

Long Lake #58 First Nation

Environmental Management Plan

Final July 2019

Prepared with support from DST Consulting Engineers, A Division of Englobe

ABBREVIATIONS

AST	Above ground storage tank	
ATR	Addition to Reserve	
CCME	Canadian Council of Ministers of the Environment	
CEAA	Canadian Environmental Assessment Act	
СЕРА	Canadian Environmental Protection Act	
CIRNAC	Crown-Indigenous Relations and Northern Affairs Canada	
DST	DST Consulting Engineers Inc.	
EA	Environmental Assessment	
ECCC	Environment and Climate Change Canada	
EMA	Emergency Management Act, 2007	
EMP	Environmental Management Plan	
ESA	Environmental Site Assessment	
FCSAP	Federal Contaminated Sites Action Plan	
FNLMA	First Nations Land Management Act	
GCDWQ	Guidelines for Canadian Drinking Water Quality	
INAC	Indigenous and Northern Affairs Canada (now ISC and CIRNAC)	
ISC	Indigenous Services Canada	
ISWM	Integrated Solid Waste Management	
LABRC	Lands Advisory Board Resource Centre	
LL58FN	Long Lake #58 First Nation	
MTSA	Municipal Type Services Agreement	
ON	Ontario	
SARA	Species at Risk Act	
SPP	Source Protection Plans	
USEPA	United States Environmental Protection Agency	
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1 ENVIRONMENTAL MANAGEMENT PLAN AND INTRODUCTION

1.1 Introduction

After becoming a signatory to the *Framework Agreement on First Nation Land Management* (Framework Agreement), Long Lake #58 First Nation (LL58FN) ratified its Land Code in November 2016. This action allows the community to opt out of the land management portions of the Indian Act and returns the responsibility of land management and governance to the First Nation. While an Environmental Management Plan (EMP) is not a requirement under the *Framework Agreement*, they have proven to be useful tools for other First Nations as they develop regimes to meet their land stewardship goals and obligations. This EMP provides a comprehensive outline to assist LL58FN in making environmental management decisions in line with the community's environmental goals and visions, as outlined in Section 2.0.

1.2 Preparation of the Environmental Management Plan

A primary goal of the EMP is to guide the environmental management actions of LL58FN as the community implements its Land Code, manages its existing reserve lands and prepares to take possession of new reserve lands it acquires, and develops additional infrastructure. The EMP was prepared by LL58FN, with support from DST Consulting Engineers, a Division of Englobe (DST), and is intended to guide LL58FN in protecting, preserving, and improving the environment for future generations, and aiding LL58FN in becoming more self-reliant in meeting the community's environmental stewardship goals, as outlined in Section 2.0.

1.3 MEETINGS AND COMMUNITY CONSULTATION

Throughout the development of the EMP, frequent communication between LL58FN members and the community was a crucial component. A comprehensive list of recorded community meetings and consultation efforts has been summarized in Table 1.

Table 1. Summary of meetings and consultation activities

Date	Туре	Location	Attendees	Purpose of Meeting
31/01/2019	Kickoff	DST Thunder	David Harper – LABRC	Collaborative EMP Workshop:
	Meeting	Bay Office	Jennifer Predie – LABRC	Guide to Preparing
			Conor Lee Kam – LL58FN	Environmental Management
			Audrey Mandula – BNA	Plans for Operational First
			Brian Petrie – BNA	Nations.
			Bob Wright – DST	
			Ed Collins – DST	
			Sarah Moreth – DST	
			Sam Voore – DST	
			David Vardy – DST	
			Vanessa Van Schaik – DST	
28/02/2019	Community	Long Lake #58	LL#58FN Membership	Inform community regarding
	Meeting	First Nation	Bob Wright – DST	EMP process; collect input on
			Sarah Moreth – DST	environmental issues

23/05/2019	Community	Long Lake #58	Conor Lee Kam – LL58FN	Review progress with Lands
	Meeting	First Nation	LL58FN Lands Committee	Committee, gather feedback
			Bob Wright – DST	and further information,
			Sarah Moreth – DST	present progress to
				community and gather
				feedback

2 ENVIRONMENTAL MANAGEMENT PLAN GOALS, OBJECTIVES AND ISSUES

2.1 GOAL OF ENVIRONMENTAL MANAGEMENT

The purpose of this document is to guide LL58FN towards meeting its responsibility to govern and manage its land under the Framework Agreement. The First Nation aims to ensure that human activities and community development are carried out with minimal negative impacts to the environment, building a prosperous and sustainable community that will support future generations.

2.2 OBJECTIVES OF THE EMP

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

2.3 LL58FN ENVIRONMENTAL ISSUES

LL58FN has identified a variety of issues concerning the environment and natural resources associated with LL58FN lands. A comprehensive list of concerns was developed throughout the meetings, discussions and community surveys between LL58FN community and DST.

Community Issue

Potential Concerns

Solid Waste Management

- Unauthorized disposal, burning, or storage of waste
- Lack of recycling or waste diversion programs
- Local landfill nearing capacity
- No separate disposal procedures for hazardous wastes, including household, commercial, and industrial hazardous wastes

Wastewater Management

- Potential for the discharge of household sewage, industrial, and commercial wastewater into surface water
- Wastewater system needed for future housing developments
- Lack of design standards for septic systems, monitoring and enforcement

Fuel Storage and Handing: Spill Response

- Potential for fuel spills, either from commercial fuel sales or from rail/highway accidents
- Lack of community knowledge in safe fuel handling practices

Lack of regular inspections

Groundwater & Surface Water Protection

- Potential for sewage or fuel contamination of ground and surface water
- Contaminated fill, wood waste in/near Long Lake
- Lack of water quality monitoring
- Contamination from nearby industry, both on-and-off reserve, including increased turbidity to surface waters caused by forestry or mining activities

Wildlife & Habitat Protection

- No system for incorporating traditional knowledge into wildlife management
- No monitoring of local wildlife populations
- Lack of information about invasive species and species at risk
- Decline of moose and blueberry abundance
- Potential for forestry-related herbicides to impact local species

Cultural Resources

- Traditional knowledge which includes, but is not limited to, traditional stories, ceremonies, dances, crafts, ideologies, hunting and trapping methods, food gathering methods, food preparation and storage, spiritual beliefs, medicines and other knowledge is threatened by modernization
- No formal process for including traditional knowledge in management decisions
- Conflict between traditional practices and laws of the federal and provincial governments

Soil Quality

- No LL58FN policy or law for dealing with contaminated sites on LL58FN lands, including who bears responsibility when contamination occurs
- No LL58FN policies to prevent importation of contaminated fill

Emergency Response Plans

- Existing emergency response plans are outdated
- Currently only one road in or out of the community

Community Expansion and Development

 Development of new roads and subdivisions and increased human activity may threaten sensitive habitat or interfere with migration routes

Limited Environmental Capacity of Staff

- Lack of staff familiarity with environmental legislation
- Lack of staff training opportunities
- Lack of enforcement policies for environmental laws, including applicable federal laws that require First Nation enforcement

Unsustainable Resource Management & Development

- No policies or enforcement mechanisms to ensure resource development on reserve land is performed sustainably
- Limited information on available or existing resources
- Limited participation in regional resource management decisions by provincial or federal governments or businesses

Community Health

- LL58FN lacks policies to protect drinking water quality
- Concerns about water quality in Long Lake
- Lack of information on abundance and potential contamination of traditional foods
- Food security concerns
- Indoor/outdoor air quality

2.4 LL58FN POTENTIAL RESPONSES

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

- Policies
- Guidelines and Best Management Practices
- Education and Outreach
- Monitoring and Reporting
- Laws and regulations
 - Federal: The laws and regulations listed under this heading apply to federal lands, including First Nations.
 - Provincial: The Ontario laws and regulations listed under this heading apply to the lands surrounding LL58FN and are provided for reference purposes. In Section 3.1 of the Framework Agreement, LL58FN agrees to promote consistency in environmental regimes by harmonizing its regimes with those of the province of Ontario
 - LL58FN: For those environmental regimes that require enforcement to ensure compliance, LL58FN will draft environmental protection laws that apply to both members and non-members living and working on LL58FN lands.

