



Ch'iyáqtel First Nation
**Environmental
Management Plan**

April 2023



Table of Contents

1.0 Introduction	1
1.1 Purpose of the EMP	1
1.2 Regulatory Context for the EMP	3
1.3 Jurisdiction of the EMP	3
1.4 Organizational Structure of the EMP	6
2.0 Vision	7
3.0 Roles & Responsibilities	8
4.0 Setting the Context	10
4.1 Territorial Context	10
4.2 Ch'iyáqtel People	11
5.0 Environmental Priorities	16
6.0 Land Use Management	17
7.0 Waste Management	25
8.0 Contamination of Land and Water	30
9.0 Vegetation, Wildlife, and Aquatic Species	35
10.0 Cultural Heritage	41
11.0 Environmental Emergencies	47
12.0 Drainage and Flooding	52
13.0 Air Quality	56
14.0 Implementation	59
14.1 Schedule	59
14.2 Document Control	70
14.3 Amendments and Reviews	70
14.4 Policy & Law Development	71
14.5 Data Management & Tracking	72
14.6 Education & Awareness	73
14.7 Capacity Building & Training	74
14.8 External Supports	74
Appendix A	
Appendix B	

Acronyms, Abbreviations, Definitions

AANDC	Aboriginal Affairs and Northern Development
APEC	Areas of Potential Environmental Concern
BCEMS	British Columbia Emergency Management System
CCP	Ch'iyáqtel First Nation Comprehensive Community Plan
CSF	Collaborative Stewardship Framework
EMBC	Emergency Management BC
EMP	Environmental Management Plan
EOC	Emergency Operation Centre
ESA	Environmental Site Assessment
FNLMI	First Nations Land Management Initiative
FVRD	Fraser Valley Regional District
GIS	Geographic Information Systems
HEPR	Holistic Emergency Preparedness and Response
INAC	Indian and Northern Affairs Canada
ISC	Indigenous Services Canada
JMC	Joint Management Committee
LFFA	Lower Fraser Fisheries Alliance
LUP	Tzeachten First Nation Land Use Plan
MOU	Memorandum of understanding
PRRO	People of the River Referrals Office
SARA	Species at Risk
SDS LAW	Tzeachten First Nation Subdivision, Development and Servicing Law
SNC	Stó:lō Nation Canada
STC	Stó:lō Tribal Council
STSA	S'ólh Téméxw Stewardship Alliance
TLMAC	Tzeachten Lands Management Advisory Committee





1.0 Introduction

Tzeachten First Nation (Ch'iyáqtel) is a strong, thriving, and engaged member of the Stó:lō (People of the River) Nation, the Ts'elxweyeqw (Ch-ihl-kway-uhk) Tribe, and are part of the broader Coast Salish collective whose lands surround the Salish Sea of the Pacific Northwest. The Ts'elxweyeqw are the First People of the Chilliwack River Watershed located in what is now known as the Central Fraser Valley of southwestern British Columbia. Our tribal name, 'Ts'elxweyeqw' is commonly known in English as 'Chilliwack'. The Halq'eméylem name for Tzeachten is Ch'iyáqtel meaning "the place of the fish weir" which recognizes the important fishing weirs that were once located within the community. Our people once had access to an abundant Traditional Territory covering over 95 thousand hectares of land in southwestern British Columbia, rich in culture, natural beauty, and resources. Our Ancestors travelled the land to hunt, fish, and pick berries and the waterways were the highways and the vehicle of choice was the canoe.

1.1 Purpose of the EMP

We have developed this Environmental Management Plan (EMP) to recognize our environmental responsibilities under the *Framework Agreement on First Nations Land Management* (Framework Agreement). Under the Framework Agreement, land administration-related sections of the *Indian Act* no longer apply and we have assumed responsibility for land management on our reserve land. The foundation for the Ch'iyáqtel land governance system is established through the *Tzeachten First Nation Land Code* (Land Code), which replaces the land management provisions of the *Indian Act*, providing Ch'iyáqtel with the ability to manage our environment and resources, receive and use land revenues, and exercise our legal capacity for land management on Ch'iyáqtel Reserve Lands (herein referred to as "Ch'iyáqtel Lands").

This EMP is a foundational component of the Ch'iyáqtel Environmental Protection Regime, which is required by the Framework Agreement. The EMP serves to provide a holistic perspective of environmental management. It helps fulfill the intent of the Framework Agreement by providing clear environmental management actions to protect, maintain, and improve environmental integrity on Ch'iyáqtel Lands. The EMP provides guidance for other aspects of the Environmental Protection Regime, including Ch'iyáqtel laws, policies, and administrative processes. It is intended to be visionary, goal-oriented and based on the aspirations of both present and future generations. It is intended to complement other Ch'iyáqtel community plans to support a holistic and integrated approach to community and environmental planning. Specifically, the EMP serves to:



- Describe current environmental factors and existing or anticipated environmental issues or challenges on Ch'iyáqtel Lands;
- Identify Ch'iyáqtel's environmental management priorities;
- Identify environmental management actions to mitigate environmental issues;
- Establish environmental policies based on best management practices to prevent or minimize future environmental impacts;
- Clarify roles and responsibilities related to environmental management and environmental planning and reporting procedures;
- Increase environmental awareness in the community and within the region;
- Communicate Ch'iyáqtel's environmental priorities and processes to municipal, provincial and federal governments;
- Protect Ch'iyáqtel Lands and environmental features for future generations; and
- Express a vision of a desired future condition that will come through implementing the goals, actions, and policies of this plan.

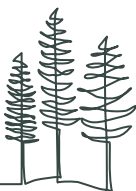
The EMP is a tool that will improve coordination between Ch'iyáqtel administrative departments and will help manage environmental risks and liability. It will help inform Ch'iyáqtel Members on past environmental conditions and land uses, current environmental conditions, and how the land and water can be protected and enhanced for future generations. A collaborative approach involving Ch'iyáqtel Members, the Lands Department, staff, and our technical consultant (Dillon Consulting Limited) was used to identify environmental management priorities that form the basis of this EMP (*Appendix A – The EMP Development Process*).

The Regulatory Gap

Federal environmental protection laws continue to apply to Ch'iyáqtel Lands, and Ch'iyáqtel First Nation, Members, residents, and developers can be fined for non-compliance. However, the provinces have greater jurisdiction over land and natural resources, and the majority of legislation governing environmental management and contaminated sites is provincial and does not apply to First Nation reserve lands – this is commonly referred to as the “regulatory gap”.

Under Land Code, a First Nation becomes responsible for closing this regulatory gap on its lands through policy and legislative development and implementation. Reapplying traditional practices, including for land governance, and Indigenous Knowledge, in conjunction with practices employed by other jurisdictions can help to close this gap. In many cases, First Nations seek to harmonize their environmental policies and laws with those of the province, regional districts and/or local municipalities to promote effective and consistent environmental processes and to avoid duplication.

Although provincial and municipal legislation and regulations do not apply to Ch'iyáqtel Lands, they may serve as best management practices or guidelines that can be used to develop environmental management policies and/or laws for Ch'iyáqtel Lands.



1.2 Regulatory Context for the EMP

We are a signatory member of the Framework Agreement and implemented Land Code in 2008. Our Land Code permits the adoption of laws and policy with respect to land management and environmental protection of Ch'iyáqtel Lands, including this EMP. With Ch'iyáqtel's increased responsibility for land and environmental management since the implementation of Land Code, comes the onus of liability for Ch'iyáqtel Lands. The Framework Agreement requires Ch'iyáqtel to establish an Environmental Protection Regime to enable the protection of the health of the environment and Ch'iyáqtel people and manage liability risks.

Federal laws applicable on Ch'iyáqtel Lands and consistent with the Framework Agreement continue to apply. As indicated in the Framework Agreement, environmental laws and processes implemented on Ch'iyáqtel Lands must be harmonized with federal ones to promote effectiveness and consistency and to avoid duplication and/or uncertainty. An overview of federal laws and associated regulations and standards, relevant to environmental management and protection is provided for each of the Environmental Management Priority sections.

Through Land Code, Ch'iyáqtel has developed several plans, laws and regulations related to land and environmental management, including but not limited to:

- Tzeachten Land Use Plan;
- Subdivision, Development and Servicing Law;
- Fireworks Law;
- Business Permit Law;
- Enforcement and Ticketing Law;
- Noise Law;
- Certificate of Possession Law;
- Dog Licensing and Animal Management Law;
- Backyard Hen Regulation;
- Tzeachten Zoning Law;
- Tzeachten Sign Law;
- Tzeachten Community Quality and Protection Law;
- Tzeachten Soil Deposit, Removal and Transport Law; and
- Tzeachten Environmental Protection Law.

It is anticipated that Ch'iyáqtel may develop additional laws to support the implementation of this EMP.

1.3 Jurisdiction of the EMP

The EMP has jurisdiction over, and is applicable to, Ch'iyáqtel Lands, which includes Tzeachten Indian Reserve 13 (IR#13).

Although the EMP does not have jurisdiction throughout the entire Ts'elxwéyeqw Territory and our other land holdings, we have Aboriginal Rights, Title and Interests throughout our territory that are expected to be considered in decision-making related to environmental management. To develop a robust and comprehensive, environmental management regime, the EMP considers other jurisdictional approaches. Provincial, municipal, and other First Nations legislation has been referenced in the EMP to demonstrate the types of legislation that other jurisdictions have in place to protect their lands. Federal legislation has been referenced as Ch'iyáqtel Lands are subject to federal legislation.

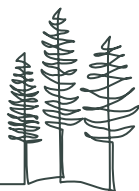
While provincial laws do not apply to reserve lands, environmental protection standards created by Ch'iyáqtel and penalties for non-compliance must also be at least equal to those established by the province. The intent of the EMP is to be aligned to federal, provincial and municipal laws. However, it may be more stringent in select areas. Even though this EMP applies only on reserve lands, collaboration with local jurisdictions will be necessary given the complexity of ecosystems and environmental issues, many of which extend beyond reserve boundaries, such as air pollution or flooding.



1.3.1 Environmental Management Tools and Resources

Ch'iyáqtel has developed several tools and resources to guide environmental management. Currently these tools and resources include:

- **Tzeachten First Nation Land Use Plan (LUP) and Community Design Guidelines (2023)** establish a direction for future land development, guidelines for managing development and a process and framework for making more specific development decisions.
- **Tzeachten Environmental Protection Law (2023)** establishes a framework to regulate the introduction of waste on Ch'iyáqtel Lands, implement measures to safeguard against environmental emergencies on Ch'iyáqtel Lands, and manage and remediate contaminated sites on Ch'iyáqtel Lands.
- **Tzeachten Soil Deposit, Removal and Transport Law (2023)** regulates the movement of soil on Ch'iyáqtel Lands to safeguard against contamination and the spread of invasive species due to contaminated soils being deposited or moved on Ch'iyáqtel Lands.
- **Ch'iyáqtel First Nation Comprehensive Community Plan (CCP) (2019)** is the principle community planning tool for Ch'iyáqtel First Nation. It guides Chief and Council, administration and staff over the short and long-term regarding important aspects of community growth, encompassing various planning areas including those related to land use and development (e.g., Land & Environmental Stewardship, Infrastructure, Economic Development, etc.)
- **Tzeachten First Nation Development Permit Application (2019)** is required as an application for development and includes requirements for supporting information, projects, and includes the **General Engineering Requirements for Land Development on Tzeachten Reserve Lands** as **Appendix 1**.
- **Tzeachten First Nation All Hazards Emergency Plan (2019)** is a detailed and comprehensive emergency plan that provides provision for emergency management for Ch'iyáqtel. The All Hazards Emergency Plan addresses all 4 pillars of emergency management including mitigation, preparedness, response, and recovery and provides individual response action plans for 15 specific hazard events (e.g., earthquake, explosion, fires, floods, power outages, etc.) (Tzeachten First Nation, 2019).
- **Tzeachten First Nation Zoning Law (2015)** provides provisions for land use designations, general regulations, applications and approvals, and variances.
- **Tzeachten Environmental Management Plan 2012-2022 (2012)** fulfills the intent of the Framework Agreement by providing clear environmental management actions to protect, maintain, and improve environmental integrity on Ch'iyáqtel Lands. The EMP is an update of the 2012 Plan.
- **Services Agreement between Tzeachten First Nation and the City of Chilliwack (2011)** for the provision of sewer and water services by the City of Chilliwack to Ch'iyáqtel Lands.
- **Tzeachten First Nation Subdivision, Development and Servicing Law (SDS Law) (2010)** provides general provisions, provisions for subdivision, development, and servicing, and applications and approvals.
- **Tzeachten First Nation Lands Office General Terms of Reference for Environmental Assessments (2010)** addresses general considerations for the completion of an EA. Specific projects (e.g. sand and gravel permits, leases, wastewater treatment systems, logging permits, and complex projects) may require additional investigations beyond those outlined here.



Other key planning tools and resources may be referenced to guide environmental management. Some of these key tools and resources include:

- **City of Chilliwack Recycling, Compostables, & Garbage Programs** (2022) promotes waste diversion by providing convenient recycling and composting programs and include information about the compostables (organics) diversion strategy, the curbside recycling program, and about garbage collection, including container requirements and limits, for residents on the City's Curbside Collection Program. Waste diversion for residents and businesses is achieved through a combination of public and private sector initiatives.
- **Fraser Valley Regional District Air Quality Management Plan** (2021) represents the FVRD's ongoing commitment to the continual improvement of air quality within the sensitive airshed of the Lower Fraser Valley and provides a roadmap to reduce emissions and improve air quality of the region for the next ten years (Fraser Valley Regional District, 2021).
- **Fraser Valley Regional District Teacher Resources on Air Quality in the Fraser Valley** (n.d.) is an education program that offers lesson plans for grades 6 - 12, as well as introductory and extra materials (e.g. suggestions of air quality-related field trips). Subjects covered include science, social studies, geography, mathematics, physical education, and career and personal planning (Fraser Valley Regional District, 2021).
- **B.C. Building Code** (2018) is used for all local governments in BC, except the City of Vancouver, which has its own code. The BC Building Code does not apply to First Nations reserves. However, First Nations involved in the BC Treaty Process have adopted (in the cases where a final Treaty has been signed) or have included a provision to adopt the BC Building Code for all Treaty Settlement Land.
- **FVRD Solid Waste Management Plan Update 2016-2026** (2015) outlines the structure for regional waste management and provides strategies to support 3 goals: reduce waste generation; maximize diversion and materials recovery; and managing remaining waste responsibly.

Key Strategic Relationships

Environmental management can be supported through key relationships to achieve an integrated approach and support best practice. Key relationships may include:

- Stó:lō Nation
- Federal Government
- Provincial Government
- Fraser Valley Regional District
- City of Chilliwack
- Indigenous Services Canada (ISC)
- S'ólh Téméxw Stewardship Alliance
- Stó:lō Research and Resource Management Centre
- Collaborative Stewardship Framework
- People of the River Referrals Office
- First Nations Health Authority
- BC Housing
- Recycle BC
- GFL Environmental
- Bailey Sanitary Landfill
- Return-It
- Lower Fraser Fisheries Alliance
- Pacific Salmon Commission
- Pacific Salmon Foundation
- Fraser Basin Council
- Emergency Management and Climate Readiness (EMCR)
- Holistic Emergency Preparedness and Response (HEPR)
- First Nations Emergency Services Society (FNESS)
- RCMP
- Kinder Morgan



- **City of Chilliwack Emergency Response and Recovery Plan** (2011) guides the operations, organization, responsibilities and coordination necessary to provide for effective response and recovery from major emergencies or disasters in the jurisdictional area of the City of Chilliwack. The Plan does not address emergencies that are normally handled at the scene by the appropriate first responding agencies or incidents occurring in neighbouring communities. The Plan does address incidents that may cause damage of sufficient severity and magnitude to warrant execution of all or part of the Plan (City of Chilliwack, 2011).
- **Stó:lō Heritage Policy Manual** (2003) provides policy for the treatment of Stó:lō Heritage, including for heritage site management options, assessing impacts, and collection and curation of heritage artifacts.

1.4 Organizational Structure of the EMP

The EMP is organized as follows:

Section 1 Introduction outlines the purpose of the EMP, the legislative framework for the development of the EMP, the jurisdiction and scope of the EMP, and the organization structure of the EMP.

Section 2 Vision provides the foundation for the EMP and establishes the direction for Ch'iyáqtel's long-term environmental management aspirations.

Section 3 Roles and Responsibilities establishes the roles and responsibilities for Members, leadership, staff, and others, for the successful implementation of the EMP.

Section 4 Setting the Context provides context to the EMP, in terms of our land, the built and natural environments, and Ch'iyáqtel culture.

Sections 5 through 13 include the 8 Environmental Management Priority Areas that guide the EMP. The Ch'iyáqtel Environmental Management Priority Areas are (in no order of priority):

- Land Use Management
- Waste Management
- Contamination of Land, Air, and Water
- Vegetation, Wildlife, and Aquatic Species
- Cultural Heritage
- Environmental Emergencies
- Drainage and Flooding
- Air Quality

For each of the Environmental Management Priority Areas, the following is provided:

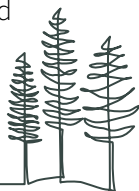
- Environmental baseline conditions;
- A description of the existing concerns and issues;
- An overview of the legislative environment, complete with clickable links to each law and regulation provided for ease of use;
- Planning considerations;
- Environmental management factors and initiatives; and
- Environmental policies and management actions.

Section 14 Implementation provides a road map for the implementation and administration of the EMP. The Implementation section defines review periods and amendment procedures.

Section 15 References includes a bibliography of sources used to formulate the EMP.

Appendix A provides an overview of how the EMP was developed.

Appendix B provides an overview of reference First Nation, provincial, and other local government legislation and regulations.





2.0 Vision

“Ch’iyáqtel First Nation remains the keepers of our traditional territories, this responsibility being passed on to us by our ancestors and exercised through sound cultural, environmental, and socio-economic stewardship”

Tzeachten First Nation, 2022





3.0 Roles & Responsibilities

The success of the EMP is contingent on all Ch'iyáqtel staff, and anyone operating on Ch'iyáqtel Lands, understanding and upholding their respective roles and responsibilities with regard to the EMP. The following sections describe the key roles and responsibilities for those associated with the successful implementation and maintenance of the EMP.

Role	Responsibilities
Members	<ul style="list-style-type: none">• Provide input and participate in community engagement processes related to the EMP.• Inform Leadership and/or staff of environmental concerns.• Report activities that are not consistent with the EMP to the appropriate authority.• Adhere to the legislation and policies set out in the EMP.
Chief and Council	<ul style="list-style-type: none">• Provide final approving authority of the EMP.• Liaise with other authorities to execute the EMP, as necessary.• Allocate financial resources as part of the annual budgeting process to implement the EMP.• Participate in EMP reviews and updates, as required.
Tzeachten Lands Management Advisory Committee (TLMAC)	<ul style="list-style-type: none">• Assist in the exchange of information between Members and Council regarding Ch'iyáqtel environmental matters.• Participate in EMP reviews and updates, as required.
Lands Department	<ul style="list-style-type: none">• Implement and oversee the EMP.• Communicate the EMP actions and policies to staff, the community, and others.• Maintain the EMP and associated documents, as well as document control procedures.• Prepare the budget to implement strategic environmental initiatives on an annual basis, including staffing and training recommendations.



