



McLeod Lake Indian Band Environmental Management Plan

**Wu'tun'e wee'zoooh yi'yalh,
whes'keghe s'o ududeh'chi
oo's'o ghu'nuyelh'o.**

**Making sure the footprints
we leave behind are the ones
our children will be proud to
walk in.**

Disclaimer

In interpreting this document, including opinions and recommendations, please consider the entire document. Considering only portions of this report may result in a misleading view of the results, opinions, or recommendations.



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1.0 Introduction

1.1 Background and Purpose

This Environmental Management Plan (EMP) has been developed to recognize the environmental responsibilities under the *Framework Agreement on First Nations Land Management* (Framework Agreement; GOC 1996). The EMP provides an overview of how McLeod Lake Indian Band (MLIB) will protect reserve lands through the creation of laws, plans, regulations, and policies. Under the Framework Agreement, land administration-related sections of the *Indian Act* (GOC 1985a) no longer apply, and we have assumed responsibility for land management on our reserve land. The foundation for the MLIB land governance system is established through the *McLeod Lake Indian Band Land Code* (MLIB 2002), which replaces the land management provisions of the *Indian Act*, providing the Band with the ability to manage our environment and resources, receive and use land revenues, and exercise our legal capacity for land management on MLIB reserve lands.

This EMP is a holistic document that summarizes MLIB's approach to important environmental issues and specific responses to achieve environmental goals. The EMP provides clear environmental management actions to protect, maintain, and improve environmental integrity on MLIB lands. The purpose of the EMP is to engage with the community to identify important environmental issues and suitable tools that will be used to address the concerns.

The objectives of the EMP are to:

- Identify environmental features that are important to the community.
- Identify issues that may threaten these environmental features.
- Identify and establish environmental policies, plans, laws, regulations, and programs based on best management practices to prevent or minimize future environmental impacts and identify capacity building, education, and monitoring opportunities.
- Provide planning guidance to achieve MLIB's mission, vision, values, and goals for environmental management.
- Clarify the roles and responsibilities related to environmental management.
- Increase environmental awareness among community members and businesses working on our land, and promote wider community involvement in protecting the environment.
- Protect MLIB lands and environmental features for future generations.

The EMP is a tool that will improve coordination and communication between MLIB administrative departments and will help manage environmental risks and responses. Upon adopting the EMP, MLIB will develop and implement the policies, laws, regulations, guidelines, and best management practices (BMPs) that have been identified in this document. The EMP will help inform community members on how the land, water, and air can be protected and enhanced for future generations.

1.2 Who We Are

We are the People of the Rocks, living on the western watershed of the Rocky Mountains. The Traditional Territory of McLeod Lake Tse'Khene is 108,000 square kilometres in the basins of the Parsnip and Finley rivers and the valley of the Peace River.

Our vision statement is:

Keep our waters clean, our land pristine, and our air pure.

1.3 Land Base

This EMP has jurisdiction over, and is applicable to, MLIB reserve lands and fee simple lots owned by MLIB, as well as any future additions to MLIB reserves. The EMP does not have jurisdiction throughout the entire Traditional Territory or other land holdings, including severalty lands.

Provincial laws do not apply to reserve lands; however, environmental protection standards created by MLIB and penalties for non-compliance must also be at least equal to those established by the Province and may be more stringent in select areas. This is done to ensure that the First Nation's lands are receiving at minimum equal protections as lands that exist outside of reserve boundaries.

The McLeod Lake Indian Band has 20,047 ha of reserve land, plus two fee simple properties. Land Management, in conjunction with all MLIB departments, must use these lands in an environmentally sustainable way while deriving a financial benefit from them. The majority of reserve land is currently used by forestry for timber harvesting; however, in the future the Band expects to develop the land for other uses including, but not limited to, tourism, eco-tourism, commercial, industrial, residential, and recreational purposes.

The *MLIB Land Use Plan*, (R. Radloff and Associates 2021) provides a comprehensive overview of specific land uses (Table 1). Each reserve was classified into categories for land use:

- Community Development Area
 - Land designated for residential (including lease lands for residential development), commercial, service industrial, recreation, and institutional development.
- Protected Area
 - Land protected from major developments including resource development such as forestry, mining, large-scale tourism, and high-density residential development in order to maintain traditional uses and cultural values, and protect fish, wildlife, or other Valued Ecosystem Components (VECs). Seasonal cabins, camping, recreation, and traditional uses are

allowed. Selective tree removal is allowed where required for cabins and recreation, but Band member consent is required first.

- Resource Development Area
 - Land prioritized for the purposes of resource development such as forestry, mining, hydroelectric, and oil and gas.
- General Resource Development Area
 - Land that has several resource values and permitted uses, for example resource development such as forestry or mining, agriculture, residential, recreation, traditional use, resource extraction, and protection of VECs.

