

# Malahat Nation IR 11

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# Environmental Management Plan

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## PREPARED FOR

Malahat Nation  
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Mill Bay, BC V0R 2P4

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## PREPARED BY

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## Acknowledgements

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## Executive Summary

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Malahat Nation signed the *Framework Agreement on First Nation Land Management* (Framework Agreement) and adopted its Land Code in October 2014. The Land Code affirms Malahat Nation's right to govern and manage their land, which includes Indigenous Reserve (IR) 11, south of Mill Bay, BC. Malahat Nation has the power to develop and enact laws pertaining to the development, conservation, protection, management, use and possession of First Nation land, and interests or land rights and licenses in relation to that land.

Malahat Nation IR 11 is 239.93ha and largely undeveloped. It has a residential community, and a light industrial park is in development.

This Environmental Management Plan (EMP) has been developed to identify important environmental issues and environmental land management goals and objectives. It describes applicable environmental laws and regimes and identifies Malahat's governance responses to identified environmental issues, such as the development of new laws and policies. The EMP is a living document and will be updated and adapted as needed to reflect the growth and priorities of Malahat Nation into the future.

Malahat Nation retained PGL Environmental Consultants (PGL) to assist in the development of the EMP. Malahat Nation Lands Management staff worked directly with PGL to identify the scope and approach to preparing the EMP.

Malahat Nation conducted the community consultation in spring 2021 using a questionnaire. In-person consultations were not possible due to the Covid-19 pandemic. Responses to the online EMP questionnaire and community feedback from the Comprehensive Community Plan (CCP) consultation process were collected to inform the EMP. Members provided input on the objectives, priorities and values that would be important to address in the EMP.

Based on community priorities, existing conditions on IR 11, responsibilities related to the Land Code and other legislation, Malahat Nation identified 10 environmental management priorities:

- Environmental review;
- Sustainable resource management and development;
- Culturally valuable resources;
- Groundwater and surface water management;
- Contaminated water and soils;
- Waste management;
- Air quality;
- Fish and fish habitat;
- Wildlife and habitat protection; and
- Invasive species management.

The EMP describes the management and administrative needs and processes for Malahat Nation to adopt and implement the EMP. Implementation of the EMP will generally include planning the environmental governance structure, drafting environmental laws and policies, and capacity building and staff training. The EMP recommends implementation steps and schedule, including regular review of the EMP and amendments as appropriate.

*This Executive Summary is subject to the same standard limitations as contained in the report and must be read in conjunction with the entire report.*



## Table of Contents

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<b>1.0</b>	<b>Introduction</b> .....	<b>1</b>
1.1	Malahat Nation: Who We Are .....	1
1.2	What is an Environmental Management Plan? .....	1
<b>2.0</b>	<b>Preparation of the Environmental Management Plan</b> .....	<b>2</b>
2.1	Meetings and Community Consultation.....	2
2.1.1	EMP Survey Responses.....	3
2.2	Document Review .....	5
<b>3.0</b>	<b>Environmental Management Plan Objectives and Priorities</b> .....	<b>5</b>
3.1	Objectives .....	6
3.2	Relationship to Other Planning Documents .....	6
3.2.1	Malahat Nation Land Use Plan.....	6
3.2.2	Malahat Nation Comprehensive Community Plan .....	7
3.3	Existing Conditions and Current Malahat Regulatory Regime .....	7
3.3.1	Environmental Review Process.....	8
3.3.2	Sustainable Land Management.....	9
3.3.3	Culturally Valuable Resources .....	9
3.3.4	Groundwater and Surface Water Management .....	9
3.3.5	Contaminated Water and Soils.....	10
3.3.6	Waste Management .....	11
3.3.7	Air Quality .....	11
3.3.8	Fish and Fish Habitat.....	12
3.3.9	Wildlife and Habitat Protection .....	12
3.3.10	Invasive Species Management .....	13
3.4	Malahat Nation Environmental Management Priorities .....	14
3.4.1	Environmental Review.....	15
3.4.2	Sustainable Land Management.....	15
3.4.3	Culturally Valuable Resources .....	16
3.4.4	Groundwater and Surface Water Management .....	16
3.4.5	Contaminated Water and Soils.....	17
3.4.6	Waste Management .....	17
3.4.7	Air Quality .....	18
3.4.8	Fish and Fish Habitat.....	18
3.4.9	Wildlife and Habitat Protection .....	18



3.4.10	Invasive Species Management .....	19
3.5	Potential Responses for Environmental Management .....	19
3.5.1	Laws, Policies, and Regulations.....	19
3.5.2	Education and Outreach.....	20
3.5.3	Monitoring and Reporting .....	20
<b>4.0</b>	<b>Management Responses to Environmental Priorities .....</b>	<b>21</b>
4.1	Environmental Review.....	21
4.1.1	Management Objectives.....	21
4.1.2	Management Regime and Responses .....	22
4.2	Sustainable Land Management.....	23
4.2.1	Management Objectives.....	23
4.2.2	Management Regime and Responses .....	24
4.3	Culturally Valuable Resources .....	26
4.3.1	Management Objectives.....	26
4.3.2	Management Regime and Responses .....	26
4.4	Groundwater and Surface Water.....	28
4.4.1	Management Objectives.....	28
4.4.2	Management Regime and Responses .....	29
4.5	Contaminated Water and Soils.....	30
4.5.1	Management Objectives.....	30
4.5.2	Management Regime and Responses .....	30
4.6	Waste Management .....	32
4.6.1	Management Objectives.....	32
4.6.2	Management Regime and Responses .....	32
4.7	Air Quality .....	34
4.7.1	Management Objectives.....	34
4.7.2	Management Regime and Responses .....	35
4.8	Fish and Fish Habitat.....	36
4.8.1	Management Objectives.....	36
4.8.2	Management Regime and Responses .....	37
4.9	Wildlife and Habitat Protection .....	38
4.9.1	Management Objectives.....	38
4.9.2	Management Regime and Responses .....	38
4.10	Invasive Species Management .....	40
4.10.1	Management Objectives.....	40

4.10.2	Management Regime and Responses .....	40
<b>5.0</b>	<b>Environmental Management Plan Implementation .....</b>	<b>42</b>
5.1	Environmental Governance Structure .....	42
5.2	Drafting of Environmental Laws and Policies .....	43
5.3	Capacity Building and Staff Training .....	47
5.4	Implementation Steps and Schedule.....	48
5.5	Regular Review .....	49
<b>6.0</b>	<b>Closing.....</b>	<b>49</b>
<b>7.0</b>	<b>References .....</b>	<b>50</b>

## LIST OF TABLES

Table A: Proposed Responses and Priorities Addressed

## LIST OF FIGURES

### *In text*

Figure A: Excerpt of Members' Responses ..... 3  
Figure B: Tabulated Responses to the EMP Questionnaire by Category ..... 5

### *Appended*

Figure 1 Site Location  
Figure 2 Malahat IR 11 Key Features  
Figure 3 Malahat IR 11 Land Use Designations  
Figure 4 Malahat IR 11 Areas of Environmental Concern

## LIST OF APPENDICES

Appendix 1 Community Questionnaire Responses  
Appendix 2 Laws and Regulations



## List of Acronyms

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<b>AEC</b>	-	area of environmental concern
<b>APEC</b>	-	areas of potential environmental concern
<b>AST</b>	-	aboveground storage tank
<b>BMP</b>	-	best management practice
<b>CCME</b>	-	Canadian Council of Ministers of the Environment
<b>CCP</b>	-	Comprehensive Community Plan
<b>CEAA</b>	-	Canadian Environmental Assessment Act
<b>CEMP</b>	-	Construction Environmental Management Plan
<b>CMT</b>	-	Culturally Modified Tree
<b>CP</b>	-	Certificate of Possession
<b>CVRD</b>	-	Cowichan Valley Regional District
<b>DRIPA</b>	-	Declaration on the Rights of Indigenous Peoples Act
<b>EMP</b>	-	Environmental Management Plan
<b>ESA</b>	-	Environmental Site Assessment
<b>EVR</b>	-	Environmentally Valuable Resources
<b>IAA</b>	-	Impact Assessment Act
<b>IR</b>	-	Indigenous Reserve
<b>ISC</b>	-	Indigenous Services Canada
<b>ISCBC</b>	-	Invasive Species Council of British Columbia
<b>LUP</b>	-	Land Use Plan
<b>MOTI</b>	-	Ministry of Transportation and Infrastructure
<b>OEMP</b>	-	Operational Environmental Management Plan
<b>PGL</b>	-	PGL Environmental Consultants
<b>PHC</b>	-	petroleum hydrocarbons
<b>PM2.5</b>	-	fine inhalable particulate matter ( $\leq 2.5\mu\text{m}$ )
<b>SAR</b>	-	species at risk
<b>UNDRIP</b>	-	United Nations Declaration on the Rights of Indigenous Peoples



## 1.0 INTRODUCTION

Malahat Nation signed the *Framework Agreement on First Nation Land Management* (Framework Agreement) and adopted its Land Code in October 2014. The Land Code affirms Malahat Nation's right to govern and manage their land, which includes Indigenous Reserve (IR) 11, located in an area south of Mill Bay, BC (Figure 1). Nations with Land Codes have the power to develop and enact laws pertaining to the development, conservation, protection, management, use and possession of First Nation land, and interests or land rights and licenses in relation to that land.

Malahat Nation IR 11 encompasses 239.93ha of land bordered by the Saanich Inlet to the east, Highway 1 to the west, the Village of Mill Bay to the north, and Bamberton Provincial Park and campsite to the south. IR 11 is largely undeveloped and vegetated, community-held land with a residential community core, two certificates of possession (CPs), and a light industrial park in development (Figure 2).

### 1.1 Malahat Nation: Who We Are

The name "Malahat" comes from the SENĆOŦEN word **MÁLEXEŁ** and Hulqumínuḡ word **Ma'le-'h'xe'l'**, both of which are derived from the words for "caterpillars". As of September 2020, Malahat Nation has a total registered population of 357 persons. Of the registered members, approximately 55% live on Malahat lands.

The traditional languages spoken in Malahat Nation were Hulqumínuḡ, SENĆOŦEN, and Samish. Malahat Nation works actively on revitalizing the traditional languages. Language components are introduced into various programs to facilitate continuation of the traditional languages.

Through its history, Malahat Nation owned and occupied several village sites and resource areas. Two significant village sites are **Keya** (near the mouth of Shawnigan Creek) and **Ma'le-'h'xe'l'** (located between Verdier Point and McPhail). The territory around these villages was used for hunting, fishing, and berry gathering, as well as ritual and ceremonial activities. Those areas are rich in cultural heritage resources including archaeological sites that have physical remains including rock art, old village sites, and lithic scatters.

Malahat Nation has inherent Aboriginal rights (including title) throughout the Nation's traditional territory, which arise from the Nation's long use and occupancy of the territory prior to colonization. These rights include, but are not limited to, the right to traditional, cultural, and ceremonial practices, the right to access the land and resources of the territory, the right to self-determination and self-government, and the right to enter into treaties. Malahat Nation descends from signatories of the Douglas Treaties and asserts rights pursuant to this.

### 1.2 What is an Environmental Management Plan?

An Environmental Management Plan (EMP) is a tool that guides First Nations who have signed the *Framework Agreement* (and are thus called "Operational First Nations") in identifying important environmental issues and environmental land management goals and objectives. An EMP describes existing federal, provincial, or municipal environmental laws and regimes that are, or may be, applicable to the land. Where gaps exist or greater protection is wanted, an EMP identifies a Nation's governance responses to environmental issues that have been identified. These responses can include the development of new Nation-specific laws and policies.

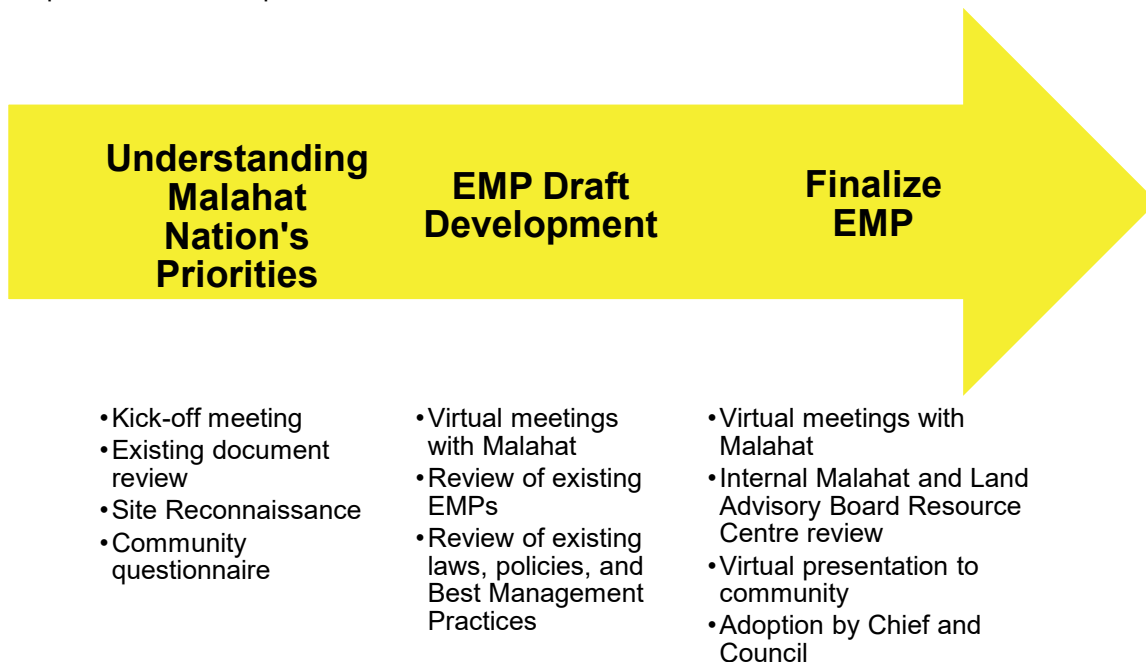


The EMP is a living document and will be updated and adapted as needed to include new policies and reflect the growth and priorities of Malahat Nation into the future.

## 2.0 PREPARATION OF THE ENVIRONMENTAL MANAGEMENT PLAN

Malahat Nation retained PGL Environmental Consultants (PGL) to assist in the development of the EMP. Malahat Nation Lands Management staff worked directly with PGL to identify the environmental issues, goals and objectives of the EMP. Malahat and PGL followed guidance from the First Nations Land Management Resource Centre, particularly *A Guide to Preparing Environmental Management Plans for Operational First Nations* (Harper 2016).

Steps taken to develop the EMP included:



## 2.1 Meetings and Community Consultation

Malahat Nation Lands Management staff and PGL held regular meetings to discuss content; Malahat Nation also conducted several internal meetings. The meetings between Malahat and PGL were used to scope the environmental management priorities, EMP template, environmental management priority responses, discuss EMP governance and adoption, and EMP draft revisions. The internal meetings were held to coordinate community input to identify priorities and set directions for action.

Malahat Nation conducted the community consultation in spring 2021 through social media and social programs, using a questionnaire developed in collaboration with PGL. In-person consultation with large groups, such as community meetings, were not possible due to the Covid-19 pandemic and concerns for the health and safety of the community. Nine community members responded to the online EMP questionnaire. In addition, community feedback from the Comprehensive Community Plan (CCP) consultation process was integrated where there was relevance to the EMP. The CCP consultation process was conducted from fall 2020 through spring 2021, in which 91 members provided input. The questionnaire is provided in **Appendix 1**. A summary of community responses and how this was considered in the EMP is provided below.

### 2.1.1 EMP Survey Responses

The community EMP survey introduced the project and asked a series of questions around environmental protection for future generations, integration of Malahat culture and values into the EMP, specific features to be protected, and development on IR 11. Below (Figure A) is an excerpt from members' responses to suggested components of the EMP. Each is followed by sample responses suitable for inclusion in the EMP. This is followed (in Figure A) by a summary of overall feedback received.

#### Figure A: Excerpt of Members' Responses

<p><b>1. Too much of the community land has been logged and not replanted.</b></p> <p><i>Response: Address replanting within the Sustainable Land Management section of the EMP.</i></p>
<p><b>2. Protect medicinal plants.</b></p> <p><i>Response: Include a reserve-wide medicinal plant survey as part of a bioinventory and protection strategy in the Culturally Valuable Resources section of the EMP.</i></p>
<p><b>3. Protect cedar.</b></p> <p><i>Response: Include a reserve-wide cedar survey as part of a bioinventory, and management strategy in the Culturally Valuable Resources section of the EMP.</i></p>
<p><b>4. Protect bathing areas.</b></p> <p><i>Response: The Malahat Nation Land Use Plan (Malahat Nation 2018) preserves 30m on either side of Malahat Creek. Additional community consultation to investigate need for larger buffer/other culturally significant areas in the Culturally Valuable Resources section of the EMP.</i></p>
<p><b>5. Have a spring clean up to keep community clean.</b></p> <p><i>Response: Include spring clean-up as a strategy in Waste Management section of the EMP.</i></p>
<p><b>6. Bring in grass and trees to development areas.</b></p> <p><i>Response: Include landscaping requirements as a component of land instrument negotiations, consider where landscaping policies/Best Management Practices (BMPs) can be included in the Sustainable Land Management section and Invasive Species Section of the EMP.</i></p>
<p><b>7. Improve drinking water quality.</b></p> <p><i>Response: Include groundwater protection plan and monitoring program as a strategy within the Groundwater and Surface Water Management section of the EMP.</i></p>
<p><b>8. Protect Malahat Creek.</b></p> <p><i>Response: Address protection of Malahat Creek within Fish and Fish Habitat section of the EMP, pointing to Fisheries Act as well as provincial and federal water quality guidelines.</i></p>
<p><b>9. Protect air quality.</b></p> <p><i>Response: Include air emissions standards (via development of an Environmental Protection Law) and monitoring program in Air Quality section of the EMP.</i></p>
<p><b>10. Protect our beaches and waters, including clam beds</b></p> <p><i>Response: The EMP focuses on IR 11 lands; however, the EMP will specify that the Fisheries Act applies. Strategies for monitoring and managing beachfront erosion can be included in the Fish and Fish Habitat section of EMP. Protection of groundwater and surface water quality on IR 11 will also support the ecological health of beaches and clam beds.</i></p>

**11. Teach young generations the cultural values of our environment.**

*Response: Include environmental education and communication program as a strategy in the Culturally Valuable Resources section of the EMP.*

**12. Record Malahat's history of culture and values in environmental protection.**

*Response: Record stories regarding environmental protection through Traditional Use Research project and as a strategy in the Culturally Valuable Resources section of the EMP.*

**13. Communicate information about development and environmental protection on Malahat lands with the membership in a transparent manner.**

*Response: Establish a Lands Management Advisory Committee. Post information regarding environmental reviews and projects on IR 11. Provide environmental monitoring and stewardship opportunities through a program, to be identified in the Sustainable Land Management section of the EMP.*

**14. Develop meetings, newsletters, reading materials and community tours for environmental education and communication**

*Response: Include an environmental education and communication program as a strategy in all sections of the EMP.*

**15. Develop stewardship and leadership in environmental protection and ecosystem conservation.**

*Response: The EMP development and implementation directly strengthens stewardship and leadership in environmental protection and ecosystem conservation. Incorporate stewardship, training, and leadership into section of the EMP.*

**16. Raise awareness of protecting Malahat environment.**

*Response: Establish a Lands Management Advisory Committee. Post information regarding environmental reviews and projects on IR 11. Provide environmental monitoring and stewardship opportunities through a program, to be identified in the Sustainable Land Management section of the EMP.*

**17. Make sure companies take responsibilities for damages to the land and air.**

*Response: Establish an Environmental Protection Law in the Sustainable Land Management and Air Quality sections of the EMP. In the interim, ensure that land instrument negotiations address liability.*

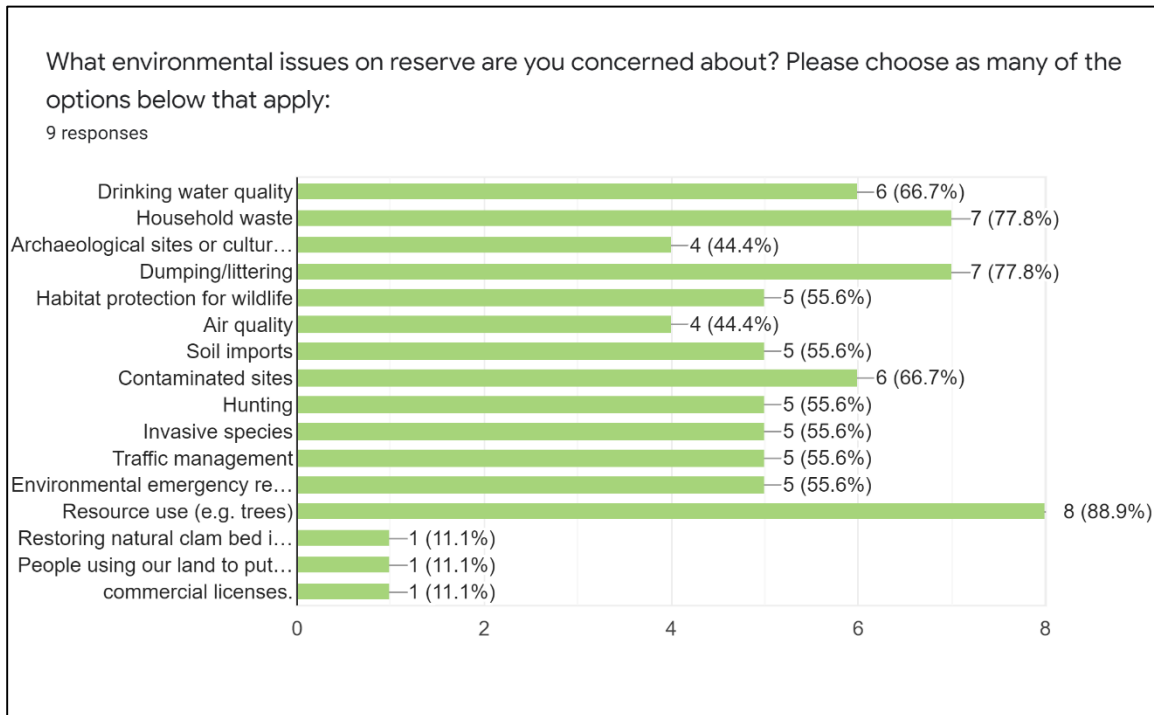
**18. Encourage new development on Bamberton lands and treaty lands**

*Response: The Bamberton lands are outside the scope of the EMP (which focuses on IR 11); however, a Reserve Zoning and Development Law is to be included in the Lands Department strategic planning for 2022, building upon the Malahat LUP. The Zoning and Development Law will also be included in the Sustainable Land Management section of the EMP. Use of the Bamberton and treaty lands is to be determined through treaty-related consultation.*

**19. Stop letting people put up memorial sites**

*Response: Memorial sites are within the BC Ministry of Transportation and Infrastructure right-of-way. Malahat will consider ways of addressing this outside of the EMP.*

**Figure B: Tabulated Responses to the EMP Questionnaire by Category**



## 2.2 Document Review

The following documents were reviewed during the development of the EMP:

- Malahat Nation Land Code (Malahat Nation 2014);
- Malahat Nation Land Use Plan (Malahat Nation 2018);
- Malahat Nation Comprehensive Community Plan (Malahat Nation 2021a);
- Framework Agreement on First Nation Land Management (Government of Canada 1996, includes amendments to 2018);
- Malahat Nation Strategic Plan 2019 – 2024 (Malahat Nation 2019);
- Malahat Nation Strategic Plan 2021 – 2025 (Malahat Nation 2021b); and
- Malahat Nation Environmental Site Assessments (Phase I to Phase III) (Golder Associates Ltd. 2014, 2016, and 2018).