Table 2. Options available to address environmental concerns developed through the Matsqui First Nation EMP (Matsqui First Nation Environmental Management Plan, 2012)

	Definition	Benefits	Limitations
Laws and Regulations	Enforceable, designed to achieve uniform compliance	Enforceable and authorized by the Framework Agreement	Inflexible, costly to draft, implement and enforce
Policies	Specific method or course of action to guide government	Flexible, easy to draft, and easily amended	Not legally enforceable and should be consistent with other policies

Guidelines and Best	A set of instructions	Provides clear	Not legally binding, can
Management Practices	offering clear direction	directions for proper	become complex
	to minimize impacts	conduct of tasks	
Education and	Communication of	Can result in positive	Not enforceable,
Outreach	knowledge to improve	change in attitudes and	requires thorough
	awareness of issues	actions, and is	outreach program
	and responses	adaptable	
Monitoring and	Collection and	Provides measurable	Long-term
Reporting	reporting of	data that can be	commitment is
	information on	compared to	needed, results may be
	environmental quality	guidelines, and allows	difficult to interpret
		for comparisons over	
		time	

3 RESPONSES TO ENVIRONMENTAL ISSUES

3.1 SOLID WASTE MANAGEMENT

3.1.1 Key Features

Solid waste from LL58FN is handled by the Public Works department of the band office and is collected twice weekly and taken to the nearby Longlac Landfill operated by the Municipality of Greenstone. There are currently no recycling or other waste diversion programs in place. Community members have identified a lack of public garbage cans around the community, resulting in increased littering. The Longlac Landfill is nearing capacity, and the Municipality of Greenstone is in the process of identifying suitable locations for a new, larger landfill to service the entire municipality. LL58FN does not currently have a solid waste management plan.

3.1.2 Potential environmental threats

Potential environmental threats associated with LL58FN's solid waste management have been identified and summarized below:

- Lack of public garbage cans
- No waste diversion programs in place
- Adverse effects on wildlife that are exposed to solid waste, consume solid waste or inhabit waste storage and disposal area
- Risk of fire caused by poor management of solid waste
- Lack of community knowledge about waste management and hazardous waste, including proper storage and disposal of common items such as batteries, car parts, waste oil, tires, etc.
- Unauthorized dumping, burning, or storage of waste, including animal waste from fishing, hunting, and trapping activities

3.1.3 Management goals & objectives

- Maximize community participation in waste reduction and diversion
- Prevent environmental degradation by ensuring proper management and storage of solid waste
- Ensure that hazardous waste is identified and managed appropriately in line with provincial guidelines
- Protect wildlife by preventing access to solid waste

3.1.4 Management regime

Existing Laws	Federal	
and	• Indian Act (1985)	
Regulations o Indian Reserve Waste Disposal Regulation		
	Canadian Environmental Protection Act (1999)	
	 Export and Import of Hazardous Waste and Hazardous Recyclable 	
	Materials	

• Transportation of Dangerous Goods Act (1992)

Provincial

- Environmental Protection Act (1990)
 - o Part V: Waste Management
 - O. Reg 85/16: Registrations Under Part II.2 of the Act End-of-lifevehicles
 - O. Reg 351/12: Registrations Under Part II.2 of the Act Waste Management Systems
 - o O. Reg 232/98: Landfilling Sites
 - O. Reg. 102/94: Waste Audits and Waste Reduction Work Plans
 - o O. Reg. 101/94: Recycling and Composting of Municipal Waste
 - o R.R.O. 1990, Reg. 347: General Waste Management

Municipal

Municipality of Greenstone By-law 09-48 ("Garbage By-law")

LL58FN Laws, Policies and Actions – Proposed Response

In order to ensure that solid waste generated within the community is disposed of appropriately, LL58FN will enact the following:

- Develop a solid waste management plan (see ISWM guideline below) to determine appropriate waste diversion measures (e.g. recycling, composting)
- Create a law that prohibits dumping or open-burning of waste on the reserve, including appropriate enforcement measures and penalties, and incorporates appropriate disposal of hazardous waste
- Establish a policy addressing the storage and removal of derelict vehicles
- Provide and maintain waste receptacles in public areas
- Continue regular roadside pickup of residential solid waste
- Coordinate household hazardous waste collection with the Municipality of Greenstone
- Establish a "re-use" center or online marketplace to divert usable items from the landfill

Guidelines and Best Management Practices

LL58FN will consider the following guidelines and best management practices when drafting environmental law, enacting waste management policies, and planning educational initiatives.

Integrated Solid Waste Management (ISWM) is a comprehensive program that focuses on waste prevention, followed by waste diversion, and then disposal either by landfilling or by incineration. An ISWM fact sheet created by the United States Environmental Protection Agency is included in Appendix A. The fact sheet outlines the following factors to consider when LL58FN develops its solid waste management plan:

• Institutional – Do existing laws and resources available provide the local government with the tools and authority to implement the ISWM plan?

- **Social** Consider types of waste, traditional methods of waste disposal, public knowledge of waste management and effective public education initiatives.
- **Financial** How will the waste management initiatives be funded?
- **Economic** Evaluate the anticipated costs of waste management activities, their effectiveness, and the potential for job creation.
- **Technical** The location of proposed facilities, the required equipment and training, transportation challenges, etc.
- **Environmental** Ensure that management activities will protect ground water and surface water, particularly when drinking water is at risk.

The Zero Waste Hierarchy presented by the Recycling Council of British Columbia (RCBC) offers a guide to strategies and policies for achieving a Zero Waste system (Appendix A). It expands the traditional 3 R's (Reduce, Reuse, Recycle) to include Re-consider, Recover, and Retain, and encourages everyone from policy-makers to individuals to move from a linear use of resources to a closed-loop system, in which resources are recycled back into the production of new products instead of being discarded. This results in both less waste being discarded, and less raw materials used for production.

Education

Community involvement in waste management initiatives requires members to understand what is required of them and why their participation is essential. To ensure strong participation from the community, LL58FN will enact the following educational measures:

- 1) To increase participation in waste diversion and appropriate waste storage/disposal:
- Distribute the waste pick-up schedule to all LL58FN households, and make it available online
- Provide information on how to recycle (if this becomes available), compost food and yard waste, and otherwise reduce waste to be landfilled. This information may be communicated by written material, community workshops, clothing swaps, or other events
- Provide information on what constitutes household hazardous waste and how to store, use, and dispose of it appropriately. This should include information on the negative effects of improper disposal
- 2) To protect the environment from inappropriately disposed-of waste
- Create anti-dumping signage (e.g. "Help us protect our lands; please don't litter or dump waste")
- Organize periodic community clean-ups
- Arrange for scheduled pick-up of larger items (e.g. couches, mattresses) to prevent them from being dumped inappropriately
- Encourage community members to dispose of fish and other animal waste (i.e. skin, bones, etc.) in a traditional manner

Monitoring & Reporting

Ongoing monitoring to track the effectiveness of solid waste management initiatives will inform future management decisions. Possible monitoring activities include the following actions:

- Designate routine surveillance of potential/known dumping areas and inspection of authorized waste deposit sites (e.g. public trash cans, dumpsters, etc.)
- Provide a telephone number to call to report illegal dumping
- Conduct periodic waste audits to assess whether the amount and composition of residential waste is affected by diversion initiatives

3.2 WASTEWATER MANAGEMENT

3.2.1 Key Features

Wastewater from the community is treated by the Town of Longlac's sewage treatment system, which was retrofitted in 2009 and is in good condition. While most of the planned housing developments will be connected to this system, some new structures may require septic systems.

3.2.2 Potential environmental threats

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

- Improperly designed septic systems are a potential threat to the environment
- Potential discharge of household sewage, industrial, and commercial wastewater into surface and ground water
- Potential damage to aquatic ecosystems due to wastewater contamination
- Lack of community knowledge regarding wastewater treatment (i.e. what not to put down the drain)

3.2.3 Management goals & objectives

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

3.2.4 Management regime

Existing Laws & Regulations

Federal

- Canadian Environmental Protection Act (1999)
- Safe Drinking Water for First Nations Act (2013)
 - Regulations under this Act are in development through consultation with First Nations. The intent is for these regulations to harmonize First Nations water and wastewater regulations with those of the provinces and territories.