Role	Responsibilities
Lands Department	<ul style="list-style-type: none"> • Lead EMP reviews and updates, including assessing the level of approvals required for amendments. • Present technical comments related to a proposed activity/project to the Chief and Council for review. • Liaise with other authorities to implement the EMP, as required. • Provide education and outreach to others related to the EMP and environmental management.
Public Works Department	<ul style="list-style-type: none"> • Provide technical input during any activity or project applications and during reviews (e.g., provides waste management information relative to activity).
Technical Staff	<ul style="list-style-type: none"> • Provide technical background work related to an application or environmental management request (e.g., provides location of a proposed project relative to nearby environmental constraints).
Certificate of Possession (CP) Holders	<ul style="list-style-type: none"> • Use and manage the land responsibly based on the approved zoning. • Follow all Ch'iyáqtel regulatory requirements. • Ensure all lessees follow Ch'iyáqtel regulatory requirements.
Developers, Businesses, Consultants, and Contractors	<ul style="list-style-type: none"> • Adhere to the requirements set out in this EMP and applicable laws, regulations, and standards. • Communicate environmental responsibilities and requirements of this EMP to their staff and sub-contractors, and record that communication. • Ensure all members of their staff and sub-contractors are trained to prevent or mitigate environmental impacts. • Ensure all labour, equipment and materials are available to execute the project activities and respond to environmental incidents. • Correct deficiencies and any non-compliance issues raised by Chief and Council, the Lands Department, and/or regulators. • Retain the services of an environmental specialist to assess and mitigate risk associated with impacts to the environment. • Provide documentation related to project activities upon request by the Lands Department and/or Chief and Council, and as per Ch'iyáqtel regulatory requirements and best management practices. • Monitor reports to be submitted (monthly or quarterly, depending on the scale of the project) to the appropriate Ch'iyáqtel departments.
Other Staff	<ul style="list-style-type: none"> • Inform Leadership and/or staff of environmental concerns. • Report activities that are not consistent with the EMP to the appropriate authority. • Adhere to the legislation and policies set out in the EMP. • Participate in EMP reviews and updates, as required.





4.0 Setting the Context

4.1 Territorial Context

4.1.1 S'ólh Témexw

The Ts'elxwéyeqw Territory is the ancestral home and spiritual realm of the Ts'elxwéyeqw communities of Āthelets (Aitchelitz), Sq'ewqéyl (Skowkale), Shxwhá:y, Th'ewá:li (Soowahile), Sxwoyehálá (Squiala), and Yeqwyeqwí:ws (Yakweawkwoose). The Ts'elxwéyeqw Territory covers over 95 thousand hectares of land in southwestern BC. Our territory is rich in culture, natural beauty and resources and encompasses the entire Chilliwack River Valley including Chilliwack Lake, Chilliwack River, Swílcha (Cultus Lake) areas, and parts of the Chilliwack municipal areas.

In the mid-18th century, with the creation of the *Indian Act*, the Ts'elxweyeqw Tribe, once a strong and Territorial based First Nation, became nine Indian Act Bands. The modern-day Bands that constitute the Ts'elxweyeqw Tribe include Ch'iyáqtel and our relations at Aitchelitz, Skowkale, Shxwhá:y, Soowahile, Squiala, and Yakweawkwoose. Today most of the current Ts'elxweyeqw reserves are within the greater Chilliwack area. Extensive archaeological and historical evidence is now being assembled, documenting the Ts'elxweyeqw Tribe's original areas around Sxótsaqel (Chilliwack Lake) and throughout the valley of mountains, streams and lands that are dominated by the Ts'elxweyeqw (Chilliwack) River.

4.1.2 Fraser Valley Regional District

Ch'iyáqtel Lands are located within the Fraser Valley Regional District (FVRD) in the southwestern portion of British Columbia. The FVRD is governed by a member board of directors with 15 from municipalities (i.e., Abbotsford, Chilliwack, Harrison Hot Springs, Hope, Kent, and Mission) and 8 from electoral areas (Fraser Valley Regional District, 2022). The population in the FVRD is growing. According to the 2021 Statistics Canada population data, the FVRD, has a population of 324,005, an increase of 9.5% from its 2016 population of 295,934 (Statistics Canada, 2022). Collaboration between Ch'iyáqtel and the FVRD may support the implementation of this EMP.

4.1.3 City of Chilliwack

Ch'iyáqtel Lands are located within the City of Chilliwack. The City of Chilliwack is part of the FVRD. The City of Chilliwack has a 2021 population of approximately 100, 580 (including First Nation communities within City boundaries). Chilliwack has seen steady growth over the past 5 years, adding approximately 8,670 residents (9.4%) over this period, and a similar growth rate is expected over the next 5 years. The City of Chilliwack is one of the fastest growing regions in British Columbia as the population and employment growth have been outpacing other municipalities and the trend is expected to continue (City of Chilliwack, 2022). As environmental management is influenced by surrounding land uses, a constructive relationship between the City of Chilliwack and Ch'iyáqtel may support implementation of this EMP.





4.2 Ch'iyáqtel People

Ch'iyáqtel First Nations traditional language is Halq'eméylem. The Halq'eméylem name for Tzeachten is Ch'iyáqtel meaning fish weir.

In 1977, twenty-four First Nations banded together to sign the Stó:lō Declaration and creating Stó:lō Nation. By 1994 Stó:lō Nation Canada (SNC) and the Stó:lō Tribal Council (STC) agreed to form a single organization under the leadership of Chief Steven Point. In 2004 the unified Stó:lō Nation, which had been providing services and programs to 19 member bands, had to deal with the withdrawal of 8 bands that chose to join the newly reconstituted Stó:lō Tribal Council. This resulted in changes to the structure of Stó:lō Nation departments. Ch'iyáqtel is one of the eleven bands that stayed with Stó:lō Nation and that chose to proceed with the treaty in 2005 (Tzeachten First Nation, 2022).

Ch'iyáqtel is a member of the Ts'elxwéyeqw Tribe which consists of seven member bands: Aitchelitz, Skowkale, Shxwhá:y, Soowahile, Squiala, and Yakweakwioose. The Ts'elxwéyeqw vision is based upon establishing our Aboriginal Rights and Title within the Ts'elxwéyeqw Traditional Territory. All initiatives are undertaken to advance the well-being of the Ts'elxwéyeqw members and are anchored in Ts'elxwéyeqw historical, cultural and traditional First Nations values (Ts'elxwéyeqw Tribe, n.d.).

As of August 2022, the total registered population of Ch'iyáqtel First Nation was 589, with 263 Members residing on Ch'iyáqtel Lands, 30 Members residing on other reserves, 2 Members residing on Crown Land, and 282 Members residing off-reserve (Government of Canada, 2021).

4.2.1 Reserve Land Base

The EMP has jurisdiction over, and is applicable to, Ch'iyáqtel Reserve Lands, which includes Tzeachten Indian Reserve 13 (IR#13) (284.8ha), which includes the following shared land for primarily economic development purposes, but over which Ch'iyáqtel has jurisdiction to manage the land:

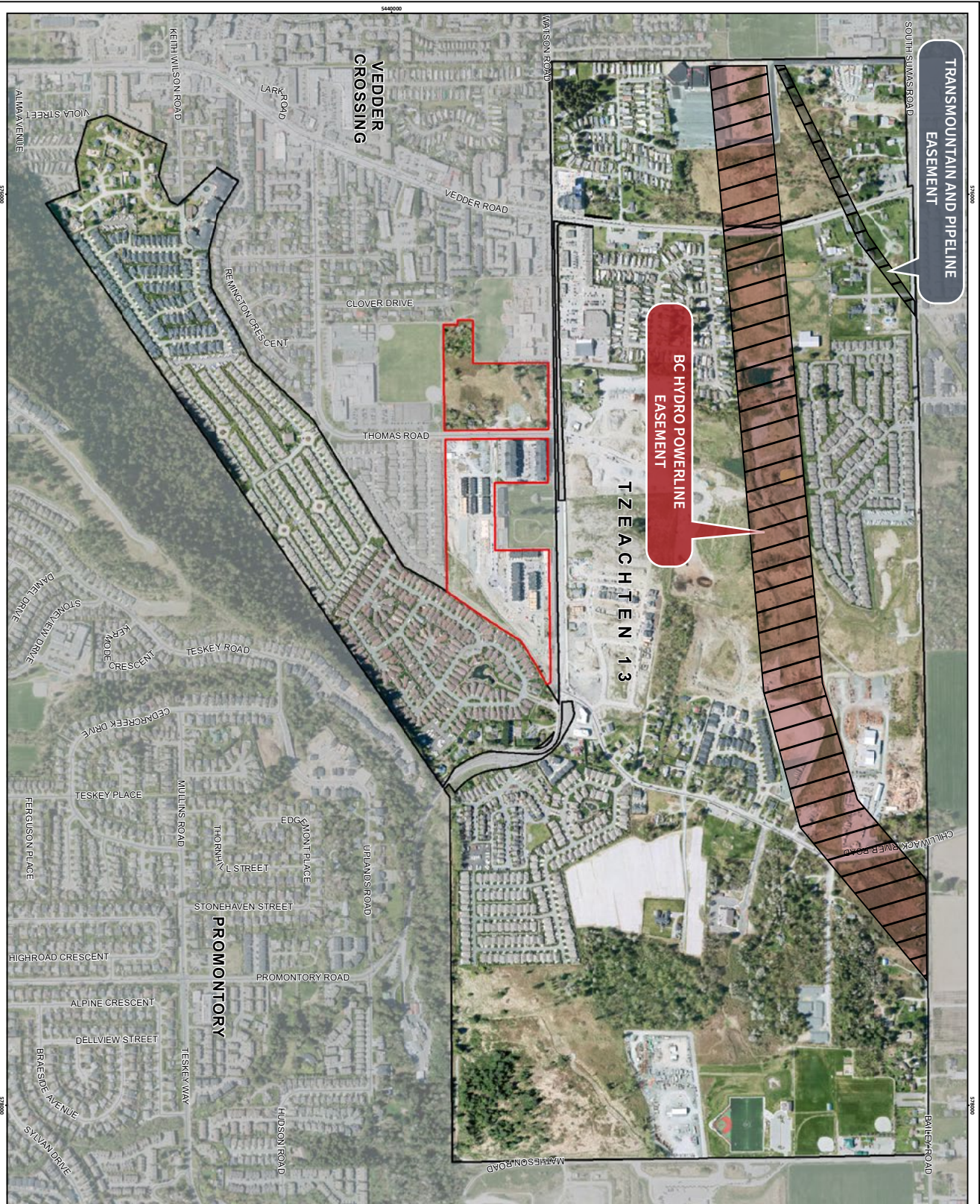
- Addition to Reserve Land (ATR) (28.2ha) with Skowkale First Nation and Yakweakwioose First Nation (2016).

In addition, Ch'iyáqtel shares the following lands however, these lands are not subject to this EMP:

- Grass 15 (Grass Reserve) (64.8ha) with 8 other First Nations;
- Pekw'xe:yles (peckquaylis Reserve) (10.3ha) with 20 other First Nations; and
- Coqualeetza lands (23.5ha) with 20 other bands of the Stó:lō Nation.



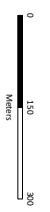
Figure 1: Reserve Land Base



**Ch'iyáqtel First Nation
Environmental Management Plan**

Figure 1
Ch'iyáqtel First Nation Reserve 13 Base Map

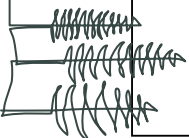
- LEGEND**
- Ch'iyáqtel First Nation Reserve Land
 - 28.2 ac Addition to Reserve
 - Road



Map Created By: RB
 Map Checked By: NM
 Map Coordinate System: NAD 1983 UTM Zone 18N

Map Drawing Information:
 Data Provided by: Dillon Consulting Limited, Province of British Columbia, Geocore Open Data, Natural Resource Canada, City of Chilliwack.
 Imagery Provided by: Esri Basemaps (©2021).

Project 21-2883
 Sheet 08/87
 Date: 2023-01-31





4.2.2 Built Environment

Land use on Ch'iyáqtel Lands includes residential, light industrial, commercial, and community uses. Much of Ch'iyáqtel Lands have been developed or is in the development process. In the southwest portion of Ch'iyáqtel Lands there is a residential subdivision, a mobile home community, and a commercial development at the intersection of Vedder Road and Promontory Road. Our administration building is located to the east of this commercial development. The Kel-Mor gravel pit is adjacent to the administration building. The northwest portion of IR#13 is less developed with some residential land mixed with vacant land and a gas station on Vedder Road at South Sumas Road. Much of Ch'iyáqtel Lands are held through CP.

Along South Sumas Road, between Vedder and Chilliwack River Roads, is a residential neighborhood and some commercial development. Between this development, Chilliwack Road and Promontory Road, there are several residential developments. South of Promontory Road, including the panhandle area, is predominantly residential neighborhoods. Southeast of the Promontory Road-Chilliwack River Road intersection lies another residential neighborhood. The area east of Chilliwack River Road is generally undeveloped; however, there is a cemetery along the east side of the road, as well as, the longhouse set back 200 meters from the road. The athletic fields are located on the northeast corner of Ch'iyáqtel Lands and the southeast corner is in the process of being rezoned to light industrial.

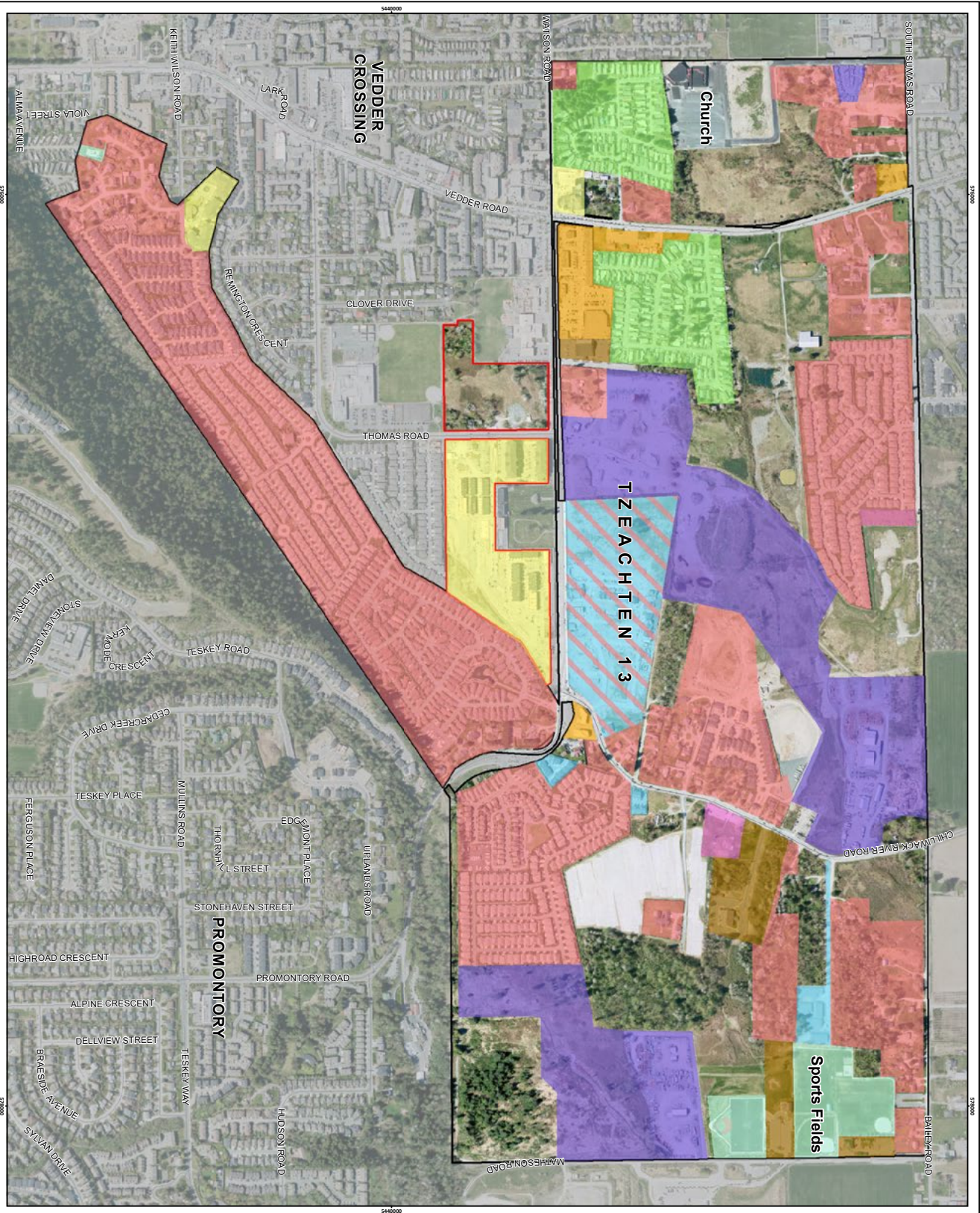
Vedder Road, an arterial street, and Chilliwack River Road cross Ch'iyáqtel Lands from north to south with both roads connecting to the Trans-Canada Highway. Vedder Road also provides access to Cultus Lake and Chilliwack Lake. A BC Hydro powerline easement bisects Ch'iyáqtel Lands from east to west and a gas pipeline cuts across the northwest corner. These easements encumber approximately 11% of Ch'iyáqtel Lands.

Surrounding Land Uses

IR#13 is surrounded by suburban development in the City of Chilliwack on all sides. Land uses surrounding IR#13 are primarily residential development. There is some agricultural land to the east of IR#13 across Matheson Road, as well as the Bailey Sanitary Landfill. Promontory Hill is located south of IR#13. Matheson Road marks the eastern boundary of IR#13, Vedder Middle School and residential development, the western, Sumas Road/Bailey Road, the northern, and Promontory Road, the southern.



Figure 2: The Built Environment



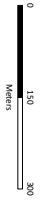
**Ch'iyáqtel First Nation
Environmental Management Plan**



Figure 2
Built Environment

- LEGEND**
- Ch'iyáqtel First Nation Reserve Land
 - 28.2 ac Addition to Reserve
 - Road
- Land Use**
- Single detached residential
 - Single attached residential
 - Single attached/Single detached residential
 - Multi-story multi-family residential
 - Mobile homes
 - Industrial Uses
 - Commercial Uses
 - Community buildings
 - Cultural areas
 - Parks/Sports fields

Note:
Unshaded areas are currently vacant

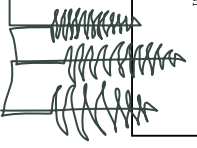


Map Drawing Information:
Data Provided by: Dillon Consulting Limited, Province of British Columbia, Geocloud Open Data, Natural Resource Canada, City of Chilliwack.
Imagery Provided by: Esri Basemap (0271).

Map Created By: RB
Map Checked By: MM
Map Coordinate System: NAD 1983 UTM Zone 18N

DILLON CONSULTING

Project: 21-2883
Sheet: 08/87
Date: 2023-01-31



4.2.3 Natural Environment



Topography

The topography of Ch'iyáqtel Lands is generally flat with minimal changes in elevation.