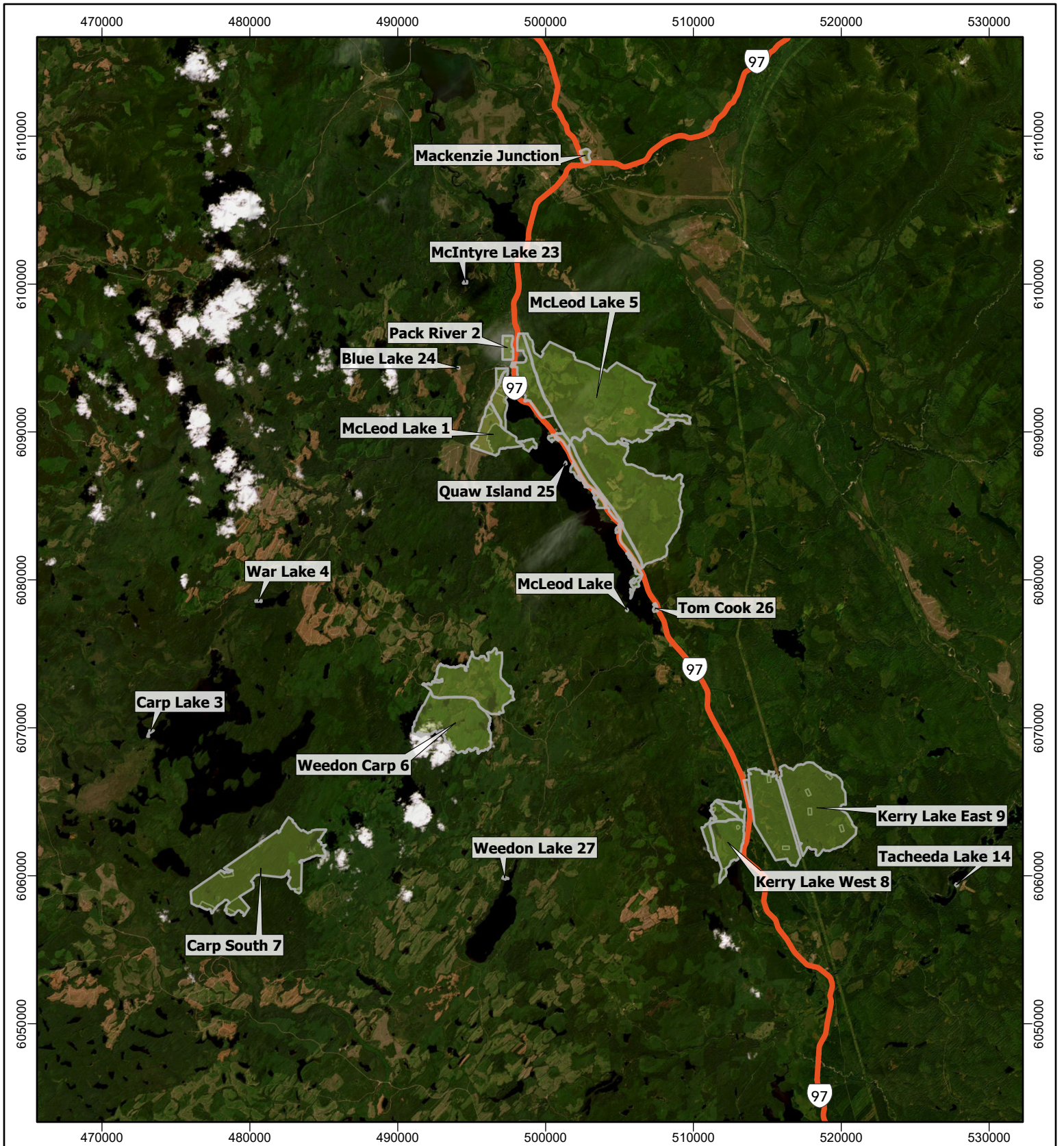
Table 1. MLIB reserve lands

IR No.	Reserve	Size (ha)	Land Use Designations*	Description
1	McLeod Lake (West)	815.2	Mixed: Community Development; General Resource Development; Protected Area	Main Community of McLeod Lake, and a majority of residential development east of the reserve.
2	Pack River	111.7	Mixed: Resource Development; Protected Area	No vehicle access, believed to be a site for annual gatherings with other Nations, area known as "Martin's Flat".
3	Carp Lake	4.9	Protected Area	Includes two areas near northwest portion of Carp Lake; no road access, has one cabin.
4	War Lake	3.3	Protected Area	No developed vehicle access or development within this steep, lakeside area.
5	McLeod Lake (East)	8,061.3	Mixed: Resource Development; Community Development; Protected Area	Located on the northeast shore of McLeod Lake, 5 km south of IR No. 1; has a small residential subdivision.
6	Weedon Carp	2,674	Resource Development	Has been extensively harvested for timber and needs to be managed for regrowth.
7	Carp South	2,328	Mixed: Resource Development; Protected Area	Contains many lakes for fishing and hunting and has forest resources.
8	Kerry Lake West	898	Mixed: Resource Development; Protected Area	Extensively harvested and needs to be managed for regrowth. Has protected areas at Lookout Lake and Kerry Lake. There may also be an old homestead and memorial site that needs protection.

IR No.	Reserve	Size (ha)	Land Use Designations*	Description
9	Kerry Lake East	3,323	Mixed: Community Development; General Resource Development; Protected Area	Contains three major linear corridors (highway, pipeline, hydro). Has many cultural sites that are protected areas.
10	Arctic Lake	2.0	Protected Area	Continues to be a Protected Area.
11	Hominka	2.0	Protected Area	Continues to be a Protected Area.
14	Tacheeda Lake	2.1	Protected Area	Continues to be a Protected Area. Site may be used for fishing, hunting, and trapping activities. Access to this reserve may be restricted by severalty lands.
19	Mackenzie	8.1	Community Development	Parcel had plans to be developed into workers' accommodation camp, gas bar, and residential development, but plans never proceeded and land is currently forested and adjacent to the highway.
20	Weston Bay	1.0	Protected Area	Continues to be a Protected Area.
21	Finlay Bay	1.0	Protected Area	Continues to be a Protected Area and has no vehicle access.
23	McIntyre Lake	4.0	Protected Area	Continues to be a Protected Area; community would like a Culture Camp or Youth Camp/Retreat at this site. Area has walk-in access only.
24	Blue Lake	1.0	Protected Area	Continues to be a Protected Area and used as a camping spot.
25	Quaw Island	1.5	Protected Area	Continues to be a Protected Area and requires boat access.
26	Tom Cook	12.0	Community Development	Extensively harvested and needs to be managed for regrowth. Parcel is adjacent to Highway 97.
27	Weedon Lake	4.0	Protected Area	Continues to be a Protected Area. Has no formal vehicle access but is adjacent to Davie Weedon Forest Service Road.
28	Davie Lake	1.0	Protected Area	Continues to be a Protected Area; however, non-Band members use the area for recreation.

IR No.	Reserve	Size (ha)	Land Use Designations*	Description
32	Sas Mighe	26.0	Mixed: Community Development; General Resource Development	Adjacent to the highway, this site may be used for community development. There is also a gravel pit and protected area.
Fee Simple	Mackenzie Junction	44	Mixed: Community Development; Resource Development	Owned by the Band and has been extensively harvested and needs to be managed for regrowth. Adjacent to both Highway 39 and 97.
Fee Simple	Summit Lake	49	Community Development	Owned by the Band, this parcel is waterfront and has access via Summit Lake Road. Land is currently undeveloped, but there is interest in recreation areas for Band members or economic development purposes.


* From MLIB Land Use Plan (R. Radloff and Associates 2021) as amended from time to time.



**McLeod Lake Indian Band
Environmental Services**

Sources and Disclaimer
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 HWY
 Major Roads

 McLeod Lake Indian Band Reserve Lands

**Figure 1.
MLIB Reserve Lands
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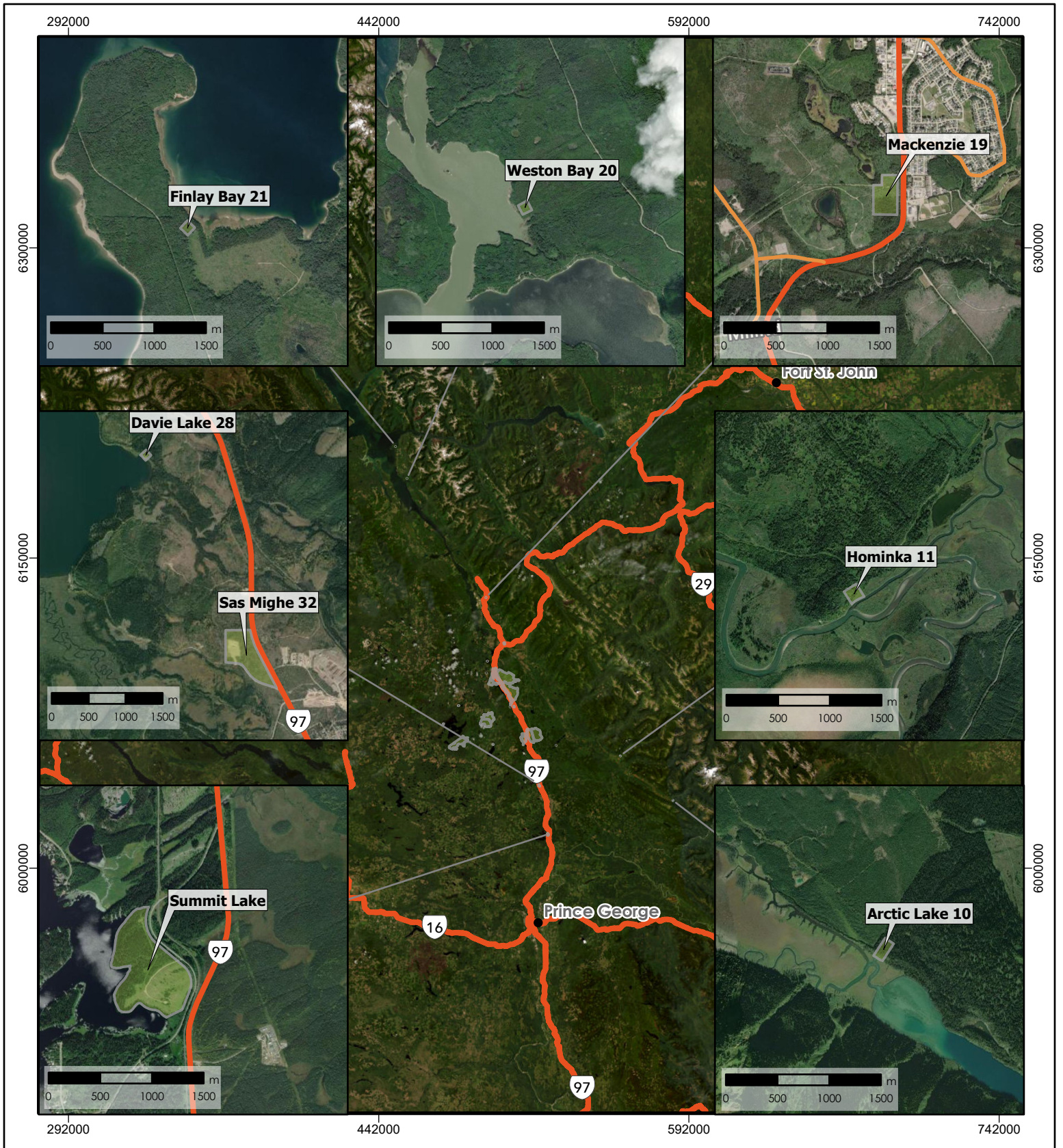
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Date: Aug 02, 2023
Revision: 00
Projection: NAD 1983 UTM Zone 10N
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TRITON
Environmental Consultants

Prepared By: EA

Reviewed By: SH



Mleod Lake Indian Band
Environmental Services

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— HWY
 — Major Roads

■ Mleod Lake Indian Band Reserve Lands

Figure 1.
MLIB Reserve Lands
Page 2 of 2

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2.0 Methods

2.1 Literature Review

Relevant background documents were reviewed, including the following:

- *Phase I Environmental Site Assessments (ESAs)* (MLIB and GOC 2002) – completed as part of the Treaty 8 adhesion process. Observations were made in respect of water management, petroleum storage tanks, containers, hazardous waste and materials, non-hazardous wastes and materials, PCBs, asbestos, and pesticides. Remedial action was needed on IR1.
- *Phase II ESAs* (MLIB 2007) – conducted for IR1 and IR5, which involved removal of below-ground fuel tanks and contaminated soil. All remedial works to remove contaminants were completed by 2007.
- *MLIB Land Code* (MLIB 2002) – came into force on May 20, 2003, and through Modification Agreements, now includes all reserve lands managed by the Band. The Land Code affirms MLIB's right to govern and manage their land and their power to develop and enact laws pertaining to the development, conservation, protection, management, use and possession of their lands, and interests or land rights and licenses in relation to that land.
- *MLIB Environmental Management Framework* (MLIB 2007) – was completed in 2007 and included component management plans for seven priority areas including fuel handling and storage, solid and liquid waste management, hazardous materials handling, storage and disposal, environmental emergency response, environmental impact assessment, ground and surface water protection, and habitat protection.
- *Framework Agreement* (GOC 1996) – is a government-to-government agreement that recognizes First Nations' inherent authority to govern their reserve lands. As a signatory to the Framework with an enacted Land Code, MLIB is responsible for managing MLIB reserve lands, natural resources and environment, and develop laws.
- *MLIB Land Use Plan* (R. Radloff and Associates 2021) – was completed in 2004 and amended in 2011 and 2021. The Land Use Plan is a community-driven decision-making tool to guide land management. All reserve lands were mapped and categorized under five land use designations: Community Development Area, Protected Area, Resource Development Area, General Resource Development Area, or Heritage Site.
- *MLIB Forest Practices Code* (MLIB 2003) – was established in 2000 and developed to ensure that all forest practices on reserve lands are carried out in accordance with sustainable forest use.

2.2 Site Visit

On July 27, 2023, two MLIB Land Management Committee Members, an MLIB Elder, and two Triton Environmental Consultants Ltd. (Triton) environmental professionals looked at

five reserves: McLeod Lake East, McLeod Lake West, War Lake, Weedon Carp, and Tom Cook. Quaw Island was also observed from a distance and stories were shared about past visits to the island. A better understanding of current and historical uses was gathered, and many stories were shared; the EMP was updated to reflect these teachings.



Figure 2. Tom Cook IR adjacent to Highway 97

2.3 Meetings and Community Engagement Events

Throughout the development of the EMP, engagement between MLIB community members and staff, Triton, and the Lands Advisory Board Resource Centre (LABRC) was an important component in identifying MLIB's environmental concerns, ideas, and goals. Table 2 summarizes community meetings and engagement efforts.

Table 2. Summary of meetings and engagement activities

Date	Type	Location	Attendees	Purpose of Meeting
March 2, 2023	Project Initiation Meeting	N/A	Agnes Mastin (MLIB) Amanda Wamsteeker (Triton)	Review and discuss proposal, set schedule and priorities.

Date	Type	Location	Attendees	Purpose of Meeting
March 30, 2023	Community Meeting	McLeod Lake	Agnes Mastin (MLIB) Sonya Solonas (MLIB Land Management Committee) Amanda Wamsteeker (Triton) Rebecca Gayowski (Triton) Heather McIntyre (LABRC) Jackie Brown (LABRC) 10 MLIB Community Members in person, 2 online	Collect input on environmental issues.
April 1, 2023	Community Meeting	Prince George	Agnes Mastin (MLIB) Sonya Solonas (MLIB Land Management Committee) Amanda Wamsteeker (Triton) Rebecca Gayowski (Triton) Heather McIntyre (LABRC) Jackie Brown (LABRC) 14 MLIB community members in person, 1 online	Collect input on environmental issues; there were 17 put forward from another consultant, and these were narrowed into ten topics for discussion.
July 27, 2023	Site Visit	McLeod Lake	Agnes Mastin (MLIB) Rebecca Gayowski (Triton) Christa Porter (Triton) Cheryl Chingee (MLIB) Alec Chingee (MLIB Elder)	Improve understanding of current site conditions of five reserves.
July 31, 2023	Email	N/A	Agnes Mastin (MLIB) Rebecca Gayowski (Triton)	Submit draft EMP for review.
September 17, 2023	Community Meeting	Prince George	Agnes Mastin (MLIB) Rebecca Gayowski (Triton) Trisha Merriman (Triton) Heather McIntyre (LABRC) Jackie Brown (LABRC) Approximately 45 MLIB community members in person, 4 online	Present draft EMP to MLIB community members.
September 27 and October 27, 2023	Email	N/A	Agnes Mastin (MLIB) Rebecca Gayowski (Triton) Heather McIntyre (LABRC) Chantel Kitamura (LABRC)	Reviewed draft EMP.
November 3, 2023	Email	N/A	Agnes Mastin (MLIB) Rebecca Gayowski (Triton)	Second draft of EMP submitted.
February 9, 2024	Meeting	Prince George	Agnes Mastin (MLIB) Rebecca Gayowski (Triton) Trisha Merriman (Triton) Heather McIntyre (LABRC) Approximately 65 MLIB community members in person, 3 online	Second Reading of the EMP.

Date	Type	Location	Attendees	Purpose of Meeting
April 7, 2024	Meeting	Virtual	Agnes Mastin (MLIB) Sonya Solonas (MLIB Land Management Committee) Rebecca Gayowski (Triton) Heather McIntyre (LABRC) Approximately 6 MLIB community members online	Third Reading of the EMP.
April 22, 2024	Email	N/A	Agnes Mastin (MLIB) Rebecca Gayowski (Triton)	Presented final EMP to MLIB.

MLIB community members have identified a number of issues concerning environmental and natural resources associated with MLIB lands.

2.4 Potential Responses

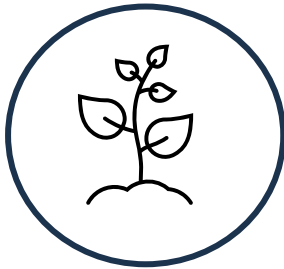
Table 3 provides examples of some tools that can be used to address the environmental issues identified in this EMP.

Table 3. Summary of options

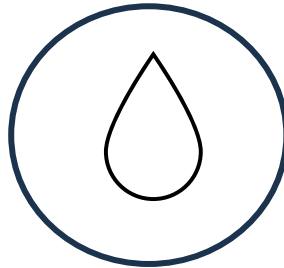
Type	Description	Advantages	Considerations
Policies	Specific method or course of action to guide government	Flexible, easy to draft and amend as needed	Not legally enforceable; multiple policies need to be aligned and consistent
Best Management Practices and Environmental Plans	A set of instructions offering clear directions and actions	Provides clear directions to conduct works to minimize impacts	Not legally binding and can become complex
Education and Outreach	Communication of knowledge to improve awareness of issues and responses	Can result in positive change in attitudes and actions; can be modified and targeted	Not enforceable
Monitoring and Reporting	Collection and reporting of information	Provides measurable data that can be compared to guidelines or compare results over time	Long-term commitment is needed; need staff capacity and technical skills; can be quite costly
Laws and Regulations	Written rules to achieve uniform compliance	Enforceable	Can be inflexible; costly to draft and implement; need capacity and funding for enforcement

3.0 Environmental Concerns and Responses

Throughout the process, the following Environmental Management Concerns were identified for MLIB reserve lands:



**Protecting Traditional Plants,
Medicines, and Animal
Harvests**



Water Protection



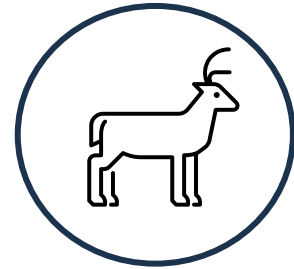
Fish and Fish Habitat



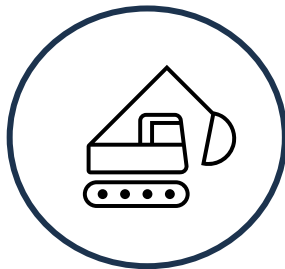
**Teaching Language,
Culture, and Respect for the
Environment**



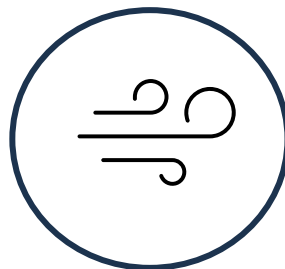
Waste Management



**Wildlife and Habitat
Protection**



**Forest Harvesting and
Development**



Air Quality

The sections below describe the community concerns, environmental risks, and responses to the eight concerns. Reserve land is still Crown land, and the *Framework Agreement* does not exempt MLIB from complying with Federal environmental laws.