## 3.0 ENVIRONMENTAL MANAGEMENT PLAN OBJECTIVES AND PRIORITIES

The following sub-sections address the objectives of the EMP, its relationship to other Malahat documents, existing conditions at Malahat IR 11, and the environmental priorities identified by Malahat Nation to manage from the current state.

### 3.1 Objectives

The goal of the EMP is to guide Malahat Nation in the protection and management of environmental and cultural resources within IR 11, while supporting sustainable growth and economic development and fostering community stewardship, education, and employment. The objectives for this EMP are to:

- Identify the community's environmental concerns and priorities;
- Identify existing documents, polices, and laws relevant to Malahat Nation;
- Provide opportunities for filling gaps in the existing legal and policy structure;
- Identify capacity building, education, and monitoring opportunities; and
- Provide direction on the implementation of the EMP.

The EMP will provide direction to implement permanent changes, population-level changes, understand and manage temporal changes, and monitor the resultant changes with IR 11 (including identifying impacts originating from off-reserve).

Opportunities to fill gaps in the existing legal and policy structure include identifying:

- Community concerns and priorities to understand what matters to the community with respect to the environment and lands;
- Existing Malahat Nation documents that can be updated to reflect current conditions and work within the framework of the Land Code, Land Use Plan (LUP), and EMP;
- Existing informal processes that can be codified to become laws; and
- Laws, policies, and standards that exist elsewhere that are relevant to Malahat Nation.

### 3.2 Relationship to Other Planning Documents

Malahat Nation has two existing planning documents which will be complemented and supported by the EMP: Malahat Nation LUP and the Malahat Nation CCP. Below are descriptions of these documents and their relationship to the EMP.

#### 3.2.1 Malahat Nation Land Use Plan

Malahat Nation has developed a LUP (Malahat Nation 2018). The LUP is a guidance document that describes Malahat's priorities and goals for development within IR 11. The LUP describes the existing conditions on IR 11, and identifies the following land-use designations (Figure 3):

1. Community Lands Designation
2. Industrial Lands Designation
3. Multiple Use Lands Designation

Each land-use designation has defined in terms of use objectives and policies for each. Key policies include requirements for buffers from environmentally sensitive areas, such as creeks, buffers between industrial and residential lands, provisions for rights-of-way for pedestrians and transportation, building design and use, provisions for green spaces and amenities, and requirements for studies such as archaeological and massing.



This EMP is intended to support the LUP and the guiding principles therein in a harmonious way, without repetition or contradiction. This EMP aims to reflect the following LUP guiding principles in the responses to environmental issues on Malahat Nation land:

1. Long-term benefit to Nation
2. Respect for culture and customs
3. Innovation
4. Preservation and protection
5. Ecosystem-based management
6. Sustainability
7. Cooperative relationships
8. Self-sufficiency
9. Opportunities for our members

### **3.2.2 Malahat Nation Comprehensive Community Plan**

The Malahat Nation CCP (Malahat Nation 2021) is an overarching community plan, drawn from in-depth community consultation, that identifies key values and objectives to guide the Nation's future planning and decision-making. Associated action ideas are also identified within the CCP to achieve these objectives successfully. The EMP draws from the values, objectives, and action ideas within the CCP. The seven values of Malahat identified in the CCP are:

1. Community Growth
2. Community Services
3. Community Unity
4. Cultural Continuity
5. Cultural Respect
6. Empowerment & Leadership
7. Government Transparency

### **3.3 Existing Conditions and Current Malahat Regulatory Regime**

Malahat IR 11 is 239.93ha of land located on the western shore of the Saanich Inlet. It is bounded by the Trans-Canada highway to the west, the community of Mill Bay to the north, and the Bamberton lands to the south. IR 11 slopes steeply towards the ocean and includes four creeks. Malahat Creek is the primary watercourse; it flows past the community on the north side of the residential area. Mill Bay Ferry Terminal, operated jointly between the Ministry of Transportation and Infrastructure and BC Ferries is situated on Saanich Inlet, with the only access to the ferry terminal via Mill Bay Road. This access route segments the IR 11 lands and brings traffic through the community.

The IR 11 lands have been used for resource development and industrial purposes, including selective logging, commercial development (55 acres of light industrial land uses), gravel extraction, a carving shed, and as a soil fill repository.



The residential core includes:

- Approximately 50 houses
- Community garden;
- Boat barn;
- Firewood lot;
- Water reservoir and pumphouse;
- Two lift stations with a siphon chamber;
- Band office;
- Recreation center;
- Daycare;
- Health care unit;
- Kwunew Kwasun Cultural Center;
- Lands Department office;
- Member services office;
- Long house; and
- Treaty office.

Verdier Point – a former log boom and log drop area on the foreshore of IR 11 – is an important green space in the community. It now includes a new boat launch.

A site reconnaissance was completed with PGL on January 25, 2021. Environmental priorities identified during the site reconnaissance included:

- Erosion concerns;
- Dumping of household waste;
- Traffic from the ferry terminal;
- Invasive plants;
- Protection of water wells; and
- Contamination on CP lands.

### 3.3.1 Environmental Review Process

Development projects within the 22.26ha business park on IR 11 are currently reviewed and assessed under the Interim Development Process using an Interim Development Permit Application. Based on the Indigenous Services Canada (ISC) review process, the Interim Development Permit Application requires the applicant to identify potential impacts of the project on archaeology, traditional indigenous use, water, energy, wastes, air quality, light, timber, and species at risk.

The *Malahat Nation Land Code* directs Malahat to establish a Lands Management Advisory Committee; an Environmental Review Policy is being developed by Malahat to refine the environmental review process that will be administered by the Land Management Advisory Committee.



### 3.3.2 Sustainable Land Management

The Malahat LUP and CCP, as described above in Section 3.2, form the basis for sustainable land management and development on IR 11. The LUP includes policies for buffers from creeks, protection of land for greens space, provision of buffers, preservation of wildlife corridors, sustainable building design, growth objectives, and services. The CCP identifies goals for environmental protection and sustainable development, including the development of new laws for environmental protection.

Currently, Malahat does not have zoning or development laws. While the LUP provides policies for Malahat to apply to developments, a law with defined requirements for developments is needed to address the community's concerns regarding environmental protection and environmental impact of development.

### 3.3.3 Culturally Valuable Resources

Culturally valuable resources on IR 11 are both physical and spiritual/intangible. Physical resources include archaeological sites, culturally modified trees (CMTs), cedar, medicinal plants, food resources (fish and shellfish, plants, and mammals), creeks, and bathing areas. Spiritual/intangible resources include language, customs/traditions, transfer of knowledge, practice of traditional rights, inclusion, and respect.

Protection of culturally valuable resources, cultural continuity, and cultural respect are goals of the CCP. Additionally, requirements for archaeological surveys are described under the policies of the LUP. Malahat has created clear priorities for protecting culturally valuable resources. A goal of this EMP is to provide Malahat with a legal framework to address these priorities.

### 3.3.4 Groundwater and Surface Water Management

Groundwater and surface water are both vital environmental assets and a defining cultural characteristic for the Malahat Nation. Malahat Creek runs from west to east at the south end of Malahat IR 11 lands towards the Saanich Inlet, a marine environment. Several other small creeks are also present and generally flow east towards the Inlet. Malahat Nation has established a 30-metre setback or buffer from Malahat Creek and other small creeks as environmentally protected areas to preserve ecological value and passive recreation use by members.

Malahat Nation relies on groundwater from bedrock aquifer #208 for the community water supply. Drinking water is sourced from two groundwater extraction wells and stored in a drinking water reservoir in the south area of Malahat IR 11.

The LUP identifies the need to maintain and increase the water supply as development increases on IR 11 lands to ensure the provision of potable water and firewater requirements. To promote the sustainable use of the groundwater resource, new developments will be required to minimize water use (e.g., low consumption fixtures, water meters, leak detection systems, and drought-resistant natural landscaping).

### 3.3.5 Contaminated Water and Soils

Multiple environmental site assessments (ESAs) have been completed on Malahat IR 11 lands that identified and investigated areas of potential environmental concern (APECs). A total of nine APECs were identified; further investigation reduced these to five areas of environmental concern (AECs) (Figure 4). Soil and/or groundwater contamination were identified onsite related to the following confirmed AECs:

- A gravel pit/refuse dumping area (AEC 3);
- Possible buried vehicles and other debris (AEC 5);
- Onsite fill receiving facility (AEC 6);
- Fill of unknown source/quality (in other areas, outside the fill receiving site) (AEC 7); and
- Former heating oil and diesel aboveground storage tanks (AEC 8).

General refuse (construction and wood debris, cardboard, furniture, small appliances, etc.) has been deposited in a former gravel pit area in the northern portion of Malahat IR 11 lands. Copper and zinc contaminated soils exceeding Canadian Council of Ministers of the Environment (CCME) residential (RL)/parkland (PL) land use guidelines were identified in this area; contaminated groundwater was not identified. Soil impacts have a lateral extent of 750m<sup>2</sup> and were not delineated at depth. The volume of contaminated soil was estimated to be approximately 5,000m<sup>3</sup>. General refuse remains in this area and soil remediation has not been completed.

Petroleum hydrocarbon (PHC) and metals contamination in soil and groundwater were identified on a residential property where crushed vehicles and other debris were potentially buried. Approximately 150m<sup>3</sup> of PHC-impacted soils and 90m<sup>3</sup> of metals-impacted soils were identified. Groundwater impacts were delineated and found to be localized to one monitoring well location. Malahat IR 11 has received and will continue to receive fill from commercial/industrial sites and future use of the lands may result in the release of contaminants into soil, groundwater, surface water, sediment, or soil vapour. Imported fill soil met site-specific criteria developed by Teal Solutions Ltd. Soil acceptance criteria were based on CCME and BC Contaminated Sites Regulation criteria for commercial land use and considered the protection of marine aquatic life; drinking water use and protection of freshwater aquatic life criteria were not considered applicable. Previous investigations focused on assessing potential impacts from the imported fill material to environmental receptors rather than a thorough assessment of fill quality. Fill quality is assumed to be poor, highly variable, and changing (due to the continued importing of fill). Chloride contaminated soils and metals/anion contaminated groundwater were identified downslope of the fill site. Hydrocarbon-contaminated soil was identified in the upslope area of the fill site.

Copper and zinc-contaminated soils were identified on two residential properties adjacent to Ferry Road related to poor-quality fill material. Delineation of impacts was not achieved but estimated volume of contaminated soils is at least 50m<sup>3</sup>. Further investigation is required to delineate soil impacts to the northwest.

Heating oil and diesel aboveground storage tanks (ASTs) were used historically for heating houses on Malahat IR 11 lands. ASTs have since been removed; however, metals contaminated soils were identified in soils within the footprint of the former ASTs; no PHC contamination was identified. Contaminated soils are within 0.6m of ground surface and likely related to imported fill material rather than fuel storage. Impacts were not delineated but the volume of contaminated soils is estimated to be at least 10m<sup>3</sup>.

Two other AECs were also initially identified – AEC 2: Timber Pilings and Debris and AEC 9: Possible Treated Poles and Herbicide/Pesticide Use; however, remediation is not required in these areas. Sediment contamination identified in the Phase II ESA by Golder could not be replicated in subsequent investigations and so the AEC is no longer retained.

Elevated hydrocarbon concentrations identified in the Phase II ESA exceeded CCME criteria for the protection of freshwater aquatic life. Further assessment determined this receptor was not applicable and therefore, all concentrations met applicable criteria. In the absence of contaminated soils or groundwater, this AEC is no longer retained.

Groundwater-monitoring wells from previous investigations remain onsite for future sampling events, if required.

Remediation of soil and groundwater impacts has not been completed. Remedial options include source/debris removal, remedial excavation or risk assessment/risk management contamination in place or a combination of the above.

### 3.3.6 Waste Management

Waste generated by Malahat IR 11 includes both solid and liquid waste from residential and commercial properties. Solid waste is managed via community waste collection bins that are picked up and disposed offsite at regular intervals.

Household waste is generated within the village setting, is placed in a waste collection bin and picked up twice a week for disposal offsite. Other solid waste generated onsite (including waste generated from commercial operations) is collected in six waste collection bins for weekly pickup and disposal offsite. Two waste collection bins are used for collection of recyclable materials and picked up biweekly.

Other waste collection bins are utilized for seasonal brush/yard waste and specialty waste (e.g., furniture, appliances, etc.) and picked up for disposal offsite twice annually.

IR 11 has been used for unauthorized dumping, primarily along Mill Bay Road, and within a former quarry.

The CCP identifies goals for improved garbage, recycling and compost programs and education.

Liquid waste (domestic sewage) is generated from village households, collected, and stored in a septic tank and effluent is directed to a community-based septic field, located west of the north gravel pit. The current wastewater management system is at capacity and will require expansion to meet the growing needs of the community.

### 3.3.7 Air Quality

Air quality on IR 11 was recorded in the past; however, this monitoring has not been resumed. Air quality on IR 11 can be negatively affected by several onsite sources, including wood burning fireplaces, dust generation from unpaved roads, and idling traffic on Ferry Road (jointly managed by Ministry of Transportation and Infrastructure [MOTI] and BC Ferries).



The LUP identifies safe, convenient, and accessible forms of non-automobile transportation as a community planning objective. Additionally, a thermal treatment facility planned for the industrial area will require monitoring for air quality impacts. An objective of this EMP is to provide Malahat with a legal framework to address these priorities.

### 3.3.8 Fish and Fish Habitat

Malahat IR 11 has four creeks running west to east through the reserve and out to the Saanich Inlet. Malahat Creek is the largest of the creeks, which flows to the north of the main housing and community area. The north-most creek provided salt marsh habitat at the mouth; however, this area was filled in during the construction of Mill Bay Road by the Ministry of Transportation and Infrastructure. Given the steep terrain, fish use of the creeks on IR 11 is limited to the lowest reaches of the watercourses. However, water quantity and quality, as well as nutrient inputs to the creeks provides valuable resources to fish within the lower reaches and beyond in the Saanich Inlet.

The community values harvesting and fishing resources within the Saanich Inlet. While this area is off reserve, the watercourses on IR 11 directly impact the habitat within the marine harvesting areas. The right to harvest fisheries resources in a sustainable and responsible way is not only a priority to Malahat, it is a federal mandate under the Douglas Treaties rights to “carry on our fisheries as formerly”. Furthermore, the protection and restoration of clam beds off-reserve are a priority for community members.

Currently, the Malahat LUP restricts development within 30m of a watercourse to protect riparian habitat and minimize potential impacts to watercourses, in turn preventing further degradation of off-shore habitat. Additional laws are required to address other sources of impacts to fish and fish habitat. Identification these is an objective of this EMP.

### 3.3.9 Wildlife and Habitat Protection

Wildlife and wildlife habitat on IR 11 provide the Malahat community with opportunities to carry out hunting and gathering of food/medicinal plants: these activities represent both important cultural practices and a means to provide food for the community.

Species at Risk (SAR) and their critical habitat are federally protected under the *Species at Risk Act*; as a federal law, this Act applies on IR 11. Wildlife habitat and hunting reserves are not currently identified on IR 11. The Malahat LUP does identify policies for establishing wildlife corridors and greenspaces; a legal/policy framework for how this will be implemented is required.

Malahat recently had a desktop SAR survey for IR 11 completed for a Water System Assessment for ISC environmental review (Urban Systems 2021). The desktop review lists potential SAR that may occur in the area based on spatial distribution and suitable habitat, as well as any SAR occurrences that have been logged through the BC Conservation Data Centre and mapped.

Current wildlife SAR with suitable habitat within or adjacent to IR 11, and the potential to occur include (Urban Systems 2021):

- Northern red-legged frog (*Rana aurora*);
- Wandering salamander (*Aneides vagrans*);
- Band-tailed pigeon (*Patagioenas fasciata*);



- Barn swallow (*Hirundo rustica*);
- Common nighthawk (*Chordeiles minor*);
- Evening grosbeak (*Coccothraustes vespertinus*);
- Great blue heron, *fannini* subspecies (*Ardea herodias fannini*);
- Olive-sided flycatcher (*Contopus cooperi*);
- Threaded vertigo (*Nearctula* sp. 1);
- Dun skipper (*Euphyes vestris*);
- Greenish blue, *insulanus* subspecies (*Icaricia saepiolus insulanus*); and
- Little brown myotis (*Myotis lucifugus*).

Current plant and lichen SAR with suitable habitat within or adjacent to IR 11, and the potential to occur include (Urban Systems 2021):

- Deltoid balsamroot ([Balsamorhiza deltoidea](#));
- Tall woolly-heads ([Psilocarphus elatior](#));
- Peacock viny ([Scytinium polycarpum](#));
- Howell's violet (*Viola howellii*);
- Leafless wintergreen (*Pyrola aphylla*);
- Pine broomrape (*Aphyllon pinorum*); and
- Ozette coralroot (*Corallorhiza maculate* var. *ozettensis*).

Field inventory to ground-truth the desktop survey has not been completed to date, nor has an inventory of ecosystems at-risk been completed. Field identification of SAR and at-risk ecosystem occurrences and SAR habitat within IR 11 is required to gain an understanding of the SAR resources available on IR 11 and delineation of areas needing protection.

Knowledge transfer of traditional hunting and plant gathering practices is a priority for the Malahat community, a subject also addressed under Section 3.3.3. – Culturally Valuable Resources and has been identified in the CCP. Cultural respect for wildlife also includes ensuring harvested animals and plants are not wasted and suffering is limited. Continuing hunting education for the community is a priority. Furthermore, reducing human-wildlife conflicts with improved waste management practices will benefit the community and the wildlife present.

### 3.3.10 Invasive Species Management

Invasive plants and animals are an inevitable effect of development and transportation corridors. Invasive plants and animals can be transported through the movement of soil or firewood, attached to vehicles, clothing or equipment, transported by wind or animals, illegal dumping, or escapement from gardens. Disturbed lands, such as those that have been cleared for wood harvest or fill sites, represent prime areas where invasive plants can easily and rapidly establish. Currently, invasive plant and animal management policies do not exist on Malahat IR 11. Additionally, there are no policies for the safe application of herbicides or pesticides.

Invasive species can negatively impact ecosystems because the natural checks and balances that keep the species in balance are not present, which can result in rapid population growth, displacement of native species competition for resources with native species, and predation upon native species. Furthermore, invasive species can have serious economical impacts such as the loss or damage to crops and resources, degradation or destruction of infrastructure, high cost of control and removal, and human health concerns.



During the site reconnaissance, several invasive species were observed on IR 11. These included the following:

- Knotweed (*Fallopia* spp.) – a provincially noxious and regulated invasive plant;
- Scentless chamomile (*Matricaria maritima*) - a provincially noxious and regulated invasive plant;
- Scotch broom (*Cytisus scoparius*) – an invasive plant of provincial concern;
- Himalayan blackberry (*Rubus armeniacus*);
- English ivy (*Hedera helix*);
- Great mullein (*Verbascum thapsus*);
- Common St. John's-wort (*Hypericum perforatum*) – an invasive plant of provincial concern;
- Common tansy (*Tanacetum vulgare*);
- Burdock (*Arcticum* spp.);
- Oxeye daisy (*Chrysanthemum leucanthemum*); and
- Thistle (*Cirsium* spp.) – either an invasive plant of provincial concern or a provincially noxious and regulated invasive plant.

A complete inventory is required to map invasive plant locations within IR 11 so that a plan for treating and monitoring infestations can be developed.

Invasive animal species are also a concern and can pose similar impacts as invasive plants. Some invasive animal species that may be present on IR 11 include, but are not limited to:

- Eastern cottontail rabbit (*Sylvilagus floridanus*);
- European rabbit (*Oryctolagus cuniculus*);
- Eastern grey squirrel (*Sciurus carolinensis*);
- European starling (*Sturnus vulgaris*);
- Green frog (*Lithobates clamitans*);
- American bullfrog (*Lithobates catesbeianus*);
- Asian clam (*Corbicula fluminea*);
- Asian long-horned beetle (*Amphoplophora glabripennis*);
- European brown garden snail (*Cornu aspersum*); and
- Black slug (*Arion rufus*).

The Malahat community has identified invasive species as a management priority.

### 3.4 Malahat Nation Environmental Management Priorities

Malahat selected 10 environmental management priorities based on the preceding description of environmental conditions, Malahat's existing environmental management framework, and responsibilities/requirements for environmental governance under Land Code.

The following subsections provide context and a rationale for including each in the EMP.



### 3.4.1 Environmental Review

To assume land management responsibilities under the *Malahat Nation Land Code*, Malahat Nation entered into an Individual Agreement with Canada. The Individual Agreement describes the land that will be subject to the land code and the terms of the transfer of administration of that land, including the environmental assessment process that will apply to Malahat Nation Land until the enactment and coming into force of Malahat Laws on the subject (Annex F of the Individual Agreement).