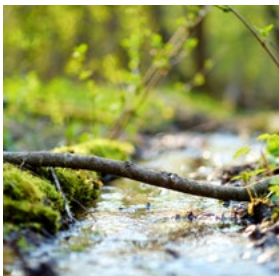
Biogeoclimatic Classification

Ch'iyáqtel Lands are located in the Coastal Western Hemlock (CWH) Zone Very Dry Maritime (xm) subzone (CWHxm1) of the Biogeoclimatic Ecosystem Classification (BEC) System of BC. The CWH zone occurs at low to mid-elevations along much of the coast of BC, covering 10.8 million ha or 11.4% of the province. Except along major river valleys it is found mostly west of the Coast Mountains. At higher elevations it is bordered by the Mountain Hemlock zone, and in southern coastal BC by the Coastal Douglas-fir zone. In general the climate in the CWH zone is moderate (cool mesothermal). The summers are cool and the winters mild. Mean annual temperature is 5.5°C, ranging from 2.4°C in the CWH ws2 (a northern, interior, montane subzone) to 9.3°C in the CWHxm1 (a southern, coastal subzone). The CWH is the wettest zone in BC with a mean annual precipitation of 2200 mm. Precipitation ranges from 1200mm in the CWHds2 (a central, inland variant) to 3300mm in the CWHvh2 (a northern, coastal variant) (University of British Columbia, n.d.).



Vegetation

Two small areas of young-mature forest are found within Ch'iyáqtel Lands. One area in the approximate center on the south border which is approximately 17 acres, and one area in the northeast corner of the community approximately 38 acres. Some areas of grassy fields are present, otherwise there is limited tree coverage or vegetation on Ch'iyáqtel Lands.



Surface Water and Groundwater

There are no rivers or creeks on Ch'iyáqtel Lands. There is a ditch near the southeast corner of Ch'iyáqtel Lands along Matheson Road in which small salmon have been observed. The City of Chilliwack mapping platform indicates three small ponds in the approximate center of Ch'iyáqtel Lands. This area is likely a low point in the area that collects water during rainy times of the year. This area may be a small, ephemeral (dries up in the summer) wetland.



Habitat

A parcel of land adjacent to a new housing development on La:lem Way is a dedicated conservation area for the SARA species, Oregon Forestsnail. This is the only protected habitat on Ch'iyáqtel Lands. Much of the reserve has been developed, so the amount of habitat suitable for wildlife is limited. However, the forested areas and remaining undeveloped fields likely provide some habitat and migratory corridors for urban wildlife such as coyotes, raccoons, and skunks, as well as nesting habitat and foraging areas for migratory birds. While the forested area within Ch'iyáqtel Lands is limited, it is within close proximity to Mt. Thom and a large section of natural forest. Additionally, bald eagles and turkey vultures are often soaring in the area, this may be in part due to the Bailey Sanitary Landfill located on Matheson Road.





5.0 Environmental Priorities

The following seven Environmental Management Priority Areas were identified for Ch'iyáqtel Lands based on the background research and literature review, site visits, meetings, community engagement, and workshops to guide environmental management planning:



Land Use Management



Waste Management



**Contamination of
Land, Air, and Water**



**Vegetation, Wildlife,
and Aquatic Species**



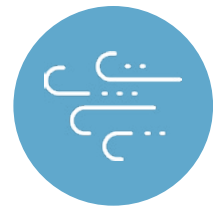
Cultural Heritage



**Environmental
Emergencies**



Drainage and Flooding



Air Quality

The Environmental Management Priority Areas form the basis of the EMP and associated management actions.





6.0 Land Use Management

Land development refers to the alteration of land through activities including, but not limited to, grading, excavating, transporting and filling of land, construction, clearing of habitats, paving, and any other installation of impervious cover (Law Insider, 2013-2022). This alteration or conversion of land is often associated with community development, offering places for people to live, work and play as well as other supporting land uses.

For Ch’iyáqtel, this applies to works completed by Members, Ch’iyáqtel government projects, and/ or third party developers. Management of land development can be accomplished through land use vision documents such as the Land Use Plan, through laws, such as the Zoning Law and the Subdivision, Development, and Servicing Law, and through environmental documents, like this EMP.

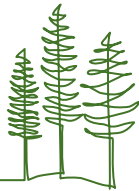


6.1 Key Environmental Management Factors

Environmental Management Plan (2012): Ch’iyáqtel adopted an Environmental Management Plan in 2011 to identify environmental threats and opportunities, and identify goals, actions and policies. This document replaces the 2011 document.

Collaborative Stewardship Framework (CSF): The CSF lays the foundation for a new relationship between 15 Stó:lō First Nations and the Province of British Columbia. Together, we are co-developing mechanisms for more effective and collaborative government-to-government shared decision-making and environmental stewardship processes, working to safeguard the health and wellbeing of our communities now and for future generations (S’ólh Téméxw Stewardship Alliance, 2022).

S’ólh Téméxw Stewardship Alliance (STSA): We are a member First Nation of STSA, an alliance of Stó:lō First Nations who believe that Stó:lō best care for the land and resources by working together. STSA are parties to Strategic Engagement Agreements and other government to government agreements. STSA, in partnership with PRRO, screens all land and resource use referrals to reduce the administrative burden on each member Nation while at the same time ensuring that member Nations have the opportunity to meaningfully respond to significant referrals. STSA, with the support of PPRO, is responsible for the recognition, protection and promotion of our member First Nations’ Aboriginal rights and interests in land and resource discussions with the provincial government of BC and government of Canada (S’ólh Téméxw Stewardship Alliance, 2022).





People of the River Referrals Office (PRRO): First launched in 2012, The People of the River Referrals Office (PRRO) facilitates meaningful engagement and consultation on behalf of the S'ólh Téméxw Stewardship Alliance (STSA). PRRO receives, analyzes, reports on, and tracks referral submissions from private industry, crown corporations, civic governments, regional districts, the Province of British Columbia, the Government of Canada, and any other parties interested in development within S'ólh Téméxw (S'ólh Téméxw Stewardship Alliance, 2022).

Stó:lō Research and Resource Management Centre: The Stó:lō Research and Resource Management Centre is a group of professionals with many years of experience working within the Stó:lō community and providing professional services (e.g., archaeology and environmental resource management, Geographic Information Systems (GIS), fisheries management, lands management, referral support, etc.) with an understanding of, and respect for, Stó:lō protocols (Stó:lō Research and Resource Management Centre, 2016).

Lands Department: The Lands Department provides services relating to the following: individual land holdings; lease & permits; land estates; workshops; environmental management; and inventory database of Ch'iyáqtel Lands (Tzeachten First Nations, 2018).

Tzeachten Lands Management Advisory Committee (TLMAC): The TLMAC advises and makes recommendations to Council and Ch'iyáqtel staff on matters respecting our lands, assists in the exchange of information between members and Council regarding Ch'iyáqtel Lands matters, oversees other consultations under the Tzeachten Land Code, and performs such other duties and functions as Council may direct (Tzeachten First Nation, 2022).

Member Housing Developments: There are two subdivisions owned by Ch'iyáqtel available to members.

- Steetaws, located at the east end of Keith Wilson Road. It is a fully serviced subdivision situated in a park-like setting, established to provide Ch'iyáqtel Members with the opportunity to either build privately. It is fully developed with 24 homes; and
- River Rock, a subdivision located off Chilliwack River Road in the heart of one of Ch'iyáqtel's primary residential areas. The concept behind this development was to provide membership with access to serviced lots for the purpose of building privately financed housing.

Ch'iyáqtel-owned rentals: Ch'iyáqtel currently owns and operates the following:

- Steqoye Place, a seven unit townhouse;
- Sisemoye Place, a four-plex housing unit; and
- Lalém, a 23 unit affordable housing development, to the west of the sports fields.





Development of CP held land: The following developments have been undertaken on Ch'iyáqtel Lands, since the previous EMP was approved. CP Holders are subject to the requirements of this EMP, as well as all Ch'iyáqtel First Nation laws:

- Iron Horse, north of Promontory Road between the pit and Chilliwack River Road is comprised of 143 single-family homes and 92 townhomes. The subdivision is on CP-held land and is currently under construction;
- Skynest, a six-story apartment building at the northwest corner of Vedder and Promontory Roads. It was completed in 2021 and is on CP-held land;
- Malloway Village, a single-family home community is under construction. This is CP-held land;
- Southside Church and related infrastructure has been constructed along the western edge of Ch'iyáqtel Lands. This is CP-held land;
- Convenience store/gas station has been developed at the corner of Promontory and Chilliwack River Roads. This CP-held land;
- Light industrial lands have been developed in the southeast corner of the reserve; and

Development of Ch'iyáqtel held land: The following developments have occurred on Ch'iyáqtel-held lands since the previous EMP was approved:

- Leases and development of Base 10, Traine, and Andmar properties on ATR lands;
- Expansion of the Community Hall (in progress); and
- Longhouse.





6.2 Concerns & Issues

An overview of concerns and issues related to land development is provided in *Table 1*.

Table 1: Concerns and Issues Related to Land Use Management

Concerns & Issues	Details
Limited land base	<ul style="list-style-type: none"> Ch'iyáqtel Lands are limited. BC Hydro transmission line and gas and petroleum pipelines right of ways comprise approximately 11% of the reserve lands combined. Much of Ch'iyáqtel Lands have been developed.
Local real estate market demand	<ul style="list-style-type: none"> Our location in a growing area contributing to interest in development on our lands and high land values.
Increased traffic and vehicle presence	<ul style="list-style-type: none"> As the City of Chilliwack and surrounding area continue to grow, more vehicles are on the roads as residents travel throughout our community and the City. Major traffic issues exist along Vedder Road, Promontory Road and Chilliwack River Road.
Unmonitored fill	<ul style="list-style-type: none"> Fill brought on to Ch'iyáqtel Lands for development, may be unmonitored creating the potential for contamination.
Enforcement of rules	<ul style="list-style-type: none"> Enforcement of rules and community buy-in remain a challenge.
Aggregate supply yard	<ul style="list-style-type: none"> The aggregate supply yard near Promontory Road is encroaching onto surrounding land.
Ad-hoc development	<ul style="list-style-type: none"> Development on Ch'iyáqtel Lands has been ad-hoc (i.e., happened on a development-by-development basis), creating fragmented and in some cases incompatible land uses.
Leasehold activities	<ul style="list-style-type: none"> Leaseholders may not be aware of Ch'iyáqtel's laws, policies, and/or procedure resulting in potential environmental risk to Ch'iyáqtel. Leasehold agreements may not be adhered to and/or sufficient in addressing potential environmental risks from leasehold activities.
Effects of Development	<ul style="list-style-type: none"> Development of our lands decreases wildlife and plant habitat, increases impervious surfaces which leads to more runoff, and increases local air, noise, and water pollution.
Conflict with Community Visions and Needs	<ul style="list-style-type: none"> Unplanned (ad hoc) development that does not consider the vision, goals and current and future needs of the community, or that is not in line with community plans (e.g., Land Use Plan), may impact the long-term vision and environmental goals of the community. Further, incompatible land uses may occur resulting in conflicts between land uses (e.g., visual, noise, etc.).



Concerns & Issues	Details
Flooding, Climate Change and Damage to or Loss of Infrastructure	<ul style="list-style-type: none"> If new development and/or redevelopment is not executed in a responsible manner with consideration for flood and climate change risks, infrastructure may be severely damaged or lost.
Inadequate or Unsafe Buildings	<ul style="list-style-type: none"> Non-compliance with the BC Building Code may result in buildings that are unsafe or unable to withstand exposure to stressors such as flooding, snow load, fire, etc. Building inspections are required and structures must be built to BC Building Code (since 2008).

6.3 Legislation & Regulations

An overview of applicable Ch’iyáqtel, federal and provincial mandatory legislative requirements relevant to land use and development is provided in *Table 2*. Legislation and regulations described throughout the other Environmental Management Priority Area sections may also be considered relevant as they aim to prevent adverse impacts on the biophysical environment.

Table 2: Applicable Legislation and Regulations Relevant to Land Use Management

Jurisdiction	Legislation and Regulations
Ch’iyáqtel	<u><i>Subdivision, Development and Servicing Law (2010)</i></u> establishes a development authorization process and defines prohibited activities, offences, penalties, and regulates enforcement. Includes a requirement to adhere to the <i>General Requirements for Environmental Assessments on Tzeachten Lands</i> . The General Requirements require the completion of an Environmental Assessment (EA) for all projects, unless specifically set out in the Exclusion List Regulations of the Canadian <u><i>Environmental Assessment Act</i></u> .
	<u><i>Tzeachten Zoning Law (2015)</i></u> regulates land uses on the reserve lands.
	The <u><i>Tzeachten Business Permit Law</i></u> implements a business permitting system to track and regulate business on our lands.
	The <u><i>Tzeachten Soil Deposit, Removal and Transport Law</i></u> regulates the removal and deposit of soil. This includes prohibiting transport of soil to, on, or over Ch’iyáqtel lands, and deposit of soil on or removal of soil from Ch’iyáqtel lands without a permit.
	<u><i>Tzeachten Environmental Protection Law (2023)</i></u> establishes a framework to regulate the introduction of waste on Ch’iyáqtel Lands, implement measures to safeguard against environmental emergencies on Ch’iyáqtel Lands, and manage and remediate contaminated sites on Ch’iyáqtel Lands.



Jurisdiction	Legislation and Regulations
<p>Federal</p>	<p><u><i>Fisheries Act</i></u> requires protection for all fish and fish habitat, and prohibits the harmful alteration, disruption or destruction of fish habitat and the release of deleterious (harmful) substances into fish-bearing waters or water connected to fish-bearing waters. Death of fish by means other than fishing is also prohibited.</p>
	<p><u><i>Canadian Environmental Protection Act</i></u> includes regulations on the release of various pollutants into the environment.</p>
	<p><u><i>Migratory Bird Convention Act</i></u> prohibits disturbing the nests or eggs of migratory birds without a permit, as well as the deposit of oil, oil waste or other harmful substances to migratory birds in any waters or areas frequented by them.</p>
	<p><u><i>Species at Risk Act</i></u> identifies species at risk and prohibits harm, harassment and capturing of any listed species as well as damage to or destruction of their residence and critical habitat, as identified in species recovery plans.</p>
	<p><u><i>Impact Assessment Act</i></u> requires considerations for potential adverse environmental impacts and associated assessments prior to land development activities identified in the Act.</p>
<p>Provincial</p>	<p><u><i>Water Sustainability Act</i></u> establishes a requirement licences for surface water and groundwater use on reserve and Treaty lands with fee/rental exemptions.</p>





6.4 Environmental Policies and Management Actions

Management actions in *Table 3* have been identified to address existing issues and concerns and guide environmental management to support community needs and aspirations. EP denotes Environmental Policy and MA denotes Management Action.

Table 3: Policies and Management Actions for Land Use Management

ID #	Environmental Policies and Management Actions
EP-LM-01	Development on Ch'iyáqtel Lands must follow the Land Use Plan, Community Design Guidelines, the Zoning Law, and meet all guidelines and regulations of the EMP. The Land Use Plan and Community Design Guidelines include strategies and policies to avoid deleterious effects of land development (loss of tree cover, shifting away from auto-centric development that encourages fossil fuel consumption, walkable streets). This includes any development, including third party development, on Certificate of Possession lands.
MA-LM-01	Consider opportunities to amend current laws to incorporate management actions from this EMP.
EP-LM-02	Ch'iyáqtel will gather feedback from its Members regarding land use management policies and decisions.
MA-LM-02	Undertake outreach and education regarding policies to increase buy-in and to solicit input from Ch'iyáqtel Members and/or community members.
EP-LM-03	Ch'iyáqtel will plan for future growth and identify infrastructure needs.
MA-LM-03	Utilize the Housing Policy to understand and to plan for future housing needs and economic development opportunities (e.g., Member and non-Member housing) on Ch'iyáqtel Lands.
MA-LM-04	Continue to undertake asset management planning to optimize the value of Ch'iyáqtel's physical assets (e.g., extend asset life, optimize renewal and maintenance, develop funding strategies, and sustain long term performance). This may create opportunities to plan for replacement of obsolete infrastructure with more energy efficient equipment or low impact stormwater facilities.
EP-LM-04	Ch'iyáqtel First Nation will incorporate Best Management Practices in its development projects and require project applicants to integrate them in their projects.
MA-LM-05	Review development applications to identify opportunities to incorporate Low Impact Design (LID), green infrastructure, and tree canopy targets
MA-LM-06	Develop policy or law for retaining and/or planting trees during development.
MA-LM-07	Develop a Best Management Practices (BMP) document for developers to support the implementation of this EMP, by aligning development activities with the policies in this EMP.



ID #	Environmental Policies and Management Actions
EP-LM-05	Ch'iyáqtel First Nation reserves the right to request bonds or other provisions including the enforcement of environmental laws and associated fines to protect the environmental integrity of the area.
MA-LM-08	Develop a standard lease agreement template that may include provisions for lease bonds, if necessary, to mitigate for potential environment risks from leasehold activities.
EP-LM-06	Development must maintain an appropriate setback from the high water mark is required for all creeks and watercourses (as a starting point 30m) and/or determined and approved by Ch'iyáqtel First Nation and in consideration of applicable provincial Riparian Areas Regulation and Department of Fisheries and Oceans (DFO) standards. Upon its discretion, Ch'iyáqtel First Nation may exercise the right to increase this setback (e.g., to 40 m).
EP-LM-07	If development is proposed in the vicinity of a creek or watercourse, the developer must submit a report by a professional biologist indicating that the setback has been maintained and the development will not cause impacts to the creek or watercourse.
MA-LM-09	Continue to require that project applicants submit reports demonstrating that project effects on waterways have been mitigated.
EP-LM-08	Proposed development is expected to address the potential risk of flood. (e.g., elevation of development).
MA-LM-10	Require new development proposals to demonstrate that projects will be above the floodplain and not exacerbate stormwater conditions that would harm existing buildings.
EP-LM-09	Development on Ch'iyáqtel Lands must apply for a development permit and provide all required securities and bonds to ensure that the development is completed according to the Ch'iyáqtel laws.
MA-LM-11	Continue to require project applicants to apply for development permits and provide required securities and bonds.
EP-LM-10	Land developers are required to conduct an Environmental Baseline Assessment prior to development. An Exit Assessment is required when a development is discontinued or when a lease ends. The Exit Assessment must refer back to the Environmental Baseline Assessment and reflect the activities that have occurred on site.
EP-LM-11	Ch'iyáqtel First Nation's General Terms of Reference for Environmental Assessments are to be followed.
MA-LM-12	Continue to enforce the General Terms of Reference.
EP-LM-12	New development on Ch'iyáqtel Lands for multi-family or multiple single detached housing, and all industrial and all commercial development will be required to prepare a landscape plan, prepared by a qualified Landscape Architect, demonstrating the low impact stormwater features, use of Indigenous plant material, and tree canopy.
MA-LM-13	Modify development application documentation to reflect the above requirements.



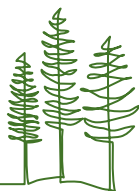


7.0 Waste Management

Waste management includes the collection, transport, recovery and disposal of waste. Solid waste refers to non-hazardous trash or garbage that is produced by residential, commercial, industrial and institutional uses, demolition, land clearing or construction sources. It includes biodegradable or compostable (e.g. food scraps, yard and garden waste) and recyclable (e.g. paper, plastic, glass and metal) materials. Household hazardous waste (e.g., flammable liquids, pesticides, batteries, oil filters, paint, etc.) is hazardous waste that is generated in household activities (e.g., home maintenance, car repair, etc.) (Law Insider, 2013-2022).