3.1 Protecting Traditional Plants, Medicines, and Animal Harvests



The Tse'Khene people have occupied our lands since time immemorial. We have lived off the land and used plants as food and medicines. We lived a nomadic lifestyle, moving from place to place and harvesting animals as needed. It is important to protect culturally-important and traditional plants and animals on MLIB lands and educate community members about their importance. Our important plants include, but are not limited to, Balsam Fir (*Abies lasiocarpa*), Black Huckleberry (*Vaccinium membranaceum*), Black Twinberry (*Lonicera involucrata*), Cascara (*Frangula purshiana*), Devil's Club (*Oplopanax horridus*), Engelmann Spruce (*Picea engelmannii*), Fiddleheads (*Matteuccia struthiopteris*), Gooseberry (*Ribes lacustre*), Highbush Cranberry (*Viburnum trilobum*), Mountain Ash (*Sorbus* spp.), Muskeg Tea (*Ledum groenlandicum*), Saskatoon (*Amelanchier alnifolia*), Solomon's Seal (*Maianthemum racemosum*), Soapberry (*Shepherdia canadensis*), Thimbleberry (*Rubus parviflorus*), and Wild Raspberry (*Rubus idaeus*).



Figure 3. Devil's Club

Environmental Risks

- Climate change, including drought, is drying out the land and affecting the plants. There are fewer plants growing and they are of poor quality.
- There is a decline in amounts of traditional and medicinal plants that are available.
- There is a decline in animal populations due to habitat fragmentation from forest harvesting and developments.
- Invasive plants spread and outcompete native vegetation.
- Animal poaching by the public occurs on reserve lands.

Responses

- Create a Reforestation Plan to ensure harvested areas are replanted with traditional plants and/or plants used for sustenance (i.e., berries).
- Create a Forest Stewardship Plan that aligns with the *MLIB Forest Practices Code*.
- Develop education classes on sustainable harvesting and preservation of traditional/medicinal plants and animals.



Figure 4. Saskatoons ripening

- Create an Invasive Species Management Plan, and a policy to integrate invasive plant management across MLIB departments.
- Undertake Traditional Ecological Knowledge (TEK) studies to understand uses of traditional plants and medicines, as well as their locations on reserve lands.
- Conduct a feasibility study to determine if a traditional plant nursery could be developed.
- Create a Land Guardianship Program and create a patrol strategy for reserve lands.
- Build capacity in all departments to ensure staff are available to hold new developments accountable to the zoning referenced in the *Land Use Plan*.

Federal Legislation

The Federal laws that still apply to MLIB reserve lands include, but are not limited to:

- *Migratory Birds Convention Act (GOC 1994)* prohibits disturbing the nests or eggs of migratory birds without a permit, as well as the deposit of oil, oil waste or other harmful substances to migratory birds in any waters or areas frequented by them.



Figure 5. McLeod Lake wetlands from the Fort McLeod National Historic Site

3.2 Water Protection



MLIB reserve lands contain numerous water resources that require protection to maintain many values including drinking water, recreation, and habitat values. Protection strategies should address potential risks to groundwater and surface water features including rivers, streams, lakes, ponds, and wetlands.

Surface water is the above-ground water that we see in rivers, streams, lakes, and wetlands. Groundwater is the water that exists in subterranean aquifers that are underground; this water is often cleaner than the surface water which picks up contaminants from runoff and air fallout. Groundwater is more accessible during times of drought and is often the source of drinking water (from wells).

Water features include, but are not limited to, McLeod Lake (the Western Watershed to the Rocky Mountains), Crooked River, Kerry Lake, Blue Lake, Carp Lake (which has the cleanest fish in Canada since there is no underground feed to contaminate it), War Lake, Lookout Lake, McIntyre Lake, Pack River, Summit Lake (headwaters), Gun Creek, Hammett Creek, and Alec's Creek.



Figure 6. View of pristine waters in McLeod Lake

Environmental Risks

- Commercial, industrial, and residential activities, including fuel handling and storage, as well as construction activities pertaining to new developments may contribute to contamination of groundwater and the watershed.
- Use of pesticides on reserve lands.
- Future developments may affect lakes, rivers, and streams by soil deposition, erosion and sedimentation, dust, and general construction activities.
- A lack of data exists pertaining to groundwater and surface water abundance and quality throughout MLIB reserve lands.
- Illegal dumping may result in contamination of water resources.

Responses

- Create an Environmental Protection Law.
- Develop regulations under an Environmental Protection Law that provide riparian protection to surface water features, including:
 - Limited development within community watersheds to protect drinking water sources;
 - Provision of riparian set back of 30 m along all watercourses or water bodies (in line with Land Use Plan);
 - Provision to install clear-span bridges at road crossings on all fish bearing watercourses; and
 - Prohibition of the use of pesticides within watersheds.
- Develop regulations under an Environmental Protection Law that prohibits surface and ground water pollution and holds the polluter responsible for spill response and cleanup of any contaminants on MLIB reserve lands.
- Develop and provide community members with best management practices for ground and surface water protection.
- Develop a Water Conservation Strategy to promote minimizing water use.
- To promote the sustainable use of the groundwater resource, new developments will be required to minimize water use (e.g., low consumption fixtures, leak detection systems, and drought-resistant natural landscaping).
 - Implement a water conservation regulation under an Environmental Protection Law, to promote and minimize water use during drought conditions.
- Complete a GIS inventory of water features to identify opportunities for stream restoration, culvert replacement, and use of natural springs for drinking water.

- Develop a 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.
- Install signage and provide education to community members and contractors about stewarding creeks and riparian areas. Publish this information in the Band Office and on the community website.

Federal Legislation

The Federal laws that still apply in specific circumstances to MLIB reserve lands include, but are not limited to:

- *Fisheries Act* (GOC 1985b) requires protection for all fish and fish habitat, and prohibits the harmful alteration, disruption or destruction of fish habitat and the release of deleterious (harmful) substances into fish-bearing waters or water connected to fish-bearing waters. Death of fish by means other than fishing is also prohibited.
- *Species at Risk Act* (GOC 2002) identifies species at risk and prohibits harm, harassment and capturing of any listed species as well as damage to or destruction of their residence and critical habitat, as identified in species recovery plans.
- *Impact Assessment Act* (GOC 2019) outlines a process for assessing the impacts of major projects and projects carried out on Federal lands. It considers potential environmental, health, social, and economic impacts of proposed projects.
- *Emergency Management Act* (GOC 2007) dictates responsibilities for managing emergencies from the Federal perspective.

3.3 Fish and Fish Habitat



MLIB reserve lands contain many rivers, streams, lakes, ponds, and wetlands that provide habitat for many life stages of fish. Types of fish include, but are not limited to, Rainbow Trout (*Oncorhynchus mykiss*), Dolly Varden (*Salvelinus malma*), Lake Char (*Salvelinus namaycush*), and Mountain Whitefish (*Prosopium williamsoni*). Protection of the fish habitat within the freshwater resources is key to protecting fish. Fish are an important food source for MLIB members.

Environmental Risks

- Developments may cause fish habitat degradation if improperly managed.
- Contamination of fish as a food source may occur.
- Construction and logging may lead to sedimentation or contamination in fish habitats.
- Global climate change is increasing water temperature which is increasing blue green algae, reducing water levels in fish bearing rivers and streams, and reducing fish populations.
- Fish quality and nutritious value has decreased over time.



Figure 7. Small fish were present in a pool of water at the culvert outflow adjacent to the Forest Service Road at Weedon Carp, IR 6

Responses

- Identify fish habitat within MLIB reserve lands.
- Identify opportunities for habitat restoration or rehabilitation within MLIB reserve lands.
- Develop regulations under an Environmental Protection Law that considers protection of fish habitat.
- Develop regulations under an Environmental Protection Law that requires project-specific Environmental Protection Plans (EPPs) be developed and an environmental monitor to monitor existing waterways and to be present for any works in proximity to water.
- 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.
- Build capacity in all departments to ensure sufficient oversight and enforcement of the *MLIB Forest Practices Code* (MLIB 2003), which includes measures to protect fish habitat.