Provincial

• Environmental Protection Act (1990)

- o R.R.O. 1990, Reg. 358: Sewage systems
- Ontario Building Code (2012)
 - Section VIII
- Clean Water Act (2006)

LL58FN Laws, Policies and Actions – Proposed Response

LL58FN Policy

 LL58FN will develop a policy making it illegal to dump materials into waterbodies and enforce fines for infractions

The *Protocol for Decentralized Water and Wastewater Systems in First Nations Communities* (April 2010) provides requirements for ISC-funded, Band-managed septic systems. The protocol requires that decentralized wastewater systems conform to CSA B65 – National Installation Standard for Decentralized Wastewater Systems.

https://www.aadnc-aandc.gc.ca/DAM/DAM-INTER-HQ/STAGING/textetext/dsp 1100100034992 eng.pdf

All ISC-funded septic systems must be inspected during construction by a qualified inspector or an appropriate inspection agency. The Environmental Public Health Program provides inspection services to First Nations

LL58FN will assist homeowners in arranging to have septic tanks inspected and will ensure that all Band-owned septic tanks are inspected during construction.

LL58FN will post "No Dumping" signs around waterbodies and highlight fines associated with infractions.

Education

LL58FN will provide resources in the form of a brochure or information sheet, available online and in the band office, detailing proper septic system maintenance. The Environmental Public Health Program provides educational resources on septic system maintenance and risk reduction related to sewage discharge.

LL58FN will provide resources to the community in the form of a brochure or information sheet of what is appropriate and not appropriate to dispose of down the drain.

Monitoring & Reporting

The Municipality of Greenstone is required under the Ontario Safe Drinking Water Act to produce an annual report on its Drinking Water Systems and to make this report available to the public. The Longlac Drinking Water System annual reports can be found at the following address:

http://www.greenstone.ca/content/drinking-water-quality-reports

LL58FN will monitor waterbodies where illegal dumping may occur and enforce fines for violations.

3.3 FUEL STORAGE AND HANDLING

3.3.1 Key Features

As of May 2019, there is one commercial fuel sales operation located on the reserve, just off Trans Canada Hwy 11. Discussions are underway with Greenstone Gold Mine to construct a mine-specific fueling facility.

In addition to the above, other sources of petroleum products on the reserve include Above Ground Storage Tanks (ASTs) for heating appliances and fuel for recreational vehicles stored in jerry cans.

3.3.2 Potential environmental threats

Potential environmental threats associated with fuel storage and handling have been identified and summarized below:

- Fuel spills contaminating soil and groundwater
- Lack of staff training at fuel facilities, lack of spill response training
- Poorly maintained facilities and tanks
- Regulatory gap for ASTs used for heating or emergency power on federal land
- Insufficient standard operating procedures/best practices
- Improper/unsafe location of tanks and fuel facilities

3.3.3 Management goals & objectives

Present

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

Future

- Fuel spill response plans
- Maintain a record of potentially contaminating activities
- Put safe work procedures into practice
- Abide by all requirements for location and installation of future fuel facilities and ASTs

3.3.4 Management regime

Existing Laws &	Federal	
Regulations	Canadian Environmental Protection Act (1999)	

- Storage Tank System for Petroleum Products and Allied Petroleum Products Regulations (2008)
- Transportation of Dangerous Goods Act (1992)
 - Transportation of Dangerous Goods Regulations

Provincial

- Technical Standards and Safety Act (2000)
 - O. Reg. 211/01: Propane Storage and Handling
 - o O. Reg. 212/02: Gaseous Fuels
 - o O. Reg. 213/01: Fuel Oil
 - O. Reg. 217/01: Liquid Fuels

LL58FN Laws, Policies and Actions – Proposed Response

LL58FN will comply with all relevant federal legislation governing the use and storage of petroleum products. In regards to the following storage tank systems, which do not fall under federal regulations, LL58FN will comply with the applicable provincial standards to ensure adequate environmental protection.

- Storage containers with a capacity of less than 230 litres
- Indoor storage tanks where the building supplies the required level of secondary containment
- Pressurized tanks (e.g. propane)
- ASTs with a capacity of 2500 litres or less that are used for heating or for emergency power generations
- Storage tanks systems regulated by the National Energy Board of the Canada Oil and Gas Operations Act

LL58FN will require that all industrial and commercial operations on the reserve whose staff are expected to handle fuel employ Standard Operating Procedures for fuel handling, including appropriate personal protective equipment, spill prevention measures, and spill response measures. These operations will also be required to provide a spill kit appropriate to the volume and type of fuel typically handled or stored on site, and all staff should be trained in the use of the spill kit.

Guidelines and Best Management Practices

Storage Tanks Systems for Petroleum Products and Allied Petroleum Products Regulations, Environment Canada (SOR/2008-197) applies to all storage tank systems located on First Nations Land and should be consulted.

The Canadian Council of Ministers of the Environment (CCME) has created a document entitled "Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum

	Products" for use by owners of storage tanks, industry members, and government entities with authority to regulate petroleum storage tanks. The code provides a set of technical requirements and may be adopted by any authority having jurisdiction. LL58FN will follow the recommendations outlined in the CCME code to govern the use of above-ground storage tanks by individuals and for the purpose of commercial fuel sales. https://www.ccme.ca/files/Resources/csm/pn 1326 e.pdf		
	The Technical Standards and Safety Authority (TSSA) has a Liquid Fuels Handling Code (2017) that should be consulted for Best Management Practices for handling requirements, reporting, record keeping, acceptable tank types etc. for a variety of liquid fuels associate with motive fuel applications.		
Education	The use of safe fuel handling and storage practices by individuals as well as owners/employees of commercial fuel facilities are important in preventing spills. Band employees who are required to handle petroleum products as part of their duties will be trained in safe handling procedures and spill response measures as outlined in the guidelines above.		
	LL58FN will provide a pamphlet or handout, available online or in the band office, describing the types of approved containers for storing petroleum for personal use and outlining safe handling practices, with special emphasis on handling fuel on or near bodies of water.		
Monitoring & Reporting	Individuals who handle petroleum products, particularly in remote or ecologically sensitive areas, should be familiar with when and who to call in case of a spill. LL58FN will establish a phone number and reporting system in case of a spill. In Ontario, either of the following two numbers may be called in case of a leak or spill.		
	613 239-6065	1-800-268-6060	
	Environment Canada Environmental Emergencies	Ministry of the Environment Spills Action Centre	

3.4 GROUNDWATER AND SURFACE WATER PROTECTION

3.4.1 Key Features

The LL58FN reserve encompasses a variety of surface water features, including several creeks, wetlands, and a portion of the Long Lake shoreline. Drinking water is supplied by the town of Longlac and is sourced from Long Lake.

3.4.2 Potential environmental threats

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

- Runoff from the application of pesticides and herbicides, stormwater and highway runoff
- Potential contamination of waterbodies and source water from fuel or other chemical spills
- Leachate and runoff from waste management areas infiltrating groundwater and surface water bodies
- Contamination from nearby industry, including increased turbidity
- Historic use of contaminated fill along the shoreline
- Wood waste present in the lake

3.4.3 Management goals & objectives

- Provide education to the community to prevent household chemicals and waste from entering the lake
- Establish surface water monitoring programs to ensure safe drinking water access for LL58FN community members
- Protect aquatic life and terrestrial wildlife from contamination of waterbodies
- Ensure water is safe for recreational use (including swimming, boating, fishing).

3.4.4 Management regime

Existing Laws & Regulations

Federal

- Canadian Environmental Protection Act (1999)
- Fisheries Act (1985)
- Migratory Birds Convention Act (1994)
- Safe Drinking Water for First Nations Act (2013)
- Species at Risk Act (2002)
 - Critical habitat is any habitat necessary for the survival or recovery of a listed wildlife species, including aquatic species. Thus, contamination or other changes to surface water could be considered destruction of critical habitat under section 58.
- Protocol for Safe Drinking Water in First Nations Communities
 - This protocol applies to drinking water systems that are funded in whole or in part by Indigenous Services Canada (ISC), and that serve five or more households, or are a public facility. While most households will be responsible for installing and maintaining their own well, public facilities including health clinics, band offices, schools, and Elders facilities must comply with the requirements of this protocol.