Pursuant to the terms of the Individual Agreement, Malahat shall conduct an assessment process in respect of every project on First Nation Land that is consistent with CEAA 1992, or CEAA 2012. CEAA 2012 was replaced in 2019 by the *Impact Assessment Act* (IAA 2019), and while the Individual Agreement precedes IAA 2019, it is expected that IAA 2019 applies at this time. Environmental review was therefore included as an environmental management priority in the EMP to guide how Malahat Nation will fulfill its responsibilities in this regard.

The process is intended to assist Council in identifying and avoiding potentially adverse environmental, cultural, community, social, or economic effects that may arise as a result of Council making a decision or exercising its powers, duties or functions under the Malahat Nation Land Code or any other Malahat law.

Environmental review priorities in summary are as follows:

- Ensure development proposed on Malahat Nation lands does not significantly impact environmental or cultural features, functions, or processes;
- Ensure proposed developments are in-line with the LUP;
- Provide an informed decision on proposed developments;
- Ensure development has a long-term benefit to Malahat Nation;
- Ensure ecosystem-based management approach is considered and included in proposed developments; and
- Seek to benefit Malahat Nation values through restoration or other means.

### 3.4.2 Sustainable Land Management

Sustainable land management priorities addressed by the community during consultation and meetings with Malahat Nation identified the need to protect the environment and develop in a sustainable manner. The community strongly felt that communication, stewardship, and leadership are necessary to protect the environment. Furthermore, the onus to restore the environment related to impacts caused by development should be on the developer. Priorities and proposed responses to address sustainable land management have been identified as follows:

- Replanting of areas that have been logged;
- Developers should be responsible for mitigation of impacts to the environment;
- Use of established environmental Best Management Practices (BMPs);
- Protect environmentally sensitive areas/Environmental Valuable Resources (EVRs) including watercourses, cedar, land, and air;
- Provide a balance between environmental protection and development;
- Identify sustainable development requirements for:
  - Retention of vegetation, in particular cedars;



- Replanting practices;
- Permeability of surfaces;
- Landscaping; and
- Rainwater sequestering.
- Development of stewardship and leadership in environmental protection and ecosystem conservation; and
- Environmental education and communication to keep the community involved and up to date.

### 3.4.3 Culturally Valuable Resources

Through community consultation, Malahat members described the protection of medicinal plants, cedar, and bathing areas as an environmental management priority. Accessibility to these culturally significant species and areas is crucial to supporting cultural continuity and knowledge-transfer between generations.

Malahat does not yet have a comprehensive inventory of species and areas that are culturally significant, nor where these are located spatially on IR 11. There is currently no reserve-wide policy or strategy for identifying and protecting these significant resources and areas.

Furthermore, recent discoveries on IR 11 have highlighted the need for a formal archaeological chance finds procedure, as well as a mechanism to clarify and apply the requirements within the LUP related to archaeological monitoring during excavations and overview/impact assessments prior to development.

The community has identified the recording of Malahat's history of culture and values with respect to environmental protection as a priority to preserve Malahat's cultural resources. Malahat intends to prepare a Traditional Use Study, which would include the collection of these stories. In addition, education opportunities for Malahat community members and participation in data collection and monitoring are positive goals to engage the community, preserve culturally valuable resources, and continue traditions.

Culturally valuable resource protection priorities for the community include:

- CMTs;
- Bathing areas;
- Medicinal plants;
- Cedars;
- Malahat Creek; and
- Archaeological sites.

### 3.4.4 Groundwater and Surface Water Management

Malahat Nation relies on groundwater from bedrock Aquifer #208 for the community water supply. The Nation is also currently negotiating water use reservations on the aquifer through the modern treaty process, and thus seeks to preserve water quality and quantity to support community health and development into the future. Furthermore, community members spoke to water quality as an environmental priority in the EMP consultation process. While Malahat Nation has environmental



jurisdiction only with respect to IR 11, an ecosystem-based management approach recognizes the relationships of ground and surface water within the entire watershed, including linkages to the ecological health of fish habitat and clam beds within the Saanich Inlet.

Groundwater and surface water management priorities in summary are as follows:

- Sustainable use of water resources;
- Wellhead protection;
- Groundwater protection; and
- Need for surface and groundwater quality monitoring program.

### 3.4.5 Contaminated Water and Soils

There is known soil and groundwater contamination in five AECs on IR 11 lands from historical land uses and the current operating fill site (Figure 4). The need to appropriately manage existing contamination and prevent future contamination of water and soils to prevent detrimental effects to humans and the environment was identified as a priority in community consultation and meetings with Malahat Nation.

Contaminated water and soils management priorities in summary are as follows:

- Appropriate management, monitoring, and/or remediation of current contamination from identified AECs;
- Prevent future contamination from onsite activities including (but not limited to) commercial/industrial tenants and the fill receiving site;
- Protect soil and water as valuable resources by preventing contamination of water and soil and the associated cost for remediation and negative effect on property values; and
- Educate and communicate environmental protection strategies to members to raise awareness, prevent exacerbation or spreading of existing contamination and prevent future contamination to soils and water.

### 3.4.6 Waste Management

The Malahat community has expressed concerns regarding appropriate waste management by both members and commercial/industrial tenants to prevent negative impacts to the environment and culturally valuable resources. Waste management priorities addressed by the community and during meetings with Malahat Nation are as follows:

- Reduce household waste and provide adequate disposal offsite;
- Increase waste diversion through recycling, compost, and education programs;
- Prevent public littering (particularly along Mill Bay Road) and dumping through creation of tools for enforcement and removal of dumped waste;
- Stop on-reserve burning of waste;
- Manage liquid waste;
- Appropriate storage and management of fuels, petroleum products, solvents, and other chemicals; and
- Appropriate storage and offsite disposal of hazardous building materials (e.g., mould, asbestos, lead-based paints, pressure-treated wood, polychlorinated biphenyls, etc), construction waste (e.g., drywall, etc), if generated.

### 3.4.7 Air Quality

The Malahat community has identified air quality concerns for IR 11. The right to clean air is an important issue for the community, and primary concerns are related to idling traffic. Access to the Mill Bay to Brentwood Bay ferry is through IR 11 along Mill Bay Road and then Ferry Road; vehicles waiting, and boarding/disembarking are responsible for unwanted levels of odour/contamination. Unpaved roads also create air quality concerns through dust generation. Additionally, as approximately 50% of homes are heated by burning wood, smoke generation is a concern. The human health impact of these cumulative air quality impacts is not currently known. A summary of air quality priorities addressed by the community and during meetings with Malahat Nation are as follows:

- Better understanding of air quality concerns on Malahat Nation lands, for example:
  - Idling traffic on Ferry Road, jointly managed by MOTI and BC Ferries;
  - Dust generation from unpaved roads; and
  - Smoke from burning;
- Right to clean air.

### 3.4.8 Fish and Fish Habitat

The Malahat community values the fishing resources on and off IR 11 and the local creeks which feed into the off-shore habitat of Saanich Inlet. The right to carry out traditional practices, such as the harvest of fish and shellfish, are protected as Indigenous rights. However, fishing and harvesting opportunities may be impacted by development practices, and as such, the protection of fish and fish habitat is critical to the cultural practices of the community. Fish and fish habitat priorities addressed by the community and during meetings with Malahat Nation. These are:

- Protection of watercourses;
- Restoration of clam beds;
- Fishing opportunities; and
- Incorporation of rights and title in a responsible way.

This EMP only addresses environmental management on IR 11; therefore, off-shore management is not included in this EMP. However, some indirect effects to off-shore habitat can be managed within IR 11. Malahat can also use strategies implemented through the EMP to protect the on-reserve environment to lobby for supporting action from other jurisdictions to protect connected off-reserve areas.

### 3.4.9 Wildlife and Habitat Protection

The Malahat community utilizes IR 11 for hunting and harvesting of medicinal and food plants. SAR may also be present on IR 11, which are protected under the *Species at Risk Act*. Wildlife and habitat protection priorities addressed by the community and during meetings with Malahat have been identified as follows:

- Understanding of current wildlife and wildlife habitat resources, particularly SAR;
- Sustainable fishing and hunting;
- Sustainable gathering of plants and medicines;
- Prioritizing waste management and reducing wildlife conflict;
- Incorporation of rights and title in a responsible way; and



- Protection of Species at Risk.

#### **3.4.10 Invasive Species Management**

Invasive species can have a negative effect on human health, the ecosystem, and economic sustainability. Malahat currently does not have an invasive species management priority, and mapping or inventory of invasive species occurrences have not occurred. Development on IR 11 can create opportunities for invasive species to spread. To assess, manage and control invasive species on IR 11, the community and Malahat Nation have identified the following priorities:

- Inventory invasive species occurrences;
- Understand impact of invasive species on local ecosystems, infrastructure, and human health;
- Manage the use of herbicides and pesticides to control invasive species;
- Understand the economic impact of invasive species infestations and management/control of invasive species;
- Monitor and manage the clearing of land such as logging practices that may encourage invasive plant establishment; and
- Establish mowing and maintenance practices to prevent spread of invasive species, including mowing exclusion zones.

### **3.5 Potential Responses for Environmental Management**

Potential responses to environmental issues identified on Malahat Nation lands include:

- Use of existing Malahat Nation laws, policies, and regulations;
- Use of existing federal and provincial environmental laws, policies, and regulations;
- Use of existing guidelines and BMPs;
- Development of new laws, policies, regulations, guidelines, and BMPs;
- Education and outreach; and
- Monitoring and reporting.

#### **3.5.1 Laws, Policies, and Regulations**

The Framework Agreement gives First Nations the power to make environmental laws for their reserve lands. Examples of First Nation environmental laws include, but are not limited to:

- laws relating to contaminants of First Nation lands;
- environmental protection requirements, including requirements in respect of natural resources, soils, water and groundwater;
- environmental emergencies and natural disasters;
- conservation and heritage management requirements;
- nuisances, including noise, odours and vibrations;
- recycling, solid waste management and garbage disposal;
- unsightly premises;
- sewage and effluent discharges; and
- implementation of any provisions of a First Nation environmental management plan.

Federal laws that apply in their entirety on First Nation's reserve lands include, but are not limited to the *Fisheries Act*, *Migratory Birds Convention Act*, *Species at Risk Act*, *Indian Oil and Gas Act*, *Emergencies Act*, *Nuclear Safety and Control Act*, and *Nuclear Energy Act*.

The Framework Agreement on First Nation Land Management requires that a First Nation's environmental protection standards and punishments have at least the same effect as those in the laws of the province or territory in which the First Nation is situated.

Malahat will harmonize the implementation of their regulatory process, policies, and compliance with a related provincial regime wherever feasible.

This EMP provides provincial laws and regulations for reference, which can be used for developing environmental protection standards to meet, and appropriate penalties. Malahat Nation will identify which sections or principles from provincial laws and policies are applicable. Additionally, some regional bylaws or policies may be useful tools for collaboration and harmonization.

Malahat will develop new policies and laws to address gaps in the environmental protection framework. For example, a forthcoming Malahat Environmental Protection Law can codify these obligations.

### 3.5.2 Education and Outreach

The goal of education and outreach is to involve members and the community in the implementation of the EMP, environmental initiatives, and stewardship of the land. The guiding principles of education and outreach are a focus on oral communications, high-level visuals, physically being on the land, and hands-on learning and involvement in the work. Involvement of Chief and Council is also key in supporting member involvement. Ways this can be achieved include the use of social media, participation in community events, organized educational tours, and other opportunities such as the following:

- Malahat news articles;
- Short video clips on social media;
- Promotion of "Cultural Wednesdays";
- Use of Malahat Nation YouTube Channel;
- Continuing education and training;
- Compilation of an information and video data bank;
- Introduction of a "Hey, we heard..." series for social media;
- Offering educational workshops; and
- Tours and walks.

### 3.5.3 Monitoring and Reporting

The goal of monitoring and reporting is to gain an understanding of the baseline conditions on Malahat Nation lands, changes to environmental conditions over time, and identify environmental impacts from off-reserve. Monitoring programs will provide Malahat with knowledge of impacts to cultural resources, lands and water, the effects of mitigation measures and opportunities to apply adaptive management. Capacity building within Malahat Nation will be a guiding principle for the development of monitoring and reporting programs. Opportunities for monitoring and reporting include:



- Collection of groundwater and surface water samples;
- Bio-inventory of medicinal plants, cedars, species at risk, and any other relevant information;
- Spill response monitoring and reporting;
- Construction environmental monitoring;
- Archaeological monitoring and reporting;
- Partnering with environmental consultants/organizations for capacity building opportunities;
- Providing training programs to members with interests in the environment; and
- Developing an Environmental Monitoring Program to foster stewardship and empower members in the management of IR 11.

#### 4.0 MANAGEMENT RESPONSES TO ENVIRONMENTAL PRIORITIES

This section describes Malahat Nation's response to each of the broad environmental priority categories identified on Malahat lands.

##### 4.1 Environmental Review

Malahat IR 11 is 239.93ha of land, which includes industrial development areas, housing, mixed-use land, and community land. Under the Land Code, Malahat Nation is responsible for the review and assessment of land use proposals on reserve. An existing Land Use Application form is available but requires supplementing with an environmental review process. Prior to Land Code adoption, an environmental review was undertaken for projects on reserve by the Department of Indigenous Services Canada pursuant to s. 82 of the IAA. Major projects on or adjacent to IR 11 that are "designated projects" under IAA would be subject to a process conducted by the Impact Assessment Agency of Canada in consultation with Malahat Nation.

Malahat Nation's new environmental review process will be consistent with the policy and practices of the federal review process for projects on reserves under s. 82 of the IAA. The Malahat environmental review process will provide proposed developments with clear guidelines and environmental review information requirements, to ensure the preservation and protection of Malahat Nation's environmental and cultural resources.

##### 4.1.1 Management Objectives

Summary of management objectives to address priorities:

- Establish Malahat Nation as the land management authority overseeing use of Malahat Nation lands;
- Supplement the existing Land Use Application Form and process, and expand the use of these forms to all of IR 11;
- Develop a process for evaluating proposed developments and assessing the environmental impact of proposed developments in compliance with the *Framework Agreement*, Malahat's Individual Agreement, and where there is overlapping jurisdiction with other levels of government, seek to harmonize with and work to participate in (where agreed upon) other respective environmental regimes and processes.
- Assess development plans with respect to environmental and cultural impacts, which will inform decision making to support environmentally responsible economic growth a;
- Create a set of requirements for developers to follow upon acceptance of a project including standard mitigation measures; and
- Create enhancement and restoration objectives.

**Appendix 2** provides a summary of federal, provincial, and regional regulations that are listed in the sub-sections below.



#### 4.1.2 Management Regime and Responses

The management regime and responses are summarized below.

<p><b>Federal Laws and Regulations (Applicable Environmental Standards)</b></p>	<ul style="list-style-type: none"> <li>• IAA (Government of Canada 2019)</li> <li>• <i>Canadian Environmental Assessment Act</i> (Government of Canada 2012)</li> <li>• <i>Framework Agreement on First Nations Land Management</i> (Government of Canada 1999)</li> <li>• <i>Indian Act</i> (Government of Canada 1985a)</li> <li>• <i>Species at Risk Act</i> (Government of Canada 2002)</li> <li>• <i>Migratory Birds Convention Act</i> (Government of Canada 1994)</li> <li>• Fisheries Act (Government of Canada 1985b)</li> </ul>
<p><b>Provincial and Regional Laws and Regulations to Consider as Guidance</b></p>	<ul style="list-style-type: none"> <li>• <i>Environmental Assessment Act</i> (Government of BC 2018) <ul style="list-style-type: none"> <li>○ Applicable for providing a mechanism for reviewing major projects and the assessment of potential impacts to the environment, economy and social structure. Act has a unique focus on accidents and malfunctions and greenhouse gas emissions.</li> </ul> </li> <li>• <i>Heritage Conservation Act</i> (Government of BC 1996a) <ul style="list-style-type: none"> <li>○ Permitting process is not relevant, but provides language protecting heritage resources, penalties, stop work orders and definitions useful to Malahat.</li> </ul> </li> <li>• <i>Riparian Areas Protection Act</i> and <i>Riparian Areas Protection Regulation</i> (Government of BC 1997) <ul style="list-style-type: none"> <li>○ Provides assessment methods for determining streamside protection and enhancement area setbacks from watercourses.</li> <li>○ Assessment methods could be applied to Malahat lands.</li> <li>○ Local governments are expected to meet or exceed standards for assessment under the Act.</li> </ul> </li> <li>• WSA (Government of BC 2014a) <ul style="list-style-type: none"> <li>○ <i>Water Sustainability Regulation</i> (Government of BC 2016a)</li> <li>○ <i>Groundwater Protection Regulation</i> (Government of BC 2016b)</li> <li>○ Permitting process and fees for surface water not relevant to Malahat Nation.</li> <li>○ Groundwater use on federal lands is applicable under the Act.</li> <li>○ Definitions provided within Act and Regulations are useful to Malahat in creating Environmental Assessment Law.</li> <li>○ Provides standards for diversion and use of water resources (such as critical environmental flow threshold), enforcement and penalties which could be applied to a Malahat Environmental Protection Law.</li> </ul> </li> </ul>
<p><b>Existing Malahat Laws, Policies and Regulations</b></p>	<ul style="list-style-type: none"> <li>• Malahat Nation LUP (Malahat Nation 2018) <ul style="list-style-type: none"> <li>○ Interim Development Process and Interim Development Permit Application</li> </ul> </li> <li>• Malahat Land Code (Malahat Nation 2014)</li> <li>• Malahat Nation Strategic Plan 2019 – 2024 (Malahat Nation 2019)</li> <li>• Malahat Nation Strategic Plan 2021 – 2025 (Malahat Nation 2021b)</li> </ul>

<b>Existing Guidelines and Best Management Practices</b>	<ul style="list-style-type: none"> <li>• Develop With Care 2014: Environmental Guidelines for Urban and Rural Land Development in British Columbia (Government of BC 2014) <ul style="list-style-type: none"> <li>○ Develop with Care 2014 provides developers and regulators with resources to assess EVRs and mitigate risks to EVRs.</li> <li>○ Appendix B provides checklists for a preliminary site survey and a detailed site bio-inventory. These checklists are useful features that could be incorporated into the Environmental Screening Form.</li> </ul> </li> <li>• Indigenous Services Canada Environmental Review Process (ISC 2014). <ul style="list-style-type: none"> <li>○ Template for environmental review forms that can be adopted by Malahat.</li> </ul> </li> </ul>
<b>Proposed Response</b>	<ul style="list-style-type: none"> <li>• Develop a Malahat Environmental Assessment Law for projects on IR 11. <ul style="list-style-type: none"> <li>○ To provide criteria for environmental assessment, including project exclusions, types of reviews, timelines, and required environmental assessment report components.</li> </ul> </li> <li>• In the interim, implement the (forthcoming) Environmental Review Policy consistent with the federal IAA and policy, including the Environmental Review Report form to supplement the Land Use Application form. <ul style="list-style-type: none"> <li>○ Designated Classes of Projects Order identifies exemptions from environmental review based on project criteria.</li> <li>○ Every project must consider impact to SAR, migratory birds, and fish and fish habitat, regardless of environmental review process.</li> </ul> </li> <li>• Create a Lands Management Advisory Committee as a mechanism for community members to provide feedback on proposed projects. Section 9.1 of the Malahat Nation Land Code states that Council may, by law, establish a Lands Management Advisory Committee to serve in an advisory capacity to Council and the Lands Department. <ul style="list-style-type: none"> <li>○ Lands Management Advisory Committee to review and assess Land Use applications and Environmental Review reports.</li> </ul> </li> <li>• Inform Malahat members of development applications and successful environmental reviews. Utilize posting boards at the Band Office, community meetings, newsletters, and community website.</li> <li>• Environmental field studies conducted in support of an environmental review on Malahat lands must include opportunities for involvement of a Malahat representative.</li> </ul>

## 4.2 Sustainable Land Management

Economic and sustainable development are integral to Malahat Nation’s growth and community priorities. Once an Environmental Review (Section 4.1) has been completed, a proposed development or resource extraction must demonstrate and adhere to sustainable land management guidelines in accordance with the land instrument, Malahat Nation’s LUP, Strategic Plan, and overall vision for success.

### 4.2.1 Management Objectives

Summary of management objectives to address priorities:

- Establishment of a Terms of Reference for developers: to include requirements for a Construction Environmental Management Plan (CEMP) and an Operational Environmental Management Plan (OEMP) for projects on IR 11;
- Pre-construction phase planning to identify potential environmentally sensitive areas and resource quotas;



- Guidance towards environmental BMPs;
- Develop a Zoning and Development Law to provide a balance between environmental protection and development, as identified in:
  - LUP;
  - Lands Department Strategic Plan; and
  - CCP;
- Zoning and Development Law to identify sustainable resource requirements, such as:
  - Retention of vegetation, cedars;
  - Impermeable surfaces;
  - Rainwater sequestering;
  - Landscaping requirements; and
  - Enhancement and restoration requirements.

#### 4.2.2 Management Regime and Responses

The management regime and responses are summarized below.