Federal Legislation

The Federal laws that still apply to MLIB reserve lands include, but are not limited to:

- *Fisheries Act* (GOC 1985b) requires protection for all fish and fish habitat, and prohibits the harmful alteration, disruption or destruction of fish habitat and the release of deleterious (harmful) substances into fish-bearing waters or water connected to fish-bearing waters. Death of fish by means other than fishing is also prohibited.
- *Species at Risk Act* (GOC 2002) identifies species at risk and prohibits harm, harassment and capturing of any listed species as well as damage to or destruction of their residence and critical habitat, as identified in species recovery plans.
- *Canadian Environmental Protection Act* (GOC 1999) imposes requirements for sustainable development through pollution prevention. The Environmental Emergency Regulations improve industry's capacity to deal with environmental emergencies and regulate hazardous substances for which there are reporting requirements, as well as environmental emergency planning requirements for higher-risk facilities.

3.4 Teaching Language, Culture, and Respect for the Environment



As the future generation of MLIB leaders, it is important to all members of the community, from youth to elders, to have respect for the environment, and Tse'Khene culture, traditions, and language. Members have lost parts of Tse'Khene culture as a result of colonization, residential schools, and the sixties scoop. Subsequent generations have suffered loss of culture as part of intergenerational trauma; therefore, it is important to restore love and respect for the land, air, and water in current and future generations.

Environmental Risks

- Members may not know about MLIB environmental values due to loss of language, traditions, and culture over time with less connection to the environment.
- The effects of climate change will also impact how we connect to the environment.

Responses

- Create a Cultural Reclamation Plan that commits MLIB to work with Elders and youth to promote the intergenerational passage of traditional knowledge.
- Start a Youth and Family Camp at McIntyre Lake for summer retreats.
- Create an Education Plan that includes teaching strategies for all ages, respecting the environment, and being stewards of the land.
- Create a Junior Forest Wardens or Land Guardianship Program.
- Develop education classes on traditional plants, animals, and responsible cultural practices including land-based healing.
- Complete archaeological studies to investigate the archaeological and historical significance of MLIB lands.
- Install signage, where appropriate, to inform youth, community members, and visitors of the historical and contemporary significance of heritage sites.



Figure 8. View of a cabin at Fort McLeod Historic Site on McLead Lake West, IR 1

Federal Legislation

- Not applicable to this section.

3.5 Waste Management



The main concern for waste management stems from the community living on reserve at McLeod Lake West, IR 1, and further dumpsites have been found at other MLIB reserves. Waste contributes to the decline of soil, water, and air quality and can harm wildlife. Waste that is improperly stored is attracting nuisance wildlife into the community, resulting in human-wildlife interactions, and waste is being burned on reserve lands. The appropriate management of waste to prevent contamination is important to maintain ecological resources and the health and well-being of both community members and the environment.

Environmental Risks

- Waste is attracting animals into the community and contributing to increased human-wildlife interactions.
- Illegal dumping on reserve lands (Kerry Lake East, IR 9 and McLeod Lake West, IR 1), and construction waste (McIntyre Lake, IR 23) is leading to contamination of soil and water.
- Domestic animal fecal matter (McLeod Lake West, IR 1) is leading to contamination of soil and water.
- Litter around the community and other reserve lands, including fish cleaning waste, is often scattered near existing waterways.
- Recreational vehicles are dumping sewage into ditches on reserve lands.



Figure 9. Remnants of a burned cabin at McLeod Lake East, IR 5

Responses

- Develop a Waste Management Plan that addresses recycling, waste diversion, waste burning, and dumping.
- Create an Animal Care and Control Law that includes enforcement and regulation pertaining to animal waste.
- Update the *MLIB Trespass Law* (MLIB 2020-1) and the *MLIB Enforcement and Prosecution Law* (MLIB 2020-2) to allow for enforcement.
- Develop regulations under an Environmental Protection Law that prohibits littering and dumping and holds the polluter responsible for cleanup on MLIB reserve lands.
- Create best management practices for burning wood waste that includes consultation with appropriate departments and a communication plan.
- Install bear-proof bins at heritage sites and other community gathering places.
- Create a policy to ensure all burn piles are inspected and free of garbage.
- Create educational material on reducing human-wildlife interactions due to waste management issues.
- Develop and distribute a list of the materials that can and cannot be burned, with rationale to help build voluntary compliance.
 - Post signage at approved burn sites with the list and a phone number to call if members have items that need to be picked up.
- Develop and distribute information on burying waste (e.g., concrete).
- Publish this information in the Band Office and on the MLIB website.

Federal Legislation

The Federal laws that still apply to MLIB reserve lands include, but are not limited to:

- *Fisheries Act* (GOC 1985b) requires protection for all fish and fish habitat, and prohibits the harmful alteration, disruption or destruction of fish habitat and the release of deleterious (harmful) substances into fish-bearing waters or water connected to fish-bearing waters. Death of fish by means other than fishing is also prohibited.
- *Species at Risk Act* (GOC 2002) identifies species at risk and prohibits harm, harassment and capturing of any listed species as well as damage to or destruction of their residence and critical habitat, as identified in species recovery plans.
- *Canadian Environmental Protection Act* (GOC 1999) imposes requirements for sustainable development through pollution prevention. The Environmental Emergency Regulations improve industry's capacity to deal with environmental emergencies and regulate hazardous substances for which there are reporting requirements, as well as environmental emergency planning requirements for higher-risk facilities.

3.6 Wildlife and Habitat Protection



Many of MLIB's reserve lands are remote and undeveloped forested land. This land provides habitat to many wildlife species including Wolverine (*Gulo gulo*), Grizzly Bear (*Ursus arctos*), Fisher (*Pekania pennanti*), Caribou (*Rangifer tarandus*), Moose (*Alces alces*), Deer (*Odocoileus* spp.), Lynx (*Lynx canadensis*), and many bird species. Protecting wildlife and wildlife habitat has many components including the protection of Provincially- and Federally-designated species at risk, and the management of interactions with nuisance wildlife within the community.

Environmental Risks

- Increased human-wildlife interactions as logging and development impact habitats.
- Loss of migration trails (Caribou) due to large developments.
- Increased traffic along Highway 97 resulting in loss of wildlife due to accidents with commercial, industrial, and private vehicles.
- Poaching of wildlife on reserve lands by non-members.

Responses

- Develop a Wildlife Management Plan for human/wildlife interface.
- Continue the Caribou Feeding and Maternity Pen Programs.
- Implement a Forest Warden or Land Guardianship Program to increase wildlife monitoring.
- Work with the Ministry of Transportation and Infrastructure (MOTI) to determine feasibility of installing wildlife overpasses along Highway 97 at key wildlife crossing locations.
- Create a policy to maintain riparian areas for wildlife corridors.
- Implement a Communication Policy to increase communication between MLIB departments and ensure *MLIB Forest Practices Code* is adhered to.



Figure 10. Old stump that has been torn up by a bear on Weedon Carp, IR 6

Federal Legislation

The Federal laws that still apply in specific circumstances to MLIB reserve lands include, but are not limited to:

- *Fisheries Act* (GOC 1985b) requires protection for all fish and fish habitat, and prohibits the harmful alteration, disruption or destruction of fish habitat and the release of deleterious (harmful) substances into fish-bearing waters or water connected to fish-bearing waters. Death of fish by means other than fishing is also prohibited.
- *Migratory Birds Convention Act* (GOC 1994) prohibits disturbing the nests or eggs of migratory birds without a permit, as well as the deposit of oil, oil waste or other harmful substances to migratory birds in any waters or areas frequented by them.
- *Species at Risk Act* (GOC 2002) identifies species at risk and prohibits harm, harassment and capturing of any listed species as well as damage to or destruction of their residence and critical habitat, as identified in species recovery plans.
- *Impact Assessment Act* (GOC 2019) outlines a process for assessing the impacts of major projects and projects carried out on Federal lands. It considers potential environmental, health, social, and economic impacts of proposed projects.
- *Canadian Environmental Protection Act* (GOC 1999) imposes requirements for sustainable development through pollution prevention. The Environmental Emergency Regulations improve industry's capacity to deal with environmental emergencies and regulate hazardous substances for which there are reporting requirements, as well as environmental emergency planning requirements for higher-risk facilities.

3.7 Forest Harvesting and Development



The majority of reserve lands have been harvested due to forest health concerns; while MLIB has plans to develop some reserve lands, others are listed for reforestation. It is also important to note that there is a desire to promote commercial and industrial large-scale developments on MLIB reserve lands in future years. Balancing environmental protection on MLIB lands while promoting economic development through large-scale developments is key to our future.

Environmental Risks

- Development activities can affect wildlife, especially species at risk, such as Grizzly Bear, through:
 - Habitat degradation and fragmentation;
 - Water quality degradation;
 - Noise and light; and
 - Increased human activity.
- Contamination of air and soil can result from pollutants and emissions, construction waste, improper fuel handling and storage, etc.
- There are no existing policies or enforcement mechanisms to ensure on-reserve industrial activities comply with environmental goals of the community.