Provincial

- Clean Water Act (2006)
- Environmental Protection Act (1990)

- Lakes and Rivers Improvement Act (1990)
- Nutrient Management Act (2002)
- Ontario Safe Drinking Water Act (2002)
 - o O. Reg. 169/03: Water Quality Standards
 - O. Reg. 170/03: Drinking Water Systems
- Ontario Water Resources Act (1990)
- Public Lands Act (1990)
- Sustainable Water and Sewage Systems Act (2002)
- Environmental Assessment Act (1990)
- Environmental Bill of Rights (1993)

LL58FN Laws, Policies and Actions – Proposed Response

LL58FN will take the following actions and steps to improve quality to groundwater and surface water systems. This regime will be subjective to funding and available resources. LL58FN will:

- Identify regulations for illegal dumping into surface water bodies
- Develop a Environmental Protection Law that prohibits the release of contaminating substances into the environment and sets the standards (maximum allowable limits) for potentially contaminating substances in the environment. LL58FN will consider adopting either the provincial or federal standards, whichever are stricter or more appropriate for the background conditions of the FN lands and waters.
- Establish a cleanup program to remove debris such as wood waste from affected waterbodies.
- Initiate Environmental Site Assessments (ESAs) for areas of concern where historic contaminated fill is suspected.
- Develop water quality monitoring programs to identify possible impacts of development
- Educate the community on ways to limit contaminated runoff from lawns and driveways
- Ensure that a disposal program is in place for household hazardous wastes, such as paint or used motor oil

Guidelines and Best Management Practices

LL58FN will consider the following guidelines and best management practices when drafting environmental law, enacting groundwater and surface water protection policies, and planning educational initiatives.

Several drinking water programs and best management practices can be found through:

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

The Guidelines for Canadian Drinking Water Quality (GCDWQ) have been developed by Health Canada, various provincial and territorial authorities as well

as Environment Canada. The GCDWQ address contaminants and physical characteristics of water. Guidelines have been developed to aid in providing safe drinking water in areas of federal jurisdiction and how to implement the GCDWQ: https://www.canada.ca/en/health-canada/services/publications/healthy-living/guidance-providing-safe-drinking-water-areas-federal-jurisdiction-version-2.html

The province of Ontario has developed a comprehensive framework to protect drinking water, from source to tap. Many regions and areas utilize this approach through Source Protection Plans (SPP) which encompass guidelines and policies to protect drinking water from source, treatment and distribution, and management and monitoring. The Lakehead Source Water Protection Plan is the closest SPP in proximity to LL58FN lands. The Lakehead SPP contains a series of locally developed policies that protect current and future sources of municipal drinking water. Under the *Ontario Safe Drinking Water Act (2002)*, municipalities shall provide public annual reports for water quality where the most local reports can be found through the Municipality of Greenstone.

http://www.sourceprotection.net/images/Approved%20SPP.pdf http://www.greenstone.ca/content/drinking-water-quality-reports

ISC has developed the "On-Reserve Source Water Protection Guide and Template" to assist First Nations in addressing the issue of drinking water contamination. https://www.aadnc-aandc.gc.ca/eng/1398369474357/1398369572276#chp1

The Canadian Council of Ministers of the Environment (CCME) has developed guidelines to protect drinking water using a multi-barrier approach covering protective measures from source to tap.

https://www.ccme.ca/en/resources/water/from source to tap the multi barri er approach.html

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

http://ceqg-rcqe.ccme.ca/en/index.html#void http://ceqg-rcqe.ccme.ca/download/en/131

The Ontario Ministry of Transportation's 2015 "Environmental Guide for Erosion and Sediment Control During Construction of Highway Projects" provides best management practices for protecting surface water from sediment-laden runoff from construction projects, including situations like snowmelt and significant rainfall events. This document can be found at the following address:

http://www.raqsb.mto.gov.on.ca/techpubs/eps.nsf/0/7ff7c9fa7def430f85257f5b 00510665/\$FILE/MTO%20Erosion%20and%20Sediment%20Control%20Guide%20 2015%20Final%20ACC.pdf A number of best management practices regarding sedimentation and erosion control, as well as storm water runoff can be found through the United States Environmental Protection Agency (USEPA). Runoff and pollution from industry as well as stormwater runoff can contain particulate matter that may adversely affect water quality and clarity by increasing turbidity and compromising physical parameters. Water quality impacts due to sedimentation, erosion and runoff can be managed through implementation of policies and regulations. Information on managing discharges from construction, industrial and municipal sources can be found through the USEPA.

https://www.epa.gov/npdes/npdes-stormwater-program

Education

Community involvement in groundwater and surface water protection initiatives requires members to understand what is required of them and why their participation is essential. To ensure strong participation from the community, LL58FN will enact the following educational measures:

- Erect signage near water bodies and in residential areas reminding members that all runoff from lawns and driveways makes its way into the streams and into Long Lake, including fertilizers and pesticides from lawns and chemicals used to wash cars.
- Increase community capacity and understanding to promote and contribute to safe drinking water practices and watershed protection and management.
 Make information about septic tank maintenance readily available at the band office
- Inform community members about LL58FN's policies regarding groundwater and surface water protection, and advise members on ways they can mitigate personal impact

Monitoring & Reporting

The following monitoring and reporting strategies may be implemented by the LL58FN to support groundwater and surface water resources:

- Identify and document valuable surface water inventory
- Develop baseline monitoring program to record water quality from valuable water resources, pending available funding, or work with a provincial or federal body (e.g. Health Canada) to collect or access this data
- Provide access to annual drinking water quality reports (available from http://www.greenstone.ca/content/drinking-water-quality-reports)
- Provide a telephone number to call to report illegal activities associated with contaminating water sources
- Provide basic "Toolkit" for drinking water issues on-reserve, including information on well types, well maintenance and inspection, bacteriological monitoring, and educational tools such as presentations and sample radio scripts. This can be found at the following address:

https://www.canada.ca/en/indigenous-services-canada/services/first-nations-inuit-health/reports-publications/health-promotion/toolkit-individual-wells-first-nations-health-canada-2010.html

3.5 WILDLIFE AND HABITAT PROTECTION

3.5.1 Key Features

The lands belonging to LL58FN have long been home to a host of boreal species, many of which the community relies on for traditional food and medicines. A variety of ecosystems exist within the current reserve as well as within the Addition to Reserve (ATR), including wetlands, rivers, and spruce, pine, and poplar forests.

3.5.2 Potential environmental threats

Potential environmental threats and concerns within the LL58FN community associated with wildlife and habitat management have been identified and are summarized below:

- No dedicated monitoring of local wildlife populations, particularly species that are of importance to community members, as these may differ from species of interest to provincial or federal bodies
- Lack of information about species at risk and invasive species (e.g. hogweed)
- Potential for future development to harm natural heritage features and negatively impact species and their habitats
- Lack of system for incorporating traditional knowledge into wildlife management
- Declines in moose and blueberry abundances
- Herbicide use in forestry potentially affecting local wildlife and plant species

3.5.3 Management goals

Little information currently exists about the occurrence of valued species, wildlife and critical habitat, and species at risk within the LL58FN reserve and surrounding area. LL58FN will initiate the following studies and action plans in order to achieve their wildlife management goals:

Goals

- Protect wildlife and habitats in and around the community, including wildlife corridors
- Protect local wild food sources and traditional resources, including blueberries, wild game, moose, etc.