<b>Federal Laws and Regulations (Applicable Environmental Standards)</b>	<ul style="list-style-type: none"> <li>• IAA (Government of Canada 2019)</li> <li>• <i>Framework Agreement on First Nations Land Management</i> (Government of Canada 1996)</li> <li>• <i>Indian Act</i> (Government of Canada 1985a)</li> <li>• <i>Species at Risk Act</i> (Government of Canada 2002a)</li> <li>• <i>Migratory Birds Convention Act</i> (Government of Canada 1994)</li> <li>• <i>Fisheries Act</i> (Government of Canada 1985b)</li> </ul>
<b>Provincial and Regional Laws and Regulations to Consider as Guidance</b>	<p><b>Provincial</b></p> <ul style="list-style-type: none"> <li>• <i>Heritage Conservation Act</i> (Government of BC 1996a) <ul style="list-style-type: none"> <li>○ Permitting process is not relevant, but provides language protecting heritage resources, penalties, stop work orders and definitions useful to Malahat.</li> </ul> </li> <li>• <i>Riparian Areas Protection Act and Riparian Areas Protection Regulation</i> (Government of BC 1997) <ul style="list-style-type: none"> <li>○ Provides assessment methods for determining streamside protection and enhancement area setbacks from watercourses.</li> <li>○ Assessment methods could be applied to Malahat lands.</li> <li>○ Local governments are expected to meet or exceed standards for assessment under the Act.</li> </ul> </li> <li>• WSA (Government of BC 2014a) <ul style="list-style-type: none"> <li>○ <i>Water Sustainability Regulation</i> (Government of BC 2016a)</li> <li>○ <i>Groundwater Protection Regulation</i> (Government of BC 2016b)</li> <li>○ Permitting process and fees for surface water not relevant to Malahat Nation.</li> <li>○ Groundwater use on federal lands is applicable under the Act.</li> <li>○ Definitions provided within Act and Regulations are useful to Malahat in creating Environmental Assessment Law.</li> <li>○ Provides standards for diversion and use of water resources (such as critical environmental flow threshold), enforcement and penalties which could be applied to a Malahat Environmental Protection Law.</li> </ul> </li> </ul>



	<ul style="list-style-type: none"> <li>• <i>Oil and Gas Activities Act</i> (Government of BC 2008) <ul style="list-style-type: none"> <li>○ Provides definitions and application requirements that could be applicable to Malahat if oil and gas activities are proposed under a development permit.</li> </ul> </li> </ul> <p><b>Regional</b></p> <ul style="list-style-type: none"> <li>• Cowichan Valley Regional District (CVRD) Landclearing Management Regulation Bylaw No. 2020 (CVRD 2009). <ul style="list-style-type: none"> <li>○ Provides regulations related to machine-piled land-clearing debris with respect to burning and smoke generation.</li> </ul> </li> <li>• City of Victoria Tree Preservation Bylaw No. 05-106 (City of Victoria 2019). <ul style="list-style-type: none"> <li>○ Provides a list of protected trees that could be adopted by Malahat, and requirements for protection, preservation, and replacement.</li> </ul> </li> <li>• City of Victoria Sustainable Large Developments Bulletin (City of Victoria 2018). <ul style="list-style-type: none"> <li>○ Provides requirements for sustainable development practices that could be adopted by Malahat.</li> </ul> </li> </ul>
<p><b>Existing Malahat Laws, Policies and Regulations</b></p>	<ul style="list-style-type: none"> <li>• Malahat Nation LUP (Malahat Nation 2108)</li> <li>• Malahat Nation CCP (Malahat Nation 2021)</li> <li>• Malahat Land Code (Malahat Nation 2014)</li> <li>• Malahat Nation Strategic Plan 2019 – 2024 (Malahat Nation 2019)</li> <li>• Malahat Nation Strategic Plan 2021 – 2025 (Malahat Nation 2021b)</li> <li>• Malahat Nation Water Conservation Plan (Urban Systems 2020)</li> </ul>
<p><b>Existing Guidelines and Best Management Practices</b></p>	<ul style="list-style-type: none"> <li>• Develop With Care 2014: Environmental Guidelines for Urban and Rural Land Development in British Columbia (Government of BC 2014b) <ul style="list-style-type: none"> <li>○ Provides guidance and best management practices for maintaining environmental values during development.</li> </ul> </li> <li>• Canada Green Building Council (CaGBC 2021) <ul style="list-style-type: none"> <li>○ Provides resources for green building, LEED certification, and sustainably community development.</li> </ul> </li> </ul>
<p><b>Proposed Response</b></p>	<ul style="list-style-type: none"> <li>• Develop a Terms of Reference for developers, requiring developers to provide CEMPs and OEMPs, environmental monitoring, tree protection plans, to ensure developers are responsible for due diligence.</li> <li>• Pre-construction phase planning to identify potential environmentally sensitive areas and resource quotas.</li> <li>• Develop a Lands Management Advisory Committee.</li> <li>• Develop an Environmental Protection Law for projects on IR 11. <ul style="list-style-type: none"> <li>○ Guidance towards environmental BMPs</li> </ul> </li> <li>• Create enhancement and restoration objectives for developments to meet.</li> <li>• Develop a Zoning and Development Law to provide a balance between environmental protection and development, as identified in: <ul style="list-style-type: none"> <li>○ Malahat LUP</li> <li>○ Malahat Lands Department Strategic Plan</li> <li>○ Malahat CCP</li> </ul> </li> <li>• Develop Zoning and Development Law to identify sustainable resource requirements, such as: <ul style="list-style-type: none"> <li>○ Retention of vegetation, and cedars</li> <li>○ Replanting requirements</li> <li>○ Impermeable surfaces</li> <li>○ Rainwater sequestering</li> <li>○ Invasive species management</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>○ Landscaping requirements</li> <li>○ Environmental monitoring of development projects</li> <li>● Malahat Environmental Monitoring Program: Develop a training program for Malahat environmental monitors to foster capacity building opportunities.             <ul style="list-style-type: none"> <li>○ Involve Malahat environmental monitors in construction and development monitoring.</li> </ul> </li> </ul>
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### **4.3 Culturally Valuable Resources**

The inventory and preservation of culturally valuable resources within IR 11 is a priority for Malahat Nation community members. Protecting the land for traditional and cultural uses is critical to the growth and function of Malahat Nation and the preservation of identity. Culturally valuable resources as they are currently known include:

- Medicinal plants;
- Cedar;
- CMTs;
- Malahat Creek;
- Bathing areas; and
- Archaeological sites

#### **4.3.1 Management Objectives**

Summary of management objectives to address priorities:

- Development of a Cultural Resource Management Law;
- Clarification of archaeological obligations prior to development;
- Requirement for monitoring of developments that have undertaken an Archaeological Overview Assessment or Archaeological Impact Assessment;
- Formalization of a Chance Find Procedure;
- Education of members and the public:
  - Focus on youth; and
  - Encourage cultural values and environmental protection;
- Provision of opportunities for members to be involved in monitoring; and
- Maintenance of no-cut zones around the Big House.

#### **4.3.2 Management Regime and Responses**

The management regime and responses are summarized below.

<b>Federal Laws and Regulations (Applicable Environmental Standards)</b>	<ul style="list-style-type: none"> <li>● IAA (Government of Canada 2019)</li> </ul>
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<p><b>Provincial and Regional Laws and Regulations to Consider as Guidance</b></p>	<ul style="list-style-type: none"> <li>• <i>Heritage Conservation Act</i> (Government of BC 1996a) <ul style="list-style-type: none"> <li>○ Protection provisions for archaeological sites can be adapted into the Malahat Cultural Resource Management Law.</li> </ul> </li> <li>• <i>Declaration on the Rights of Indigenous Peoples Act</i>, (Government of BC 2019) <ul style="list-style-type: none"> <li>○ The <i>Declaration on the Rights of Indigenous Peoples Act (DRIPA)</i> is BC's legal instrument to foster the implementation of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). Among other things, United Nations Declaration on the Rights of Indigenous Peoples affirms the right of Indigenous peoples to protect their culture.</li> <li>○ DRIPA is considered 'enabling' legislation to bring provincial legislation in line with UNDRIP. This can be used to explore changes to provincial laws that adversely affect indigenous communities.</li> </ul> </li> </ul>
<p><b>Existing Malahat Laws, Policies and Regulations</b></p>	<ul style="list-style-type: none"> <li>• Malahat LUP</li> <li>• Malahat CCP</li> </ul>
<p><b>Existing Guidelines and Best Management Practices</b></p>	<p><b>Federal</b></p> <ul style="list-style-type: none"> <li>• "Standards and Guidelines for the Conservation of Historic Places in Canada", Section 4.2.8 - Culturally Sensitive Places (Government of Canada 2010) <ul style="list-style-type: none"> <li>○ Provides guidance on protecting landscapes, generally related to protecting view quality, viewscapes.</li> </ul> </li> <li>• Parks Canada's "Cultural Resource Management Policy" (Parks Canada 2021) <ul style="list-style-type: none"> <li>○ Provides guidance for protecting cultural resources within National Parks and Protected Areas</li> </ul> </li> </ul> <p><b>Provincial</b></p> <ul style="list-style-type: none"> <li>• "BC Archaeological Resource Management Handbook" (Ministry of Forests, Lands, Natural Resource Operations and Rural Development 1990, revised 2021). <ul style="list-style-type: none"> <li>○ Provides guidance on conducting: <ul style="list-style-type: none"> <li>▪ Archaeological Overview Assessment</li> <li>▪ Archaeological Impact Assessment;</li> </ul> </li> </ul> </li> <li>• "Culturally Modified Trees of BC", Version 2.0 (Ministry of Small Business, Tourism, and Culture 2001). <ul style="list-style-type: none"> <li>○ Provides advice for identifying and protecting CMTs</li> </ul> </li> <li>• Archaeological Chance Find Procedure (Template) (Government of BC, Date Accessed August 2021) <ul style="list-style-type: none"> <li>○ Provides Guidance on how to protect cultural materials found during development activities, including a template for contractors to use.</li> </ul> </li> </ul>

<b>Proposed Response</b>	<ul style="list-style-type: none"> <li>• Conduct community consultation to identify desires for the protection of culturally important areas (such as bathing sites and CMTs) and species (including medicinal plants), suitability of 30m creek buffer, and formalize these standards into a Cultural Resource Management Law.</li> <li>• Conduct a bio-inventory of medicinal plant and culturally significant area survey with local knowledge holders.</li> <li>• Education programs directed towards youth focusing on:             <ul style="list-style-type: none"> <li>○ Cultural values</li> <li>○ Environmental protection</li> <li>○ History</li> <li>○ Language</li> </ul> </li> <li>• Develop a Cultural Resource Management Law, to include:             <ul style="list-style-type: none"> <li>○ Community-identified goals for the protection of culturally important areas and species such as bathing areas, cedars and medicinal plants.</li> <li>○ Adoption of Chance Find Procedures into law.</li> <li>○ Inclusion of Malahat Nation members in monitoring of development and ground disturbance practices (Malahat Environmental Monitoring Program).</li> <li>○ Establishment of No-Cut-Zones to protect resources such as around the Big House.</li> <li>○ Malahat process for uploading site information to BC Remote Access to Archaeological Data online GIS system, where appropriate</li> </ul> </li> <li>• Develop and apply a Chance Find Procedures for archaeological and culturally significant finds, modified from BC template to reflect Malahat values             <ul style="list-style-type: none"> <li>⊖ Ensure all contractors operating on Malahat Nation land are provided with a copy and commit to adhering to the procedures as set.</li> </ul> </li> </ul>
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#### 4.4 Groundwater and Surface Water

Malahat IR 11 has four known creeks and utilizes wells and the underlying aquifer for drinking water, critical to the health of the community. Groundwater provides recharge to creeks, ponds, and wetlands, as such, it is equally important to wildlife and plants. The creeks discharge to the marine environment in Saanich Inlet, where fishing and shellfish harvesting was traditionally and is currently practiced. Preservation and protection of the surface- and groundwater are priorities, and are critical to the health, socio-economic, and cultural rights of the community.

##### 4.4.1 Management Objectives

Summary of management objectives to address priorities:

- Maintain sustainable use of the groundwater and surface water;
- Protect the aquifer from contamination and overuse;
- Monitor water quality of surface water and groundwater;
- Prepare a groundwater protection plan;
- Protect freshwater and marine waters to ensure healthy ecosystems that sustain human health; and
- Manage potential contamination sources, such as spills and leaks at residential and commercial properties, spills and unauthorized waste disposal in transportation corridors, disposal of waste and contaminated soil, and effluents from the communal and private septic fields, etc.



#### 4.4.2 Management Regime and Responses

The management regime and responses are summarized below.

<p><b>Federal Laws and Regulations (Applicable Environmental Standards)</b></p>	<ul style="list-style-type: none"> <li>• <i>Canadian Environmental Protection Act</i> (Government of Canada 1999a)</li> <li>• <i>Fisheries Act</i> (Government of Canada 1985b)</li> </ul>
<p><b>Provincial and Regional Laws and Regulations to Consider as Guidance</b></p>	<p><b>Provincial</b></p> <ul style="list-style-type: none"> <li>• WSA (Government of BC 2014a) <ul style="list-style-type: none"> <li>○ <i>Water Sustainability Regulation</i> (Government of BC 2016a)</li> <li>○ <i>Groundwater Protection Regulation</i> (Government of BC 2016b)</li> <li>○ Permitting process and fees for surface water not relevant to Malahat Nation.</li> <li>○ Groundwater use on federal lands is applicable under the Act.</li> <li>○ Definitions provided within Act and Regulations are useful to Malahat in creating Environmental Assessment Law.</li> <li>○ Provides standards for diversion and use of water resources (such as critical environmental flow threshold), enforcement and penalties which could be applied to a Malahat Environmental Protection Law.</li> </ul> </li> <li>• <i>Riparian Areas Protection Act</i> and <i>Riparian Areas Protection Regulation</i> (Government of BC 1997) <ul style="list-style-type: none"> <li>○ Provides assessment methods for determining streamside protection and enhancement area setbacks from watercourses.</li> <li>○ Assessment methods could be applied to Malahat lands.</li> <li>○ Local governments are expected to meet or exceed standards for assessment under the Act.</li> </ul> </li> </ul>
<p><b>Existing Malahat Laws, Policies and Regulations</b></p>	<ul style="list-style-type: none"> <li>• Malahat Nation Water Conservation Plan (Urban Systems 2020)</li> </ul>
<p><b>Existing Guidelines and Best Management Practices</b></p>	<ul style="list-style-type: none"> <li>• Guidelines for Canadian Drinking Water Quality and the Guideline Technical Documents</li> <li>• British Columbia Approved Water Quality Guidelines: Aquatic Life, Wildlife &amp; Agriculture (ENV 2019)</li> <li>• CCME, Environmental Quality Guidelines</li> <li>• Develop With Care 2014: Environmental Guidelines for Urban and Rural Land Development in British Columbia (Government of BC 2014b)</li> <li>• Groundwater Protection Regulation Handbook, BC Groundwater Association, 2017.</li> <li>• Well Protection Toolkit, BC, 1995</li> <li>• Canada-wide Strategy for the Management of Municipal Wastewater Effluent (CCME 2009). <ul style="list-style-type: none"> <li>○ Provides a harmonized framework to manage municipal wastewater discharges to surface waters with federal discharge criteria.</li> </ul> </li> <li>• Environmental Public Health Services (First Nations Health Authority 2016). <ul style="list-style-type: none"> <li>○ Provides a description of public health issues, inspections, and assessments managed by the First Nations Health Authority including: <ul style="list-style-type: none"> <li>▪ Drinking water</li> <li>▪ Wastewater</li> <li>▪ Solid waste</li> <li>▪ Environmental contaminants and risk assessment</li> </ul> </li> </ul> </li> </ul>

<b>Proposed Response</b>	<ul style="list-style-type: none"> <li>• Develop Environmental Protection Law to manage substances and activities with potential deleterious effects to surface and groundwater, such as fuel storage, waste disposal, imported fill management.</li> <li>• Incorporate a wellhead and groundwater protection plan within the Environmental Protection Law to ensure the safety of the drinking water supply.</li> <li>• Implement the Malahat Nation Water Conservation Plan.</li> <li>• Develop an IR 11 Spill Response Plan to specify actions to be taken following a spill, including mandatory response times.</li> <li>• Conduct a Land Issues Inventory: Identify sources of stormwater and runoff input into watercourses.</li> <li>• Malahat Environmental Monitoring Program: Develop an environmental education and watercourse stewardship program.             <ul style="list-style-type: none"> <li>○ Provide education on surface water and groundwater protection.</li> <li>○ Provide training to community members to foster capacity building opportunities.</li> </ul> </li> <li>• Develop Erosion and Sediment Control criteria for developers and tenants to protect aquatic resources (as per CEMP in Section 4.2.2).</li> </ul>
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#### 4.5 Contaminated Water and Soils

Contaminated water and soils on Malahat IR 11 are a priority for the community. Past and present activities including the operation of a fill site, illegal dumping, former use of above ground storage tanks, and environmental incidents including fire have led to soil and/or groundwater contamination. Management of existing contamination and prevention of further contamination is important to the health and wellbeing of community members and the environment.

##### 4.5.1 Management Objectives

Summary of management objectives to address priorities:

- Manage and monitor current contamination at fill site and reduce the potential for contamination to migrate away from the current containment area;
- Prevent contamination anywhere on the reserve;
- Respond to spills in an adequate and timely fashion;
- Prevent potential future contamination from commercial/industrial tenants; and
- Prepare a Land Issues Inventory.

##### 4.5.2 Management Regime and Responses

The management regime and responses are summarized below.

<b>Federal Laws and Regulations (Applicable Environmental Standards)</b>	<ul style="list-style-type: none"> <li>• <i>Canadian Environmental Protection Act</i> (Government of Canada 1999a)</li> <li>• Environmental Quality Guidelines (CCME] 2021).</li> <li>• Canada-Wide Standards for Petroleum Hydrocarbons in Soil, Canadian Council of Ministers of the Environment (CCME 2001).</li> <li>• Environment Canada, Federal Interim Groundwater Quality Guidelines (Government of Canada 2012b).</li> </ul>
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<p><b>Provincial and Regional Laws and Regulations to Consider as Guidance</b></p>	<p><b>Provincial</b></p> <ul style="list-style-type: none"> <li>• <i>Environmental Management Act</i> (Government of BC 2003a) <ul style="list-style-type: none"> <li>○ <i>Contaminated Sites Regulation</i> (Government of BC 1996b) and amendments</li> <li>○ Provides robust regulation and guidance for the management and remediation of contaminated sites that could be utilized by Malahat Nation for developing a Contaminated Sites Management Tool</li> <li>○ Also provides binding standards for soil, groundwater, sediment and soil vapour for a comprehensive list of parameters (many of which are not presently regulated under the federal regime)</li> </ul> </li> </ul> <p><b>Regional</b></p> <ul style="list-style-type: none"> <li>• CVRD Soil Deposit Bylaw (CVRD 2021) <ul style="list-style-type: none"> <li>○ Provides regulation for depositing of clean soils and prevents unauthorized importing of contaminated soils which may be useful in the management of MN's fill site</li> </ul> </li> </ul>
<p><b>Existing Malahat Laws, Policies and Regulations</b></p>	<p>None</p>
<p><b>Existing Guidelines and Best Management Practices</b></p>	<ul style="list-style-type: none"> <li>• Environmental Public Health Services (First Nations Health Authority 2016). <ul style="list-style-type: none"> <li>○ Provides a description of public health issues, inspections, and assessments managed by the First Nations Health Authority including: <ul style="list-style-type: none"> <li>▪ Drinking water</li> <li>▪ Wastewater</li> <li>▪ Solid waste</li> <li>▪ Environmental contaminants and risk assessment</li> </ul> </li> </ul> </li> </ul>
<p><b>Proposed Response</b></p>	<ul style="list-style-type: none"> <li>• Remediate known contamination via remedial excavation (AECs 5, 7, and 8) and via risk assessment (AECs 3 and 6).</li> <li>• Develop an Environmental Protection Law to establish standards for soil, air and water quality and regulations/permitting requirements for importing/exporting fill/soils</li> <li>• Develop an Environmental Monitoring Program for soil and groundwater monitoring and reporting program for the existing fill site (in progress as part of permitting process) and other AECs.</li> <li>• Develop a Contaminated Sites Management Tool with BMPs and information packages for tenants: <ul style="list-style-type: none"> <li>○ Develop educational tools for residents and provide training in the handling of substances that could result in contamination.</li> <li>○ Require commercial/industrial tenants to develop and implement a response plan and submit to Malahat for review.</li> <li>○ Check on compliance by tenants through review of annual reports and regular audits.</li> <li>○ Develop a reserve-wide Spill Response Plan (Section 4.4.2).</li> </ul> </li> <li>• Supply Operations and Maintenance team with up-to-date tidy tanks and other portable fuel containment.</li> </ul>

## 4.6 Waste Management

Waste management on Malahat IR 11 is a priority because waste is generated on-reserve or illegally dumped on the reserve and a management plan needs to be developed and adjusted. Malahat Nation has identified priorities related to the use, storage, and disposal of wastes and hazardous materials, and prevention in generating new wastes as described in Section 3.4.6. The use of these substances has occurred or will occur in the future and the potential management plan components for these materials are discussed below. The appropriate management of waste to prevent contamination on IR11 is important to maintain ecological resources and to the health and wellbeing of community members and the environment.

### 4.6.1 Management Objectives

Summary of management objectives to address priorities:

- Educate the public on waste management, including public dumping, littering, waste burning, waste diversion, and recycling;
- Organize spring and fall clean-up events;
- Develop a waste management plan and create an implementation program;
- Prevent public littering and dumping;
- Prevent waste burning;
- Reduce the potential for exposure to hazardous materials through product handling and spills;
- Manage liquid waste in a sanitary matter;
- Expand the current liquid waste management system to meet the growing needs of the community; and
- Reduce the potential for contamination of water and soil.

### 4.6.2 Management Regime and Responses

The management regime and responses are summarized below.