7.1 Key Environmental Management Factors

- **Curbside garbage, green waste and recycling collection:** Curbside pickup for Member housing - including garbage, green waste, and recycling - is provided by Ch'iyáqtel. Public Works is responsible for pick up at the 129 residences of Members, not for non-Member properties and leaseholds.
- **Transfer station:** There is a transfer station which accepts household hazardous waste from community members located by the Community Centre. The intent of the transfer station is to divert certain household waste for Membership only. The transfer station is intended for items that aren't able to be put in the recycle stream (e.g., paint cans, clothing, small appliances, etc.). It is by the community centre and materials are taken to various recycling centres in town.
- **Education, outreach, and awareness:** Education, awareness, and outreach initiatives have been undertaken to notify Members of the options for recycling and compost available to them and provided by Ch'iyáqtel, including through various distribution platforms (e.g., social media, hardcopies, recorded video, and policy).
- **Spring and Fall Clean-up Program:** Members that receive curbside garbage collection can place approved excess or bulky items curbside for collection during the specific collection dates, occurring in the bi-annually in the spring and the fall.
- **Leaseholds:** Leaseholders have contacted Public Works to inquire about potential recycling and compost partnerships. However, the strata for leasehold developments are responsible for waste management, recycling, and compost. As a common practice, stratas may follow City of Chilliwack regulations for waste management (e.g., garbage, recycling, green waste, etc.).





7.2 Concerns & Issues

An overview of concerns and issues related to waste management is provided in *Table 4*.

Table 4: Concerns and Issues Related to Waste Management

Concerns & Issues	Details
Knowledge about fuel storage	<ul style="list-style-type: none"> Residents may not know or are not sure how to maintain fuel tanks and containers they have at home.
Aggregate supply area	<ul style="list-style-type: none"> Potential waste materials at the site. There are concerns about contamination from materials accepted at aggregate supply area and material accepted there earlier.
Storage of waste at residences	<ul style="list-style-type: none"> Waste material storage/dumping at some residents' yards and homes. During the flooding from the atmospheric river event in November, 2021, garbage from residences was floating. Rats are attracted to garbage from residences.
Illegal dumping	<ul style="list-style-type: none"> Salmon has been cleaned and waste is improperly dumped around Ch'iyáqtel Lands, resulting in the smell of rotting fish. However, this is not a common event. Illegal dumping and storage is less of a concern than in the past. However, there is still some littering along Chilliwack River Road. There is trash along Matheson Road from vehicles travelling to the landfill (e.g., waste flying out of vehicles). Maintenance picks it up approximately every two weeks.
Bailey Sanitary Landfill	<ul style="list-style-type: none"> Garbage and debris from the Bailey Sanitary Landfill and people's vehicles blow onto Bailey Road, the hay fields, the sports fields, and people's yards.
Rats	<ul style="list-style-type: none"> Interview with Elders indicate sewer rats on Bailey Road. Rats have been occasionally getting into vehicles. Development may be displacing rats across Ch'iyáqtel Lands leading them to migrate elsewhere on our lands.
Leaseholder activities	<ul style="list-style-type: none"> Leaseholder protocols for waste management may not align with Ch'iyáqtel waste management processes. The leasehold properties are managed by property managers and aren't required to conform to Ch'iyáqtel procedures for recycling and compost.
Non-compliance with Laws	<ul style="list-style-type: none"> If Ch'iyáqtel, CP Holders, or leaseholders do not comply with Ch'iyáqtel laws, Ch'iyáqtel may be exposed to risk. Some of those risks could be economic and/or damage to the environment.



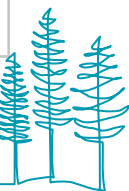
Concerns & Issues	Details
Contamination	<ul style="list-style-type: none"> Illegal dumping and the storage of waste materials may lead to the contamination of soil, groundwater and/or surface water if harmful materials (e.g., old batteries, waste oils, etc.) are present. The storage of old vehicles can lead to hydrocarbon, heavy metal, and mercury contamination due to various parts.
Harm to Wildlife, Fish, and Plants	<ul style="list-style-type: none"> Dumping of solid and potentially hazardous wastes can cause harm to wildlife if ingested, accumulated in creeks and rivers and cause harm to fish, and cause stress to vegetation and impact their overall health.
Impacts to Culture	<ul style="list-style-type: none"> Illegal dumpsites diminish the beauty of the lands and could potentially pollute cultural sites and harm valuable fish species and other resources used. It also impedes the ability to be stewards of the lands and to protect future generations.
Impacts to Human Health and Safety	<ul style="list-style-type: none"> Unauthorized and uncontrolled dumpsites can contain sharp objects that are harmful to humans, or hazardous waste that may lead to human health concerns if ingested or through skin contact. Human health concerns may also arise if household hazardous waste leads to contamination of drinking water sources.

7.3 Legislation & Regulations

An overview of applicable federal and Ch'iyáqtel mandatory legislative requirements relevant to waste management is provided in *Table 5*. Legislation and regulations described throughout the other Environmental Management Priority Area sections can also be considered relevant as they aim to prevent adverse impacts on the biophysical environment.

Table 5: Applicable Legislation and Regulations Relevant to Waste Management

Jurisdiction	Legislation and Regulations
Ch'iyáqtel	<i>Community Quality Law</i> governs noise pollution, littering, and burning.
Federal	<i>Fisheries Act</i> prohibits the release of deleterious (harmful) substances into fish-bearing waters or water connected to fish-bearing waters.
	<i>Canadian Environmental Protection Act</i> includes regulations on the release of various pollutants into the environment.
	<i>Migratory Bird Convention Act</i> prohibits the deposit of oil, oil waste or other harmful substances to migratory birds in any waters or areas frequented by them.
	<i>Impact Assessment Act</i> requires considerations for adverse environmental impacts associated with solid and/or hazardous waste prior to applicable land development activities.



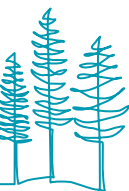


7.4 Environmental Policies and Management Actions

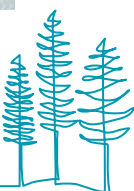
Policies and management actions in *Table 6* have been identified to address existing issues and concerns and guide environmental management to support community needs and aspirations. EP denotes Environmental Policy and MA denotes Management Action.

Table 6: Policies and Management Actions for Waste Management

ID #	Environmental Policies and Management Actions
EP-WM-01	Ch'iyáqtel First Nation will refine its waste management program to better manage waste materials on our lands.
MA-WM-01	Develop a waste management strategy that includes a waste audit process as well as a management strategy for litter, illegal dumping, vermin, and how to support households who may require help complying with bylaws.
MA-WM-02	Harmonize the Ch'iyáqtel waste management processes for curbside waste collection with the City of Chilliwack so that the City of Chilliwack can effectively support curbside waste collection on Ch'iyáqtel Lands.
MA-WM-03	Develop waste management standards for lease agreements, to be administered through the Lands Department.
EP-WM-02	Ch'iyáqtel First Nation will engage with the City of Chilliwack to mitigate pollution coming on to our lands due to the Bailey Landfill.



ID #	Environmental Policies and Management Actions
MA-WM-04	Continue to engage with the City of Chilliwack regarding the Bailey Sanitary Landfill closure plan.
MA-WM-05	Work with the City of Chilliwack to install a buffer to stop debris coming from the Bailey Sanitary Landfill onto Ch'iyáqtel Lands.
EP-WM-03	Ch'iyáqtel First Nation will continue its rodent abatement efforts.
MA-WM-06	Continue to identify and address sources of rodent habitat (e.g., vegetation abandoned cars, etc.). Mitigate for rodents during development projects as many rodents move when their habitat is altered.
MA-WM-07	Provide education about rodents as a public health issue during spring and fall clean-ups.
EP-WM-04	Ch'iyáqtel First Nation will continue to educate Members and non-Member residents regarding the proper disposal of waste.
MA-WM-08	Identify and implement opportunities to include youth in recycling program awareness.
MA-WM-09	Continue to create videos for education, outreach, and awareness initiatives in the community, regarding waste diversion and reduced waste generation.
MA-WM-10	Build on the FVRD waste management public outreach material to create outreach materials about waste management for Ch'iyáqtel Members.





8.0 Contamination of Land and Water

Contamination is any actual or threatened release, spill, emission, leaking, pumping, injection, presence, deposit, abandonment, disposal, discharge, dispersal, leaching or migration into the indoor or outdoor environment of a hazardous substance, in a quantity which is or may become injurious to the environment or to the public health, safety, or welfare. This includes, the movement of any hazardous substance or other substance through or in the air, soil, surface water, groundwater or property which is not in compliance with applicable environmental laws (Law Insider, 2013-2022).

Land filling with materials of unknown quality can lead to significant impacts on soils and/or groundwater, with very high costs associated with cleanup. Under the Framework Agreement, the responsibility for such sites contaminated after Land Code adoption is no longer with the federal government, but with Ch'iyáqtel. Given the continuing development on Ch'iyáqtel Lands, an effective approach to managing soil and fill to prevent additional contamination and cleanup is required.



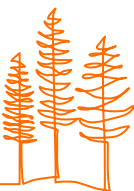
8.1 Key Environmental Management Factors

Bailey Sanitary Landfill: Testing and monitoring was undertaken (test wells by the sports field adjacent to landfill) to determine if there are any offsite impacts to Ch'iyáqtel Lands from the Bailey Sanitary Landfill site. Through monitoring, it was determined that runoff from the landfill site is away from Ch'iyáqtel Lands and there were no environmental issues of concerns identified.

Decommissioning works: Individual residential septic systems, including old tanks and fields were decommissioned and residences were connected to the City of Chilliwack servicing infrastructure.

Phase I Environmental Site Assessment (ESA): In March, 2007, a Phase I ESA, of the Ch'iyáqtel Lands was prepared for Ch'iyáqtel and Indian and Northern Affairs Canada (INAC), under the First Nations Land Management Initiative (FNLMI). The Phase I ESA identified 19 Areas of Potential Environmental Concern (APEC). In September, 2021, a Phase I ESA for Lots 338, 339, 245-2, and 446 was completed and did not identify operations of potential environmental concern.

Phase II ESA: Teranis Consulting Ltd. (Teranis) was retained by the Joint Management Committee (JMC) of Ch'iyáqtel and Aboriginal Affairs and Northern Development (AANDC) to consolidate the available data (soil, groundwater and surface water) collected from Ch'iyáqtel Lands during previous ESAs and to compare data to the most current federal guidelines and provincial standards. The previous ESAs included: Phase 2 ESA (December, 2009); Supplemental Phase 2ESA (March, 2010); Additional Phase 2 ESA (March, 2011); and Assessment of Areas



of Environmental Concern (AEC)-5, AEC-8, & APEC-22 (March, 2012). The Phase 2 ESAs identified 8 AECs due to the presence of contaminants of concern. However, after 2012 no further work was done. ISC did not provide further funding or opportunities for testing.

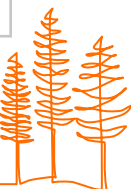


8.2 Concerns & Issues

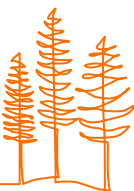
An overview of concerns and issues related to Contamination is provided in *Table 7*.

Table 7: Concerns and Issues Related to Contamination

Concerns & Issues	Details
Contaminated fill	<ul style="list-style-type: none"> • Potential for contaminated or improper fill to be brought onto reserve lands given ongoing and potential future developments. • Imported soil and fill may contain unknown chemical contaminants and/or invasive species. • Soil can become contaminated in a variety of ways, but most often it involves: fuel leaks/spills; chemicals released from industrial and agricultural activities; unregulated use of fills that are contaminated; and the deposit of contaminated soil from other sites or areas.
Quality of fill for development	<ul style="list-style-type: none"> • The new Soil Deposit, Removal and Transport Law will confirm quality of fill. However, there is a need to develop a process for monitoring the fill deposition and to develop new forms for the process.
Aggregate supply area near Promontory Road	<ul style="list-style-type: none"> • The unknown nature of fill materials potentially buried on this site may indicate potential for soil and/or groundwater contamination. • There were above ground diesel installations present on site in the past. The site has regular monitoring per its lease/permit.
ESAs	<ul style="list-style-type: none"> • Not all CP held land was included in the ESAs undertaken by Ch'iyáqtel. • There could be more contaminated sites than presently known. • 8 AECs were identified through Phase II ESAs. • Remediation work may still be required.
Septic tanks	<ul style="list-style-type: none"> • Most properties that had septic systems originally were hooked up to the City sewer system and their septic systems were decommissioned. However, there are a few homes still on septic. There is a potential for old septic tanks that have not been decommissioned and associated potential for leaks. Some homes near Vedder Road and the Kinder Morgan pipeline are still on septic systems. • Some light industrial development remains on septic systems including: the aggregate supply area near Promontory Road; the milling and log home businesses on Chilliwack River Road; and the light industrial park on Matheson Road. • Failing septic systems can become a health concern, given the high water table.



Concerns & Issues	Details
Aboveground storage tanks	<ul style="list-style-type: none"> • There are aboveground fuel storage tanks present at the old gas station. • There may be above ground heating oil storage tanks in some homes in the 2 trailer parks on Ch'iyáqtel Lands.
Health Risks to Humans	<ul style="list-style-type: none"> • Contaminated soils, waters and vapour (gas) may contain substances that are toxic and pose a risk to human health (e.g., if inhaled or ingested). In addition, wood waste in fill materials can decompose and release methane gas, which poses a fire and explosion risk.
Impacts to Culture	<ul style="list-style-type: none"> • Deterioration of the environment can lead to an erosion of culture which can negatively affect the well-being and mental health of the community.
Impacts to Future Generations	<ul style="list-style-type: none"> • Soil and groundwater contamination can last for many years and cost a significant amount of money to address. Failure to address existing contamination and prevent further contamination will impact future generations, and their ability to use Ch'iyáqtel Lands in the ways they need.
Impacts to Groundwater and Surface Waters	<ul style="list-style-type: none"> • Contaminated soil can further contaminate the groundwater or surface water if not managed properly and lead to subsequent impacts on water quality and fish and wildlife health.
Impacts to Vegetation	<ul style="list-style-type: none"> • In areas of soil and groundwater contamination, natural vegetation may no longer be able to survive due to compromised conditions. This may allow invasive species or non-native plants to replace the natural vegetation, or result in the loss of all vegetation.





8.3 Legislation & Regulations

An overview of applicable federal mandatory legislative requirements relevant to contamination is provided in **Table 8**. Legislation and regulations described throughout the other Environmental Management Priority Area sections can also be considered relevant as they aim to prevent adverse impacts on the biophysical environment.

Table 8: Applicable Legislation and Regulations Relevant to Contamination

Jurisdiction	Legislation and Regulations
Ch'iyáqtel	<u><i>Business Permit Law (2010)</i></u> enables Ch'iyáqtel to record and regulate businesses on reserve lands. The law includes outlines prohibited businesses and activities and establishes a permitting process, with exemptions.
	<u><i>Tzeachten Soil Deposit, Removal and Transport Law (2022)</i></u> regulates the removal and deposit of soil. This includes prohibiting transport of soil to, on, or over Ch'iyáqtel lands, and deposit of soil on or removal of soil from Ch'iyáqtel lands without a permit.
Federal	<u><i>Fisheries Act</i></u> prohibits the release of harmful substances into fish-bearing waters or water connected to fish-bearing waters.
	<u><i>Canadian Environmental Protection Act</i></u> includes regulations on the release of various pollutants into the environment.
	<u><i>Migratory Bird Convention Act</i></u> prohibits the deposit of oil, oil waste or other harmful substances to migratory birds in any waters or areas frequented by them.
	<u><i>Impact Assessment Act</i></u> requires considerations for adverse environmental impacts on surface waters, groundwater and soil prior to applicable land development activities.
	<u><i>Canadian Council of Ministers of the Environment (CCME) Canadian Soil Quality Guidelines (CSQGs)</i></u> provide science-based goals for the quality of aquatic and terrestrial ecosystems.
	<u><i>CCME Canada-Wide Standards (CWS) for petroleum hydrocarbons (PHCs; Tier 1 Levels for CL/IL and RL/PL land uses)</i></u> is a remedial standard for soil and subsoil protective of human and environmental health.

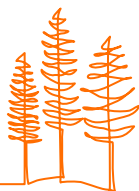


8.4 Environmental Policies and Management Actions

Policies and management actions in *Table 9* have been identified to address existing issues and concerns and guide environmental management to support community needs and aspirations. EP denotes Environmental Policy and MA denotes Management Action.

Table 9: Environmental Policies and Management Actions for Contamination

ID #	Environmental Policies and Management Actions
EP-CN-01	No contaminated soils will be imported to Ch'iyáqtel Lands.
MA-CN-01	Monitor successful implementation of the new Soil Deposit, Removal and Transport Law.
MA-CN-02	Develop a soil screening process for incoming soils to Ch'iyáqtel Lands.
EP-CN-02	New development should include provisions to keep oil and other pollutants out of stormwater runoff to preserve fish habitat in the area.
MA-CN-03	Update the engineering requirements for all new development to include a requirement for oil/grit separators. Consider retrofitting existing infrastructure; this may require working with the City of Chilliwack.
EP-CN-03	All septic systems must be permitted by the First Nations Health Authority and be installed and maintained in accordance with the Tzeachten Subdivision, Development and Servicing Law, and the standards contained in the Provincial Sewerage System Standard Practice Manual.
MA-CN-04	Identify which residences are currently on septic and decommission the septic systems and transition to sewer.
EP-CN-04	Environmental Site Assessments (ESAs) are required for development at the time of development application.
MA-CN-05	Determine next steps for addressing the AECs and AEPCs as identified in Phase I and II ESAs.
MA-CN-06	Formalize the existing requirement for ESAs prior to developing (e.g., revise the Development Permit Application to include the requirement for an ESA for development).
EP-CN-05	Ch'iyáqtel First Nation will create materials to educate Members about soil contamination.
MA-CN-07	Create educational material regarding contamination prevention and distribute to Members.
EP-CN-06	All leases must be registered with the Lands Department to reduce environmental risks and liability to Ch'iyáqtel from lessee activities.
MA-CN-08	Enforce registration of all leases with the Lands Department.





9.0 Vegetation, Wildlife, and Aquatic Species

Wildlife refers to animals and plant species that grow or live in the wild. Species at risk refer to plants and animals that are in danger of disappearing from the wild, and that are protected by federal or provincial legislation. Vegetation refers to the flora (i.e. plants) of a specific area or region. Invasive species refer to animals and plants that have been introduced into an area that they are not native to. These species tend to spread aggressively, often at the expense of surrounding native species, and cause damage to the natural environment, human economy and/or human health. Aquatic species means plants or animals that live at least part of their life cycle in waters and includes, but is not limited to species of fish, aquatic insects, or amphibians (Law Insider, 2013-2022).

Since colonization, land clearing and the development of urban areas has resulted in habitat loss for many species. Habitat loss has impacted the ecosystem in the region in terms of the abundance and distribution of wildlife and vegetation. Forests that used to exist on Ch'iyáqtel Lands and within the Traditional Territory are decreased in size, or do not exist anymore. Habitat loss is particularly acute on IR# 13, as most of the land has been developed. In the EMP community survey, community members indicated a desire to see restoration of wildlife and habitat as an environmental priority.