Actions

- Create an inventory of traditional and medicinal plants and prepare management strategies for each
- Perform a baseline assessment of species of concern and monitor the population over time
- Develop a strategy for addressing invasive species
- Implement an educational program for the community about hunting and trapping wild game that includes traditional best management practices

3.5.4 Management regime

Existing Laws & Regulations

LL58FN will not be developing their own laws for wildlife and habitat protection, however Federal laws affecting natural heritage features still apply, including:

Federal

- Fisheries Act (1985)
- Species at Risk Act (2002)
- Migratory Bird Convention Act (1994)
- Canadian Environmental Assessment Act (2012)

LL58FN Laws, Policies and Actions – Proposed Response

LL58FN Laws and Policies to be developed and followed include:

- Environmental Assessment Law (to be developed)
- Interim Environmental Assessment Process from the LL58FN Individual Agreement with Canada will be followed until the LL58FN develops its own Environmental Assessment Law

In order to ensure that natural heritage features, including plants, wildlife and habitats, are protected within the reserve and surrounding area, LL58FN will enact the following:

- Initiate a baseline assessment study to characterize and document the following natural heritage features within the reserve and surrounding area:
 - o wildlife and vegetation communities
 - o species at risk and critical habitats
 - o traditional and medicinal plants
 - valued species and critical habitats
 - invasive species
- Initiate an assessment of the use of herbicides on the reserve and surrounding land, and characterize potential impacts with options for mitigation and/or potential alternative measures.
- Develop a management plan to protect the natural heritage features within the reserve, with incorporation of traditional knowledge, and minimize negative impacts associated with future developments and other on and off-site reserve activities.
- Incorporate strategies into management plans to aid declining populations of values species (e.g. moose and blueberries).
- Require appropriate environmental assessments (EAs) be conducted in the planning stages of development projects, in order to guide development plans

and associated mitigation measures to protect natural heritage features, ensuring they are consistent with federal legislation and LL58FN policies (including the Canadian Environmental Assessment Act; CEAA 2012).

• Work with provincial and local governments to develop a management strategy to effectively deal with and prevent the spread of invasive species.

Guidelines and Best Management Practices

Until LL58FN establishes an Environmental Assessment Regime (see section 4), the community will follow the Interim EA process outlined in the LL58FN Individual Agreement with Canada. The EA process will ensure that development will not negatively impact sensitive ecosystems or threatened species.

LL58FN will consider the following guidelines and best management practices when developing management strategies and planning educational initiatives:

Guide to federally listed species at risk with links to descriptions of critical habitats, recovery strategies, management plans and action plans can be found at the following address:

https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry.html

Guide to Aboriginal Affairs and Northern Development Canada's Environmental Review Process. Note that Indigenous and Northern Affairs Canada (INAC) was recently dissolved with the creation of two new federal departments: Indigenous Services Canada and Crown-Indigenous Relations and Northern Affairs Canada.

This guidance document outlines the requirements for an Environmental Review for proposed projects on First Nation reserve land. This guidance document is intended for proponents who are planning projects on First Nation reserve lands subject to the *Canadian Environmental Assessment Act, 2012* (CEAA 2012), see Section 4.0 of this EMP for further details:

https://www.aadnc-aandc.gc.ca/eng/1403215245662/1403215349135

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

http://www.dfo-mpo.gc.ca/pnw-ppe/fpp-ppp/guide-eng.html

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

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

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

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

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

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

https://www.invasivespeciescentre.ca/

Education

Various awareness programs can be initiated by LL58FN to help increase community understanding in protecting natural heritage features, preventing the spread of invasive species, and promoting Traditional Knowledge:

- Promote awareness of Traditional Knowledge, species at risk, and invasive species at community meetings and provide education and training events.
 Implement an educational program for the community about hunting and trapping wild game that includes traditional best practices.
- Develop reference brochures to be distributed to community members that describe wildlife, vegetation, and species at risk present within the reserve and surrounding area, and how to identify and protect them, including activities that may have a direct or indirect negative impact. Include reference material on the LL58FN website and post information boards at community buildings.
- Develop reference brochures to identify and prevent the spread of invasive species and distribute to the community. Post signage in the reserve that identifies areas with invasive species and how to prevent their spread. Include reference material on the LL58FN website and post information boards at community buildings.
- Require mandatory EAs and environmental protection training to companies and organizations directly working with natural heritage features, and ensure they are familiar with applicable legislation and LL58FN policies.
- Support training and involvement of community members to work on the environmental programs, natural heritage assessments, and development of management strategies.

Monitoring & Reporting

The effectiveness of the management plans and strategies should be assessed and reported on a regular basis, with scheduled follow up surveys to guide adaptive management as necessary:

- Species at risk monitoring and reporting
- Valued species monitoring and reporting

Invasive species monitoring and reporting

Mitigation measures implemented as part of the environmental assessment process for land development projects should be monitored and their effectiveness evaluated, with adaptive management as necessary.

3.6 CULTURAL RESOURCES

3.6.1 Key Features

The ancestors of LL58FN have been present on the North Shore of Lake Superior since time immemorial, prospering from the rich natural resources and maintaining a sustainable relationship with the land by following traditional teachings that were passed down through the generations.

The community maintains Pow Wow grounds with adjacent camp sites and is in the process of developing recreational trails nearby. On-reserve schooling is provided from pre-school through Grade 12, and the curriculum is tailored to include traditional knowledge and skills with instruction from community Elders.

3.6.2 Potential environmental threats

- Damage to physical cultural resources from flooding, wildfire, or spills
- Damage to cultural traditions caused by changes in the environment
- Traditional knowledge threatened by colonialism
- No formal process for including traditional knowledge in environmental management decisions
- Conflict between federal/provincial laws and traditional culture

3.6.3 Management goals

- Formalize the involvement of traditional knowledge and culture in decision making processes
- Identify important cultural resources and develop a plan to protect them from potential threats

3.6.4 Management regime

Existing Laws & Regulations

Federal

- Canadian Environmental Assessment Act (2012)
 - In Section 2(1), the potential environmental effects of a project are considered to include any effects on physical and cultural heritage
 - Parts of this act may be used to guide the EA law that LL58FN will develop

Provincial

• Ontario Heritage Act (1990)

LL58FN Laws and Policies to be developed and followed include: LL58FN Laws, **Policies and** Environmental Assessment Law (to be developed) Actions -Interim Environmental Assessment Process from the LL58FN Individual **Proposed** Agreement with Canada will be followed until the LL58FN develops its own Response **Environmental Assessment Law** LL58FN will undertake a study to identify important cultural resources and create a map that identifies sensitive locations. This study may incorporate knowledge previously offered by Elders, historical records including air photos, archaeological assessments, or community meetings. LL58FN will enact a policy that establishes a protective buffer against development around identified cultural sites and incorporate these sites into the Land Use Plan. LL58FN will adopt a formal process for incorporating traditional knowledge into community decision making (i.e. limits on resource harvesting based on traditional knowledge). This could be linked to the development of the LL58FN Environmental Assessment law that incorporates traditional knowledge in the decision making process, and developing a Land Use Plan and associated laws to identify and protect culturally sensitive sites and resources. **Guidelines** An example that may be used to develop a policy for protecting cultural heritage sites is the Forest Management Guide for Cultural Heritage Values provided by the and Best Ontario government. It offers definitions, data sources, and specific guidelines for Management establishing protective reserves around different types of heritage sites. **Practices** https://www.ontario.ca/page/forest-management-cultural-heritage#section-5 Education LL58FN will erect signage, where appropriate, to inform community members and visitors of the historical and contemporary significance of certain heritage sites.

3.7 Soil Quality

3.7.1 Key Features

A Phase I Environmental Site Assessment conducted in 2015 by Dillon Consulting identified the following seven areas of potential concern:

- Former garage/maintenance facility near the present-day school buildings
- Abandoned Roman Catholic Church located on a point on the east side of the reserve
- General Store and Gas Bar
- CN rail line and wooden bridge
- "Rock Cuts"
- Contaminated fill used along the shoreline to prevent soil erosion
- Runoff and spraying associated with Trans-Canada Highway 11

A Phase II ESA will be conducted by DST in July of 2019 that will provide additional information on the presence and extent of contamination for these areas of concern.

3.7.2 Potential environmental threats

Potential issues regarding soil quality include the following:

- No specific policy for dealing with contaminated sites, including who bears responsibility
- No LL58FN policies to prevent importation of contaminated fill
- Potential contamination from spills (i.e. fuel spills, chemical spills, etc.)