Figure 11. Clearcut area on IR 1

Responses

- Develop regulations under an Environmental Protection Law to ensure sustainable building practices.
- Revise the existing *Enforcement and Prosecution Law* (MLIB 2020-2) to encapsulate updated requirements to suit large-scale developments on reserve.
- Create a Subdivision Development and Servicing Law.
 - Create policies with green building incentives.
- Create a Reforestation Plan that ensures replanting with traditional plants.
- Update the *MLIB Forest Practices Code* (MLIB 2000).
- Create a Forest Stewardship Plan that aligns with the *MLIB Forest Practices Code*.
- Update the existing *MLIB Trespass Law* (MLIB 2020-1) to allow for enforcement.
- Build capacity in all departments to ensure staff are available to hold new developments accountable to the zoning referenced in the Land Use Plan.

Federal Legislation

The Federal laws that still apply in specific circumstances to MLIB reserve lands include, but are not limited to:

- *Fisheries Act* (GOC 1985b) requires protection for all fish and fish habitat, and prohibits the harmful alteration, disruption or destruction of fish habitat and the release of deleterious (harmful) substances into fish-bearing waters or water connected to fish-bearing waters. Death of fish by means other than fishing is also prohibited.
- *Migratory Birds Convention Act* (GOC 1994) prohibits disturbing the nests or eggs of migratory birds without a permit, as well as the deposit of oil, oil waste or other harmful substances to migratory birds in any waters or areas frequented by them.
- *Species at Risk Act* (GOC 2002) identifies species at risk and prohibits harm, harassment and capturing of any listed species as well as damage to or destruction of their residence and critical habitat, as identified in species recovery plans.
- *Impact Assessment Act* (GOC 2019) outlines a process for assessing the impacts of major projects and projects carried out on Federal lands. It considers potential environmental, health, social, and economic impacts of proposed projects.
- *Emergency Management Act* (GOC 2007) dictates responsibilities for managing emergencies from the Federal perspective.
- *Canadian Environmental Protection Act* (GOC 1999) imposes requirements for sustainable development through pollution prevention. The Environmental Emergency Regulations improve industry's capacity to deal with environmental emergencies and regulate hazardous substances for which there are reporting requirements, as well as environmental emergency planning requirements for higher-risk facilities.

3.8 Air Quality



As humans, animals, and plants share the environment, it is important that we maintain clean and healthy air quality. Air pollution can have local and regional impacts such as wood smoke, or wide-reaching effects such as climate change. Air pollutants can be visible or invisible. With increased development and climate change, it is important to protect the air for our generation and future generations.

Environmental Risks

- Adjacent, or on-reserve commercial and industrial activities have the potential to cause air quality issues.
- Increased emissions from commercial, industrial, and recreational vehicles may impact air quality.
- Residential wood burning producing emissions.
- Wildfires near the community contribute to poor air quality during summer months.

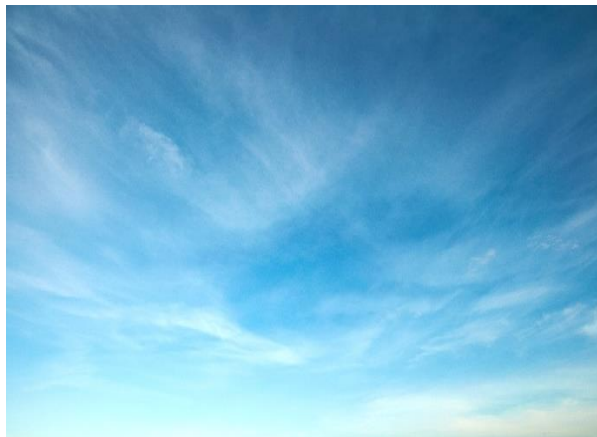


Figure 12. View of blue sky

Responses

- Create an Environmental Protection Law to protect the air from contamination and pollution.
- Participate in regional monitoring of the atmosphere to track changes in air quality.
- Develop and implement an Air Quality Monitoring Program at key areas to establish a baseline of air quality data.
- Create Best Management Practices for firewood that include provisions for using dry, seasoned wood.
- Develop a policy for community notification during poor air quality and triggers for setting up clean air facilities with air purifiers.

Federal Legislation

The Federal laws that still apply to MLIB reserve lands include, but are not limited to:

- *Canadian Environmental Protection Act (GOC 1999)* imposes requirements for sustainable development through pollution prevention. The Environmental Emergency Regulations improve industry's capacity to deal with environmental emergencies and regulate hazardous substances for which there are reporting requirements, as well as environmental emergency planning requirements for higher-risk facilities.

4.0 Implementation

4.1 Roles and Responsibilities

The success of the EMP is contingent on all MLIB staff, and anyone operating on MLIB lands, understanding and upholding their respective roles and responsibilities regarding the EMP. Table 4 describes the key roles and responsibilities for those associated with the successful implementation and maintenance of the EMP.

Table 4. Roles and responsibilities

Role	Responsibilities
Members	<ul style="list-style-type: none"> • Provide input and participate in community engagement processes related to the EMP and related land laws. • Inform Leadership and/or staff of environmental concerns. • Report activities that are not consistent with the EMP to the Land Management Office. • Provide input to suitable solutions to address the identified environmental concerns. • Identify plant and wildlife species that are native to MLIB lands. • Adhere to the legislation and policies set out in the EMP and associated land laws.
Chief and Council	<ul style="list-style-type: none"> • Provide final approving authority of the EMP. • Liaise with other authorities to execute the EMP, as necessary. • Allocate financial resources as part of the annual budgeting process to implement the EMP. • Participate in EMP and associated land law reviews and updates, as required. • Retain the services of an environmental specialist to assess and mitigate risk associated with impacts to the environment. • Adhere to the legislation and policies set out in the EMP and associated land laws.
Land Management Committee	<ul style="list-style-type: none"> • Assist in the exchange of information between Members, Council, and other elected officials, regarding MLIB environmental matters. • Participate in EMP reviews and updates, as required. • Adhere to the legislation and policies set out in the EMP and associated land laws.
Land Management Department	<ul style="list-style-type: none"> • Implement and oversee the EMP. • Communicate the EMP actions and policies to staff, the community, and others. • Seek funding for, and implement, an Environmental Liaison that will oversee the Land Guardianship Program.

Role	Responsibilities
	<ul style="list-style-type: none"> • Maintain the EMP and associated documents, as well as document control procedures. • Prepare the budget to implement strategic environmental initiatives on an annual basis, including staffing and training recommendations. • Lead EMP reviews and updates, including assessing the level of approvals required for amendments. • Present technical comments related to a proposed activity/project to the Chief and Council for review. • Recommend to Chief and Council the services of an environmental specialist to assess and mitigate risk associated with impacts to the environment. • Provide education and outreach to others related to the EMP and environmental management. • Adhere to the legislation and policies set out in the EMP and associated land laws.
Public Works and Housing Department (PW&H)	<ul style="list-style-type: none"> • Provide technical input during activities or project applications and during reviews (e.g., provide waste management information relative to the activity).
Developers, Businesses, Consultants, and Contractors	<ul style="list-style-type: none"> • Adhere to the requirements set out in this EMP and applicable laws, regulations, and standards. • Communicate environmental responsibilities and requirements of this EMP to their staff and sub-contractors. • Ensure all members of their staff and sub-contractors are trained to prevent or mitigate environmental impacts. • Ensure all labour, equipment, and materials are available to execute the project activities and respond to environmental incidents. • Correct deficiencies and any non-compliance issues raised by Chief and Council, the Lands Department, and/or regulators. • Retain the services of an environmental specialist to assess and mitigate risk associated with impacts to the environment. • Provide documentation related to project activities upon request by the Lands Department and/or Chief and Council. • Produce and submit Environmental Monitoring reports (monthly or quarterly, depending on the scale of the project) to the Land Management department.
Other Staff	<ul style="list-style-type: none"> • Inform Leadership and/or staff of environmental concerns. • Report activities that are not consistent with the EMP to the appropriate authority. • Adhere to the legislation and policies set out in the EMP. • Participate in EMP reviews and updates, as required.