<p><b>Federal Laws and Regulations (Applicable Environmental Standards)</b></p>	<ul style="list-style-type: none"> <li>• <i>Canadian Environmental Protection Act</i> (Government of Canada 1999)</li> <li>• <i>Indian Act</i> (Government of Canada 1985a)                         <ul style="list-style-type: none"> <li>○ <i>Indian Reserve Waste Disposal Regulations</i> (Government of Canada 2009)</li> </ul> </li> <li>• <i>Canadian Environmental Protection Act</i> (Government of Canada 1999)                         <ul style="list-style-type: none"> <li>○ <i>Release and Environmental Emergency Notification Regulation</i> (Government of Canada 2011)</li> <li>○ <i>Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations</i> (Government of Canada 1999)</li> </ul> </li> <li>• <i>Fisheries Act</i> (Government of Canada 1985b)</li> <li>• <i>Hazardous Products Act</i> (1985c)</li> </ul>
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<p><b>Provincial and Regional Laws and Regulations to Consider as Guidance</b></p>	<p><b>Provincial</b></p> <ul style="list-style-type: none"> <li>• <i>Public Health Act</i> (Government of BC 2008a) <ul style="list-style-type: none"> <li>○ <i>Sewerage System Regulation</i> (Government of BC 2004)</li> </ul> </li> <li>• <i>Environmental Management Act</i> (Government of BC 2003a) <ul style="list-style-type: none"> <li>○ <i>Hazardous Waste Regulation</i> (Government of BC 1988)</li> <li>○ <i>Municipal Wastewater Regulation</i> (Government of BC 2012a)</li> <li>○ <i>Waste Discharge Regulation</i> (Government of BC 2004)</li> </ul> </li> <li>• <i>Transportation of Dangerous Goods Act</i> (Government of BC 1996c)</li> <li>• <i>Transportation of Dangerous Goods Regulation</i> (Government of BC 1985a)</li> </ul> <p><b>Regional</b></p> <ul style="list-style-type: none"> <li>• CVRD, Solid Waste Management Plan Update (CVRD 2018) <ul style="list-style-type: none"> <li>○ Could be utilized by MN in developing a Solid Waste Management Plan to manage waste collection, recycling and composting, processing, waste reduction, education, etc.</li> </ul> </li> <li>• CRD Sewer Use Bylaw No. 2922 (Consolidated) (CRD 2016).</li> <li>• CVRD Sewerage Service Regulation, Fees and Charges Bylaw No. 71 (CVRD 2010). <ul style="list-style-type: none"> <li>○ Both CRD and CVRD regulations useful to MN in providing guidance for discharging of liquid waste</li> </ul> </li> </ul>
<p><b>Existing Malahat Laws, Policies and Regulations</b></p>	<ul style="list-style-type: none"> <li>• Malahat Housing Policy</li> </ul>
<p><b>Existing Guidelines and Best Management Practices</b></p>	<ul style="list-style-type: none"> <li>• A Guide to Solid Waste Management Planning (BC MOE 2016).</li> <li>• Canada-wide Strategy for the Management of Municipal Wastewater Effluent (CCME 2009). <ul style="list-style-type: none"> <li>○ Provides a harmonized framework to manage municipal wastewater discharges to surface waters with federal discharge criteria.</li> </ul> </li> <li>• A Field Guide to Fuel Handling, Transportation &amp; Storage (MWLAP 2002).</li> <li>• Environmental Public Health Services (First Nations Health Authority 2016). <ul style="list-style-type: none"> <li>○ Provides a description of public health issues, inspections, and assessments managed by the First Nations Health Authority including: <ul style="list-style-type: none"> <li>▪ Drinking water</li> <li>▪ Wastewater</li> <li>▪ Solid waste</li> <li>▪ Environmental contaminants and risk assessment</li> </ul> </li> </ul> </li> </ul>

<b>Proposed Response</b>	<ul style="list-style-type: none"> <li>• Develop a reserve-wide Solid Waste Management Plan, that addresses recycling, waste diversion, waste burning and dumping.</li> <li>• Develop and implement an education program to inform residents of waste management, recycling, and waste diversion options.</li> <li>• Develop a Malahat Good Neighbour Law:             <ul style="list-style-type: none"> <li>○ Provide guidelines to residents on recycling and waste management.</li> </ul> </li> <li>• Organize community-wide spring and fall clean-up days.</li> <li>• Monitor waste streams and adjust plans and programs as needed.</li> <li>• Develop a Spill Response Plan (Section 4.4.2) for reporting and clean up.</li> <li>• Develop a Spill Response Plan review to ensure contacts are correct and up to date on an annual basis.</li> <li>• Malahat to develop an Environmental Protection Law (Section 4.2.2).</li> <li>• Provide education to residents and tenants. Develop easy to understand guidance on safe storage and disposal of hazardous materials.             <ul style="list-style-type: none"> <li>○ Who to call, what to do if there is a spill;</li> <li>○ Waste management system; and</li> <li>○ Who are Malahat Nation support contacts.</li> </ul> </li> <li>• Develop a monitoring and reporting program to assess the implementation of the Spill Response Plan and track effectiveness. May include:             <ul style="list-style-type: none"> <li>○ Who to contact; and</li> <li>○ What to do.</li> </ul> </li> <li>• Potential future feedback loop:             <ul style="list-style-type: none"> <li>○ Learn from spills and adjust policy and practice.</li> </ul> </li> </ul>
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## 4.7 Air Quality

Air quality is a priority for Malahat Nation, particularly with respect to human health and environmental impacts of air pollution. Wood burning as a heating source is common within the community, and as development occurs, idling traffic, and dust generating activities will also increase. The right to clean air is a priority for the community, as is the understanding of the current air quality conditions on IR 11.

### 4.7.1 Management Objectives

Summary of management objectives to address priorities:

- Understand current air quality conditions on IR 11;
- Research and measure current fine inhalable particulate matter ( $\leq 2.5\mu\text{m}$ ) (PM2.5) emissions. These emissions are a combination of solid particles and liquid droplets which are composed of dust, dirt, soot, smoke, or pollutant gases. PM2.5 particles cause the greatest health risk;
- Identify the need for air quality monitoring and alternative practices;
- Educate community on air quality mitigation and risks of PM2.5 emissions; and
- Review past air quality objectives to inform understanding of air quality conditions.

#### 4.7.2 Management Regime and Responses

The management regime and responses are summarized below.

<p><b>Federal Laws and Regulations (Applicable Environmental Standards)</b></p>	<ul style="list-style-type: none"> <li>• <i>Canadian Environmental Protection Act</i> (Government of Canada 1999)</li> <li>• Canadian Ambient Air Quality Standards (Government of Canada 2013)</li> <li>• CCME Canada-wide standards (CCME 1999)</li> </ul>
<p><b>Provincial and Regional Laws and Regulations to Consider as Guidance</b></p>	<p><b>Provincial</b></p> <ul style="list-style-type: none"> <li>• BC Ambient Air Quality Objectives (BC MOE 2018) <ul style="list-style-type: none"> <li>○ Provides air quality objectives and standards for a number of contaminants, including Particulate Matter (PM10 and PM2.5), ozone, sulphur dioxide, nitrogen dioxide and carbon monoxide.</li> <li>○ Standards can be adopted by Malahat to identify clean air objectives for the community.</li> </ul> </li> <li>• <i>Environmental Management Act</i> (Government of BC 2003a) <ul style="list-style-type: none"> <li>○ <i>Waste Discharge Regulations</i> (Government of BC 2004, and amendments)</li> <li>○ Provides definitions and prohibitions regulating the discharge of wastes, including emissions that could be considered by Malahat for inclusion in an Environmental Protection Law.</li> </ul> </li> </ul> <p><b>Regional</b></p> <ul style="list-style-type: none"> <li>• CVRD Smoke Control Bylaw No. 3716 (CVRD 2017a). <ul style="list-style-type: none"> <li>○ Regulates when and where open burning may occur and references the venting index.</li> <li>○ Identifies what materials may be burned.</li> <li>○ Could be adopted in part by Malahat as a local reference for smoke control.</li> </ul> </li> <li>• CVRD Landclearing Management Regulation Bylaw No. 2020 (CVRD 2009). <ul style="list-style-type: none"> <li>○ Provides regulations related to machine-piled land clearing debris with respect to burning and smoke generation.</li> </ul> </li> </ul>
<p><b>Existing Malahat Laws, Policies and Regulations</b></p>	<ul style="list-style-type: none"> <li>• Malahat CCP</li> <li>• Malahat LUP</li> </ul>
<p><b>Existing Guidelines and Best Management Practices</b></p>	<ul style="list-style-type: none"> <li>• Environmental Best Management Practices for Urban and Rural Land Development (MWLAP 2004)</li> <li>• Best Practices for the Reduction of Air Emissions from Construction and Demolition Activities (Cheminfo 2005)</li> <li>• Aggregate Operators Best Management Practices Handbook for British Columbia. Volume II – Best Management Practices. (MEM 2002). <ul style="list-style-type: none"> <li>○ Provides BMPs relevant to the operation of the fill site and dust generation.</li> </ul> </li> </ul>
<p><b>Proposed Response</b></p>	<ul style="list-style-type: none"> <li>• Research to identify the need for air quality monitoring, alternative practices, etc. Consult the regional venting index.</li> <li>• Raise community awareness on the health impacts of wood smoke, alternatives, and best practices, such as cleaner burning wood or filters. Reduce PM2.5 emissions from local open burning, including land clearing burning and backyard burning.</li> </ul>

	<ul style="list-style-type: none"><li>• Develop a Malahat Good Neighbour Law (forthcoming):<ul style="list-style-type: none"><li>◦ Encourage continued compliance with existing Malahat procedures regarding use of dry firewood.</li></ul></li><li>• Malahat Environmental Monitoring Program: Monitor current PM2.5 emissions at IR 11 to set reduction goals based on results of the research. Consult the regional venting index.</li><li>• Support alternative modes of transportation.</li><li>• Reduce dust emissions in communities adjacent to dirt roads.</li><li>• Reduce emissions of both air contaminants and greenhouse gases to improve health while reducing climate impacts.</li><li>• Encourage land use processes and practices in ways that avoid or minimize the creation of air pollutants.</li><li>• Adjacent local government to consider potential air quality impacts of land use planning decisions.</li><li>• Coordination with BC Ferries and MOTI to respect Idle Free Zones. Look to them to enforce policy and respect air quality of Nation.</li><li>• Develop a Zoning and Development Bylaw for projects on IR 11.<ul style="list-style-type: none"><li>◦ Provide requirements for dust suppression, revegetation, buffers, traffic, and fuel sources.</li></ul></li><li>• Develop an Environmental Protection Law for projects on Malahat IR 11.<ul style="list-style-type: none"><li>◦ Identify air quality targets for IR 11.</li></ul></li></ul>
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## 4.8 Fish and Fish Habitat

The protection and preservation of fish and fish habitat are priorities for Malahat. Fishing is a right and Malahat manages commercial fishing of fish and shellfish off the coast of IR 11 in the Saanich Inlet. While this EMP only addresses on-reserve fish and fish habitat, the management of watercourses on IR 11 directly impacts the water quality and fish populations within the Inlet.

### 4.8.1 Management Objectives

Summary of management objectives to address priorities:

- Preserve and protect watercourses on-reserve for the benefit of community members and the environment, and the health of the freshwater ecosystems.
- Protection of fish and fish habitat off-reserve through controlling impact of on-reserve activities that flow offsite to marine ecosystems.
- Encourage environmental education and involvement in watercourse stewardship.
- Ensure development and stormwater management within IR 11 does not impact local watercourses or the marine environment.

#### 4.8.2 Management Regime and Responses

The management regime and responses are summarized below.

<p><b>Federal Laws and Regulations (Applicable Environmental Standards)</b></p>	<ul style="list-style-type: none"> <li>• <i>Fisheries Act</i> (Government of Canada 1985)</li> <li>• <i>Species at Risk Act</i> (Government of Canada 2002a)</li> <li>• Environmental Quality Guidelines (CCME 2021)</li> </ul>
<p><b>Provincial and Regional Laws and Regulations to Consider as Guidance</b></p>	<p><b>Provincial</b></p> <ul style="list-style-type: none"> <li>• <i>Riparian Areas Protection Act and Riparian Areas Protection Regulation</i> (Government of BC 1997) <ul style="list-style-type: none"> <li>○ Provides assessment methods for determining streamside protection and enhancement area setbacks from watercourses.</li> <li>○ Assessment methods could be applied to Malahat lands.</li> <li>○ Local governments are expected to meet or exceed standards for assessment under the Act.</li> </ul> </li> <li>• WSA (Government of BC 2014a) <ul style="list-style-type: none"> <li>○ <i>Water Sustainability Regulation</i> (Government of BC 2016a)</li> <li>○ Permitting process and fees for surface water not relevant to Malahat Nation.</li> <li>○ Definitions provided within Act and Regulations are useful to Malahat in creating Environmental Assessment Law.</li> <li>○ Provides standards for diversion and use of water resources (such as critical environmental flow threshold), enforcement and penalties which could be applied to a Malahat Environmental Protection Law.</li> </ul> </li> </ul>
<p><b>Existing Malahat Laws, Policies and Regulations</b></p>	<ul style="list-style-type: none"> <li>• Malahat LUP <ul style="list-style-type: none"> <li>○ Restricts development within 30m of a watercourse.</li> </ul> </li> <li>• Malahat CCP</li> </ul>
<p><b>Existing Guidelines and Best Management Practices</b></p>	<ul style="list-style-type: none"> <li>• Develop With Care 2014: Environmental Guidelines for Urban and Rural Land Development in British Columbia (Government of BC 2014) <ul style="list-style-type: none"> <li>○ Provides guidance and BMPs for maintaining environmental values during development.</li> </ul> </li> <li>• Land Development Guidelines for the Protection of Aquatic Habitat (DFO and MELP 1992). <ul style="list-style-type: none"> <li>○ Provides federal BMPs when working in around fish and fish habitat.</li> </ul> </li> <li>• Standards and Best Practices for Instream Works (WLAP 2004). <ul style="list-style-type: none"> <li>○ Provides provincial BMPs when working in around fish and fish habitat.</li> </ul> </li> <li>• Terms and Conditions for Changes in and About a Stream Specified by Ministry of Forests, Lands, and Natural Resource Operations Habitat Officer, West Coast Region (Vancouver Island and Gulf Islands) (FLNRO 2011). Provides: <ul style="list-style-type: none"> <li>○ Species-specific instream work reduced risk windows;</li> <li>○ Fish passage criteria; and</li> <li>○ Best practices for work in and about a watercourse as a condition for <i>Water Sustainability Act</i> Notifications and Change Approvals.</li> </ul> </li> <li>• British Columbia Approved Water Quality Guidelines: Aquatic Life, Wildlife &amp; Agriculture (ENV 2019). <ul style="list-style-type: none"> <li>○ Provides water quality guidelines for the protection of aquatic life including short-term and long-term objectives, specific to BC water quality conditions.</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>• Canada-wide Strategy for the Management of Municipal Wastewater Effluent (CCME 2009).             <ul style="list-style-type: none"> <li>○ Provides a harmonized framework to manage municipal wastewater discharges to surface waters with federal discharge criteria.</li> </ul> </li> </ul>
<b>Proposed Response</b>	<ul style="list-style-type: none"> <li>• Malahat Environmental Monitoring Program: Develop an environmental education and watercourse stewardship/stream keeper program:             <ul style="list-style-type: none"> <li>○ Partner with environmental professionals for training and monitoring assistance.</li> <li>○ Create a program for monitoring and managing beachfront erosion.</li> <li>○ Monitor instream works or riparian works during development or infrastructure upgrades.</li> </ul> </li> <li>• Education classes on traditional and responsible fishing practices;</li> <li>• Survey watercourses for habitat enhancement opportunities, such as fish passage issues, habitat complexing and erosion protection.</li> <li>• Bioinventory of fish and invertebrates to determine baseline conditions for future development or incorporation into stormwater management planning.</li> <li>• Conduct a Land Issues Inventory: Identify sources of stormwater and runoff input into watercourses and areas of beachfront erosion.</li> <li>• Develop an Environmental Protection Law that identifies water quality standards, riparian habitat assessment and protections, and instream work standards and prohibitions.</li> <li>• Develop a Zoning and Development Law to provide criteria to meet stormwater quality and flow objectives.</li> <li>• Develop Erosion and Sediment Control criteria for developers and tenants to protect aquatic resources within Zoning and Development Law and requirements for CEMPs (Section 4.2.2).</li> </ul>

#### 4.9 Wildlife and Habitat Protection

The harvesting of wildlife is a right for Malahat and the responsible management of wildlife resources and habitat to sustain harvesting for future generations is a priority.

##### 4.9.1 Management Objectives

Summary of management objectives to address priorities:

- Application of the *Species at Risk Act* and critical habitat;
- Education for community members;
- Inventory of wildlife resources; and
- Habitat protection measures.

##### 4.9.2 Management Regime and Responses

The management regime and responses are summarized below.

<b>Federal Laws and Regulations (Applicable)</b>	<p><b>Federal</b></p> <ul style="list-style-type: none"> <li>• <i>Species at Risk Act</i> (Government of Canada 2002a)</li> <li>• <i>Migratory Birds Convention Act</i> (Government of Canada 1994)</li> <li>• <i>Wildlife Act</i> (Government of Canada 1985c)</li> </ul>
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<b>Environmental Standards)</b>	<ul style="list-style-type: none"> <li>• <i>Convention on International Trade in Endangered Species of Wild Fauna and Flora</i> (CITES 1973)</li> </ul>
<b>Provincial and Regional Laws and Regulations to Consider as Guidance</b>	<p><b>Provincial</b></p> <ul style="list-style-type: none"> <li>• <i>Wildlife Act</i> (Government of BC 1996e) <ul style="list-style-type: none"> <li>○ Provides prohibitions for the take and possession of wildlife. Prohibits the destruction of active bird nests.</li> <li>○ Prohibits possession of controlled alien species.</li> <li>○ Prohibitions could be incorporated into Malahat Environmental Protection Law.</li> </ul> </li> <li>• <i>Forest and Range Practices Act</i> (Government of BC 2002) <ul style="list-style-type: none"> <li>○ Prohibits the unauthorized harvesting of timber.</li> <li>○ Provides legislation for the establishment of wildlife habitat protection areas.</li> <li>○ Prohibitions and wildlife habitat protections could be incorporated into Malahat Environmental Protection Law.</li> </ul> </li> <li>• <i>Ecological Reserve Act</i> (Government of BC 1996f) <ul style="list-style-type: none"> <li>○ <i>Protected Areas of British Columbia Act</i> (Government of BC 2000)</li> <li>○ <i>Ecological Reserve Regulations</i> (Government of BC 1975)</li> <li>○ Malahat can engage with BC's Ministry of Environment to explore options for establishing Wildlife Areas on IR 11. Generally, these are established to protect rare or endangered species and their habitats.</li> </ul> </li> <li>• <i>Environment and Land Use Act</i> (Government of BC 1996g) <ul style="list-style-type: none"> <li>○ Ensures preservation and maintenance of the natural environment through the administration of land use and resource development, preventing waste of resources and despoliation of the environment.</li> </ul> </li> <li>• <i>Oil and Gas Activities Act</i> (Government of BC 2008b) <ul style="list-style-type: none"> <li>○ Provides definitions and application requirements that could be applicable to Malahat if oil and gas activities are proposed under a development permit.</li> </ul> </li> </ul>
<b>Existing Malahat Laws, Policies and Regulations</b>	<ul style="list-style-type: none"> <li>• Malahat LUP</li> <li>• Malahat CCP</li> </ul>
<b>Existing Guidelines and Best Management Practices</b>	<ul style="list-style-type: none"> <li>• Develop With Care 2014: Environmental Guidelines for Urban and Rural Land Development in British Columbia (Government of BC 2014) <ul style="list-style-type: none"> <li>○ Develop with Care 2014 provides developers and regulators with resources to assess Environmentally Valuable Resources (EVRs) and mitigate risks to EVRs.</li> <li>○ Appendix B provides checklists for a preliminary site survey and a detailed site bio-inventory. These checklists are useful features that could be incorporated into the Environmental Screening Form.</li> <li>○ Provides Least-Risk Timing Windows for development and vegetation clearing.</li> </ul> </li> </ul>
<b>Proposed Response</b>	<ul style="list-style-type: none"> <li>• Education classes on responsible hunting and harvesting;</li> <li>• Bioinventory of potential SAR and SAR habitat, migratory bird habitat, and sensitive ecosystem features;</li> <li>• Bioinventory of medicinal plants with knowledge holders (Section 4.3.2);</li> <li>• Apply Develop with Care Guidelines during development;</li> <li>• Develop an Environmental Protection Law to protect wildlife, manage hunting and trapping practices, and prevent destruction of wildlife nests or dens;</li> <li>• Waste management education (Section 4.6.2) to reduce human-wildlife conflicts;</li> </ul>

	<ul style="list-style-type: none"> <li>• Develop a Cultural Resource Management Law to protect rare, traditionally valuable (Section 4.3.2), or threatened/endangered habitats or ecosystems on reserve; and</li> <li>• Malahat Environmental Monitoring Program: monitors can routinely inspect for compliance with Environmental Protection Law, can conduct pre-clearing nest surveys, and other wildlife monitoring and salvage during development.</li> </ul>
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## 4.10 Invasive Species Management

Invasive species are at the very least a nuisance but can also pose a health and safety risk to the community. Additionally, invasive species can have a devastating effect on a local ecosystem if left unmanaged. Controlling the importation and spread of invasive species in a safe and ecologically responsible way is a priority for Malahat.

### 4.10.1 Management Objectives

Summary of management objectives to address priorities:

- Control importation of invasive species;
- Control spread of invasive species; and
- Prevent importation of invasive species.

### 4.10.2 Management Regime and Responses

The management regime and responses are summarized below.

