower your community members to identify and report potential environmental emergencies and/or wrongdoing/carelessness.

10. Land Contamination and Waste Management Plan

- ▶ NCN is committed to sustainably managing the solid waste produced. This will include waste diversion strategies.

Potential Threats/Concerns

- ▶ A major concern on any waste management site is leachate contamination. Leachate is generated when water comes in contact with household waste or compostable material, and chemicals are leached into the water
- ▶ Any spills of hazardous materials can also cause significant contamination to soil, groundwater, or surface water.

New Strategies and Standards

1. Household Hazardous Waste Management Program

- ▶ Development of community standards for proper disposal means, community collection and drop-off with the establishment of an NCN hazardous waste facility and hazardous material safety training.

2. New Landfill and decommission of the existing landfill site

- ▶ Constructing a new waste disposal site that would be considered a Class 2 facility, at a new location to allow for the operation of the landfill site in an environmentally responsible manner.

3. Recycling Program/Depot/Waste Diversion

- ▶ NCN will develop and implement regulations for the removal/depot/transfer for large appliances, furniture.
- ▶ NCN will implement local diversion strategies such as locked garbage bins, fins, and animal control. NCN LER will develop a long-term strategy that includes recycling (tires, batteries, used oil and fluids, packaging materials, building materials), composting, and incineration.

11. Handling and Transport of Hazardous Materials and Goods

- ▶ Careless handling of hazardous materials is the main cause of an environmental emergency. Hazardous materials refer to solid, liquid (e.g., fuel), chemicals, and gas wastes that can cause harm to people, other living things, property, or the general health of the environment.

Potential Threats/Concerns

- ▶ Household hazardous materials can include waste lubricants, paints, chemicals, batteries, and light bulbs.
- ▶ Commercial and industrial materials can include explosives, gases, flammable liquids, and flammable solids or substances.
- ▶ The storage and handling of bulk chemicals and hazardous waste can pose a serious threat to the personnel or the environment if handled improperly.

New Strategies and Standards

1. Report Card of Existing Health and Safety Standards and Practices

- ▶ NCN to evaluate the current health and safety standards and practices that are either in place or absent. In formulating a “report card”, NCN can determine specific safety improvement targets.

2. Development of Health and Safety Standards

- ▶ NCN will define and develop its own health and safety standards, including but not limited to:
 - ▶ Fuel Transport Standards
 - ▶ Leak and Spill Prevention
 - ▶ Households (hazardous substances)

12. Air Quality

- ▶ NCN is committed to maintaining air quality standards to protect human health and the environment.

Potential Threats/Concerns

Air quality may be impacted by activities such as:

- Uncontrolled fires
- Emissions from industry and wood burning
- Construction – dust, noise, air quality
- Particulate matter (burning of fuels, dust, diesel emissions, and secondary particle formation from gases and vapours)

New Strategies and Standards

1. Land Development Standards

- ▶ NCN will ensure that the standards developed under the Land Development sections will include buffer zones, checklist protocols, monitoring, strategies afforestation, and permits

2. Law Development

- ▶ NCN will develop and implement fire safety regulations and develop specific laws for environmental protection and compliance, such as NCN Burning Law and NCN Air Quality Law.

13. Drainage

- ▶ Drainage plans help eliminate or reduce flood risks for property owners and businesses and maintain safe emergency evacuation routes.

Potential Threats/Concerns

- ▶ Poor drainage can cause severe erosion, flooding, and other property damage.
- ▶ If not drained properly, water can seep into the core foundation of buildings or structures, causing damage and even landslides. This diminishes the quality and lifespan of homes, businesses, infrastructure, and landscaping.

New Strategies and Standards

1. Development of Drainage Plan

- ▶ Development of principal drainage plan that ensures safe pathways and buffer zones for floodwaters

2. Commercial and Residential Lot Grading Standards

- ▶ NCN LER, Public Works, and Housing Authority to develop, adopt, and enforce lot grading standards and a Stormwater Management Policy for businesses and the following standards and regulations for residential developments:
 - ▶ Rear-to-front drainage
 - ▶ Split drainage
 - ▶ Swales/ditching

3. Responsible Property Owner/Occupant Regulations

- ▶ All property owners/occupants comply with preventative measures such as:
 - ▶ Proper slope away from foundations, unobstructed and free-draining swales.
 - ▶ Window wells installed and maintained where required, regular cleaning of eaves troughs and downspouts
 - ▶ Proper sump pump discharge
 - ▶ Removal of snow away from the window wells, downspouts, and house foundation

14. Wastewater Management

- ▶ NCN has dual wastewater system with approximately 50% of the community on a manual wastewater collection system where household holding tanks are pumped out and hauled to the aerated lagoon

Potential Threats/Concerns

- ▶ Public Works and Housing respond to regular calls for water breaks, sewer backups, and overflow:
- ▶ Clogging
- ▶ Sludge production
- ▶ Power Outage
- ▶ Contamination of water sources
- ▶ Contamination of environment
- ▶ Destruction of natural habitats
- ▶ Pipe breaks

New Strategies and Standards

1. **Develop and implement NCN Wastewater Systems Regulations**

- ▶ Formulate a decision-making framework for evaluating and responding to a wastewater contamination threat. NCN will ensure Compliance Reviews for:
 - ▶ Standby power
 - ▶ Pump function
 - ▶ Mandatory inspection and maintenance – i.e. inspection of manholes - regular maintenance
 - ▶ Clogging concerns

2. **Development of an Asset Management Plan**

All in co-ordination with Community Master Plan and Land Use Plan to determine:

- ▶ Use projections
- ▶ Equipment upgrades
- ▶ Cost allocations
- ▶ Capital project prioritization

15. Cultural and Archeological Sites

- ▶ NCN is committed to the conservation and protection of our heritage resources, ancestral remains, and sacred and spiritual sites

Potential Threats/Concerns

- ▶ Language, culture, and history are the link to identity and belonging. Failure to protect the history will erode the knowledge that future generations will rely upon to return to a self-governing Nation.
- ▶ Sustainability, social wellbeing, health, education, and spiritual wellbeing may be impacted if the customary laws, family histories, and connections to the community are not protected.

New Strategies and Standards

1. Development of NCN Cultural and Heritage Conservation Law

NCN will develop a law that protect culture and heritage including a Nehethowewin Protection Law. This will include the implementation of policies and management practices that will adequately protect our culture and heritage resources, including:

- ▶ Sacred and spiritual sites
- ▶ Artifacts
- ▶ Remains of ancestors and other archaeological resources

2. Establish an NCN Culture and Heritage Protection Network/Steering Committee

- ▶ NCN will appoint a Steering Committee to provide oversight of the development process, engage community members and produce a Communication Strategy to:
 - a. Obtain ongoing input from NCN citizens
 - b. Educated youth and non-First Nation groups
 - c. Inform policy development and enhancements

Implementation

- ▶ Training and knowledge enhancement in the first year will be critically important.
- ▶ Through their budgeting process, NCN must allocate financial resources to support proper implementation and execution of the EMP.
- ▶ The LER Department can ensure all the stakeholders in each priority area are involved over the long term.
- ▶ The implementation and monitoring of this EMP will require an investment in existing and new Human Resources to support implementation.