Role	Responsibilities
Technical Consultants	<ul style="list-style-type: none"> • May be engaged to provide support to the Lands Department for environmental studies, monitoring, or engineering needs. They should provide opportunities for internal capacity building by integrating MLIB members into work programs where practical.
Legal Counsel	<ul style="list-style-type: none"> • Support the Lands Department and Chief and Council when drafting laws.
Neighbouring Local Governments - may include Regional District of Fraser Fort George, City of Prince George, District of Mackenzie, etc.	<ul style="list-style-type: none"> • Negotiate agreements with MLIB for provision of services or environmental support (e.g., solid waste management, sewer and water, building inspection, land use planning). • May be engaged as collaborators on regional initiatives.
Provincial Agencies	<ul style="list-style-type: none"> • Continue to enforce Provincial laws on adjacent Provincial lands and be engaged through Environmental Management BC (EMBC) during environmental emergencies on MLIB reserve lands.
Federal Agencies	<ul style="list-style-type: none"> • Continue to enforce Federal laws (e.g., <i>Fisheries Act</i>) and potentially provide funding.

4.2 Implementation and Monitoring EMP Performance

To ensure the successful implementation of this plan, each Environmental Response has been assigned an achievable timeline, a responsible party, and a clear set of implementation objectives (Table 5).

After the adoption of this EMP by Chief and Council, a detailed implementation schedule will be developed through the following steps:

- Together with the Land Management Committee, the Chief and Council will evaluate each Environmental Response to determine the sequencing.
- Determine the type of resources required (additional staff, technical assistance, new funding) to implement.
- Assign a timeline for implementation.
- Task an appropriate department or staff member with each priority.
- Determine what new roles (see Section 4.3) may be required, and secure funding to train or hire as needed.
- Complete regular progress reviews and re-evaluate the sequence of activities and tasks.

Table 5. Implementation plan

Strategy	Type	Key Result	Cost	Responsible Party	Priority	Timeline
Create a Forest Stewardship Plan that includes a Reforestation Plan	Best Management Practices and Plans	Create and implement a Forest Stewardship Plan and Reforestation Plan that aligns with the <i>MLIB Forest Practices Code</i>	Moderate	Land Stewardship and Consultants	Moderate	Year 1
Develop education classes on sustainable harvesting of traditional/medicinal plants and animals	Education and Outreach	Create a curriculum for sustainable harvesting of plants and animals	Moderate	Members and Other MLIB Staff	Moderate	Year 4
Create an Invasive Species Management Plan	Best Management Practices and Plans	Create an Invasive Species Management Plan that addresses preventing, identifying, and treating invasive plants and animals	Low	Land Management Office with Neighbouring Local Governments, Provincial, and Federal Agencies	Low	Year 5
Undertake Traditional Ecological Knowledge (TEK) studies	Monitoring and Reporting	Design and initiate a study to identify important cultural resources to create a map which identifies sensitive locations	Moderate	Land Management Environmental Intern with Technical Consultants	Moderate	Year 3
Conduct a feasibility study to determine if a traditional plant nursery could be developed	Monitoring and Reporting	Initiate and undertake a feasibility study to determine if a traditional plant nursery could be developed	Moderate	Tse'Khene Community Development Limited Partnership with Technical Consultants	Low	Year 5
Create a Land Guardianship Program	Monitoring and Reporting	Seek funding to develop a Land Guardianship Program	Low	Land Management Environmental Intern	High	Year 2

Strategy	Type	Key Result	Cost	Responsible Party	Priority	Timeline
Create a patrol strategy for reserve lands	Best Management Practices and Plans	Create a patrol strategy for an Enforcement Officer to patrol reserve lands for poachers and polluters	Moderate	Land Management Environmental Intern with Technical Consultants	Moderate	Year 3
Build capacity to understand land laws in all departments	Education and Outreach	Create job description documents and hiring process of new staff	Moderate	Band Administration	High	Year 2
Create an Environmental Protection Law	Laws and Regulations	Create and implement an Environmental Protection Law	High	Land Management Department, Legal Counsel. Adopted by Chief and Council	High	Year 1
Create regulations under an Environmental Protection law that provide riparian protection	Laws and Regulations	Create and implement a riparian protection regulation	Moderate	Land Management Department, Legal Counsel. Adopted by Chief and Council	High	Year 2
Create regulations under an Environmental Protection Law that prohibit pollution	Laws and Regulations	Create and implement a pollution regulation	Moderate	Land Management Department, Legal Counsel. Adopted by Chief and Council	High	Year 2
Create Ground and Surface Water Protection Best Management Practices	Best Management Practices and Plans	Develop and provide community members with Best Management Practices for ground and surface water protection	Low	Land Management Environmental Intern	High	Year 2
Develop a water conservation strategy to promote minimizing water use	Best Management Practices and Plans	Create and implement a water conservation strategy	Moderate	Land Management Environmental Intern and PW&H	High	Year 1
Create a water conservation regulation under an Environmental Protection Law	Laws and Regulations	Create and implement a water conservation regulation	Moderate	Land Management Department	High	Year 2

Strategy	Type	Key Result	Cost	Responsible Party	Priority	Timeline
Complete a GIS inventory of water features	Best Management Practices and Plans	Create a GIS database and produce maps of water features	Moderate	Land Management Environmental Intern	Low	Year 5
Create a policy outlining new development requirements for minimizing water use	Policies	Create a policy for new development requirements for minimizing water use	Low	Environmental Intern and Legal Counsel	Moderate	Year 2
Develop baseline monitoring program	Monitoring and Reporting	Create a program to collect monthly data and monitor water quality from valuable water resources	Moderate	Other MLIB Staff	Moderate	Year 4
Install signage	Education and Outreach	Create signs and provide information and education on stewarding creeks and riparian areas	Low	Land Management Department	Low	Year 5
Identify fish habitat	Education and Outreach	Create a GIS database and produce maps of fish habitat	Low	Land Management Environmental Intern and Technical Consultants	Moderate	Year 3
Identify opportunities for habitat restoration or rehabilitation	Monitoring and Reporting	Create a prioritized list of areas for habitat restoration or rehabilitation	Low	Land Management Environmental Intern Technical Consultants	Moderate	Year 3
Develop regulations under an Environmental Protection Law that considers protection of fish habitat and requires Environmental Protection Plans be developed, as well as requiring an environmental monitor be on-site for works in proximity to water	Laws and Regulations	Create a fish habitat regulation that includes a requirement for Environmental Protection Plans and Environmental Monitoring	Moderate	Land Management Department, Legal Counsel. Adopted by Chief and Council	High	Year 2

Strategy	Type	Key Result	Cost	Responsible Party	Priority	Timeline
Inform the community and contractors of the requirements, laws, and policies for future development	Education and Outreach	Create posters, brochures, or other informational guidance to be posted in the Band Office and on the website	Low	Land Management Department and Other MLIB Staff	High	Year 1
Build capacity in all departments to ensure sufficient oversight and enforcement of the <i>MLIB Forest Practices Code</i>	Education and Outreach	Create job description documents and hiring process for new staff	Moderate	Land Management Committee	Moderate	Year 2
Create a Cultural Reclamation Plan	Best Management Practices and Plans	Create a draft document of a Cultural Reclamation Plan that commits MLIB to work with Elders and youth to promote the intergenerational passage of traditional knowledge	Moderate	Other MLIB Staff	Moderate	Year 3
Start a Youth and Family Camp at McIntyre Lake	Education and Outreach	Design a plan and budget to create a youth and family camp at McIntyre Lake	Moderate	MLIB Elders and Knowledge Keepers, Other MLIB Staff	Moderate	Year 3
Create an Education Plan that includes teaching strategies for all ages	Education and Outreach	Create an Education Plan that includes curriculum for respecting the environment and being stewards of the land	Low	MLIB Elders and Knowledge Keepers, Other MLIB Staff	Moderate	Year 4
Create a Junior Forest Wardens or Land Guardianship Program	Education and Outreach	Seek funding to develop a Junior Forest Wardens or Land Guardianship Program	Low	Land Management Department	Low	Year 5
Develop education classes	Education and Outreach	Create a curriculum for traditional plants, animals, and responsible cultural practices including land-based healing	Moderate	MLIB Elders and Knowledge Keepers, Other MLIB Staff	Moderate	Year 4