<b>Federal Laws and Regulations (Applicable Environmental Standards)</b>	<ul style="list-style-type: none"> <li>• <i>Migratory Birds Convention</i> (Government of Canada 1994)</li> <li>• <i>Fisheries Act</i> (Government of Canada 1985b)</li> <li>• <i>Pest Control Products Act</i> (Government of Canada 2002b)</li> </ul>
<b>Provincial and Regional Laws and Regulations to Consider as Guidance</b>	<p><b>Provincial</b></p> <ul style="list-style-type: none"> <li>• <i>Weed Control Act</i> (Government of BC 1996h) <ul style="list-style-type: none"> <li>○ Defines the responsibilities of land occupiers and government in controlling noxious weeds.</li> <li>○ Provides list of noxious species.</li> <li>○ <i>Weed Control Regulation</i> (Government of BC 1985c)</li> <li>○ Provides criteria for the transportation of noxious weeds and identifies provincially and regionally classified noxious weeds.</li> <li>○ Malahat can incorporate responsibilities and noxious species list into the Malahat Environmental Protection Law.</li> </ul> </li> <li>• <i>Forest and Range Practices Act – Invasive Plant Regulation</i> (Government of BC 2002) <ul style="list-style-type: none"> <li>○ <i>Invasive Plants Regulation</i> (Government of BC 2004c)</li> <li>○ Prohibits introduction or spreading of invasive species through forest or range practices.</li> </ul> </li> </ul>



	<ul style="list-style-type: none"> <li>○ Prohibitions can be incorporated into Malahat Environmental Protection Law.</li> <li>● <i>Integrated Pest Management Act and Regulation</i> (Government of BC 2004a and 2004b) <ul style="list-style-type: none"> <li>○ Provides requirements regarding the use of pesticides that could be incorporated into the Malahat Environmental Protection Law.</li> </ul> </li> <li>● <i>Environmental Management Act</i> (Government of BC 2003a) <ul style="list-style-type: none"> <li>○ Prohibits the introduction or cause to allow the introduction of waste, including pesticides, into the environment which could be incorporated into the Malahat Environmental Protection Law.</li> </ul> </li> <li>● <i>Community Charter</i> (Government of BC 2003b) <ul style="list-style-type: none"> <li>○ Provides Schedule of alien invasive species, including regionally invasive species that can be incorporated into the Malahat Environmental Protection Law.</li> </ul> </li> </ul> <p><b>Regional</b></p> <ul style="list-style-type: none"> <li>● CVRD Noxious Weed Control Bylaw 3966 (CVRD 1996) <ul style="list-style-type: none"> <li>○ Requires owners and occupiers to ensure their property is free of and remains free of noxious weeds listed in the bylaw.</li> <li>○ Similar to the <i>Weed Control Act</i>, this could be incorporated into the Malahat Environmental Protection Law or Good Neighbour Law.</li> </ul> </li> <li>● CVRD Regulatory Options for Invasive Species Management (CVRD 2014) <ul style="list-style-type: none"> <li>○ Provides a benefits and cost analysis of regulatory options for implementing invasive plant strategies that could be utilized by Malahat to determine the optimal invasive species management programs.</li> </ul> </li> </ul>
<p><b>Existing Malahat Laws, Policies and Regulations</b></p>	<p>None</p>
<p><b>Existing Guidelines and Best Management Practices</b></p>	<ul style="list-style-type: none"> <li>● CVRD Invasive Plant Species Strategy (CVRD 2021)</li> <li>● Invasive Species Council of BC (ISCBC) <ul style="list-style-type: none"> <li>○ Invasive Species Factsheets (species specific) (ISCBC 2021a)</li> <li>○ Invasive Species that Affect Indigenous Communities Factsheet (ISCBC 2019)</li> <li>○ Indigenous Community Toolkit for Managing Invasive Species Reports and Toolkit (ISCBC 2018)</li> <li>○ Best Management Practices for Business, Industry and Government (ISCBC 2021b)</li> </ul> </li> <li>● Coastal Invasive Species Council - Integrated Plant Invasive Management (CISC 2021)</li> <li>● Metro Vancouver – Best Management Practices for ‘Invasive Species’ in the Metro Vancouver Region publications (general and species specific) (Metro Vancouver 2021)</li> </ul>

<b>Proposed Response</b>	<ul style="list-style-type: none"> <li>• Conduct a Land Issues Inventory:             <ul style="list-style-type: none"> <li>○ Record locations of invasive/noxious species.</li> <li>○ Investigate invasive species control options and cost/benefit analysis.</li> </ul> </li> <li>• Develop a Malahat Environmental Protection Law to identify invasive/noxious species that are to be managed and controlled, and prohibitions regarding use and disposal of herbicides/pesticides.             <ul style="list-style-type: none"> <li>○ Establish mowing and maintenance practices to prevent spread of invasive species, including mowing exclusion zones.</li> </ul> </li> <li>• Create a Lands Management Advisory Committee to review and assess Land Use applications and Environmental Review reports. Confirm appropriate considerations have been made by the developer to manage and control invasive species.</li> <li>• Malahat Environmental Monitoring Program: Malahat monitors to identify and monitor invasive species:             <ul style="list-style-type: none"> <li>○ Education and training course for species identification and management;</li> <li>○ ISCBC has resources for youth and educators; and</li> <li>○ BC Parks has online Invasive Species training.</li> </ul> </li> <li>• Pesticide Applicators Certification and training for Malahat Members:             <ul style="list-style-type: none"> <li>○ Obtain Pesticide Licence and Certification; and</li> <li>○ Would enable community to manage knotweed on their land, if applicable.</li> </ul> </li> <li>• Promotion of Best Management Practices within the community (ISCBC 2021c), and inclusion in Malahat Good Neighbour Law (forthcoming):             <ul style="list-style-type: none"> <li>○ Clean-Dry-Drain program for watercraft operators and recreational user of water bodies;</li> <li>○ Plantwise or Plant Me Instead for any landscaper, gardeners, farmers;</li> <li>○ Play-Clean-Go for outdoor recreational users (campers, hikers, ATV);</li> <li>○ Buy Local, Burn Local for campfires, fireplaces, and bonfires; and</li> <li>○ Don't Let it Loose.</li> </ul> </li> <li>• Include requirements for invasive species management within the Zoning and Development Law and requirements for CEMPs (Section 4.2.2):             <ul style="list-style-type: none"> <li>○ Use of clean equipment and fill;</li> <li>○ Removal of existing invasive species prior to construction;</li> <li>○ Reclamation of disturbed areas with native species to prevent infestations; and</li> <li>○ Post-construction monitoring.</li> </ul> </li> </ul>
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## 5.0 ENVIRONMENTAL MANAGEMENT PLAN IMPLEMENTATION

This section describes the management and administrative needs and processes for Malahat Nation to adopt and implement the EMP.

### 5.1 Environmental Governance Structure

#### Governance and Administration

The implementation of the EMP is the responsibility of the Malahat Lands Department. Adoption of the EMP and any revisions to the EMP will proceed through a Band Council Resolution.



An annual status report will be integrated into the Lands Department annual Strategic Plan reporting and planning. The annual status report will provide an update on goals achieved, priorities for the next year and assistance and funding required to complete the next phase of implementation. The annual Strategic Plan reporting is available to the community as posted on the Malahat website, with goals to provide more accessibility in the future.

## Enforcement

Malahat Nation will develop an enforcement and adjudication regime upon consultation with legal counsel. Malahat will take a traditional justice approach to resolving conflicts and non-compliance issues with community members.

Traditional justice may include:

- Education and provision of information;
- Verbal and written warnings;
- Stop-work orders or seizure of goods;
- Mediation or restorative justice; and
- Traditional cultural measures such as convening with the Community Advisory Committee.

The Framework Agreement on First Nation Land Management (1996) includes language that encourages various levels of government to seek opportunities to agree on harmonizing their respective environmental regimes and processes. Where serious harm to the environment has occurred or is at risk of occurring, Malahat Nation will seek to harmonize enforcement processes in line with the provincial approach in the Acts described in Section 4.0.

## 5.2 Drafting of Environmental Laws and Policies

Drafting of laws and policies should be undertaken in collaboration with Malahat Lands Department staff, community members, technical consultants as needed, and legal counsel. Malahat has four guiding principles for community consultation (Malahat Nation 2021c):

1. **Inclusiveness:** The Malahat Nation consultation process offers all Malahat Nation members a reasonable opportunity to contribute and to develop a balanced perspective;
2. **Access to Decision Making:** The Malahat Nation consultation process provides participants the opportunity to influence decisions;
3. **Transparent and Accountable:** The Malahat Nation consultation process allows stakeholders understand their role, the level of engagement and the outcome of the process; and
4. **Open and Timely Communication:** Malahat Nation provides information that is timely, accurate, objective, easily understood, accessible, and balanced.

New laws and policies may be added to the EMP as an appendix to the document. Updates and additions of new laws and policies can be added at any time and must be adopted by Chief and Council through a Band Council Resolution.



Under the Malahat Land Code Section 13.0 – Law-Making Procedure, a proposed Law may be enacted if approved by a majority of Council. Prior to enacting the Law, Malahat Nation must first:

- Approve the Law in principle at a duly convened meeting of Council at least 30 days before the Law is to be enacted;
- Post the Law at the Malahat Nation administration office at least 21 days before the Law is to be enacted; and
- If Council, acting reasonably, believes that the Law is needed urgently to protect Malahat Lands or members, Malahat Nation may enact the law without the prior two steps.

**Table A** lists proposed responses to be developed and which environmental priorities are addressed by the response.

**Table A: Proposed Responses and Priorities Addressed**

Proposed Response	Priority Addressed
1. Complete a reserve-wide bioinventory, including: <ul style="list-style-type: none"> <li>○ Medicinal and culturally important plants</li> <li>○ Culturally important areas (bathing areas, burial sites, middens)</li> <li>○ CMTs</li> <li>○ SAR and SAR habitat</li> <li>○ Migratory bird habitat</li> <li>○ Watercourses</li> <li>○ Fish and fish habitat</li> <li>○ Invasive/noxious species</li> </ul>	Culturally Valuable Resources Fish and Fish Habitat Wildlife and Habitat Protection Invasive Species Management
2. Develop Archaeological Chance Find Procedures	Culturally Valuable Resources
3. Develop a Cultural Resource Management Law, including: <ul style="list-style-type: none"> <li>○ Adoption of Chance Find Procedures into law</li> <li>○ Archaeological assessment and monitoring requirements</li> <li>○ Strategy for protection of culturally important sites and species</li> <li>○ Establishment of No-Cut-Zones to protect resources</li> </ul>	Culturally Valuable Resources
4. Develop a reserve-wide Spill Prevention and Response Plan	Groundwater and Surface Water Contaminated Water and Soils Waste Management
5. Remediate known contamination via remedial excavation or via risk assessment	Contaminated Water and Soils

Proposed Response	Priority Addressed
<p>6. Develop an Environmental Protection Law:</p> <ul style="list-style-type: none"> <li>○ Standards for soil, air, and water quality (meet or beat BC standards)</li> <li>○ Permits for import and export of fill/soil</li> <li>○ Adoption of reserve-wide Spill Response Plan into law</li> <li>○ Wellhead and groundwater protection plan</li> <li>○ Invasive species management and control</li> <li>○ Wildlife habitat protections and hunting/harvesting prohibitions</li> </ul>	<p>Sustainable Land Management Groundwater and Surface Water Contaminated Water and Soils Waste Management Air Quality Fish and Fish Habitat Wildlife and Habitat Protection Invasive Species Management</p>
<p>7. Develop a Zoning and Development Law:</p> <ul style="list-style-type: none"> <li>○ Landscaping requirements</li> <li>○ Vegetation retention requirements</li> <li>○ Erosion and sediment control criteria</li> </ul>	<p>Sustainable Land Management Invasive Species Management</p>
<p>8. Develop an Environmental Monitoring Program:</p> <ul style="list-style-type: none"> <li>○ Training and monitoring in invasive species management</li> <li>○ Soil and groundwater monitoring program of current fill site operations and other AECs</li> <li>○ Monitoring and managing beachfront erosion</li> <li>○ Pesticide applicators training</li> <li>○ Archaeological monitoring</li> <li>○ Collection of air quality data</li> <li>○ Environmental monitoring of construction works and erosion and sediment control</li> <li>○ Opportunities for involvement of a Malahat representative during environmental field studies conducted in support of an environmental review on Malahat</li> <li>○ Education for community members</li> <li>○ Involvement in regional initiatives such as stream keeper groups</li> <li>○ Capacity building</li> </ul>	<p>Environmental Review Sustainable Land Management Fish and Fish Habitat Wildlife and Habitat Protection Air Quality Invasive Species Management Contaminated Water and Soils Culturally Valuable Resources</p>
<p>9. Conduct a Land Issues Inventory</p> <ul style="list-style-type: none"> <li>○ Record locations of invasive/noxious species</li> <li>○ Document locations of spills, if they occur</li> <li>○ Document locations of stormwater input to watercourses</li> <li>○ AECs</li> <li>○ Beachfront erosion</li> </ul>	<p>Invasive Species Management Contaminated Water and Soils Fish and Fish Habitat Groundwater and Surface Water</p>
<p>10. Create a Lands Management Advisory Committee</p> <ul style="list-style-type: none"> <li>○ Review Environmental Assessments and development applications</li> <li>○ Inform Malahat members of development applications and successful environmental reviews</li> </ul>	<p>Environmental Review Sustainable Land Management Invasive Species Management</p>

Proposed Response	Priority Addressed
<p>11. Conduct Community Consultation on the following topics:</p> <ul style="list-style-type: none"> <li>○ Location of culturally significant sites</li> <li>○ Protection of Malahat Creek (sufficiency of 30m buffer)</li> <li>○ Medicinal plant species to be protected</li> <li>○ Cultural Resource Management Law development</li> </ul>	<p>Culturally Valuable Resources Fish and Fish Habitat</p>
<p>12. Develop a Malahat Good Neighbour Law on the following topics:</p> <ul style="list-style-type: none"> <li>○ Preventing spread of invasive species</li> <li>○ Waste and recycling management</li> <li>○ Burning of wood and wastes</li> </ul>	<p>Invasive Species Management Waste Management Air Quality</p>
<p>13. Develop a Solid Waste Management Plan on the following topics:</p> <ul style="list-style-type: none"> <li>○ Waste diversion and recycling</li> <li>○ Waste burning</li> <li>○ Dumping</li> </ul>	<p>Waste Management</p>
<p>14. Organize community-wide spring and fall clean-up days</p>	<p>Waste Management</p>
<p>15. Develop an Environmental Review Policy (forthcoming), to include:</p> <ul style="list-style-type: none"> <li>○ Environmental Review Report form and Land Use Application form.</li> </ul>	<p>Environmental Review</p>
<p>16. Develop an Environmental Assessment Law for projects on IR 11, to include criteria for:</p> <ul style="list-style-type: none"> <li>○ Project exclusions</li> <li>○ types of reviews</li> <li>○ timelines</li> <li>○ required environmental assessment report components</li> </ul>	<p>Environmental Review</p>
<p>17. Develop a Terms of Reference for developers to include requirement for:</p> <ul style="list-style-type: none"> <li>○ CEMP</li> <li>○ OEMP</li> <li>○ Environmental monitoring</li> <li>○ Tree protection plans</li> </ul>	<p>Sustainable Land Management</p>

Proposed Response	Priority Addressed
<p>18. Develop education programs directed towards youth focusing on:</p> <ul style="list-style-type: none"> <li>○ Cultural values</li> <li>○ Environmental protection</li> <li>○ History</li> <li>○ Language</li> <li>○ Fishing</li> <li>○ Hunting</li> <li>○ Harvesting</li> <li>○ Recycling</li> <li>○ Waste Management</li> </ul>	<p>Culturally Valuable Resources  Fish and Fish Habitat  Wildlife and Habitat Protection  Waste Management</p>
<p>19. Develop a Contaminated Sites Management Tool with BMPs and information packages for tenants:</p> <ul style="list-style-type: none"> <li>○ Develop educational tools for residents and provide training in the handling of substances that could result in contamination.</li> <li>○ Require commercial/industrial tenants to develop and implement a response plan and submit to Malahat for review.</li> <li>○ Check on compliance by tenants through review of annual reports and regular audits.</li> </ul>	<p>Contaminated Water and Soils</p>

### 5.3 Capacity Building and Staff Training

Capacity building and staff training initiatives are critical to the success of implementing the EMP and go hand-in-hand with the guiding principles for education, outreach, monitoring, and reporting. Options for inclusion of Malahat Nation members in the implementation of the EMP include:

- Monitoring;
- Inventory;
- Enforcement;
- Education;
- Guardian Program;
- Salish Sea Initiative;
- Capacity building relationships with technical experts/consultants to gain skills and develop programs;
- Partnerships with the BC Conservation Service and DFO Conservation Officers; and
- Outreach to neighbouring communities and land users, forming collaborative relationships:
  - BC Ferries; and
  - MOTI.

Training programs available locally that can provide members with education and skills to implement the monitoring and inventory may include:

- Vancouver Island University, Natural Resource Extension Program (Nanaimo, BC):
  - Environmental Monitoring for Construction Projects;
  - Environmental Technician Certificate Program; and
  - Water Quality Monitoring – Freshwater Sampling and Design;
- Natural Resources Training Group (Nanaimo, BC):
  - Aboriginal Guardian Program;
  - Spill Response – Due Diligence Certification;
  - Environmental Field Skills Certificate Program;
  - Cultural Heritage Monitor; and
  - RISC Archaeology and CMT Inventory Training for Crew Members;
- British Columbia Institute of Technology (Burnaby, BC – distance learning):
  - Essentials of Natural Resource and Environmental Protection;
- BC Certified Erosion and Sediment Control Lead; and
  - Erosion and sediment control BMPs, measures, and monitoring.

The ultimate objectives of the capacity building and staff training program are to create opportunities for Malahat members to become stewards of the environment, to develop applicable skills and knowledge that are transferrable to employment opportunities, and to take ownership in the management and monitoring of Malahat lands.

#### **5.4 Implementation Steps and Schedule**

Malahat will prepare an implementation schedule by the end of the fiscal year to accompany the EMP for adoption by Chief and Council.

Recommended steps to achieve implementation are as follows:

- Community meeting to present the EMP;
- Adoption of the EMP by Chief and Council;
- Review of priority responses and adoption of response sequence and schedule;
- Determine funding needs to implement short-term priority responses;
- Identify human resources needed to implement the EMP;
- Seek advice from legal counsel to create new policies and laws;
- Prepare new policies, laws, guidelines, and BMPs to address priorities;
- Develop outreach and education materials;
- Develop monitoring and reporting programs; and
- Develop five-year review format and implementation steps.

Upon review of the priority responses, Malahat will identify the sequence and schedule to develop and implement the responses. The proposed sequence for each policy and response development should identify the priority category, as follows:

- Short-term: one to three years;
- Medium: three to five years; and
- Long-term: 5 to 10 years.





## 5.5 Regular Review

It is recommended that an annual EMP status report (integrated in the Annual Strategic Plan Reporting) be provided to Chief and Council to identify progresses, such as the completion of goals and development of responses to priorities, as well as environmental management needs, tools, or resources to meet these goals.

Any new environmental issue can trigger a review or amendment to the EMP. Improvements can be made at any time as described in Section 5.2.

Regular comprehensive reviews are to occur every five years to ensure the environmental priorities are current, the responses are appropriate, and the existing laws and policies are up to date.

## 6.0 CLOSING

This EMP identifies the objectives to support Malahat Nation's environmental governance of IR 11. The responses recommended above are based on community priorities, requirements of the *Framework Agreement*, and compliance with applicable laws and policy. Through the implementation of these recommendations, Malahat will establish a strong environmental governance regime that will ensure appropriate stewardship of Malahat's lands.

## 7.0 REFERENCES

- Canadian Council of Ministers of the Environment. 1999. Canada-Wide Standards. Available [www.ccme.ca](http://www.ccme.ca). Accessed August 2021.
- Canadian Council of Ministers of the Environment. 2001. *Canada-Wide Standards for Petroleum Hydrocarbons in Soil*. Revised January 2008. Available [http://nwb-oen.ca/sites/default/files/cms\\_uploads/techguides/phc\\_standard\\_1.0\\_e.pdf](http://nwb-oen.ca/sites/default/files/cms_uploads/techguides/phc_standard_1.0_e.pdf). Accessed August 2021.
- Canadian Council of Ministers of the Environment. 2009. *Canada-wide Strategy for the Management of Municipal Wastewater Effluent*. Whitehorse, YT.
- Canadian Council of Ministers of the Environment. 2021a. *Canadian Environmental Quality Guidelines*. <https://ccme.ca/en/current-activities/canadian-environmental-quality-guidelines>. Accessed August 2021.
- Canadian Green Building Council. 2021. Available <https://www.cagbc.org/>. Accessed May 2021.
- Cheminfo. 2005. *Best Practices for the Reduction of Air Emissions from Construction and Demolition Activities*.
- CISC. 2021. *Coastal Invasive Species Council- Control Invasive Species*. Available [Control Invasive Plants - Coastal Invasive Species Committee \(coastalisc.com\)](http://www.coastalisc.com). Accessed May 2021.
- CITES. 1973. *Convention on International Trade in Endangered Species of Wild Fauna and Flora*. Washington DC. Available <https://cites.org/eng/disc/text.php>. Accessed Aug 2021.
- City of Victoria. 2018. *Sustainable Large Developments Bulletin*. Director of Planning, Victoria, BC. Available <https://bylaws.vancouver.ca/bulletin/bulletin-sustainable-large-developments.pdf>. Accessed May 2021.
- City of Victoria. 2019. *City of Victoria Bylaw No. 05-106. Tree Preservation Bylaw*. Available <https://www.victoria.ca/assets/Departments/Legislative~Services/Documents/Tree%20Preservation%20Bylaw%2005-106.pdf>. Accessed May 2021.
- CRD. 2016. *CRD Bylaw No. 2922. Sewer Use Bylaw (Consolidated)*. Available [https://www.crd.bc.ca/docs/default-source/crd-document-library/bylaws/liquidwasteseptagesewersourcecontrolandstormwater/2922---capital-regional-district-sewer-use-bylaw-no-5-2001B.pdf?sfvrsn=13289e85\\_6](https://www.crd.bc.ca/docs/default-source/crd-document-library/bylaws/liquidwasteseptagesewersourcecontrolandstormwater/2922---capital-regional-district-sewer-use-bylaw-no-5-2001B.pdf?sfvrsn=13289e85_6). Accessed August 2021.
- CVRD. 1996. *CVRD Bylaw No. 3966. Noxious Weed Control*. Available [Noxious-Weeds-Control-Bylaw-3966 \(cvrd.ca\)](http://www.cvrld.ca). Accessed May 2021.
- CVRD. 2009. *CVRD Bylaw No. 2020. Landclearing Management Regulation Bylaw*. Available <https://www.cvrld.ca/DocumentCenter/View/84460/2020-?bidId=>. Access May 2021.
- CVRD. 2010. *CVRD Bylaw No. 71. Comox Valley Sewerage Service Fees and Charges Bylaw No. 71, 2010*. Available [https://www.comoxvalleyrd.ca/sites/default/files/uploads/bylaws/cv\\_sewerage\\_service\\_regulation\\_fees\\_charges\\_bylaw\\_71\\_consolidated.pdf](https://www.comoxvalleyrd.ca/sites/default/files/uploads/bylaws/cv_sewerage_service_regulation_fees_charges_bylaw_71_consolidated.pdf). Accessed August 2021.
- CVRD. 2014. *Regulatory Options for Invasive Plant Management*. Available [Regulatory-Options-3-June-2014 \(cvrd.ca\)](http://www.cvrld.ca). Accessed May 2021.
- CVRD. 2017a. *CVRD Bylaw No. 3716. Smoke Control Regulation Bylaw*. Available <https://www.cvrld.ca/DocumentCenter/View/84462/3716-?bidId=>. Accessed May 2021.