9.1 Key Environmental Management Factors

Oregon Forest Snail: The Oregon Forest Snail is a Species at Risk (SARA). Critical habitat for the Oregon Forest Snail has been identified on Ch'iyáqtel Lands and work has been undertaken by Ch'iyáqtel to provide and protect the habitat of the Oregon Forest Snail. Land has been set aside to serve as conservation area for the Oregon forest Snail per Federal requirements. No development or harvesting will occur in this area.

Timber Cutting and Removal Process and Permit Policy: The Timber Cutting and Removal Process and Permit Policy recognizes the authority granted by Tzeachten Land Code for land administration including for the removal or extraction of natural resources and provides provisions for timber cutting and removal. An arborist report is required during development and an applicant must obtain a timber permit and apply to province to get a timber mark. Any saleable timber proceeds come back to Ch'iyáqtel.

Development Permit Application: On Ch'iyáqtel Lands, potential impacts to vegetation, wildlife, and aquatic species from development are identified and addressed through the Development Permit Application.

Stó:lō Research and Resource Management Centre: In the Traditional Territory impacts to vegetation, wildlife, and aquatic species from development are identified and addressed through processes established and administered by the Stó:lō Research and Resource Management Centre (Stó:lō Research and Resource Management Centre, 2016).

Lower Fraser Fisheries Alliance (LFFA): Ch'iyáqtel is a partner of the LFFA whose mission is to promote and support the management of a robust and expanding fishery for the First Nations of the Lower Fraser River.





9.2 Concerns & Issues

An overview of concerns and issues related to vegetation, wildlife, and aquatic species is provided in *Table 10*.

Table 10: Concerns and Issues Related to Vegetation, Wildlife, and Aquatic Species

Concerns & Issues	Details
<p>Fish Habitat</p>	<ul style="list-style-type: none"> • Fish habitat has been degraded by development, such as realignment of the Chilliwack River, dyking, dams, stormwater infrastructure, culverts, and clearing along waterways. • Portions of the Fraser River watershed and waterways in the Fraser Valley are polluted which contributes to concern about pollutants in fish for human consumption.
<p>Tree Removal</p>	<ul style="list-style-type: none"> • Trees and vegetation are being removed for development, including those on Vedder Road. • Trees that hosted eagles cut down during recent development. Eagles have moved elsewhere on Ch'iyáqtel Lands.
<p>Loss and Degradation of Habitat for Plants and Animals</p>	<ul style="list-style-type: none"> • The effects of droughts impact animals and plants and their habitat. • Community members expressed a desire to support bee populations. • Land development and associated impacts on surface waters (changing drainage patterns, reduction in riparian areas, etc.) can lead to impacts on fish habitat. • Removal of vegetation either forest or grassy areas impacts urban wildlife, such as coyotes or bald eagles by reducing migratory corridors and foraging areas.
<p>Wildlife Corridors</p>	<ul style="list-style-type: none"> • Ch'iyáqtel Lands are surrounded by suburban development without routes for wildlife to connect to large habitat areas (habitat connectivity).



Concerns & Issues	Details
Species at Risk	<ul style="list-style-type: none"> Land has been set aside for conservation area habitat for Oregon Forest Snail on Ch'iyáqtel Lands. Nettle was planted but is not to be harvested. No entry into this area is permitted.
Climate Change	<ul style="list-style-type: none"> Long-term risks related to climate change and ecosystems also include adverse effects from extreme weather events such as periods of drought, floods, or extreme heat waves. Sensitive and fragile species that require specific habitat types may be vulnerable to impacts from these events.
Contamination	<ul style="list-style-type: none"> Surface waters can be contaminated from inputs of harmful substances from residential, agricultural, commercial and industrial activities, which in turn can impact the health of aquatic species in these waters.
Development	<ul style="list-style-type: none"> Impacts on waterways (e.g., diverted and buried waterways, contamination, sedimentation, increased tourism, etc.), and wooded areas from development can impact the health of terrestrial and aquatic species' habitats and alter available foraging, breeding and migratory habitat.
Cumulative Impacts	<ul style="list-style-type: none"> The cumulative impacts of many small events or developments can together lead to a decline in the health of the ecosystem, where the system and plants and animals within that system will become less able to respond, adapt, and recover from the repeated disturbances.
Invasive Species	<ul style="list-style-type: none"> Invasive species are considered stressors to environmental quality because they displace and outcompete native species. This can lead to a reduction in biodiversity, loss of critical habitat or forage opportunities for native species. Invasive plant species typically spread aggressively and can cause negative impacts to plants, animals and infrastructure.
Encroachment by Wildlife	<ul style="list-style-type: none"> Animals (e.g., coyotes) are coming into the territory due to increased development in the area. Increased human-animal incidents will likely to prove detrimental to the animals.
Increased Presence of Rats	<ul style="list-style-type: none"> With more people and development, the presence of rats on Ch'iyáqtel Lands has increased.
Diseases	<ul style="list-style-type: none"> Pests and disease can impact the ecosystem by damaging and threatening native species populations. Once established, it can lead to further spreading if not handled and disposed of properly when infected.
Pesticides and Associated Impacts	<ul style="list-style-type: none"> Spraying of pesticides may lead to declines in natural and important vegetation, with potential associated impacts on wildlife foraging, including bees. Pesticides that accumulate in waterways have deleterious effects on fish. Bioaccumulation of pesticides can harm animals higher on the food chain.





9.3 Legislation & Regulations

An overview of applicable federal mandatory legislative requirements relevant to vegetation and wildlife is provided in **Table 11**. Legislation and regulations described throughout the other Environmental Management Priority Area sections can also be considered relevant as they aim to prevent adverse impacts on the biophysical environment.

Table 11: Applicable laws relevant to Vegetation, Wildlife, and Aquatic Species

Jurisdiction	Legislation and Regulations
Federal	<i>Impact Assessment Act</i> requires considerations for adverse impacts on the biophysical environment (including wildlife, plants, species at risk, and culturally important species) prior to applicable land development activities.
	<i>Species at Risk Act</i> identifies species at risk and prohibits harm, harassment and capturing of any listed species as well as damage to or destruction of their residence and critical habitat, as identified in species recovery plans.
	<i>Fisheries Act</i> requires protection for all fish and fish habitat, and prohibits the harmful alteration, disruption or destruction of fish habitat and the release of deleterious (harmful) substances into fish-bearing waters or water connected to fish-bearing waters. Death of fish by means other than fishing is also prohibited.
	<i>Migratory Bird Convention Act</i> prohibits disturbing the nests or eggs of migratory birds without a permit, as well as the deposit of oil, oil waste or other harmful substances to migratory birds in any waters or areas frequented by them.
	<i>Canadian Environmental Protection Act</i> includes regulations on the release of various pollutants into the environment.





9.4 Environmental Policies and Management Actions

Policies and management actions in *Table 12* have been identified to address existing issues and concerns and guide environmental management to support community needs and aspirations. EP denotes Environmental Policy and MA denotes Management Action.

Table 12: Policies and Management Actions for Vegetation, Wildlife, and Aquatic Species

ID #	Environmental Policies and Management Actions
EP-VW-01	Native plants, especially traditionally-used plants, will be required in landscaping, where feasible
MA-VW-01	Integrate the requirement to preserve native, traditionally-used plants and encourage their use in restoration projects and new developments into site development plants as part of the development approval process.
MA-VW-02	Consider green building technology in terms of incorporating green space into new development to increase habitat and habitat connectivity, whenever possible (potentially roof top gardens).
MA-VW-03	Incorporate invasive plant management into public works operations and maintenance plans through departmental work plans. Consider outreach to Members to educate them on ways to prevent the spread of such species. Consider engaging the Fraser Valley Invasive Species Society.
EP-VW-02	There is limited tree cover on our lands. We will enact measures to preserve the existing tree cover.
MA-VW-04	Identify an appropriate buffer zone for the preservation and protection of the trees around the longhouse, where development is not allowed and trees may not be removed, unless deemed appropriate by public works (e.g., if a tree is diseased, unsafe, etc.).
EP-VW-03	Ch'iyáqtel supports healthy bee populations.
MA-VW-05	Develop and implement initiatives that support the health of bees.
EP-VW-04	Ch'iyáqtel will remove invasive species, when possible, and take measures to reduce their spread on our lands.
MA-VW-06	Develop an Invasive Wildlife Management Strategy/Plan that includes strategies for the identification and removal of attractants for rats.
EP-VW-05	Ch'iyáqtel will work with neighboring jurisdictions and other partners to support wildlife in our vicinity.
MA-VW-07	Continue affiliation with Lower Fraser Fisheries Alliance.
MA-VW-08	Develop a MOU with the City of Chilliwack to formalize relationships and support coordinated, regional aquatic species and habitat restoration.



ID #	Environmental Policies and Management Actions
MA-VW-09	Identify funding and/or partnership opportunities to enhance or restore fish habitat. There may be opportunities through: <ul style="list-style-type: none"> • Rain Coast Conservation Foundation; • Pacific Salmon Foundation; • Watershed Watch Salmon Society; • World Wildlife Fund; and • Ducks Unlimited.
EP-VW-06	Ch'iyáqtel will protect its riparian areas and creeks.
MA-VW-10	Install signage and provide education to Members about stewarding creeks and riparian areas.
EP-VW-07	The provincial <i>Weed Control Act</i> will be utilized to prevent the establishment or expansion of invasive plant species until an equivalent Ch'iyáqtel standard has been developed.
EP-VW-08	The provincial <i>Riparian Areas Regulation Act</i> will be used to guide future development around waterways and aquatic habitat
EP-VW-09	The federal <i>Migratory Bird Act</i> will be utilized to guide policies for nest sweeps prior to any vegetation clearing between March 1 and August 31.
MA-VW-11	Implement standard environmental BMPs for the lifespan of development projects to support protection of waterways, vegetation, wildlife and Species At Risk.





10.0 Cultural Heritage

Cultural heritage refers to any place or object of aesthetic, architectural, historical, scientific, social or spiritual value or significance. Cultural heritage includes the practices, representations, expressions, knowledge, skills, as well as the instruments, objects, artifacts and cultural spaces, that communities, groups and, in some cases, individuals recognize as part of their cultural heritage. Cultural heritage - transmitted from generation to generation - is constantly recreated by communities and groups in response to their environment, their interaction with nature and their history, and provides them with a sense of identity and continuity, thus promoting respect for cultural diversity and human creativity (Law Insider, 2013-2022).

Ch'iyáqtel ancestors, inhabited and used our Traditional Territory and cultural resources and culturally sensitive areas throughout. Many of these areas have already been impacted by development. For instance, the Chilliwack River used to flow across our lands until it was diverted in the 1800's. This has impacted the ability of Ch'iyáqtel people to use our lands for traditional and cultural purposes, as well as our collective heritage. As our Traditional Territory and Ch'iyáqtel Lands and resources continue to be subject to land development pressures in the region, it is important that cultural resources and culturally sensitive areas on and adjacent to our lands are identified and considered, for the benefit of our Members and future generations.

10.1 Key Environmental Management Factors

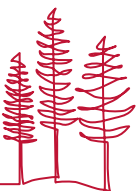
Cemetery expansion: In the past, unmarked graves were discovered outside of the cemetery, so Ch'iyáqtel purchased the land from the CP holder and extended the fence line for the cemetery.

Ch'iyáqtel Community Hall: The Ch'iyáqtel Community Hall is used to host ceremonies and other community events.

Cultural considerations in land use planning: The Tzeachten Land Use Plan considers ancestral connections and relationships as members of the Ts'elxweyeqw Tribe and neighbourhoods identified through land use planning are named using traditional language.

Lower Fraser Fisheries Alliance (LFFA): Ch'iyáqtel partners with the LFFA who works collaboratively and holistically to manage fisheries and to support cultural and spiritual traditions for future generations by promoting and supporting the management of a robust and expanding fishery for the First Nations of the Lower Fraser River (Lower Fraser Fisheries Alliance, 2010-2022).

Protected areas: The Iron Horse development along Promontory Road has been required to avoid construction in an archaeological site and provide signage about the site.



Stinging nettle: Ch’iyáqtel grows and maintains stinging nettle in the protected area for the Oregon Forest Snail habitat.

Stó:lō heritage: Stó:lō heritage is complex and dynamic. Traditions are carried on and expressed in relation to the ever-changing world of which Ch’iyáqtel is a part. The Stó:lō Heritage Policy Manual is a living document that reflects Stó:lō views on heritage (Stó:lō Nation Lalems ye Stó:lō Si:ya:m, 2003).

Stó:lō Heritage Investigation Permit: The Stó:lō Research and Resource Management Centre provides professional archaeological services and requires a Stó:lō Heritage Investigation Permit for various types of development (e.g., residential, industrial, transportation, etc.) and/or ground disturbance (Stó:lō Research and Resource Management Centre, 2016).

Traditional Foods Program: Fishing is a major livelihood for our people. Our people fish in the summer months for food. We fish for sockeye, spring and dog salmon and, on some occasions, eulachon. Our Elders and members spend days in the Ch’iyáqtel kitchen canning fish for the winter. Our Traditional Foods Program also includes canned fruit and the distribution of wild meat/game (Ch’iyáqtel First Nation & Dillon Consulting Limited, 2019).

Longhouse: The previous Ch’iyáqtel longhouse was built in 1971 and burnt down in 1976. Construction of the new longhouse was completed in 2019. It is used to host ceremonies and other community events.



10.2 Concerns and Issues

An overview of concerns and issues related to cultural heritage is provided in *Table 13*.

Table 13: Concerns and Issues Related to Cultural Heritage

Concerns & Issues	Details
<p>Threats to Cultural Sites</p>	<ul style="list-style-type: none"> • All development must have archeological assessment done prior to any work. • Culturally sensitive sites could be disturbed during development. • There used to be a cave/lookout point up Promontory Mountain that held cultural significance but it has been lost due to development. • There are no bathing sites on Ch’iyáqtel as the river does not run through anymore.
<p>Impacts on Traditional or Cultural Uses</p>	<ul style="list-style-type: none"> • Impacts to water, fisheries and forested areas can impact cultural practices given that the preservation of these resources is intertwined with the preservation of culture.
<p>Traditional Medicine</p>	<ul style="list-style-type: none"> • Development has destroyed plants used for traditional medicines requiring members to harvest medicinal plants off-reserve. • There is a community garden set up on our lands near the sports fields. However, garden staff does not have knowledge of how to cultivate traditionally-used plants.



Concerns & Issues	Details
<p>Legacy of Colonial Management</p>	<ul style="list-style-type: none"> • Cultural management traditions, including traditional protocols that sustained Ch’iyáqtel’s use of resources for thousands of years, have been affected by colonial laws. For example, the Indian Act affected governance structures and the Fisheries Act requires government approval for fisheries.
<p>Urban Community</p>	<ul style="list-style-type: none"> • Ch’iyáqtel Lands are located within the FVRD, which is experiencing a high rate of population growth. Ch’iyáqtel continues to strive to maintain protocols and practices while adapting to the changing surrounding environment and growing urban community. • There is limited land that is untouched by development (e.g., housing, commercial development, etc.). • People may think that Ch’iyáqtel has lost their culture due to the fact that they are an urban community. • Ch’iyáqtel is in the growing phase of questioning who they are culturally and as a society in the context of an Indigenous community surrounded by settler society and colonial systems. • Ch’iyáqtel residents may feel pressure to conform to colonial structures to feel “successful” in society.
<p>Trespassing</p>	<ul style="list-style-type: none"> • Trespassing at the Longhouse is a concern.
<p>Depleted Resources</p>	<ul style="list-style-type: none"> • The resources integral to cultural practices (e.g., fisheries) have been and continue to be damaged by land use changes, development, and associated impacts. • Pollution, overfishing, climate change and cumulative effects have reduced salmon runs.



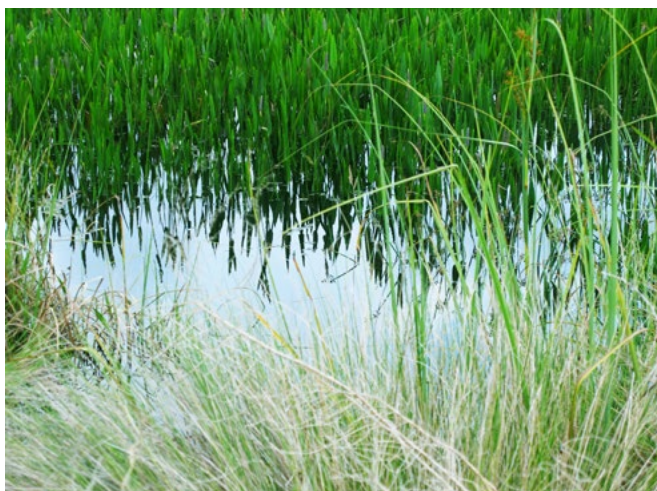


10.3 Legislation & Regulations

An overview of applicable federal mandatory legislative requirements relevant to cultural heritage is provided in *Table 14*. Legislation and regulations described throughout the other Environmental Management Priority Area sections can also be considered relevant as they aim to prevent adverse impacts on the biophysical environment.

Table 14: Applicable Legislation and Regulations Relevant to Cultural Heritage

Jurisdiction	Legislation and Regulations
Ch'iyáqtel	<i>Subdivision, Development and Servicing Law (2010)</i> includes a requirement to adhere to the <i>General Requirements for Environmental Assessments on Tzeachten Lands</i> , which requires consideration of how proposed activities and projects may affect cultural resources, practices and connections.
Federal	<p><i>Impact Assessment Act</i> requires the integration of Indigenous knowledge and considerations of adverse environmental impacts on the biophysical environment and resources, cultural and heritage resources, and Indigenous cultural practices and rights prior to applicable land development activities.</p> <p><i>Fisheries Act</i> was amended in 2019 to provide new provisions and stronger protections to support the sustainability of fisheries for future generations. The new Act provides protection for all fish and fish habitat, requires that Indigenous knowledge that is provided informs habitat decisions, and provides increased focus on habitat restoration and rebuilding fish stocks.</p> <p><i>Migratory Bird Convention Act</i> prohibits disturbing the nests or eggs of migratory birds without a permit, as well as the deposit of oil, oil waste or other harmful substances to migratory birds in any waters or areas frequented by them.</p> <p><i>Species at Risk Act</i> identifies species at risk and prohibits harm, harassment and capturing of any listed species as well as damage to or destruction of their residence and critical habitat, as identified in species recovery plans.</p>





10.4 Environmental Policies and Management Actions

Policies and management actions in *Table 15* have been identified to address existing issues and concerns and guide environmental management to support community needs and aspirations. EP denotes Environmental Policy and MA denotes Management Action.

Table 15: 15: Environmental Policies and Management Actions for Cultural Heritage

ID #	Environmental Policies and Management Actions
EP-CH-01	Ch'iyáqtel First Nation will inform our Members about the safeguards in place to protect cultural and archaeological sites on our lands.
MA-CH-01	Provide education about the archaeological permitting process to Members to let them know about the procedural safeguards against damage to archaeological/cultural sites.
EP-CH-02	Ch'iyáqtel First Nation will work with our Elders and our youth to promote the intergenerational passage of traditional knowledge.
MA-CH-02	Collaborate with Elders to complete a traditional land and resource use study for Ch'iyáqtel Lands to identify culturally sensitive areas in the community. Integrate this information in future land use planning and permitting activities.
MA-CH-03	Identify and provide opportunities for Elders and youth to connect to support the transmission of cultural and traditional knowledge including to learn and develop their skills in terms of plant medicine and traditional uses for native plant species.
MA-CH-04	Create an interim Youth Environmental and Cultural Coordinator Position(s) to provide mentorship opportunities for Ch'iyáqtel Members.
MA-CH-05	Restart the Youth Group.
EP-CH-03	Native plants, especially medicine plants and traditional foods, should be planted more widely on our lands.