3.7.3 Management goals

- Identify and confirm contamination using Environmental Site Assessments
- Establish timelines for remediating contaminated sites
- Ensure that future soil quality impacts are avoided by adopting a law prohibiting the importation of contaminated fill, and adopting a protocol for soil guidelines or standards
- Establish a permitting protocol to ensure that imported soil meets CCME quality standards before being deposited on the reserve lands

3.7.4 Management regime

Existing Laws &	Federal		
Regulations	Canadian Environmental Protection Act (1999)		
	CCME Canadian Soil Quality Guidelines for the Protection of Environment and Human Health		
	http://ceqg-rcqe.ccme.ca/en/index.html#void Provincial		
	Environmental Protection Act (1990)		
	 O. Reg. 153/04: Records of Site Condition 		
LL58FN Laws,	LL58FN Laws and Policies to be developed and followed include:		
Policies and	LL58FN will adopt an environmental protection law that holds the "polluter"		
Actions –	responsible for any action that causes soil on LL58FN lands to be contaminated, including intentional dumping or accidental spills. The law will include fewer		
Proposed			
Response consequences for those who report the contaminating activity immed encourage reporting and allow for faster containment measures.			
	This law will also prohibit the importation of soil or other fill material to the reserve that exceeds applicable standards contained in the Canadian Environmental Quality Guidelines put forth by the CCME, as well as the "Soil, ground water and sediment standards for use under Part XV.1 of the Environmental Protection Act", as specified in the Framework Agreement. This		

	 law may include regulations requiring a permit before fill over a certain volume is deposited within a 12-month period. LL58FN will establish its own registry of contaminated sites to ensure that details of the contaminating activity and any remediation efforts are clear and up to date. LL58FN will enlist a private firm to provide technical support in assessing fill materials and/or in training one or more LL58FN members to take on these duties.
Guidelines and Best Management Practices	The Federal Contaminated Sites Inventory is a resource for identifying all known federal contaminated sites. https://www.tbs-sct.gc.ca/fcsi-rscf/home-accueil-eng.aspx The Federal Contaminated Sites Action Plan (FCSAP) provides funding for the remediation of federal contaminated sites that were contaminated through activities that occurred prior to April 1, 1998. https://www.canada.ca/en/environment-climate-change/services/federal-contaminated-sites/decision-making-framework.html
Education	Laws and policies related to fill materials must be communicated to contractors and community members who are involved with construction or other development activities that require use of fill materials. This can be achieved by including the requirement in all contract documents signed by contractors, and by publishing a notice of the new law in the Band Office and on the community website. LL58FN will establish a contact point (e.g. a phone number or email address) for individuals to report spills, illegal dumping, or other contaminating activities.

3.8 EMERGENCY RESPONSE PLANS

3.8.1 Key Features

In small or remote communities, responding, managing and recovering from various types of emergencies can be challenging due to various circumstances, including but not limited to geographic location, frequency of occurrence, and socio-economic conditions. Canada's emergency management framework defines an emergency as "a present or imminent event that requires prompt coordination of actions concerning persons or property to protect the health, safety or welfare of people, or to limit damage to property or the environment", (An Emergency Management Framework for Canada, 2011). While LL58FN has emergency response plans in place, it was indicated by Lands Committee members that these plans are out of date and that many community members are unaware of them.

3.8.2 Potential environmental threats

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

- Flooding
- Wildfire
- Severe storms
- Fuel/chemical spills

3.8.3 Management goals

- Update environmental emergency response plans by June 30, 2020
- Ensure that emergency response plans are reviewed frequently and updated when necessary, and that the community is educated on their use

3.8.4 Management regime

Existing Laws	Federal
and Regulations	Emergency Management Act (2007)
	 Defines the role of federal government departments in emergency management
	 ISC and Health Canada recognize emergency management on reserves as applicable to their departmental duty
	First Nations Emergency Assistance Agreement
	 The federal government has arranged for the province to provide assistance in emergency preparedness and response to First Nations, in response to requests from ISC or First Nations communities
LL58FN Laws, Policies and Actions – Proposed Response	The following provides suggested policy objectives and framework to address LL58FN's Emergency Management requirements and was developed to dovetail with the requirements of applicable Ontario provincial legislation and regulations, not limited to include the Emergency Management and Civil Protection Act, R.S.O. 1990, c.E.9, and its associated Order in Council, O.C. 1492/2005 dated September 21, 2005.
	Emergency Management must be developed through a risk management approach and include the following five key policy-based objectives:
	Prevention
	Prevention refers to elements and actions in the Emergency Management Plan that are implemented to prevent an emergency from taking place and/or reduce the extent of response and recovery activities. It may result in a long-term, cost-effective reduction of risk. Prevention measures include capital improvements, regulations, building codes and public education programs.

Mitigation

Mitigation refers to elements and actions in the Emergency Management Plan that are implemented to reduce or eliminate the negative impacts of an emergency. These elements and actions can also reduce the extent of response and recovery activities required. Mitigation measures typically include capital improvements, regulations, building codes and public education programs.

Preparedness

Preparedness refers to elements and actions in the Emergency Management Plan that are implemented to the emergency or disaster to ensure an effective response. Preparedness measures include plans, training, exercises, public education, alerting and notification systems, procedures, organization, infrastructure protection, and standards.

Response

Response refers to elements and actions in the Emergency Management Plan that are implemented to respond to the emergency. The objective of these actions is to ensure that the response is controlled, coordinated, and effective so that it minimizes impacts to public safety, and to property. When an emergency occurs, the initial response needs to focus on meeting the needs of people, life safety, and protecting property and the environment. This effort may last from a few hours to several days, depending on the nature of the emergency. As response activities start to diminish, the operational focus should shift from response to recovery as smoothly and as seamlessly as possible.

Recovery

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

3.9 COMMUNITY EXPANSION AND DEVELOPMENT

3.9.1 Key Features

LL58FN has resided on one square mile of land (approx. 230 hectares) since 1905, areas of which have been expropriated for rail lines and highway expansion. Approximately one-third of the land is suitable for community infrastructure, and additional housing is required for the growing population. A 1766-

hectare parcel of land to the west and south of the existing reserve has been purchased by the community and is expected to become part of the official reserve in 2020.

Plans are in development to build additional housing, recreational, and commercial infrastructure on the "Addition to Reserve" (ATR) lands, and areas of valuable wildlife habitat have already been preliminarily identified in the Draft Land Use Plan.

3.9.2 Potential environmental threats

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

- Development activities can affect wildlife through habitat degradation and fragmentation, water quality degradation, noise, light, vibrations, and increased human activity
- Clearing forested land and introducing impermeable surfaces (e.g. roads, roofs, driveways, parking lots, etc.) reduces the capacity of the land to absorb water and increases runoff, altering surface water flow patterns and potentially increasing soil erosion, and potentially leading to decreased surface water quality

3.9.3 Management goals

- Fulfill the community's infrastructure needs with minimum possible impact to the environment
- Update land use plan to identify sensitive ecological areas and avoid construction in these areas
- Limit fragmentation by maintaining corridors between patches of habitat

3.9.4 Management regime

Existing Laws	8
Regulations	

Federal

- First Nations Land Management Act (1999)
- *Indian Act (1985)*
- Canadian Environmental Assessment Act (2012)
- Addition of Land to Reserves and Reserve Creation Act (2018)
- Species at Risk Act (2002)

Provincial

- Endangered Species Act (2007)
- Ontario Water Resources Act (1990)
- Lakes and Rivers Improvement Act (1990)
- Public Lands Act (1990)
- Environmental Bill of Rights (1993)

LL58FN Laws, Policies and Actions – Proposed Response

LL58FN will ensure that the Land Use Plan is updated as more information is gathered on the ATR lands, ensuring that sensitive ecological or cultural areas are protected from the impacts of development (e.g. buffer zones, minimum setbacks from surface water bodies). Infrastructure development will involve Environmental Assessments (see section 4.0), erosion control plans or site-specific environmental management plans if necessary. This process could be linked to the development of the LL58FN Environmental Assessment law that incorporates the requirement for a review of potential environmental impacts from a project or development before it occurs, in an effort to avoid, minimize, or compensate for those impacts.