- CVRD. 2018. CVRD Solid Waste Management Plan Update. Amendment 4. Prepared by Tetra Tech, October 17, 2018. Available [https://www.cvrld.ca/DocumentCenter/View/91182/181017\\_SWMP-Update](https://www.cvrld.ca/DocumentCenter/View/91182/181017_SWMP-Update). Accessed August 2021.
- CVRD. 2021a. *CVRD Bylaw No. 4380. Soil Deposit Bylaw, 2021*. Available <https://www.cvrld.ca/DocumentCenter/View/101121/4380---Soil-Deposit-Bylaw>. Accessed August 2021.
- CVRD. 2021b. *Invasive Species*. Available [Invasive Species | Cowichan Valley Regional District \(cvrd.ca\)](https://www.cvrld.ca/DocumentCenter/View/101121/4380---Soil-Deposit-Bylaw). Accessed May 2021.
- Department of Fisheries and Oceans and Ministry of Environment, Lands and Parks (DFO and MELP). 1992. *Land Development Guidelines for the Protection of Aquatic Habitat*.
- First Nations Health Authority. 2016. Environmental Public Health Services. West Vancouver, BC. 27pp. + Available <https://www.fnha.ca/WellnessSite/WellnessDocuments/FNHA-Environmental-Public-Health-Services.PDF>. Accessed August 2021.
- Golder Associates Ltd. 2014. *Phase I Environmental Site Assessment Malahat Indian Reserve #11*. Report Number: 1407192-001-R-Rev0. 32pp + Appendices.
- Golder Associates Ltd. 2016. *Phase II Environmental Site Assessment Malahat Indian Reserve #11*. Report Number: 1535410-001-R-RevA. 25pp + Appendices.
- Golder Associates Ltd. 2018. *Phase III Environmental Site Assessment Malahat Indian Reserve No. 11*. Report Number: 1535410-005-R-Rev0. 52pp + Appendices.
- Government of British Columbia. 1975. *Ecological Reserve Regulations* [BC Reg 335/75]. Queen's Printer, Victoria, BC. Available [https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/335\\_75](https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/335_75). Accessed August 2021.
- Government of British Columbia. 1985a. *Transportation of Dangerous Goods Regulation* [BC Reg 203/85]. Queen's Printer, Victoria, BC. Available [https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/203\\_85/](https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/203_85/). Accessed August 2021.
- Government of British Columbia. 1985b. *Weed Control Regulation*. Available [Weed Control Regulation \(gov.bc.ca\)](https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/335_75). Accessed May 2021.
- Government of British Columbia. 1988. Hazardous Waste Regulation [BC Reg 63/88]. Queen's Printer, Victoria, BC. Available [https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/63\\_88\\_00](https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/63_88_00). Accessed August 2021.
- Government of British Columbia. 1996a. *Heritage Conservation Act* [RSBC 1996 c. 187]. Queen's Printer, Victoria, BC.
- Government of British Columbia. 1996b. *Contaminated Sites Regulation* [BC Reg. 375/96]. Queen's Printer, Victoria, BC.
- Government of British Columbia. 1996c. *Transport of Dangerous Goods Act* [RSBC 1996 c. 458]. Queen's Printer, Victoria, BC.
- Government of British Columbia. 1996d. *Fire Services Act* [RSBC 1996 c. 144]. Queen's Printer, Victoria, BC. Available [https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/96144\\_01](https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/96144_01) Accessed August 2021.

- Government of British Columbia. 1996e. *Wildlife Act* [RSBC 1996 c. 488]. Queen's Printer, Victoria, BC.
- Government of British Columbia. 1996f. *Ecological Reserve Act* [RSBC 1996 c. 103]. Queen's Printer, Victoria, B.C.
- Government of British Columbia. 1996g. *Environment and Land Use Act* [RSBC 1996 c. 117]. Queen's Printer, Victoria, BC. Available [https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/96117\\_01](https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/96117_01). Accessed August 2021.
- Government of British Columbia. 1996h. *Weed Control Act* [RSBC 1996 c. 487]. Queen's Printer, Victoria, B.C.
- Government of British Columbia. 1997. *Riparian Areas Protection Act* [SBC 1997 c. 21]. Queen's Printer, Victoria, BC.
- Government of British Columbia. 2000. *Protected Areas of British Columbia Act* [SBC 2000 c. 17]. Queen's Printer, Victoria, BC. Available [https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/00017\\_01](https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/00017_01). Accessed August 2021.
- Government of British Columbia. 2001. *Culturally Modified Trees of British Columbia*. Resource Inventory Committee. Victoria, BC.
- Government of British Columbia. 2002. *Forest and Range Practices Act* [SBC 2002 c. 69]. Queen's Printer, Victoria, BC.
- Government of British Columbia. 2003a. *Environmental Management Act* [SBC 2003 c. 53]. Queen's Printer, Victoria, B.C.
- Government of British Columbia. 2003b. *Community Charter*. Available [Community Charter \(gov.bc.ca\)](http://www.gov.bc.ca). Accessed May 2021.
- Government of British Columbia. 2003c. *Integrated Pest Management Act* [SBC 2003 c. 58]. Queen's Printer, Victoria, BC.
- Government of British Columbia. 2004a. *Waste Discharge Regulation* [BC Reg 320/2004]. Queen's Printer, Victoria, BC. Available [https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/320\\_2004](https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/320_2004). Accessed August 2021.
- Government of British Columbia. 2004b. *Sewerage System Regulation* [BC Reg 326/2004]. Queen's Printer, Victoria, BC. Available [https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/22\\_326\\_2004](https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/22_326_2004). Accessed August 2021.
- Government of British Columbia. 2004c. *Invasive Plants Regulation* [BC Reg 18/2004]. Queen's Printer, Victoria, BC. Available [https://www.bclaws.gov.bc.ca/civix/document/id/lc/statreg/18\\_2004](https://www.bclaws.gov.bc.ca/civix/document/id/lc/statreg/18_2004). Accessed August 2021.
- Government of British Columbia. 2004d. *Integrated Pest Management Regulation* [BC Reg. 604/204]. Includes amendments up to BC Reg. 235/2015). Queen's Printer, Victoria, BC.
- Government of British Columbia. 2008a. *Public Health Act* [SBC 2008]. Queen's Printer, Victoria, BC.
- Government of British Columbia. 2008b. *Oil and Gas Activities Act* [SBC 2008 c. 36]. Queen's Printer, Victoria, BC.

- Government of British Columbia. 2012a. Municipal Wastewater Regulation [BC Reg 87/2012]. Queen's Printer, Victoria, BC. Available [https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/87\\_2012](https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/87_2012). Accessed August 2021.
- Government of British Columbia. 2012b. British Columbia Fire Code Regulation [BC Reg 263/2012]. Queen's Printer, Victoria, BC. Available [https://www.bclaws.gov.bc.ca/civix/document/id/crbc/crbc/263\\_2012](https://www.bclaws.gov.bc.ca/civix/document/id/crbc/crbc/263_2012). Accessed August 2021.
- Government of British Columbia. 2014a. *Water Sustainability Act* [SBC 2014 c. 15]. Queen's Printer, Victoria, B.C. Available <https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/14015>. Accessed August 2021.
- Government of British Columbia. 2014b. *Environmental Guidelines for Urban and Rural Land Development in British Columbia*. Available at: <https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/laws-policies-standards-guidance/best-management-practices/develop-with-care> Accessed: May 2021.
- Government of British Columbia. 2016a. *Water Sustainability Regulation* [BC Reg 36/2016]. Queen's Printer, Victoria, B.C. Available [https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/36\\_2016](https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/36_2016). Accessed August 2021.
- Government of British Columbia. 2016b. *Groundwater Protection Regulation* [BC Reg 39/2016]. Queen's Printer, Victoria, B.C. Available [https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/39\\_2016](https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/39_2016). Accessed August 2021.
- Government of British Columbia. 2018. *Environmental Assessment Act* [SBC 2018] Chapter 51. Queen's Printer, Victoria, B.C.
- Government of British Columbia. 2019. *Declaration on the Rights of Indigenous Peoples Act*. 2019. SBC 2019] Chapter 44. Queen's Printer, Victoria, B.C.
- Government of British Columbia. Undated. *Archaeological Chance Find Procedure*. Available <https://portal.nrs.gov.bc.ca/documents/10184/0/ArchaeologicalChanceFindProcedure.pdf/b326b760-8cdd-259d-1ff1-dd124037af71>. Accessed August 2021.
- Government of Canada. 1985a. *Indian Act* [R.S.C. 1985. C.I-5]. Ottawa, Canada.
- Government of Canada. 1985b. *Fisheries Act* [R.S.C. 1985. c.F-14]. Environment Canada. Ottawa, ON.
- Government of Canada. 1985c. *Hazardous Products Act* [R.S.C. 1985, c. H-3] Environment Canada. Ottawa, ON.
- Government of Canada. 1985d. *Canada Wildlife Act* [R.S.C. 1985, c. W-9] Environment Canada. Ottawa, ON.
- Government of Canada. 1994. *Migratory Birds Convention Act* [S.C. 1994, c. 22]. Environment Canada. Ottawa, ON.
- Government of Canada. 1996. *Framework Agreement on First Nations Land Management*. Ottawa, ON (includes amendments to 2018). Available <https://36qwxj2v75xz3i87ov1ti3p6-wpengine.netdna-ssl.com/wp-content/uploads/2018/11/Framework-Agreement-on-First-Nation-Land-Management-Dec-2018.pdf>. Accessed Aug 2021.

- Government of Canada. 1999a. *Canadian Environmental Protection Act* [S.C. 1999, c. 33]. Environment Canada. Ottawa, ON.
- Government of Canada. 1999b. *First Nations Land Management Act* [S.C. 1999, c. 24]. Environment Canada. Ottawa, ON.
- Government of Canada. 2001. *Transportation of Dangerous Goods (TDG) Regulations* [SOR/2001-286]. Ottawa, ON.
- Government of Canada. 2002a. *Species at Risk Act* [S.C. 2002, c. 29]. Environment Canada. Ottawa, ON.
- Government of Canada. 2002b. *Pest Control Products Act*. Available [Pest Control Products Act \(justice.gc.ca\)](https://www.justice.gc.ca/eng/legislation/acts/pesta/pesta.html). Accessed May 2021.
- Government of Canada. 2008. *Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations* [SOR/2008-197]. Ottawa, ON.
- Government of Canada. 2009. *Indian Reserve Waste Disposal Regulations* [CRC, c. 960]. Ottawa, ON.
- Government of Canada. 2010. *Standards and Guidelines for the Conservation of Historic Places in Canada: A Federal, Provincial and Territorial Collaboration*. Ottawa, ON. Available <https://www.historicplaces.ca/media/18072/81468-parks-s+g-eng-web2.pdf>. Accessed August 2021.
- Government of Canada. 2011. *Release and Environmental Emergency Notification Regulations* [SOR/2011-90]. Ottawa, ON. Available <https://laws-lois.justice.gc.ca/eng/regulations/SOR-2011-90/page-1.html>. Accessed August 2021.
- Government of Canada. 2012a. *Canadian Environmental Assessment Act* [SC 2012, c. 19. S. 52]. Ottawa, ON.
- Government of Canada. 2012b. *Guidance Document on Federal Interim Groundwater Quality Guidelines for Federal Contaminated Sites*. Federal Contaminated Sites Action Plan (FSCAP). Ottawa, ON. Available <https://esdat.net/Environmental%20Standards/Canada/Fed/Fed%20Interim%20GW%20En14-91-2013-eng.pdf>. Accessed August 2021.
- Government of Canada. 2013. *Canada Gazette Part I*. May 25, 2013. Objectives for Ambient PM2.5 and Ozone [Canadian Ambient Air Quality Standards (CAAQS) for PM2.5 and Ozone]. Volume 147, Number 21. pp 1243-1246.
- Government of Canada. 2019. *Impact Assessment Act* [S.C. 2019, s.1]. Impact Assessment Agency of Canada. Ottawa, ON.
- Harper, D. 2016. *A Guide to Preparing Environmental Management Plans for Operational First Nations*. Version 2.0, March 2016. Prepared for the First Nations Land Management Resource Centre Inc. 39pp +.
- Indigenous Services Canada. 2014. *Steps for the Environmental Review Process*. Available <https://www.sac-isc.gc.ca/eng/1396026888671/1612816537881>. Accessed May 2021.
- Invasive Species Council of BC 2018. *Indigenous Community Toolkit for Managing Invasive Species*. Available [ISCBC-IndigenousToolkit-180410-WEB.pdf](https://www.bcinvasives.ca/files/ISCBC-IndigenousToolkit-180410-WEB.pdf) (bcinvasives.ca). Accessed May 2021.
- Invasive Species Council of BC. 2019. *Invasive Species That Effect Indigenous Communities*. Available [Indigenous Communities Fact Sheet-WEB.pdf](https://www.bcinvasives.ca/files/IndigenousCommunitiesFactSheetWEB.pdf) (bcinvasives.ca). Accessed May 2021.

Invasive Species Council of BC. 2021a. *Invasive Species Council of BC Factsheets*. Available [Publications - Invasive Species Council of British Columbia \(bcinvasives.ca\)](#). Accessed May 2021.

Invasive Species Council of BC. 2021b. *Business, Industry and Government Best Management Practices*. Available [Publications - Invasive Species Council of British Columbia \(bcinvasives.ca\)](#). Access May 2021.

Invasive Species Council of BC. 2021c. *Play Your Part*. Available [Play Your Part - Invasive Species Council of British Columbia \(bcinvasives.ca\)](#). Accessed May 2021.

Malahat Nation. 2014. Malahat Nation Land Code. Dated for Reference October 16, 2014. Mill Bay, BC. 35 pp. Available <https://malahatnation.com/about/departments/lands/2014-land-code.pdf/> Accessed August 2021.

Malahat Nation. 2018. Malahat Nation Land Use Plan. 40pp. Available <https://malahatnation.com/about/departments/lands/2018-land-use-plan.pdf>. Accessed August 2021.

Malahat Nation. 2019. Malahat Nation Strategic Plan 2019-2024. 23pp. Available <https://malahatnation.com/about/governance/strategic-planning/2020-24-strategic-plan.pdf>. Accessed August 2021.

Malahat Nation. 2021a. Malahat Nation Comprehensive Community Plan. 31pp + appendices. Available <https://malahatnation.com/about/governance/community-planning/2021-ccp.pdf>. Accessed August 2021.

Malahat Nation. 2021b. Malahat Nation Strategic Plan 2021-2025. 19pp. Available <https://malahatnation.com/about/governance/strategic-planning/2021-25-strategic-plan.pdf>. Accessed August 2021.

Malahat Nation. 2021c. Malahat Nation Website: Leadership. Available: <https://malahatnation.com/about/governance/leadership/>. Accessed July 2021.

Metro Vancouver. 2021. *Invasive Species Best Management Practices*. Available [Invasive Species \(metrovancover.org\)](#). Accessed May 2021.

Ministry of Energy and Mines, 2002. *Aggregate Operators Best Management Practices Handbook for British Columbia*. Volume II – Best Management Practices.

Ministry of Environment. 2011. *Interim Guidelines for Preparing Liquid Waste Management Plans*. Revised Edition, July 2011. Victoria, BC.

Ministry of Environment (BC MOE). 2016. A Guide to Solid Waste Management Planning. Available <https://www2.gov.bc.ca/assets/gov/environment/waste-management/garbage/swmp.pdf>. Accessed August 2021.

Ministry of Environment. 2020. Provincial Air Quality Objective Information Sheet. Available [https://www2.gov.bc.ca/assets/gov/environment/air-land-water/air/reports-pub/prov\\_aqo\\_fact\\_sheet.pdf](https://www2.gov.bc.ca/assets/gov/environment/air-land-water/air/reports-pub/prov_aqo_fact_sheet.pdf). Accessed August 2021.

Ministry of Environmental and Climate Change Strategy. 2019. *British Columbia Approved Water Quality Guidelines: Aquatic Life, Wildlife & Agriculture. Summary Report*. Water Protection & Sustainability Branch. Victoria, BC.

Ministry of Environmental and Climate Change Strategy. 2020. *BC Ambient Air Quality Objectives*.



- Ministry of Forests, Lands, Natural Resource Operations and Rural Development. 1990, Revised 2018. *British Columbia Archaeological Resource Management Handbook*. Permalink: [Perma | www2.gov.bc.ca](https://www2.gov.bc.ca)
- Ministry of Forests, Lands, Natural Resource Operations and Rural Development. 1990. *Archaeological Resource Management Handbook*. Revised 2021. Archaeology Branch, Victoria, BC. Available [https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/natural-resource-use/archaeology/forms-publications/archaeological\\_resource\\_management\\_handbook.pdf](https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/natural-resource-use/archaeology/forms-publications/archaeological_resource_management_handbook.pdf). Accessed August 2021.
- Ministry of Forests, Lands and Natural Resource Operations. 2011. *Terms and Conditions for Changes in and About a Stream Specified by Ministry of Forests, Lands, and Natural Resource Operations Habitat Officer, West Coast Region (Vancouver Island and Gulf Islands)*. Nanaimo, BC.
- Ministry of Small Business, Tourism and Culture. 2001. *Culturally Modified Trees of British Columbia: A Handbook for the Identification and Recording of Culturally Modified Trees*. Version 2.0. Archaeology Branch, Victoria, BC. Available [https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/natural-resource-use/archaeology/forms-publications/culturally\\_modified\\_trees\\_handbook.pdf](https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/natural-resource-use/archaeology/forms-publications/culturally_modified_trees_handbook.pdf). Accessed August 2021.
- Ministry of Water, Land and Air Protection. 2002. *A Field Guide to Fuel Handline, Transportation & Storage*. 3<sup>rd</sup> Edition. February 2002. Forest Service, BC. 41pp + v.
- Ministry of Water, Land and Air Protection. 2004. *Standards and Best Practices for Instream Works*. Ecosystem Standards and Planning Biodiversity Branch. Victoria, BC.
- Parks Canada. 2021. Cultural Resource Management Policy. Available <https://www.pc.gc.ca/en/docs/pc/poli/grc-crm>. Accessed August 2021.
- Urban Systems. 2020. Malahat Nation Water Conservation Plan. Memorandum Dated October 19, 2020. File: 3506.0020.01.
- Urban Systems. 2021. Malahat Nation Water System Assessment – ISC Environmental Review – Project Description Form Supplemental Information – ISC Internal File Reference Number: 11820. Memorandum Dated August 19, 2021. File: 3518.0040.02.



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## Figures





Malahat Nation IR 11 Boundary

SITE LOCATION			
Malahat IR 11, Mill Bay, BC			
MALAHAT NATION			
	File No.	Draw No.	FIGURE <b>1</b>
	5940-01.01	MNEMP_001E	
Date	Drawn by	RSS	
	MAY 2021		


W:\BC Project Files\5940-000\9440-01 (1) 5940-01 (1) - MIRA EX 17 - Malahat IR 11 Location.mxd

Parcel boundary and site features are approximate and are presented for discussion purposes only.

2020 orthomosaic and street map from ESRI  
Street map from ESRI  
Parcel data from Malahat First Nation  
NAD 1983 UTM Zone 10N



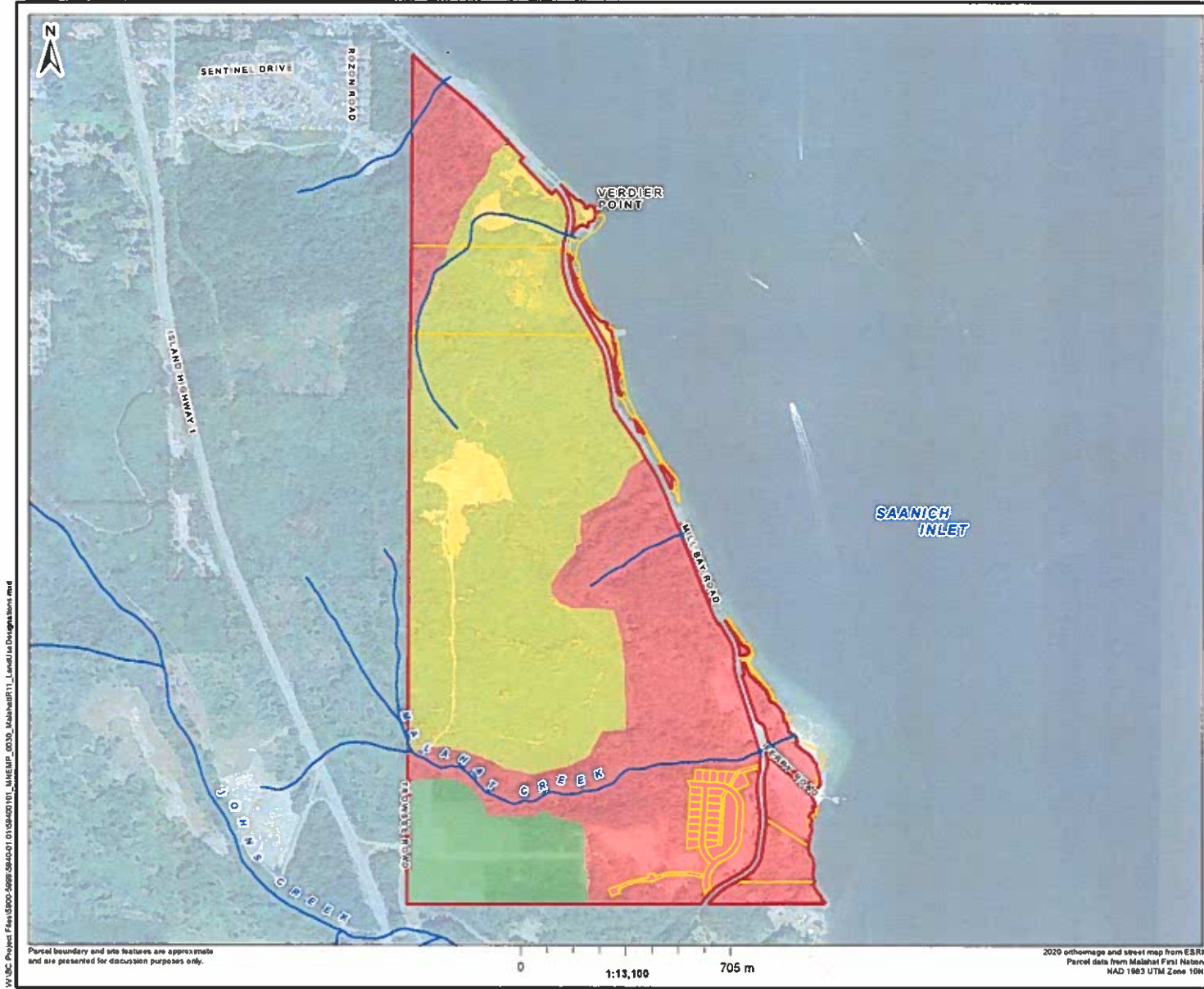
- Malahat Nation IR 11 Boundary
- Building Footprint
- Land Parcel
- Certificate of Possession Land
- Watercourse
- Water Reservoir
- Malahat Cemetery

<b>MALAHAT IR 11 KEY FEATURES</b>			
Malahat IR 11, Mill Bay, BC			
<b>MALAHAT NATION</b>			
	File No. 5840-01 01	Dwg No. MNEMP_0000	FIGURE
	Date JUL 2021	Drawn by RSS	<b>2</b>


W:\BC Project Files\5840-5840-01 01\5840-01\_01\_MNEMP\_0000\_Malahat\11 Key Features.mxd

Parcel boundary and info features are approximate and are presented for discussion purposes only.