ID #	Environmental Policies and Management Actions
MA-CH-06	Develop policy and/or processes to plant and/or increase the presence of native plant species on Ch'iyáqtel Lands (e.g., provide training to community garden personnel and/or public works).
EP-CH-04	Ch'iyáqtel First Nation will continue to identify culturally and/or archaeological important sites and commemorate these areas with informational signage, when appropriate.
MA-CH-07	Explore opportunities to identify culturally and/or archaeologically important sites and/or areas and their significance with interpretive signage, as appropriate, and as determined through engagement with community members including Elders. Work with developers of CP lands to install interpretive signage during development, probably as a voluntary act.
MA-CH-08	Create a list of key features and areas within Ch'iyáqtel Lands to be renamed in the “Upriver dialect” of Halq'eméylem. Utilize the list to commence with formal name changes within Ch'iyáqtel documents, signs, maps, etc.
EP-CH-05	Ch'iyáqtel will continue to require Archaeological Impact Assessments to be identified through our Development Permit Application, and requested through the Stó:lō Research and Resource Management Centre. The treatment of Stó:lō Nation heritage, its sites, and objects must follow Stó:lō Heritage Policy Manual.
MA-CH-09	Continue to protect our cultural heritage through requiring Archaeological Impact Assessments and adherence to the Stó:lō Heritage Policy Manual.





11.0 Environmental Emergencies

Environmental emergencies means sudden on-set disasters or incidents resulting from natural, technological or human- induced factors or a combination of these factors that cause or are likely to cause significant environmental damage or loss of human life and property (Law Insider, 2013-2022).

11.1 Key Environmental Management Factors

Emergency Preparedness Plan: Since 2014, Ch'iyáqtel has created a comprehensive and detailed Emergency Preparedness Plan contributing to a robust and resilient community. The plan is reviewed and updated on an annual basis by the Emergency Program Coordinator. The Plan was last updated in 2022. Ultimately, the Emergency Preparedness Plan will help to mitigate negative impacts on the community if some type of event occurs (Tzeachten First Nations, 2018).

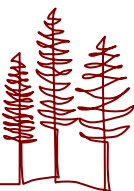
Emergency Preparedness Committee Team: An Emergency Preparedness Committee Team has been created and consists of Chief and Council members, Managers from each department, and members of the community. Ch'iyáqtel has been providing training for committee members and Ch'iyáqtel Members on a regular basis (Tzeachten First Nations, 2018).

Provision of emergency services: Fire and police services are provided to Ch'iyáqtel by The City of Chilliwack and the RCMP. However, there are no agreements in place between Ch'iyáqtel and the City of Chilliwack or the RCMP for these services.

Emergency management framework: The Federal and Provincial governments have entered into a memorandum of understanding (MOU) for Emergency Management BC (EMBC) to provide emergency management services on federal land. Ch'iyáqtel follows the principles of the British Columbia Emergency Management System (BCEMS) model to standardize delivery of emergency management and response efforts.

Emergency response experience: Ch'iyáqtel provided assistance to those affected by the floods including working with various organizations (e.g., Public Safety Canada Disaster Financial Assistance Arrangements, Indigenous Services Canada (ISC), and insurance providers) to provide financial and other assistance to Members affected by flooding.

Emergency preparedness training: Holistic Emergency Preparedness and Response (HEPR), City of Chilliwack and Emergency Management BC (EMBC). HEPR has come to the community to conduct several Emergency Preparedness training sessions and has strengthened the community's Emergency Preparedness Plan over the past 4 years. Semiahmoo First Nation and Ch'iyáqtel have had several joint training opportunities, and Ch'iyáqtel representatives were invited to attend an Emergency Preparedness Drill at Semiahmoo First Nation (Tzeachten First Nations, 2018).



Emergency Operation Centre (EOC): Ch’iyáqtel has an EOC, which is located at Ch’iyáqtel Sports Field. In 2017, Ch’iyáqtel conducted an Evacuation Drill in partnership with the HEPR, City of Chilliwack, EMBC, RCMP and Kinder Morgan. Training is always free and recruitment for Emergency Preparedness Committee happens on a continual basis (Tzeachten First Nations, 2018).

Shelter in place kits: Shelter in place kits have been distributed to those residents near the Fortis gas pipeline and emergency training was provided for these residents.

Emergency kits: Emergency kits have been issued to all Member homes on Ch’iyáqtel Lands and meals and headlamps were added to these kits in July 2022.

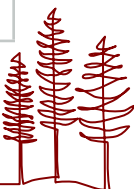


11.2 Concerns & Issues

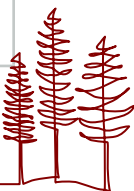
An overview of concerns and issues related to environmental emergencies is provided in *Table 16*.

Table 16: Concerns and Issues Related to Environmental Emergencies

Concerns & Issues	Details
Lack of response knowledge	<ul style="list-style-type: none"> In the case of an environmental emergency Members may not know what to do.
Power failure	<ul style="list-style-type: none"> There is no backup plan if power goes out.
Temperature extremes	<ul style="list-style-type: none"> Hotter temperatures may require cooling facilities in the summer. Public Works has concerns about freezing pipes.
Inadequate drainage	<ul style="list-style-type: none"> The City of Chilliwack acquired property to be used to contain the water that runs off Promontory Mountain; however, development is now occurring there. The ditch along Matheson Road often overflows.
Development contributing to flooding	<ul style="list-style-type: none"> Homes on promontory to Matheson Road have been flooded due to diverted water. The ditches are stagnant and can’t handle the flow of water due to low capacity. New waterways (i.e., ditches) were created to accommodate historic flow levels, however, they can’t handle current flows. Control of the water is an ongoing problem and discussions with the City of Chilliwack are ongoing for many years. Increased impervious surface from new development will increase runoff
Rock fall	<ul style="list-style-type: none"> Sizable rocks have fallen at Promontory Lake Estates, including a boulder that could have potentially come down at the development near Promontory Lakes Estates. Residents did not want to evacuate and they have chosen not to have the city install a wall to protect the properties and signed a waiver. This area is leased residential development. Rock fall and landslides from Promontory Mountain occurred this year including a trail that was completely washed out. There is limited vehicle access to the residences near Promontory with only 1 or 2 access routes.



Concerns & Issues	Details
Earthquakes	<ul style="list-style-type: none"> British Columbia has the highest earthquake risk in Canada, and Ch'iyáqtel Lands are located in the highest hazard region for earthquakes. Beyond damaging buildings and infrastructure, earthquakes can cause land subsidence; therefore, low-lying areas could potentially be at risk.
Wildfires and Smoke	<ul style="list-style-type: none"> British Columbia has increasingly suffered from wildfires in recent years. While the devastated areas have generally been well east and north of Ch'iyáqtel Lands, climate change may bring increased danger to the Fraser Valley. Smoke from fires across western Canada and the United States is blown over the Fraser Valley and may stay for days, endangering the health of residents, especially those with asthma and other breathing issues.
Climate Change	<ul style="list-style-type: none"> Impacts on groundwater table levels may increase basement flooding. Impacts and frequency of large precipitation events (e.g., flooding during an atmospheric river). Changes in weather patterns and biodiversity could increase the risk of environmental emergency Erosion and sedimentation processes that impact salmon and other fish are affected by changes in rainfall regimes. As native species are lost, biodiversity may destabilize, affecting the interconnectedness of native species.
Insufficient infrastructure	<ul style="list-style-type: none"> The gym acts as a meeting place and gathering centre during emergencies. However, there may not be infrastructure to meet the needs required (e.g., heating, cooling, etc.). Groundwater seeping into basements will damage homes and has the potential to adversely affect the health of occupants (e.g., mold, etc.).
Impacts to Human and Ecosystem Health	<ul style="list-style-type: none"> Environmental emergencies can trigger indirect impacts such as impacts to health, natural assets, and water source quality. As climate change drives changes in the environment for people, natural assets, services and infrastructure, Ch'iyáqtel initiatives will require consideration of the influence of climate change as a threat multiplier. For example, the Environmental Management Priorities are highly influenced by changes in climate.
Impacts to Culture and Resources	<ul style="list-style-type: none"> Changing precipitation patterns and higher temperatures may affect the times of salmon runs, increase river temperatures and lead to lower river flows in summer and fall which may impact fisheries. Erosion may wash away or expose cultural sites and artifacts. Displacement of Members due to emergencies such as flooding could impact the ability to congregate for cultural events and continue cultural practices. Seasonal changes could also impact traditional knowledge that guides cultural practices.
Kinder Morgan Pipeline	<ul style="list-style-type: none"> Leakage from pipeline infrastructure. Damage from earthquakes.



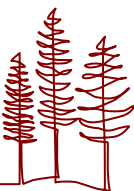


11.3 Legislation & Regulations

An overview of applicable federal mandatory legislative requirements relevant to environmental emergencies is provided in **Table 17**. Legislation and regulations described throughout the other Environmental Management Priority Area sections can also be considered relevant as they aim to prevent adverse impacts on the biophysical environment.

Table 17: Applicable Legislation and Regulations Relevant to Environmental Emergencies

Jurisdiction	Legislation and Regulations
<p>Federal</p>	<p><u><i>Emergency Management Act</i></u> dictates responsibilities for managing emergencies from the federal perspective.</p>
	<p><u><i>Canada Water Act</i></u> enables a framework for collaboration among federal, provincial and territorial governments in matters relating to water resources. It has not been modernized since it was passed in 1970 and does not consider the effects of climate change in its current form.</p>
	<p><u><i>Canadian Environmental Protection Act</i></u> imposes requirements for pollution prevention planning and emergency plans.</p> <ul style="list-style-type: none"> • The <u><i>Environmental Emergency Regulations</i></u> are aimed at improving industry’s capacity to deal with environmental emergencies that may occur at facilities. They require those who own, or have charge, management or control of listed substances to submit an environmental emergency plan to Environment Canada. They also establish reporting requirements in the event of spills.
	<p><u><i>Impact Assessment Act</i></u> requires considerations for Canada’s obligations and commitments with respect to climate change, and assessments must generally consider how climate change may impact a proposed project.</p>



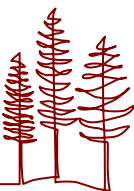


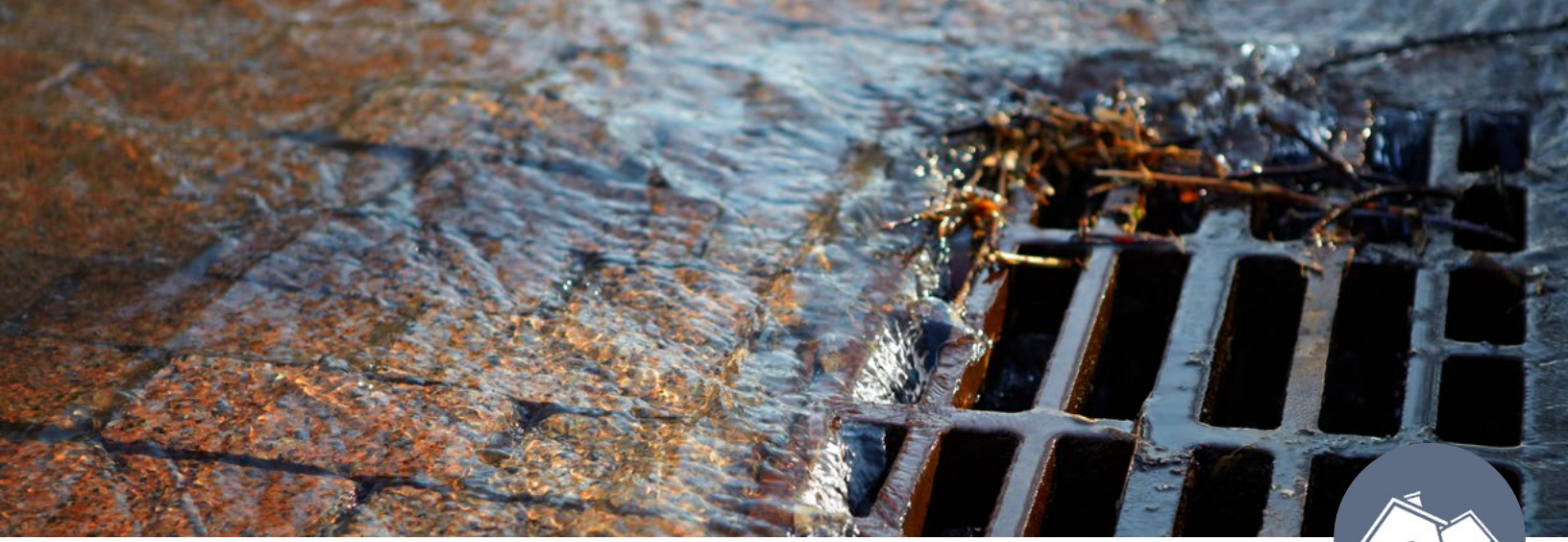
11.4 Environmental Policies and Management Actions

Policies and management actions in *Table 18* have been identified to address existing issues and concerns and guide environmental management to support community needs and aspirations.

Table 18: Environmental Policies and Management Actions for Environmental Emergencies

ID #	Environmental Policies and Management Actions
EP-EE-01	Ch'iyáqtel will continue to be prepared for emergencies, including investment in infrastructure and equipment to improve response and emergency access.
MA-EE-01	In the next Land Use Plan Update, include the extension of Thomas Road from Promontory Road to Sumas Road to enhance emergency egress from the development at Promontory Mountain.
MA-EE-02	Continue to work with the City of Chilliwack to improve road safety on IR#13 (e.g., traffic studies), especially regarding the addition of crosswalks.
MA-EE-03	Continue to work to have a trailer designated for emergency support services.
MA-EE-04	Designate the community center as a gathering place during emergencies (e.g., cooling/warming center) and identify potential infrastructure upgrades to cope with extreme temperatures.
EP-EE-02	Ch'iyáqtel will continue to work with other local agencies, as well as those at the Provincial and Federal levels, to coordinate emergency preparation and response.
MA-EE-05	Continue to establish contacts at the provincial level and federal levels and other organizations for environmental emergency response, particularly flooding.
MA-EE-06	Continue to build relationships with neighboring local governments to better share resources during an emergency and to identify coping strategies for hazard events.
EP-EE-03	Ch'iyáqtel will inform its Members of potential environmental emergencies on reserve lands through outreach efforts
MA-EE-07	Provide educational materials related to the potential dangers and issues associated with the pipeline (e.g., notify people who live close to the pipeline of the concerns associated with the pipeline – smells, warning signs).
EP-EE-04	Land-use and development decision-making must consider the integration of climate change adaptation measures into key policies, plans, programs and services.
MA-EE-08	Include policies and strategies in Land Use Plans and other development related documents for mixed-use development and walkable streets to reduce carbon emissions and increased tree cover and low-impact development stormwater infrastructure to reduce the chances of flooding.





12.0 Drainage and Flooding

Drainage is the movement of water across the land. Storm water is collected and conveyed through natural waterways, ditches, detention ponds, or pipes. When water volumes exceed the capacity of natural or constructed systems, flooding occurs. Flooding problems in basements can be caused by groundwater seeping to the surface, as occurs on the northeastern section of our lands.



12.1 Key Environmental Management Factors

Servicing: Ch'iyáqtel is connected to the City of Chilliwack stormwater infrastructure and maintains a working relationship with the local government (i.e., City of Chilliwack).

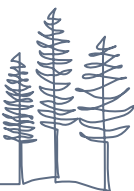
Lift Stations: Some lift stations are managed by Ch'iyáqtel and some are managed by the City of Chilliwack depending on development (e.g., residential developments with service agreement will be maintained by the city).

Collaboration with Indigenous Services Canada (ISC): Ch'iyáqtel has been working with ISC to improve drainage in Bailey-Matheson areas as these areas have been flooded over the years.

Water Retention Pond at the Sports Fields: Ongoing work to understand how the retention pond could better function to prevent flooding and standing water is being undertaken.

Emergency Response: Following the atmospheric river in November 2021, Ch'iyáqtel provided emergency response services to Members, including water removal, funding for repairs, and clean up services.

Collaboration with the City of Chilliwack: There is a sidewalk improvement project along Chilliwack River Road in collaboration with the City of Chilliwack that began in July 2022. This should improve stormwater flow in the area near the cemetery.





12.2 Concerns & Issues

An overview of concerns and issues related to drainage and flooding is provided in *Table 19*.

Table 19: Concerns and Issues Related to Drainage and Flooding

Concerns & Issues	Details
Flooding from groundwater	<ul style="list-style-type: none"> • Problems generally stem from groundwater, but can be compounded by storm runoff. • Groundwater seeping has resulted in basement flooding homes on Bailey Road. • Basement flooding can lead to health hazards for residents, such as mold, and can damage homes.
Flooding from rainfall events	<ul style="list-style-type: none"> • In November 2021, flooding occurred on Ch’iyáqtel Lands: <ul style="list-style-type: none"> ◦ Water collected on Bailey Road (this area may have historically been a swamp) near Chilliwack River Road. There is often flooding on Chilliwack River Road by the Long House to Raven’s Way. Water accumulates here regularly, but not to the degree that occurred during the atmospheric river. ◦ Flooding occurred along Chilliwack River Road, under the Hydro Lines, water collected by the cemetery (the road was closed for a week) and to the east, some flooding occurred east of the ball diamonds, from the landfill road down to Bailey Road. Flooding occurred at almost all of the homes along Bailey Road (about 6 properties). The water was close to Bailey Road but did not cross. ◦ The whole parking lot at the ball diamond was flooded and at the back of the ball diamonds, there was very deep water pooling. ◦ Culverts installed recently by the City of Chilliwack, were not sufficient during the flooding. The sandbags around homes were about 2 or 3 high. ◦ Some residents did not have adequate home insurance for flooding including repairs and which increased reliance on Ch’iyáqtel First Nation.
Damage from New Development	<ul style="list-style-type: none"> • If new development is not executed in a responsible manner with consideration for flood and climate change risks, infrastructure may be severely damaged or lost. Existing infrastructure may not have been built to design levels relevant to current climate change projections and associated impacts.
Climate Change	<ul style="list-style-type: none"> • The Lower Mainland is expected to have warmer temperatures, increased drought periods in the summer, wetter falls and winters with more extreme rain events, decreased snowpack, and sea level rise (Metro Vancouver, 2016). These changes are likely to further increase risks of flooding.



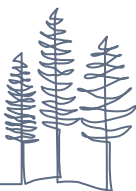
Concerns & Issues	Details
Flooding from surrounding land uses to Ch'iyáqtel Lands	<ul style="list-style-type: none"> Some flooding is due to development on Promontory Mountain that backs up in a channel along the southeast boundary of the reserve and can flood in high precipitation events, such as during the November 2021 floods.
Function of pump stations	<ul style="list-style-type: none"> Capacity at the pump station at Matheson Road is regularly exceeded by groundwater and other sources of water.
Function of the retention pond at the sports fields	<ul style="list-style-type: none"> The retention pond is not functioning adequately and flooding and pooling water remain a concern.