	LL58FN will work with Matawa First Nations Management to ensure that building inspections are completed, and that compliance with the National Building Code of Canada is enforced.
Guidelines and Best Management Practices	The National Building Code of Canada (2015) applies to all federally-funded construction projects on reserve land. Enforcement of the building code is the responsibility of Chief and Council. Support for building inspections is available through Matawa First Nation Management. https://nrc.canada.ca/en/certifications-evaluations-standards/codes-canada-publications/national-building-code-canada-2015
	The National Fire Code of Canada (2015) complements the National Building Code, and must be considered when constructing, renovating or maintaining buildings. https://nrc.canada.ca/en/certifications-evaluations-standards/codes-canada-publications/national-fire-code-canada-2015
	The Protocol for INAC-Funded Infrastructure (2016) outlines the criteria for infrastructure funding under the Capital Facilities and Maintenance Program, including a list of the applicable federal statutes and regulations that apply to reserve lands. Support is available through ISC to understand and comply with these regulations. https://www.aadnc-aandc.gc.ca/DAM/DAM-INTER-HQ-IH/STAGING/texte-text/protocol 2016 1476993446793 eng.pdf
	The Ontario Building Code (O. Reg. 332/12) is based on the National Building Code and contains variations specific to Ontario's conditions. While it is not necessary to adhere to the Ontario Building Code on reserve lands, these standards will be familiar to contractors who perform work off-reserve and may contain higher standards for energy efficiency. https://www.ontario.ca/laws/regulation/120332
Education	Inform the community and contractors of the requirements, laws, and policies for future development. Publish this information in the Band Office and on the community website.
Monitoring & Reporting	As part of the requirements for development, ensure the appropriate permits are obtained and Environmental Assessments are conducted in the planning stages of the project. Ensure the appropriate inspections are completed throughout all phases of development.

3.10 SUSTAINABLE RESOURCE MANAGEMENT AND DEVELOPMENT

3.10.1 Key Features

The *Framework Agreement* allows LL58FN to directly manage its reserve lands, which currently total approximately 230 hectares, and will total just under 2000 hectares when the Addition to Reserve (ATR)

process is complete. Resource development projects involving the lands surrounding the reserve may have a significant impact on the community through the degradation or loss of resources traditionally used by members, or through environmental changes that impact reserve lands. It is therefore imperative that LL58FN and other local First Nations are able to participate in regional resource management activities. LL58FN is currently involved in a number of economic development projects within the region, including the following:

- Shoreline restoration work in partnership with Ontario Power Generation
- Kenogami Forest Project
- Greenstone Gold
- Ring of Fire
- Energy East Pipeline
- Potential warehouse development

3.10.2 Potential environmental threats

The following are potential threats and/or challenges related to resource management and development, both regionally and on-reserve:

- Resource development can affect wildlife through habitat degradation and fragmentation, water quality degradation, noise, light, vibrations, etc.
- Development can affect water, air, soil quality and stability, etc.
- No existing policies or enforcement mechanisms to ensure on-reserve industrial activities comply with environmental goals of the community
- Limited participation in regional resource management

3.10.3 Management goals

- Increase participation in regional resource management through collaboration with other First
 Nations and other government agencies and departments
- Seek out partnerships with local industry members (e.g. Greenstone Gold Mines)
- Ensure all resource management activities on LL58FN lands adhere to applicable legislation
- Formalize the inclusion of traditional knowledge in management decisions for on-reserve and, where possible, regional resource development

3.10.4 Management regime

Existing Laws &	Federal
Regulations	• Indian Act (1985)
	 Indian Mining Regulations C.R.C., c. 956
	Canadian Environmental Protection Act (1999)
	Canadian Environmental Assessment Act (2012)

- Species at Risk Act (2002)
- Migratory Birds Convention Act (1994)
- Fisheries Act (1985)
- Pest Control Products Act (2002)

Provincial

- Ontario Mining Act (1990)
 - O. Reg. 240/00 Mine Development and Closure Regulations
- Endangered Species Act (2007)
- Ontario Water Resources Act (1990)
- Lakes and Rivers Improvement Act (1990)
- Public Lands Act (1990)
- Environmental Bill of Rights (1993)

Guidelines

& Best Management Practices

LL58FN Laws and Policies to be developed and followed include:

Land use planning requirements, accompanied by environmental protection and sustainability requirements, should be established to ensure that resource development occurs in appropriate areas, where impacts to the community and the environment are minimized. The LL58FN Environmental Assessment law should be developed and incorporate this where applicable.

LL58FN should develop a permitting law for use of natural resources. The LL58FN Land Code should be consulted for conditions regarding the use of natural resources and permits.

Forest Management Guides

A series of guides on the following topics are made available by the Ontario government for forest managers developing plans for sustainable forests. The guides include silvicultural practices and methods on conserving biodiversity and protecting wildlife habitat, watersheds, cultural heritage and recreation.

- Landscape (Boreal and Great Lakes-St. Lawrence)
- Stand and Site
- Silvicultural
- Tourism
- Cultural Heritage
- Technical References

https://www.ontario.ca/page/forest-management-guides

Aggregate Activities and forest-dwelling Woodland Caribou

Ontario has developed best management practices that describe techniques, methods, or processes to help avoid or mitigate adverse effects and reduce threats to caribou when planning or undertaking resource development activities. A set of best management practices for aggregate sector proponents designed to minimize the impact of extraction or closure activities can be found on the following website:

https://www.ontario.ca/page/best-management-practices-aggregate-activities-and-forest-dwelling-woodland-caribou

Available Funding, Programs and Partnerships

- New Relationship Fund
 - o Core Consultation Capacity: \$90 000/year per community
 - Enhanced Capacity Building: \$50 000 per project year
- Aboriginal Energy Partnerships Program
 - Supports First Nation communities in their efforts to develop renewable energy
- The Feed-in-Tariff program
 - o Guarantees price structure for renewable energy producers in Ontario
 - Includes a price-adder for energy produced by projects with an Indigenous partner
- Aboriginal Loan Guarantee program
 - Supports Indigenous participation in new transmission and renewable energy generation projects

3.11 COMMUNITY HEALTH

3.11.1 Key Features

Health and wellbeing were identified as being one of the most urgent community priorities based on recent surveys. Protecting environmental health is essential to maintaining human health in First Nations communities where individuals maintain a close relationship with the land, using local resources for food and medicine.

Community members would like to see initiatives promoting community health including community gardens and/or greenhouses, interpretive trails, and sidewalks connecting LL58FN to the town of Longlac.

3.11.2 Potential environmental threats

Potential issues regarding community health include the following:

- Drinking water quality (protection of source water, adequate treatment)
- Quality of traditional foods
- Food security concerns
- Indoor/outdoor air quality (mould, smoke from forest fires or burning waste, dust, exposure to contamination and contaminated sites, etc.)

3.11.3 Management goals

- Ensure good and safe water quality, and sustainable fish and wild game harvest rates
- Ensure contaminants (including pesticides and heavy metals) in fish, wild game, and traditionally harvested plants are below recommended concentrations
- Increase community health through physical fitness and recreation
- Ensure air quality is maintained by prohibiting open-burning of waste (see Section 3.1)

3.11.4 Management regime

Existing Laws &	See Sections 3.4 and 3.5 for relevant legislation regarding drinking water and the
Regulations	protection of wildlife and habitat protection.
LL58FN Laws,	LL58FN will establish a monitoring program to track water quality (see Section 3.4)
Policies and	LL58FN will establish a voluntary traditional foods reporting system (including fish
Actions –	and wild game)to track abundance and quality of traditional foods over time across
Proposed	LL58FN's traditional territories.
Response	LL58FN will establish solid waste management law prohibiting open-burning of waste on the reserve (see Section 3.1) in order to protect air quality.
	LL58FN will maintain and/or create hiking/walking trails and increase the number of sidewalks/highway crossings through a Land Use Plan to promote physical fitness and outdoor recreation
Guidelines & Best	Guidance for Evaluating Human Health Impacts in Environmental Assessment: Country Foods (2018)
Management Practices	This document was created to support the Environmental Assessment process by presenting the principles that Health Canada looks for when reviewing environmental impact statements and similar reports. Appendix D of the report below lists related documents that can be useful in evaluating the quality of traditional foods.
	https://www.canada.ca/en/health-canada/services/publications/healthy-living/guidance-evaluating-human-health-impacts-country-foods.html
	First Nations Food, Nutrition and Environment Study Regional Report for Ontario 2011-2012 (2014)

	This research study, funded by Health Canada, looked at topics such as health and lifestyle practices, traditional food use and gardening, nutrient intake, food security, tap water quality, pharmaceuticals in surface water, mercury in human hair, and food contaminants that affected 18 First Nations in Ontario. http://www.fnfnes.ca/download
Education	LL58FN will present the results of its water monitoring program and self-reported traditional food surveys to the community each year at a community meeting and will make the results available for review either online or at the Band Office.