2020 orthorectified and street map from ESRI  
 Street map from ESRI  
 Parcel data from Malahat First Nation  
 NAD 1983 UTM Zone 10N



- Malahat Nation IR 11 Boundary
- Land Parcel
- Community Lands Designation
- Industrial Land
- Multiple Use Lands Designation
- Watercourse

<b>MALAHAT IR 11 LAND USE DESIGNATIONS</b>			
Malahat IR 11, Mill Bay, BC			
<b>MALAHAT NATION</b>			
	File No.	Dwg No.	FIGURE
	50-40-01.01	MNEMP_0030	
Date	Drawn by		<b>3</b>
JUL 2021	RSS		


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Parcel boundary and site features are approximate and are presented for discussion purposes only.

2020 orthoimage and street map from ESRI  
Parcel data from Malahat First Nation  
NAD 1983 UTM Zone 10N



- Malahat Nation IR 11 Boundary
- Watercourse
- AEC 2 - Timber Pilings & Debris
- AEC 3 - North Gravel Pit Refuse Dumping
- AEC 5 - Possible Buried Vehicle & Debris
- AEC 6 - Unknown Fill Quality
- AEC 7 - Unknown Fill Quality
- AEC 9 - Possible Treated Poles & Herbicide/Pesticide Use

<b>AREAS OF ENVIRONMENTAL CONCERN</b>			
Malahat IR 11, Mill Bay, BC			
<b>MALAHAT NATION</b>			
	File No. S940-01.01	Drawn by MHEMP_0040	FIGURE
	Date AUG 2021	Drawn by R35	<b>4</b>

W:\BC\_Project Files\5900-5999\5940-01\_01\940-01\_01\MHEMP\_0040\_AreasOfEnvironmentalConcern.mxd

Parcel boundary and site features are approximate and are presented for discussion purposes only.

2020 orthomosaic and street map from ESRI  
Parcel data from Malahat First Nation  
NAD 1983 UTM Zone 10W

## Appendix 1

### Community Questionnaire

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# Malahat Environmental Management Plan Questionnaire

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## Introduction

Malahat Nation is working with PGL Environmental Consultants (PGL) to create an Environmental Management Plan (EMP) for Malahat's main reserve (Malahat IR No. 11). An EMP is document that outlines measures to maintain and improve the environment.

We are asking community members to provide input! This will help make sure that the EMP captures the concerns, natural features and resources that are important to Malahat members.

Please note that feedback provided here may be used in the creation of Malahat documents but sensitive information will not be shared publicly.

Thank you, we appreciate your time and participation.

## The goals of the EMP are to:

- Create clear goals for environmental conditions at Malahat and a plan of how to get there;
- Communicate environmental priorities to staff, membership, and outside agencies;
- Identify environmental laws, regulations, and polices specific to IR No. 11;
- Require development on reserve to follow clear environmental rules; and
- Improve the coordination, efficiency, and cost effectiveness of environmental actions.

## Questions

1. What would a healthy environment 30 years from now look like to you?

2. What environmental issues on reserve that you are concerned with? *\*Note that the EMP is focused on land-based environmental issues rather than marine issues\**

Choose as many of the options below that apply:

Drinking water quality	_____	Invasive species	_____
Household waste	_____	Traffic management	_____
Dumping/littering	_____	Environmental emergency response (e.g. fuel spills)	_____
Wildlife habitat protection	_____	Invasive species	_____
Air quality	_____	Archaeological sites or cultural resources	_____
Soil importation	_____	Resource use (e.g. trees)	_____
Contaminated sites	_____	Other: _____	_____
Hunting	_____		_____



3. How should environmental protection incorporate Malahat culture and values?

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4. Are there specific cultural resources or environmental features on Malahat land you want to see protected? Examples could include medicinal plants, cedar, or culturally sensitive areas. If so, how would you like to see these protected?

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5. Do you want to learn more about environmental features and protection on reserve? If so, how?

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6. Do you have any concerns regarding future developments on Malahat lands? If so, how would you like to see them addressed?

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7. Do you have ideas for Malahat members to be involved in the implementation of the EMP? Examples could be training and employment, data collection, or environmental monitoring.

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8. Do you have any other ideas or feedback related to environmental protection on Malahat land?

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## Appendix 2

### Laws and Regulations

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## Appendix 2

### Laws and Regulations

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#### Federal Laws

The following are examples of federal laws, regulations, or standards/guidelines that currently do, or may, apply on IR 11.

- *Canadian Environmental Assessment Act*, 2012 (Government of Canada 2012)
  - Replaced by IAA
- *Canadian Environmental Protection Act* (Government of Canada 1999a)
  - The purpose of this Act is to prevent pollution and provides the legislative basis for environmental and health protection programs, in particular, water pollution.
  - *Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations* (Government of Canada 2008).
    - Establishes requirements for storage tank systems under federal jurisdiction.
  - *Release and Environmental Emergency Notification Regulations* (Government of Canada 2011).
    - Establishes requirements for emergency telephone services and notification in response to the release of a substance identified in the *Canadian Environmental Protection Act*.
- *Impact Assessment Act* (IAA) (Government of Canada 2019)
  - The IAA provides a planning and decision-making tool for assessing a project's environmental, economic, health, and social effects and impacts to Indigenous rights and values. Includes a Project List to evaluate whether a proposed project meets the definition of a "designated project" and subject to IAA.
  - Designated Classes of Projects Order identifies projects which are likely to only cause insignificant adverse environmental effects and are not subject to IAA.
  - As a regulatory authority under IAA, Section 82 provides the legislation for Malahat to conduct an impact assessment for projects on reserve to determine if the project is likely to cause significant adverse environmental effects, or not. If significant adverse environmental effects are anticipated, the Governor in Council must decide if the effects are justified in the circumstances.
- *First Nations Land Management Act* (Government of Canada 1999b)
  - Allows First Nations to enact and administer their own Land Codes. Once a Land Code comes into Force, a third of the *Indian Act* ceases to apply, as described below.
  - This is the Act under which development of an EMP is required.
- *Framework Agreement on First Nations Land Management* (Government of Canada 1996)
  - Government-to-Government agreement and recognizes First Nations' inherent right to govern their reserve lands
  - The Framework Agreement established the Land Advisory Board and the First Nations Land Management Resource Centre (LMRC) to provide, trainings, support, and funding to establish and implement Land Code (<https://labrc.com>)
- *Indian Act* (Government of Canada 1985a)
  - Note that many sections do not apply to Nations with Land Code in Force, including the following:
    - 18, 18.1, 19, 20, 22, 23, 24, 25, 26, 27, 28, 30, 31, 32 [repealed], 33 [repealed], 34, 35, 37, 38, 39, 39.1, 40, 40.1, 41, 49, subsection 50(4), 53, 54, 55, 56, 57, 58, 59, 60, 611, 62, 63, 64, 64.1, 65, 66, 67, 68, 69, 71, and 93.
    - Any regulations made under section 57 of the Act no longer apply.



- Any regulations made under sections 42 and 73 of the *Indian Act* no longer apply to the extent of any inconsistency or conflict with the Framework Agreement, the land code, or First Nation laws.
- *Indian Reserve Waste Disposal Regulations* (Government of Canada 2009)
  - Provisions for the use of reserve lands with respect to waste disposal. Prohibits dumps, disposal and storage of waste without a permit.
  - Indigenous groups can use these provisions to build Nation-specific regulations that meet or exceed these standards.
- *Species at Risk Act* (Government of Canada 2002a)
  - The *Species at Risk Act* is to protect native species, subspecies, and distinct populations from becoming extinct or extirpated and to direct the recovery of threatened and endangered populations. The act applies on federal lands, and within federally designated critical habitat and applies to listed fish species and fresh and marine waters.
  - This Act applies continues to apply to Nations that have a Land Code and can be used to protect Species At Risk (SAR) and their habitat on Reserve Lands.
- *Migratory Birds Convention Act* (Government of Canada 1994)
  - Protects migratory birds, their eggs and their nests from harm related to wood harvesting, hunting, trafficking, and commercialization.
  - Prohibits the negligent use or deposition of substances, including pesticides, that may be harmful to birds.
  - This Act applies continues to apply to Nations that have a Land Code and can be used to protect nesting birds on Reserve Lands. This can also be the basis on which Nations can stipulate enhance protection for birds on their Reserve Lands.
- *Fisheries Act* (Government of Canada 1985b)
  - Prohibits the harmful alteration, disruption, or destruction of fish or fish habitat (HADD), and the death of fish by means other than fishing.
  - Prohibits the negligent use or deposition of deleterious substances, including pesticides, that may be harmful to fish or fish habitat.
  - This Act applies continues to apply to Nations that have a Land Code and can be used to protect nesting birds on Reserve Lands. This can also be the basis on which Nations can stipulate enhance protection for birds on their Reserve Lands.
- Canadian Environmental Quality Guidelines (Canadian Council of Ministers of the Environment 2021).
  - The guidelines provide thresholds for contaminants in soil, sediment and surface water that are deemed safe for receptors.
- Canada-Wide Standards for Petroleum Hydrocarbons (PHC) in Soil (Canadian Council of Ministers of the Environment 2001)
  - The guideline provides thresholds for petroleum hydrocarbons contaminants in soil that are deemed safe for receptors.
- Guidance Document on Federal Interim Groundwater Quality Guidelines for Federal Contaminated Sites (Government of Canada 2012b)
  - The guideline provides thresholds for contaminants that are deemed safe for receptors.
- *Hazardous Products Act* (Government of Canada 1985c)
  - Requires suppliers of hazardous products to appropriately label products and provide product information and hazards through Safety Data Sheets.
- Canadian Ambient Air Quality Standards (Government of Canada 2013)
  - CCME developed Canadian Ambient Air Quality Standards (CAAQS) for PM2.5, O3, SO2 and NO2 to help air management zones determine how much and how urgently they need to act to improve air quality.

- Canada-Wide Environmental Standards (CCME 1999)
  - Developed under Canadian Council of Ministers of the Environment.
  - Qualitative or quantitative standards, guidelines, objectives and criteria for protecting the environment and reducing risks to human health.
  - Implemented under s. 9 of the *Canadian Environmental Protection Act* (Government of Canada 1999)
- *Canada Wildlife Act* (Government of Canada 1985c)
  - Allows the creation, management and protection of wildlife areas (National Wildlife Areas) for research, conservation or interpretation of wildlife, with the purpose of preserving critical habitats for endangered species.
  - The *Wildlife Area Regulations* prohibit harmful activities without a permit.
  - Nations can engage with Parks Canada to explore options for establishing Wildlife Areas on their Reserve Lands. Generally, these are established to protect rare or endangered species and their habitats.
- *Convention on International Trade in Endangered Species of Wild Fauna and Flora* (CITES 1973)
  - International world-wide agreement to ensure international trade in specimens of wild animals and plants does not threaten the survival of the species. Encourages signatory countries (Parties) to develop domestic laws.
  - BC regulates trade in native species, while the federal government regulates trade in non-native species.
  - Compliance is managed jointly by the Canadian Wildlife Service and Fisheries and Oceans Canada.
- *Pest Control Products Act* (Government of Canada 2002b)
  - Provides criteria to reduce unacceptable risks to the environment from the use of pest control products.
  - These serve as appropriate guidance for Nations interested in creating laws regarding safe-pesticide use.
- *Transportation of Dangerous Goods (TDG) Regulations* (Government of Canada 2001)
  - Regulates the transportation of dangerous goods by road, rail, air and marine transport.

## Provincial Laws

The provincial laws and regulations currently do not apply on IR 11. The following laws and regulations can be used as guidance tools to work towards future compliance and to develop standards to meet or beat.

- Provincial Air Quality Objective Information Sheet (BC MOE 2020)
  - British Columbia has adopted air quality objectives and standards for a number of contaminants, including Particulate Matter (PM10 and PM2.5), ozone, sulphur dioxide, nitrogen dioxide and carbon monoxide to protect human health and the environment.
- *Community Charter* (Government of BC 2003b)
  - Spheres of Concurrent Jurisdiction – Environment and Wildlife Regulation
  - Provides Schedule of alien invasive species, including regionally invasive species.
- *Declaration on the Rights of Indigenous Peoples Act* (Government of BC 2019)
  - The *Declaration on the Rights of Indigenous Peoples Act (DRIPA)* is BC's legal instrument to foster the implementation of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). Among other things, United Nations Declaration on the Rights of Indigenous Peoples affirms the right of Indigenous peoples to protect their culture.

- DRIPA is considered 'enabling' legislation to bring provincial legislation in line with UNDRIP. This can be used to explore changes to provincial laws that adversely affect indigenous communities.
- *Ecological Reserve Act* (Government of BC 1996f)
  - Establishes and administers ecological reserves to be included in the schedules of the *Protected Areas of British Columbia Act* (Government of BC 2000).
  - *Ecological Reserve Regulations* (Government of BC 1975) identify conduct and activities that are not permitted in ecological reserves.
  - Nations can engage with BC's Ministry of Environment to explore options for establishing Wildlife Areas on their Reserve Lands. Generally, these are established to protect rare or endangered species and their habitats.
- *Environment and Land Use Act* (Government of BC 1996g)
  - Empowers the Environment and Land Use Committee of the provincial government to:
    - Foster increased public concern and awareness of the environment.
    - Ensure preservation and maintenance of the natural environment through the administration of land use and resource development, preventing waste of resources and despoliation of the environment.
- *Environmental Assessment Act* (Government of BC 2018)
  - Provides a mechanism for reviewing major projects to assess potential impacts to the environment, economy, and local social structure. Includes requirements for public consultation and consideration of sustainability and risks of malfunctions or accidents, and greenhouse gas emissions.
  - The act requires that contaminated sites are captured in the regulatory regime and provides requirements for assessment and remediation.
- *Environmental Management Act* (Government of BC 2003a)
  - Regulates industrial and municipal waste discharge, pollution, hazardous waste and contaminated site remediation.
  - Provides the authority for introducing wastes into the environmental, while protecting public health and the environment
  - Guidelines and objectives for water quality are developed under the EMA
  - The Act requires that contaminated sites are captured in the regulatory regime and provides requirements for assessment and remediation.
  - Prohibits the introduction or cause to allow the introduction of waste, including pesticides, into the environment.
  - Permitting and approvals do not apply to Malahat; Malahat can choose to impose more stringent requirements.
  - *Contaminated Sites Regulation* (Government of BC 1996b and amendments).
    - The regulation regulates the process for assessment and remediation of contaminated sites and provides binding standards for substances in soil, groundwater, surface water, sediments, and soil vapour.
  - *Waste Discharge Regulation* (Government of BC 2004, and amendments).
    - Defines what activities and types of waste need to be authorized under the EMA.
  - *Municipal Wastewater Regulation* (Government of BC 2012a).
    - Authorizes discharge of municipal effluent and use of reclaimed water.
    - Sets standards for municipal wastewater treatment and disposal and drain fields.
  - *Hazardous Waste Regulation* (Government of BC 1988 and amendments)
    - Addresses the proper handling and disposal of hazardous wastes under the Environmental Management Act.
- *Forest and Range Practices Act* (Government of BC 2002)
  - Under the *Government Actions Regulations*, manages habitat for endangered and threatened species through the establishment of Ungulate Winter Ranges, Wildlife Habitat

- Areas and General Wildlife Measures to guide forestry operations to avoid sensitive areas. Outlines how forest and range practices and resource-based activities are conducted.
- Prohibits unauthorized harvesting of timber.
- *Invasive Plants Regulation* (Government of BC 2004c)
  - Requires the prevention of introducing or spreading invasive species through forest or range practices.
  - Can be the basis for Malahat laws to control invasive species.
- *Heritage Conservation Act* (Government of BC 1996a)
  - Provides protection for archaeological sites in BC, including alteration, destruction, or changes.
  - Requires the establishment and maintenance of the Provincial heritage register; this Registry (RAAD) can be accessed by Malahat to see what sites on its lands have already been identified. Note that just because there is no archaeological material identified does not mean it is not there; it just means it has not been found and entered into the registry.
  - Permitting process not relevant to Malahat.; Malahat can require stronger provisions for protection
  -
- *Integrated Pest Management Act and Regulation* (Government of BC 2003c and 2004d)
  - Provides the requirements regarding the sale and use of pesticides.
- *Oil and Gas Activities Act* (Government of BC 2008b)
  - Regulates oil and gas and related activities including wells, facilities, oil refineries, natural gas processing plants, pipelines, and oil and gas roads.
  - Includes permits, authorizations, orders, and regulations.
- *Protected Areas of British Columbia Act* (Government of BC 2000)
  - Schedules list ecological reserves to be protected under the *Ecological Reserves Act* (Government of BC 1996f).
- *Public Health Act* (Government of BC 2008a)
  - *Sewerage System Regulation* (Government of BC 2004)
    - Regulates wastewater discharges to ground less than 22.7m<sup>3</sup>/day.
    - Provides guidance for wastewater disposal for onsite systems and subdivisions.
    - Malahat can choose to meet or exceed these regulations for developments on Malahat Lands.
- *Riparian Areas Protection Act and Riparian Areas Protection Regulation* (Government of BC 1997)
  - Provides a standard for stream and watercourse assessment and riparian protection.
  - Directs local governments to ensure bylaws and permits under Part 14 of the *Local Government Act* meet or exceed the standards of riparian protection as defined in the Act.
  - Provides assessment methods for determining streamside protection and enhancement area setbacks from watercourses.
  - Assessment methods could be applied to Malahat lands.
  - Assessment report application to Province is not applicable to Malahat.
- *Transport of Dangerous Goods Act* (Government of BC 1996c)
  - Harmonizes provincial and federal requirements for transportation of dangerous goods on BC highways, including provincial ferry routes.
  - *Transportation of Dangerous Goods Regulation* (Government of BC 1985a)
- *Water Sustainability Act* (Government of BC 2014a)
  - Manages the diversion and use of water resources in BC, including groundwater and surface water.
  - Groundwater use on federal lands is applicable under the Act.
  - Ensures supply and regulates licensing, diversion and use of surface- and groundwater.

- Permitting process and fees for surface water not relevant to Malahat Nation.
- *Water Sustainability Regulation* (Government of BC 2016a)
  - Regulates licensing, diversion and use of surface and groundwater.
- *Groundwater Protection Regulation* (Government of BC 2016b)
  - Sets minimum standards for aquifer protection with respect to well siting, construction, maintenance and deactivation.
- *Wildlife Act* (Government of BC 1996e)
  - Protects native (and some non-native) vertebrates from harm and defines penalties and licenses and permits for capture and handling of wildlife.
  - Manages wildlife for recovery objectives.
  - Protects areas for endangered and threatened wildlife within Critical Wildlife Habitats and Wildlife Management Areas.
  - Permits and licensing not applicable to Malahat; Malahat can choose to adopt some of the Wildlife Act provisions to protect Wildlife on lands.
- *Weed Control Act* (Government of BC 1996h)
  - Defines the responsibilities of land occupiers and government in controlling noxious weeds.
  - Provides list of noxious species.
  - *Weed Control Regulation* (Government of BC 1985c)
    - Provides criteria for the transportation of noxious weeds and identifies provincially and regionally classified noxious weeds.

### Regional Bylaws and Regulations

The municipal bylaws and regulations currently do not apply on IR 11. These regulations could be adopted or used as guidance tools to create a laws, bylaws or standards to meet or beat.

- Cowichan Valley Regional District (CVRD) Landclearing Management Regulation Bylaw No. 2020 (CVRD 2009).
  - Improve local air quality by regulating burning of large piles of debris during landscaping and development activities.
- CVRD Solid Waste Management Plan Update (CVRD 2018).
  - Sets out strategies to help the region to meet its waste reduction targets.
- CVRD Smoke Control Bylaw No. 3716 (CVRD 2017a)
  - Developed to control and regulate pollution, nuisances, unwholesome or noxious materials, odours and disturbances within the electoral areas of the Cowichan Valley Regional District to address the concerns of residents whose health and well-being are adversely affected by smoke pollution.
  - Regulates when and where open burning may occur and references the venting index.
  - Identifies what materials may be burned.
- City of Victoria Tree Preservation Bylaw No. 05-106 (City of Victoria 2019).
  - Protection and preservation of trees.
  - Provides lists of protected trees.
  - Provides permit and fee requirements.
- City of Victoria Sustainable Large Developments Bulletin (City of Victoria 2018).
  - Provides requirements for sustainable development practices for large developments including rainwater and groundwater management, zero waste planning, and sustainable site design.
- CRD Sewer Use Bylaw No. 2922 (Consolidated) (CRD 2016).
  - Regulates the discharge of waste into sewers connected to a sewerage facility operated by CRD.
  - Identifies contaminants, prohibited waste, volumes and restricted waste.

- CVRD Sewerage Service Regulation, Fees and Charges Bylaw No. 71 (CVRD 2010)
  - Provides guidance for regulations, fees and charges for the Cowichan Valley sewerage service, and regulates discharge of septage and biosolids.
- CVRD Soil Deposit Bylaw (CVRD 2021)
  - Regulates deposits of clean soil and to prevent unauthorized import of contaminated soil and deleterious impacts to streams and other environmentally sensitive features.
- CVRD Noxious Weed Control Bylaw 3966 (CVRD 1996)
  - Requires owners and occupiers to ensure their property is free of and remains free of noxious weeds listed in the bylaw.
- CVRD Regulatory Options for Invasive Plant Management (CVRD 2014)
  - Provides a benefits and cost analysis of regulatory options for implementing invasive plant strategies.
- CVRD Invasive Species (CVRD 2021b)
  - Webpage highlighting particularly noxious invasive plants with human health concerns.