12.3 Legislation & Regulations

An overview of applicable federal mandatory legislative requirements relevant to drainage and flooding is provided in *Table 20*. Legislation and regulations described throughout the other Environmental Management Priority Area sections can also be considered relevant as they aim to prevent adverse impacts on the biophysical environment.

Table 20: Applicable Legislation and Regulations Relevant to Drainage and Flooding

Jurisdiction	Legislation and Regulations
Federal	<p><u><i>Emergency Management Act</i></u> dictates responsibilities for managing emergencies from the federal perspective.</p> <p><u><i>Canada Water Act</i></u> enables a framework for collaboration among federal, provincial and territorial governments in matters relating to water resources. It has not been modernized since it was passed in 1970 and does not consider the effects of climate change in its current form.</p> <p><u><i>Canadian Environmental Protection Act</i></u> imposes requirements for pollution prevention planning and emergency plans.</p> <p>The <u><i>Environmental Emergency Regulations</i></u> are aimed at improving industry's capacity to deal with environmental emergencies that may occur at facilities. They require those who own, or have charge, management or control of listed substances to submit an environmental emergency plan to Environment Canada. They also establish reporting requirements in the event of spills.</p> <p><u><i>Impact Assessment Act</i></u> requires considerations for Canada's obligations and commitments with respect to climate change, and assessments must generally consider how climate change may impact a proposed project.</p>



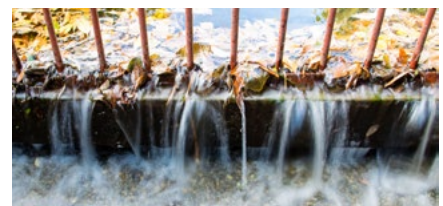


12.4 Environmental Policies and Management Actions

Policies and management actions in *Table 21* have been identified to address existing issues and concerns and guide environmental management to support community needs and aspirations.

Table 21: Environmental Policies and Management Actions for Drainage and Flooding

ID #	Environmental Policies and Management Actions
EP-DF-01	Ch'iyáqtel will encourage Members to obtain flood insurance through education about insurance programs.
MA-DF-01	Provide information about insurance for flooding to Members, especially for those whose homes are at high risk for flooding.
EP-DF-02	New and replacement infrastructure should reduce the risk of flooding on our lands.
MA-DF-02	Continue to work with the City of Chilliwack to improve drainage and road infrastructure.
MA-DF-03	Incentivize and/or implement policy for low impact development to manage stormwater runoff through green infrastructure.
EP-DF-03	Avoid developing in areas subject to groundwater upwelling without designing or engineering the project in a manner that mitigates damage from basement flooding
MA-DF-04	Continue to identify and map areas at risk for flooding, prioritize drainage solutions in those areas, and discourage development in these areas.





13.0 Air Quality

Air quality is a measure of the state of the air around us and describes the concentration of air pollutants or particles. Some pollutants are found in higher concentrations than others within the air, and each pollutant has a different concentration which would be considered harmful (Law Insider, 2013-2022).

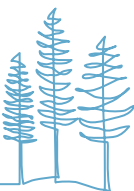
13.1 Key Environmental Management Factors

Air Quality: The air quality for Ch'iyáqtel Lands is usually stable throughout the year, the exception being during the wildfire season when the quality declines. The Lower Fraser Valley Air shed (LFVA), in which Ch'iyáqtel Lands are located, is confined because air becomes trapped in the valley due to the surrounding mountains and makes the area subject to inversions. As a result, the air shed is susceptible to the build-up of contaminants (IQAir, 2022).

Air Quality Index (AQHI): The Air Quality Health Index (AQHI), is a standardized measurement designed to report air-borne pollutants health risks. Metro Vancouver also prepares annual reports as well as a Lower Fraser Valley Air Emissions Inventory every five years (City of Chilliwack, 2022).

Air quality monitoring: Air quality and emissions in the Fraser Valley Regional District (FVRD) are regulated by the provincial government under the *Environmental Management Act*. More information is found through the *FVRD Air Quality and Climate website*. Air quality in Chilliwack is also monitored on an on-going basis by [Metro Vancouver](#) (City of Chilliwack, 2022).

Electric Vehicles: Half of the Fraser Valley Regional District's general fleet vehicles are fully electric. The FVRD also hosts Level 3 (i.e., "fast chargers") and Level 2 electric vehicle chargers within the region (Fraser Valley Regional District, 2021).



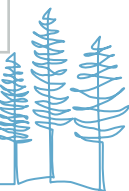


13.2 Concerns & Issues

An overview of concerns and issues related to air quality is provided in *Table 22*.

Table 22: Concerns and Issues Related to Air Quality

Concerns & Issues	Details
Urban expansion	<ul style="list-style-type: none"> The City of Chilliwack is becoming more populated resulting in increased traffic and development impacting air quality for Ch'iyáqtel Lands.
Human Health and Safety Issues	<ul style="list-style-type: none"> Human health and safety issues may occur as poor air quality increases risks for cancer, respiratory, heart and other health problems and damage the immune, endocrine and reproductive systems.
Harm to Wildlife, Fish and Plants	<ul style="list-style-type: none"> Air pollutants that are released into the atmosphere may adversely impact plants, fish, and wildlife directly, as well as through degraded food and water sources.
Vehicle traffic	<ul style="list-style-type: none"> Impacts to air quality from vehicular sources of emissions.
Industrial and agricultural emissions	<ul style="list-style-type: none"> Increased greenhouse gases and other atmospheric pollutants contribute to climate change and reduce air quality, impacting human health.
Weather conditions	<ul style="list-style-type: none"> As the wind from the west carries pollutants up the valley, they may become trapped (IQAir, 2022).
Wildfire smoke	<ul style="list-style-type: none"> During certain times of the year, the main pollutant is smoke from wildfires which can drift hundreds of miles from its source. Forest fire smoke is a complex and dynamic mixture of gases and very small particles that can irritate the respiratory system and cause systemic inflammation (IQAir, 2022). Researchers have determined that the smoke released into the air during forest fires can be up to 10 times more toxic to human health than that from urban traffic (IQAir, 2022).



13.3 Legislation & Regulations

An overview of applicable federal mandatory legislative requirements relevant to air quality is provided in *Table 23*. Legislation and regulations described throughout the other Environmental Management Priority Area sections can also be considered relevant as they aim to prevent adverse impacts on the biophysical environment.

Table 23: Applicable Legislation and Regulations Relevant to Air Quality

Jurisdiction	Legislation and Regulations
Federal	<i>Motor Vehicle Safety Act</i> regulates maximum exterior sound levels for vehicles, and interior sound levels for certain large trucks and buses.
	<i>Canadian Environmental Protection Act</i> includes regulations on the release of various pollutants into the environment.
	<i>Impact Assessment Act</i> requires considerations for adverse environmental impacts associated with air quality prior to applicable land development activities.

13.4 Environmental Policies and Management Actions

Policies and management actions in *Table 24* have been identified to address existing issues and concerns and guide environmental management to support community needs and aspirations.

Table 24: Environmental Policies and Management Actions for Air Quality

ID #	Environmental Policies and Management Actions
EP-AQ-01	Ch'iyáqtel will pursue measures to reduce greenhouse gas emissions and air pollution. This may be accomplished through new and existing plans, as well as energy efficiency, working with neighboring jurisdictions, and education.
MA-AQ-01	Incorporate land development policies in law as documents that shape land use, such as the Land Use Plan and Zoning Law, that encourages development with a smaller climate change impact, as well as infrastructure to encourage non-automobile travel
MA-AQ-02	Develop an Air Quality and GHG Management Plan.
MA-AQ-03	Pursue opportunities for, and continue to build relationships for regional partnerships (e.g., City of Chilliwack, Fraser Basin Council, FVRD, etc.) to work collaboratively in supporting overall and specific regional air quality (e.g., anti-idling campaign).
MA-AQ-04	Apply for programs that provide support for transitioning toward energy efficient infrastructure (e.g., First Nations Home EnergySave) (Fraser Basin Council, 2022).
MA-AQ-05	Increase Member knowledge and awareness of air quality through education and outreach. The Fraser Valley Regional District has developed an education program which offer lesson plans for grades 6-12 (Fraser Valley Regional District, 2022).



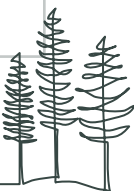


14.0 Implementation

The following implementation table lists the Management Actions identified earlier in the EMP. A time frame for addressing these actions has been included in the table for each Management Action. “Ongoing” indicates that an action has been started, but is a continuing activity. The other time frames (e.g., 1-2 Years) indicate when the actions are most likely to commence. The final three columns (Not Started, In Progress, and Complete) have been included so that after five years, when assessing the need for an EMP update, reviewers can easily assess the progress on the suggested actions of this EMP.

14.1 Schedule

ID #	Management Actions	Lead	Support	Ongoing	1-2 Years	2-5 Years	5+ Years	Not Started	In Progress	Complete
LAND USE MANAGEMENT										
MA-LM-01	Consider opportunities to amend current laws and the Land Use Plan, to incorporate management actions from this EMP.	Lands Public Works C&C	Legal							
MA-LM-02	Undertake outreach and education regarding policies to increase buy-in and to solicit input from Ch’iyáqtel Members and/or community members.	Lands Public Works								
MA-LM-03	Utilize the Housing Policy to understand and to plan for future housing needs and economic development opportunities (e.g., Member and non-Member housing) on Ch’iyáqtel Lands.	Housing								



ID #	Management Actions	Lead	Support	Ongoing	1-2 Years	2-5 Years	5+ Years	Not Started	In Progress	Complete
MA-LM-04	Continue to undertake asset management planning to optimize the value of Ch'iyáqtel's physical assets (e.g., extend asset life, optimize renewal and maintenance, develop funding strategies, and sustain long term performance). This may create opportunities to plan for replacement of obsolete infrastructure with more energy efficient equipment or low impact stormwater facilities.	Lands Public Works								
MA-LM-05	Review development applications to identify opportunities to incorporate Low Impact Design (LID), green infrastructure, and tree canopy targets	Public Works	Finance							
MA-LM-06	Develop policy or law for retaining and/or planting trees during development.	Lands C&C								
MA-LM-07	Develop a Best Management Practices (BMP) document for developers to support the implementation of this EMP, by aligning development activities with the policies in this EMP.	Lands								
MA-LM-08	Develop a standard lease agreement template that may include provisions for lease bonds, if necessary, to mitigate for potential environment risks from leasehold activities.	Lands	Legal							
MA-LM-09	Continue to require that project applicants submit reports demonstrating that project effects on waterways have been mitigated.	Lands								
MA-LM-10	Require new development proposals to demonstrate that projects will be above the floodplain and not exacerbate stormwater conditions that would harm existing buildings.									
MA-LM-11	Continue to require project applicants to apply for development permits and provide required securities and bonds.	Lands								



ID #	Management Actions	Lead	Support	Ongoing	1-2 Years	2-5 Years	5+ Years	Not Started	In Progress	Complete
MA-LM-12	Continue to enforce the General Terms of Reference.	Lands								
MA-LM-13	Modify development application documentation to reflect the above requirements.	Lands								

ID #	Management Actions	Lead	Support	Ongoing	1-2 Years	2-5 Years	5+ Years	Not Started	In Progress	Complete
WASTE MANAGEMENT										
MA-WM-01	Develop a waste management strategy that includes a waste audit process as well as a management strategy for litter, illegal dumping, vermin, and how to support households who may require help complying with bylaws.	Public Works								
MA-WM-02	Harmonize the Ch'iyáqtel waste management processes for curbside waste collection with the City of Chilliwack so that the City of Chilliwack can effectively support curbside waste collection on Ch'iyáqtel Lands.	Public Works								
MA-WM-03	Develop waste management standards for lease agreements, to be administered through the Lands Department.	Public Works	Legal Lands							
MA-WM-04	Continue to engage with the City of Chilliwack regarding the Bailey Sanitary Landfill closure plan.	Public Works								
MA-WM-05	Work with the City of Chilliwack to install a buffer to stop debris coming from the Bailey Sanitary Landfill onto Ch'iyáqtel Lands.	Public Works	C&C							



ID #	Management Actions	Lead	Support	Ongoing	1-2 Years	2-5 Years	5+ Years	Not Started	In Progress	Complete
MA-WM-06	Continue to identify and address sources of rodent habitat (e.g., vegetation abandoned cars, etc.). Mitigate for rodents during development projects as many rodents move when their habitat is altered.	Public Works								
MA-WM-07	Provide education about rodents as a public health issue during spring and fall clean-ups.	Public Works								
MA-WM-08	Identify and implement opportunities to include youth in recycling program awareness.	Public Works								
MA-WM-09	Continue to create videos for education, outreach, and awareness initiatives in the community, regarding waste diversion and reduced waste generation.	Public Works								
MA-WM-10	Build on the FVRD waste management information related to formalize information to be distributed to Members via education, outreach, and awareness initiatives.	Public Works								

ID #	Management Actions	Lead	Support	Ongoing	1-2 Years	2-5 Years	5+ Years	Not Started	In Progress	Complete
CONTAMINATION										
MA-CN-01	Monitor the successful implementation of the new Soil Deposit, Removal and Transport Law.	Lands	Legal							
MA-CN-02	Develop a soil screening process for incoming soils to Ch'iyáqtel Lands.	Lands								
MA-CN-03	Update the engineering requirements for all new development to include a requirement for oil/grit separators. Consider retrofitting existing infrastructure; this may require working with the City of Chilliwack.	Lands								



ID #	Management Actions	Lead	Support	Ongoing	1-2 Years	2-5 Years	5+ Years	Not Started	In Progress	Complete
MA-CN-04	Identify which residences are currently on septic and decommission the septic systems and transition to sewer.	Public Works	Lands							
MA-CN-05	Determine next steps for addressing the AECs and AEPCs as identified in Phase I and II ESAs.	Lands								
MA-CN-06	Formalize the existing requirement for ESAs prior to developing (e.g., revise the Development Permit Application to include the requirement for an ESA for development)	Lands	Legal							
MA-CN-07	Create educational material regarding contamination prevention and distribute to Members.	Lands								
MA-CN-08	Enforce registration of all leases with the Lands Department.	Lands								

ID #	Management Actions	Lead	Support	Ongoing	1-2 Years	2-5 Years	5+ Years	Not Started	In Progress	Complete
VEGETATION, WILDLIFE, AND AQUATIC SPECIES										
MA-VW-01	Integrate the requirement to preserve native, traditionally-used plants and encourage their use in restoration projects and new developments into site development plans as part of the development approval process.	Lands								
MA-VW-02	Consider green building technology in terms of incorporating green space into new development to increase habitat and habitat connectivity, whenever possible (potentially roof top gardens).	Lands								



ID #	Management Actions	Lead	Support	Ongoing	1-2 Years	2-5 Years	5+ Years	Not Started	In Progress	Complete
MA-VW-03	Incorporate invasive plant management into public works operations and maintenance plans. Consider outreach to Members to educate them on ways to prevent the spread of such species. Consider engaging the Fraser Valley Invasive Species Society.	Public Works								
MA-VW-04	Identify an appropriate buffer zone for the preservation and protection of the trees around the longhouse, where development is not allowed and trees may not be removed, unless deemed appropriate by public works (e.g., if a tree is diseased, unsafe, etc.).	Lands								
MA-VW-05	Develop and implement initiatives that support the health of bees.	Public Works								
MA-VW-06	Develop an Invasive Wildlife Management Strategy/Plan that includes strategies for the identification and removal of attractants for rats.	Public Works								
MA-VW-07	Continue affiliation with Lower Fraser Fisheries Alliance.	Chief and Council								
MA-VW-08	Develop a MOU with the City of Chilliwack to formalize relationships, acknowledge the referrals process and support coordinated, regional aquatic species and habitat restoration.	Chief and Council to work with the Tribe	Lands							
MA-VW-09	Identify funding and/or partnership opportunities to enhance or restore fish habitat. There may be opportunities through: <ul style="list-style-type: none"> • Rain Coast Conservation Foundation; • Pacific Salmon Foundation; • Watershed Watch Salmon Society; • Natural Resources Canada • World Wildlife Fund; and Ducks Unlimited. 	Lands/Public Works								



ID #	Management Actions	Lead	Support	Ongoing	1-2 Years	2-5 Years	5+ Years	Not Started	In Progress	Complete
MA-VW-10	Install signage and provide education to Members about stewarding creeks and riparian areas.	Public Works	Lands							
MA-VW-11	Implement standard environmental BMPs for the lifespan of all ongoing and future development projects to support protection of waterways, vegetation, wildlife and Species At Risk.	Lands								

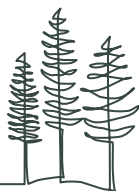
ID #	Management Actions	Lead	Support	Ongoing	1-2 Years	2-5 Years	5+ Years	Not Started	In Progress	Complete
CULTURAL HERITAGE										
MA-CH-01	Provide education about the archaeological permitting process to Members to let them know about the procedural safeguards against damage to archaeological/cultural sites.	Lands								
MA-CH-02	Collaborate with Elders to complete a traditional land and resource use study for Ch'iyáqtel Lands to identify culturally sensitive areas in the community. Integrate this information in future land use planning and permitting activities.	Lands								
MA-CH-03	Identify and provide opportunities for Elders and youth to connect to support the transmission of cultural and traditional knowledge including to learn and develop their skills in terms of plant medicine and traditional uses for native plant species.	Programs								
MA-CH-04	Create an interim Youth Environmental and Cultural Coordinator Position(s) to provide mentorship opportunities for Ch'iyáqtel Members.	General Manager	C&C							
MA-CH-05	Restart the Youth Group.	C&C								



ID #	Management Actions	Lead	Support	Ongoing	1-2 Years	2-5 Years	5+ Years	Not Started	In Progress	Complete
MA-CH-06	Develop policy and/or processes to plant and/or increase the presence of native plant species on Ch'iyáqtel Lands (e.g., provide training to community garden personnel and/or public works).	Public Works								
MA-CH-07	Explore opportunities to identify culturally and/or archaeologically important sites and/or areas and their significance with interpretive signagWe, as appropriate and as determined through engagement with community members including Elders. Work with developers of CP lands to install interpretive signage during development, probably as a voluntary act.	Lands								
MA-CH-08	Create a list of key features and areas within Ch'iyáqtel Lands to be renamed in the "Upriver dialect" of Halq'eméylem. Utilize the list to commence with formal name changes within Ch'iyáqtel documents, signs, maps, etc.	Lands								
MA-CH-09	Continue to protect our cultural heritage through requiring Archaeological Impact Assessments and adherence to the Stó:lō Heritage Policy Manual.	Lands								