4 ENVIRONMENTAL ASSESSMENT

Under sections 23.2 and 23.4 of the Framework Agreement, an Environmental Assessment regime is required after a Land Code is adopted. An Environmental Assessment (EA) is an analysis to determine if there may be potential impacts (biological, cultural, physical and socioeconomic) caused by a proposed development project and where mitigation efforts may be applied. An EA will be required for developmental projects or land-disturbing activities on LL58FN lands.

At minimum, an EA report should describe the project and the environmental setting, identify the potential environmental effects associated with the project, and establish effective mitigation measures to eliminate or reduce the severity of the impacts. LL58FN's EA law will provide the community with the power to practice environment due diligence prior to developmental projects and provide feedback to improve project design and construction on the community's own terms.

4.1.1 Interim Environmental Assessment Regime

The LL58FN Individual Agreement with Canada requires that LL58FN implement an Interim EA process until the community can develop and implement its own EA law. The *Canadian Environmental Assessment Act (2012)* (CEAA 2012) has been selected as an appropriate EA regime for LL58FN to adopt. However, at the time of this document's completion, Bill C-69 has received Royal Assent, and will repeal CEAA 2012 and replace it with the *Impact Assessment Act* (IAA). LL58FN may consider the IAA as an alternative EA regime in the future, in order to harmonize the community's environmental protection regimes with those of the province of Ontario.

4.1.2 Criteria for an Environmental Assessment Law

LL58FN will develop its own EA law to meet the following criteria:

- An EA should be triggered for any project that can influence biological, cultural, physical and socioeconomic conditions on LL58FN lands
- The EA will identify potential environmental impacts that may result from future development or land-disturbing activities, and communicate those effects to the community
- The EA process should engage community members and other affected parties, and provide technical or financial support to community members when needed to achieve meaningful consultation
- The EA report should consider improvements and mitigation measures in response to possible threats associated with proposed projects
- The process should avoid redundancy in order to remain effective and cost-efficient
- The process should require project-specific goals and deadlines

5 PLAN IMPLEMENTATION

5.1 EMP IMPLEMENTATION PARTICIPANTS

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

LL58FN Chief and Council: authorize and participate in law development, officially adopt EMP, approve budgets and hiring decisions, manage financial aspects of EMP-related initiatives

Lands and Environmental Coordinator: administers EMP, completes funding applications for projects and additional staff, oversees staff working on EMP-related tasks, and new lands staff

Lands Committee: reviews proposed Land Laws, advises Council and LL58FN staff on matters related to LL58FN Land, holds regular meetings to discuss Land-related issues

LL58FN community members: participate in educational initiatives, comply with laws and policies enacted under the EMP, and participate in the EA process

Technical consultants: provide support and potentially training to LL58FN members to conduct monitoring programs, and conduct environmental studies, EAs and other technical work as needed

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

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

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

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

5.2 IMPLEMENTATION CHALLENGES

At the time of writing, LL58FN has a Lands and Environmental Coordinator who will be responsible for overseeing the implementation of the EMP. Implementing the EMP will allocate additional responsibility to the Lands and Environmental Coordinator at a time when significant development is planned for LL58FN lands, particularly on the Addition to Reserve.

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

- Environment Officer
- Environmental Technician
- Enforcement Officer

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

5.2.1 Increasing Staff Capacity

LL58FN will enact the following measures to increase the environmental capacity of its staff:

- Identify specific positions, develop job descriptions, and outline hiring practices to ensure LL58FN staff are prepared to fulfill EMP implementation
- Identify suitable candidates to take part in training programs for positions such as "Environmental Officer" and "Environmental Technician"
- Allocate funding to train community members
- Establish job shadowing opportunities for youth in environmental fieldwork

5.2.2 Available funding

Lands and Economic Development Services Program

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

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

https://www.aadnc-aandc.gc.ca/eng/1327090675492/1327090738973

Nation Rebuilding Program

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

https://www.rcaanc-cirnac.gc.ca/eng/1549285351251/1549285397263

5.3 Drafting environmental laws

Section 25 of the LL58FN Land Code calls for the existence of a Lands Committee which will be responsible for recommending Land Laws to Council to address environmental protection and environmental assessment, land use planning and zoning, and matrimonial property laws, as well as any other matter referred to the committee by Council. While federal environmental protection laws continue to apply on

First Nation land, under the Framework Agreement LL58FN is able to enact its own environmental protection laws to strengthen on-reserve regulations to match the provincial laws that apply outside reserve boundaries. LL58FN recognizes that collaboration with local, provincial, and/or federal governments may provide additional resources or opportunities for a cohesive environmental protection regime.

The procedure for creating Land Laws is described in Section 8 of the LL58FN Land Code. A law may be proposed by the Chief, a Councillor, the Lands Manager, or by a representative of the Lands Committee or other body or authority composed of Members that is authorized by Council to do so. Regarding the laws proposed in the EMP, the Lands Committee will draft these laws with the support of legal counsel and introduce them at Council meetings as soon as is practicable.

5.4 CAPACITY BUILDING AND STAFF TRAINING

Implementing the EMP will require additional resources and technical skills beyond that available to LL58FN's current staff. LL58FN will develop an outline for writing Requests for Proposal and a consultation selection process that will ensure that the appropriate technical specialists are retained to assist with various activities. Over time, LL58FN will develop a list of qualified consultants to assist with the implementation of the EMP. LL58FN will ensure that job shadowing opportunities are offered for LL58FN members whenever possible to eventually allow LL58FN staff to take on a greater role in the technical aspects of implementation such as water quality monitoring programs and the design of EAs.

LL58FN will seek funding from the sources outlined in Section 3.10 to provide additional training for current staff and deliver educational opportunities to members who are interested in participating in environmental monitoring.

5.5 IMPLEMENTATION SCHEDULE

A detailed implementation schedule will be determined within 6 months of the EMP's enactment.

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

- Chief and Council adopt the EMP
- Review EMP with Chief, Council, and Lands Committee, and determine which actions, policies, and laws are of the highest priority
- Determine the type of resources required (additional staff, technical assistance, new funding) to implement each section of the EMP
- If possible, assign sections of the EMP to existing staff as appropriate. Use the remaining sections
 to determine what new roles will need to be filled and to write the job descriptions for these new
 positions
- Seek out and secure funding to create new positions and hire staff
- Engage legal counsel to prepare environmental protection laws in the order determined by Chief and Council
- LL58FN staff prepare policies, guidelines, best management practices, and educational materials

- Begin to distribute educational materials to the community, erect educational signage, initiate outreach programs
- Staff member responsible for coordinating the EMP's implementation conducts 3-year review and prepares report on progress and proposed changes to the EMP

6 CLOSING

This EMP is designed to provide a starting point for LL58FN leadership and staff as the community takes on the responsibility of governing its lands under the Framework Agreement. As the community grows and develops, particularly with the infrastructure expansion into the Addition to Reserve lands, this document may need to be revisited and adapted to reflect changing conditions.

The EMP should be treated as a working document to be updated as goals and objectives are achieved, and the management capacity of the community develops. It is recommended that the EMP be reviewed after three years to reflect progress made and to assess the effectiveness of the management regimes. Individual sections may be reviewed more or less frequently based on changes to the reserve, changes in government policy, or progress towards developing LL58FN's Environmental Protection Laws.

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APPENDIX A FIGURES