Strategy	Type	Key Result	Cost	Responsible Party	Priority	Timeline
Complete archaeological studies to investigate the archaeological and historical significance of MLIB lands	Monitoring and Reporting	Initiate a study to identify important cultural resources to create a GIS inventory and map which identifies sensitive locations	High	Elders, Knowledge Keepers, Land Management Department with Technical Consultants	Moderate	Year 3
Install signage	Education and Outreach	Create and install signs to inform youth, community members, and visitors of the historical and contemporary significance of heritage sites	Low	Land Management Department and Other MLIB Staff	Moderate	Year 3
Develop a Waste Management Plan that addresses recycling, waste diversion, waste burning, and dumping	Best Management Practices and Plans	Create and implement a Waste Management Plan	Moderate	Land Management Department and PW&H	High	Year 1
Create an Animal Care and Control Law	Laws and Regulations	Update the existing Dog Bylaw to the Animal Care and Control Law and include enforcement and a regulation pertaining to proper disposal of animal waste	High	Land Management Department, LABRC, Legal Counsel	Moderate	Year 2
Update the MLIB <i>Trespass Law</i> (MLIB 2020-1)	Laws and Regulations	Update the <i>Trespass Law</i> (MLIB 2020-1) to include enforcement provisions	Moderate	Chief and Council and Legal Counsel	High	Year 2
Update the MLIB <i>Enforcement and Prosecution Law</i> (MLIB 2020-2)	Laws and Regulations	Update the <i>Enforcement and Prosecution Law</i> (MLIB 2020-2) to include the updated requirements to suit large-scale developments on reserve	Moderate	Chief and Council and Legal Counsel	High	Year 2

Strategy	Type	Key Result	Cost	Responsible Party	Priority	Timeline
Develop regulations under an Environmental Protection Law that prohibit littering and dumping and hold the polluter responsible	Laws and Regulations	Create a regulation under an Environmental Protection Law that includes proper disposal of waste, and prohibits dumping, burying, and burning of waste	High	Land Management Department and Legal Counsel	Moderate	Year 2
Create best management practices for burning wood waste	Best Management Practices and Plans	Create a best management practice for burning wood waste and include a list of forbidden items	Low	Land Management Department and PW&H	Moderate	Year 2
Install bear-proof bins	Education and Outreach	Provide and maintain bear-proof bins at heritage sites and other community gathering places	Moderate	Land Management and PW&H	High	Year 1
Create a policy to ensure all burn piles are inspected and free of garbage before burning	Policies	Create a policy and checklist to ensure burn piles are inspected and free of garbage before burning	Moderate	Land Management Department	Moderate	Year 2
Create educational material on reducing human-wildlife interactions	Education and Outreach	Create educational materials on reducing human-wildlife interactions due to waste management issues	Moderate	Land Management Environmental Intern	Moderate	Year 4
Develop and distribute a list of the materials that can and cannot be burned	Education and Outreach	Develop and distribute a list of materials that can and cannot be burned	Low	Land Management Environmental Intern	Moderate	Year 2
Post signage at approved burn sites	Education and Outreach	Create and install signage at approved burn sites	Low	Land Management Department and PW&H	Moderate	Year 2
Develop and distribute information on why waste (e.g., concrete) should not be buried	Education and Outreach	Develop educational material on preventing waste from being buried	Low	Land Management Department	Moderate	Year 2

Strategy	Type	Key Result	Cost	Responsible Party	Priority	Timeline
Develop a Wildlife Management Plan	Best Management Practices and Plans	Develop a Wildlife Management Plan with a focus on reducing human-wildlife interactions	Moderate	Land Management Department with Technical Consultants	Moderate	Year 2
Continue the Caribou Feeding and Maternity Pen Programs	Monitoring and Reporting	Seek funding for ongoing Caribou Feeding and Maternity Pen Programs	Low	Land Stewardship and Other MLIB Staff	High	Year 2
Implement a Forest Warden or Land Guardianship Program to increase wildlife monitoring	Monitoring and Reporting	Seek funding to develop a Junior Forest Wardens or Land Guardianship Program	Moderate	Land Management Environmental Intern with Technical Consultants	Low	Year 5
Work with MOTI to determine feasibility of installing wildlife overpasses along Highway 97 at key wildlife crossing locations	Monitoring and Reporting	Initiate a study to assess the feasibility of a wildlife overpass along Highway 97 at key wildlife crossing locations	High	Land Management Environmental Intern with Technical Consultants and Provincial Government	Low	Year 5
Create a policy to maintain riparian areas for wildlife corridors	Policies	Create a policy to maintain riparian areas for wildlife corridors	Low	Land Management Department and Legal Counsel	Low	Year 5
Implement a Communication Policy	Policies	Create a Communication Policy to increase communication between MLIB departments and ensure MLIB Land Code, Forest Practices Code, and other MLIB laws are adhered to	Low	Land Management Department, Band Administration, and Legal Counsel	Moderate	Year 4
Develop regulations under an Environmental Protection Law to ensure sustainable building practices	Laws and Regulations	Create and implement a regulation for sustainable building practices	Moderate	Land Management Department, PW&H, and Legal Counsel	High	Year 2

Strategy	Type	Key Result	Cost	Responsible Party	Priority	Timeline
Update the <i>Enforcement and Prosecution Law</i> (MLIB 2020-2)	Laws and Regulations	Update the <i>Enforcement and Prosecution Law</i> (MLIB 2020-2) to include the updated requirements to suit large-scale developments on reserve	Moderate	Land Management Department and Legal Counsel	Moderate	Year 2
Create a Subdivision Development and Servicing Law	Laws and Regulations	Create a Subdivision Development Law	High	Land Management Department and Legal Counsel	High	Year 1
Create a policy with green building incentives for new developments	Policies	Create a policy for green building initiatives	Low	Chief and Council and Legal Counsel	Low	Year 5
Update the <i>MLIB Forest Practices Code</i>	Laws and Regulations	Update the <i>MLIB Forest Practices Code</i>	Moderate	Land Management Department and Legal Counsel	High	Year 1
Build capacity in all departments to ensure staff are available to hold new developments accountable to the zoning referenced in the <i>Land Use Plan</i>	Education and Outreach	Create job description documents and hiring process for new staff	Moderate	Land Management Committee	High	Year 1
Participate in regional monitoring of the atmosphere to track changes in air quality	Monitoring and Reporting	Create a program to collect atmospheric data and monitor air quality	Low	Other MLIB Staff	High	Year 2
Develop and implement an Air Quality Monitoring Program at key areas to establish a baseline of air quality data	Best Management Practices and Plans	Create an Air Quality Monitoring Program	Moderate	Land Management Environmental Intern with Technical Consultants	High	Year 2
Create Best Management Practices for firewood	Best Management Practices and Plans	Create a Best Management Practice for firewood that includes provisions for using dry, seasoned wood	Moderate	Land Management Environmental Intern with Technical Consultants	Moderate	Year 3

Strategy	Type	Key Result	Cost	Responsible Party	Priority	Timeline
Develop policies for community notifications during periods of poor air quality	Policies	Develop and implement a policy that outlines community notification during periods of poor air quality and triggers for setting up clean air facilities with air purifiers for members	Low	Land Management Department and Legal Counsel	High	Year 2

4.3 Increasing Staff Capacity

The success of the EMP relies heavily on having the staff capacity to implement it. It is important for MLIB to enact the following measures to increase the environmental capacity of the Lands Department:

- Identify specific positions, develop job descriptions, and outline hiring practices to ensure MLIB staff are prepared to fulfill the 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 field work.
- Host lunch and learn opportunities to educate staff on the EMP.
- Have the EMP printed and available at the Natural Resource Centre and the Band Office.

4.4 Environmental Policy and Law Development

The Land Management Committee, composed of no more than five members, is responsible for enacting land laws to address environmental protection (and other matters, as per the *MLIB Land Code*). The procedure for creating Land Laws is described in Part 2 of the *MLIB Land Code*. A law may be proposed by the Chief, a Councillor, or a member of the Land Management Committee. In terms of the laws proposed in this EMP, the Land Management Committee will draft these laws with the support of legal counsel and introduce them at a council meeting, in due course, meeting the target dates of the implementation schedule; laws must be ratified by the membership.

Key considerations when developing and implementing policies and laws include, but are not limited to the following:

- Policies and laws should be made publicly available to everyone expected to follow them. This will be achieved by posting at the Band Office, Land Management Office, and on the MLIB website, and making them available for mail-out or email, upon request. All developers or contractors will be receiving a copy of the EMP and all laws, policies, and regulations prior to starting work.
- Community education surrounding any policies and laws, including the rationale behind them, should be provided to encourage compliance.
- Consistent compliance measures (education, warnings, checking, compliance orders) and enforcement measures (e.g., ticketing, fines, penalties, enforcement orders, conviction, and/or prosecution) are needed to make laws and associated regulations effective.

5.0 Closure

This EMP is designed to provide a starting point for MLIB and staff as the community takes on the responsibility of governing its lands. As the community grows and develops, this EMP may need to be revisited and adapted to reflect changing conditions and priorities. 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 five 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 toward developing MLIB's environmental protection laws.



Figure 13. View of old road on Weedon Carp IR 6, just off the Forest Service Road

6.0 References

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