ID #	Management Actions	Lead	Support	Ongoing	1-2 Years	2-5 Years	5+ Years	Not Started	In Progress	Complete
ENVIRONMENTAL EMERGENCIES										
MA-EE-01	In the next Land Use Plan Update, include the extension of Thomas Road from Promontory Road to Sumas Road to enhance emergency egress from the development at Promontory Mountain.	Lands								
MA-EE-02	Provide educational materials related to the potential dangers and issues associated with the pipeline (e.g., notify people who live close to the pipeline of the concerns associated with the pipeline – smells, warning signs).	Lands								
MA-EE-03	Designate the community center as a gathering place during emergencies (e.g., cooling/warming center) and identify potential infrastructure upgrades to cope with extreme temperatures.	Lands	Public Works							
MA-EE-04	Continue to build relationships with neighboring local governments to better share resources during an emergency and to identify coping strategies for hazard events.	Chief and Council								
MA-EE-05	Continue to establish contacts at the provincial level and federal levels and other organizations for environmental emergency response, particularly flooding.	Chief and Council	Lands							
MA-EE-06	Continue to maintain trailer that is designated for emergency support services (check annually).	Lands								
MA-EE-07	Continue to work with the City of Chilliwack to improve road safety on Ch'iyáqtel Lands (e.g., traffic studies), especially regarding the addition of crosswalks.	Lands								



ID #	Management Actions	Lead	Support	Ongoing	1-2 Years	2-5 Years	5+ Years	Not Started	In Progress	Complete
DRAINAGE AND FLOODING										
MA-DF-01	Provide information about insurance for flooding to Members, especially for those whose homes are at high risk for flooding.	Lands								
MA-DF-02	Continue to work with the City of Chilliwack to improve drainage and road infrastructure.	Public Works	Finance Lands							
MA-DF-03	Incentivize and/or implement policy for low impact development to manage stormwater runoff through green infrastructure.	Lands								
MA-DF-04	Continue to identify and map areas at risk for flooding, prioritize drainage solutions, and discourage development in these areas.	Lands/Chief and Council								

ID #	Management Actions	Lead	Support	Ongoing	1-2 Years	2-5 Years	5+ Years	Not Started	In Progress	Complete
AIR QUALITY										
MA-AQ-01	Incorporate land development policies in law as documents that shape land use, such as the Land Use Plan and Zoning Law, that encourages development with a smaller climate change impact, as well as infrastructure to encourage non-automobile travel	Chief and Council	Lands							
MA-AQ-02	Develop an Air Quality and GHG Management Plan.	Lands								
MA-AQ-03	Pursue opportunities for, and continue to build relationships for regional partnerships (e.g., Fraser Basin Council, FVRD, etc.) to work collaboratively in supporting overall and specific regional air quality.	C&C								



ID #	Management Actions	Lead	Support	Ongoing	1-2 Years	2-5 Years	5+ Years	Not Started	In Progress	Complete
MA-AQ-04	Apply for programs that provide support for transitioning toward energy efficient infrastructure (e.g., First Nations Home EnergySave) (Fraser Basin Council, 2022).	Public Works								
MA-AQ-05	Increase Member knowledge and awareness of air quality through education and outreach. The Fraser Valley Regional District has developed an education program which offer lesson plans for grades 6-12 (Fraser Valley Regional District, 2022).	Lands								



14.2 Document Control

Document control is a means of keeping track of documents, procedures, and processes to ensure that the correct and most up-to-date versions are accessible to everyone. Document control is important given that environmental legislation, best management practices, procedures, and roles and responsibilities can change over time and the EMP must be updated and amended accordingly. The following document control measures will be implemented for this EMP:

- Include a date and version number on all documents;
- Review all documents on a pre-determined schedule;
- Revise documents as required;
- Obtain appropriate approvals and sign-offs on all revised documents prior to issuing or re-issuing;
- Remove and appropriately destroy/recycle all out-dated documents;
- Maintain an electronic master copy at the Tzeachten Lands Department; and
- Store all EMP records in hard copy and electronic format for a minimum of 5 years.

14.3 Amendments and Reviews

14.3.1 Amendments

The Lands Department is responsible for ensuring that the EMP and related documents are reviewed, updated, and maintained, as needed. To meet this commitment, the department should complete periodic amendments to the EMP – as required based on changes in legislation, standards, and/or best practices – and lead a full review at least once every 5 years (or sooner, if and as required).

Amendment of the EMP may be required as changes are made to legislation or standard practices, or based on changing community context. This may be done at any time, but will require the following steps for approval:

1. Proposed change and supporting reasons should be discussed with the Lands Manager followed up with a request in writing. The lands Manager may also identify needed changes.
2. The Lands Manager will review the suggested amendment(s), make a decision on whether the changes are minor or significant, and then seek approval as follows:
 - a. Significant changes (e.g., changes in environmental management priorities, development of new actions/strategies, changes to policies, etc.) – Will require Chief and Council review and approval.
 - b. Minor changes (e.g., legislative updates) – Generally only require approval by the Lands Manager; however, TLMAC review and approval may be required in some cases depending on the nature of the changes, at the discretion of the Manager.
3. Pages are revised accordingly by the Lands Department and document control table(s) are modified to show the amendments.
4. Amendments are communicated to Ch'iyáqtel leadership, staff, community members, and/or others, as appropriate.



14.3.2 Full Review

At least once every 5 years (earlier if necessary), the Lands Manager will lead a full review of the EMP and its related documents. An EMP Review Team – consisting of Members of staff, the TLMAC, and/or leadership– will be established to champion the review.

Key aspects of the review will include, but will not necessarily be limited to, the following:

1. Review and update the community context (e.g., ongoing or emerging issues, changes in features present, etc.) throughout the EMP, as required.
2. Review and update the environmental management priorities based on emerging issues or community needs, as required.
3. Review applicable legislation and indicate any changes that are needed, as they relate to the EMP.
4. Complete a performance summary for actions for the management actions contained in the EMP to determine implementation progress and identify any outstanding actions. Determine if outstanding actions are still relevant and needed.
5. An update on the effectiveness and suitability of the EMP and the related environmental policies in relation to changing information and/or conditions.
6. A summary of environmental incidents, including non-compliance, to determine if and how these incidents can be mitigated through EMP amendments (e.g., additional strategies/action items).
7. A review of EMP-related budgets (e.g., training, enforcement) and adequacy and associated challenges that should be addressed.

The Lands Manager will provide Chief and Council with a summary of findings and recommended updates/ revisions needed for the document for review and approval.

14.4 Policy & Law Development

Policy and law development is required for effective environmental management and protection, and associated liability risk management for Ch'iyáqtel Lands. Given the regulatory gap that exists on reserve lands the development and implementation of environmental policies and laws can be used to operationalize components of the EMP and address environmental management concerns raised throughout the EMP development process. Because of the legally binding nature and enforceability of laws, they are generally used over policy when the potential risks are greater and enforceability is required to manage risks.

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

- Policies and laws should be made publicly available to everyone expected to follow them;
- Community education surrounding any policies and laws, including the rationale behind them, should be provided to encourage compliance;
- Similar to federal and provincial laws, application of a “polluter pays” principle to any laws related to environmental management is important to reduce liability of Ch'iyáqtel for the actions of individuals, and to strengthen existing Ch'iyáqtel policies related to environmental protection; and
- Consistent compliance measures (education, warnings, checking, compliance orders) and enforcement measures (e.g., ticketing, fines, penalties, enforcement orders, conviction, and/or prosecution) are generally needed to make laws and associated regulations effective.



14.5 Data Management & Tracking

Effective data management and tracking is important for environmental management for several reasons: it enables existing environmental features and issues to be properly documented and accessed by all Ch'iyáqtel departments and staff, which is important given that efforts to address and/or avoid issues often require collaboration among staff and departments; and it enables the progress of any efforts to address ongoing issues to be properly tracked to inform future actions.

Best practices for effective document and data management include:

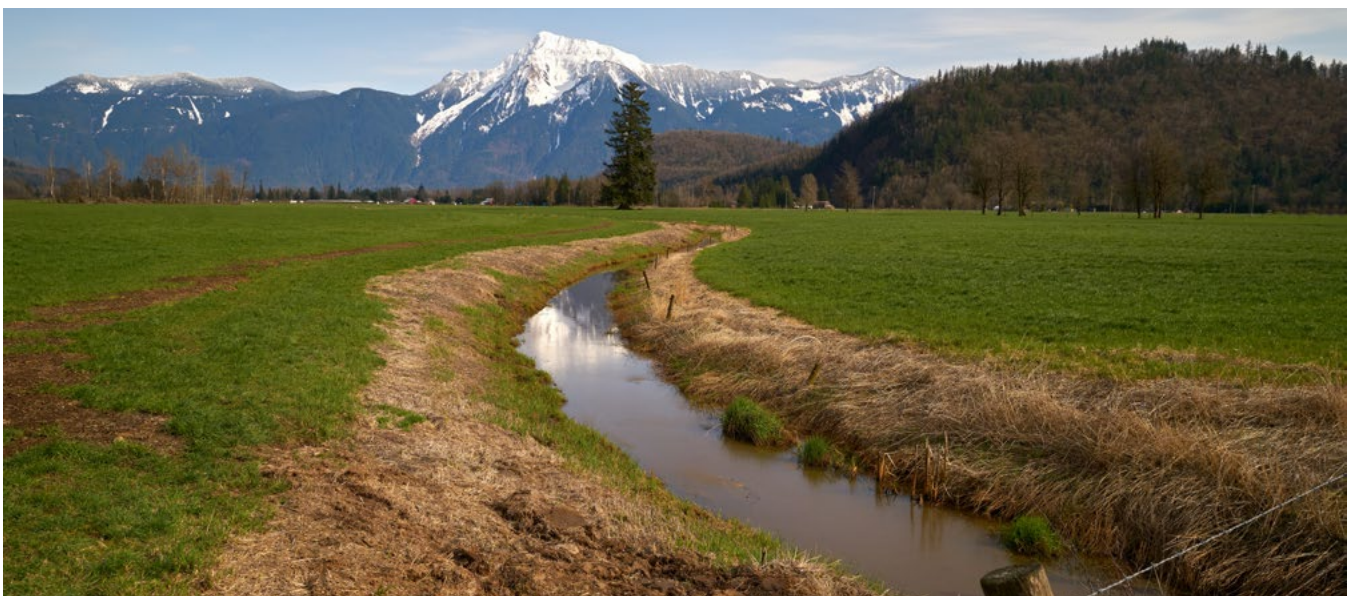
Central hub – The use of a central hub is important because when each department stores its own files in their own ways, it can get confusing and things can get lost.

Naming conventions – The use of consistent naming conventions is important to avoid duplication and/or confusion and to support easy searching and access. Documentation and naming guidelines should be established so that staff members are not creating and naming their own files independently. Putting the effort into developing a naming and organization system upfront will prevent future headaches!

Log changes to documents – Any modifications or changes to master documents or data should be logged to avoid confusion and prevent outdated documents or data from being used incorrectly.

Access and permission – Given that some information may be confidential or sensitive in nature, access considerations are important in terms of determining who can or should have access to specific documents and data, and who should not. Create and maintain a list that documents current access privileges and changes in access.

Assign responsibilities – Ensure anyone who has access understands what their responsibilities are in terms of document naming and management. Provide guidelines meant to support effective management before providing access.





14.6 Education & Awareness

Engaging Ch’iyáqtel Members and all residents of Ch’iyáqtel Lands is critical to the success of this EMP. In order to achieve the goals identified in the EMP, the community needs to be engaged and play an active role in environmental management. Education, training and outreach programs can contribute to positive change in attitudes and behaviours. These may include, but are not limited to:

- Collaborating with various external agencies (governmental and non-governmental) to develop environmental awareness and protection programs;
- Providing Members and non-Member residents with information on the EMP and environmental features and ecosystem values in or adjacent to Ch’iyáqtel Lands and associated threats through:
 - Posting information on community Facebook pages and in community newsletters (e.g., Environment 101 section in community newsletters);
 - Community workshops;
 - Informative signage in the community;
 - Circulating informational pamphlets;
- Raising awareness to empower all residents to identify and report environmental incidents (e.g., “Community Environmental Watch”); and
- Training for Ch’iyáqtel Members to work as environmental and construction monitors, field assistants, etc.

On-going education and opportunities to engage in stewardship activities will build understanding and support for the EMP and help instill community pride accountability for the success of environmental management. This, in turn, helps to manage existing issues and prevent future ones. Engaged individuals can act as additional eyes and ears of the community and are more likely to identify and report issues and infractions. Management actions for education and outreach related to each environmental management priority have been identified in the Environmental Management Actions sections of each environmental priority.



14.7 Capacity Building & Training

Capacity building and training for Ch'iyáqtel staff may be required for effective environmental management and the implementation of the EMP and associated policies, laws, and procedures. In addition, Ch'iyáqtel employment opportunities for environmental management, monitoring, and inspection may become available as Ch'iyáqtel begins to implement the EMP. To maximize these potential opportunities, Ch'iyáqtel will take the following actions to build environmental capacity:

- Allocate specific funds for training;
- Identify suitable candidates to take part in environmental training programs;
- Maintain a database of trained personnel; and
- Create short-term and long-term positions in environmental management, as needed.

14.8 External Supports

Ch'iyáqtel will likely require the support of external expertise (e.g., skilled contractors, biologists, engineers, technicians, project managers, etc.) to manage existing and potential environmental issues given the potential range of expertise that may be required. Ch'iyáqtel should develop and maintain a roster of environmental professionals that can be called upon to provide technical expertise as needed. Ch'iyáqtel should also strive to identify job shadowing and capacity building opportunities for community members where external expertise is required (e.g., job shadowing by youth for environmental field work including wildlife surveys, water quality monitoring, etc.)



Appendix A

The EMP Development Process



The EMP Development Process

A collaborative approach involving Ch'iyáqtel Members, TLMAC, TAC, Staff and technical consultant (Dillon Consulting Limited) was used to identify environmental management priorities that form the basis of this EMP. This approach was undertaken to ensure that the management actions and policies contained in this EMP are in line with the needs, vision and priorities of Ch'iyáqtel. *Table A-1* provides a high-level overview of the key activities completed throughout the EMP development process.

Table A-1: The EMP Development Process

Key Activities	
Project Initiation Meeting	The Project Initiation Meeting was held in October 2021 with Members, staff and the technical consultant. The key objectives of the meeting were as follows: <ul style="list-style-type: none"> • Review and discuss the project proposal; • Confirm and collect relevant background documents; • Discuss project scheduling; and • Discuss environmental concerns and priorities.
Background Research and Review	Existing community plans and studies were reviewed to help build an understanding of potential environmental issues and environmental management priorities for Ch'iyáqtel Lands.
Interviews and Lands Tour	Interviews with Elders, leaders, Members, and staff were completed through late 2021 and Spring 2022. A lands tour was conducted in December 2021 to learn more about how Ch'iyáqtel Lands has been used and managed in the past, how it is used and managed today, and what we should consider for the future.
Environmental Management Survey	In March 2022, a community survey was conducted to understand concerns and environmental priorities on Ch'iyáqtel Lands.
Engagement with TLMAC and TAC	In December 2021, TLMAC and the technical consultant met to discuss the planning process, environmental concerns and issues and priority areas for environmental management. The key objectives of workshop were to: <ul style="list-style-type: none"> • Discuss and confirm existing environmental issues on Ch'iyáqtel Lands, and environmental management priorities to guide the development of the EMP; • Begin early discussion about potential action items and policies for each environmental management priority; and • Develop and understanding of roles and responsibilities for the EMP in terms of implementation, maintenance and reporting.
Validation and Reporting Back	Reporting back to the community was undertaken using newsletters throughout the development of the EMP to validate the that the information collected was captured and applied appropriately in the EMP and to inform community members about the EMP and ongoing community engagement for the EMP.



Key Activities

Regular Meetings	<p>Throughout the development of the EMP, regular weekly meetings occurred between the members of the Lands Department and TLMAC to provide regular updates on the EMP development process and to incorporate the perspectives and interests of Ch’iyáqtel into the project design, planning and implementation. A key objective of the meetings was to solicit input and seek guidance on the development of the EMP.</p>
Strategic Planning Sessions	<p>Intensive working sessions were undertaken with TLMAC and the technical consultant in Summer 2022 to identify management actions and policies for the environmental management priorities and strategies and to validate the information collected through background research and review, community engagement, interviews, the site visit, and meetings.</p>
Draft Plan and Review with TLMAC	<p>The Draft EMP was developed in September 2022 based on all of the inputs received through the activities referenced above and the Draft EMP was reviewed with TLMAC.</p>
Present the Draft EMP to the Community	<p>The Draft EMP was delivered to Ch’iyáqtel First Nation in December 2022 for their review and comment.</p>
Final EMP	<p>The Draft EMP was revised to develop the Final EMP based on all input received from staff, leadership, TLMAC, Members, and the community.</p>



Appendix B

Reference Legislation and Regulations



Reference Legislation and Regulations

Many First Nation communities operating under Land Code have enacted laws and/or bylaws to regulate land development. An overview of reference First Nation, provincial, and other local government legislation and regulations is provided in *Table B-1: Reference Legislation and Regulations*. Other than one provision of the Water Sustainability Act mentioned in Section 6.3.1, provincial laws do not apply on reserve lands. The reference legislation and regulations have been included to serve as models for future Ch'iyáqtel laws.

Table B-1: Reference Legislation and Regulations

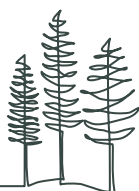
Jurisdiction	Legislation and Regulations
Aitchelitz First Nation	<p><u><i>Zoning Law (2017)</i></u> regulates healthy, sustainable and compatible land use and development on Aitchelitz Lands in accordance with the Land Code and the Land Use Plan.</p> <p><u><i>Enforcement and Ticketing Law (2015)</i></u> includes provisions for ticketing and enforcement including offenses related to illegal land alteration (e.g., illegal development, deposit or removal of significant soil, gravel or other materials, etc.).</p> <p><u><i>Subdivision, Development and Servicing Law (2015)</i></u> outlines principles and factors to consider when reviewing development applications, including with respect to environmentally sensitive species and areas and development distances from these.</p>
Sema:th First Nation	<p><u><i>Flood Protection Law</i></u> aims to facilitate development of reserve lands in a manner that takes measures to protect against loss of life and to minimize property damage, injury, and trauma associated with flooding events.</p>
Skawahlook First Nation	<p><u><i>Land Use and Zoning Law (2017)</i></u> establishes a process for developing a land use plan; regulates land uses in line with the land use plan through the establishment of an authorization process; establishes land use zones and associated objectives, permitted uses, and prohibited uses; and identifies a list of generally prohibited activities.</p>
Seabird Island Indian Band	<p><u><i>Development Law (2015)</i></u> requires authorization for subdivision, development and servicing on reserve land and established a process for this. Includes a requirement to adhere to the <u><i>General Requirements for Environmental Assessments on Seabird Islands Lands</i></u>.</p>
Skowkale First Nation	<p><u><i>Community Quality Law (2016)</i></u> prohibits illegal dumping, littering, storage of waste and unsightly derelict materials, and includes provisions for enforcement officers and penalties.</p> <p><u><i>Environmental Protection Law (2017)</i></u> prohibits discharges of waste (including from recreational vehicles and boats) without a permit; prohibits unsightly lands; prohibits environmental contamination; and outlines contaminated site remediation requirements for both owned and orphaned sites. The law also establishes powers in relation to managing the environment.</p> <p><u><i>Business Permit Law (2016)</i></u> regulates businesses on Skowkale lands by defining prohibited businesses and activities and establishing a permitting process.</p>
Skawahlook First Nation	<p><u><i>Land Use and Zoning Law (2017)</i></u> provides provisions for uses generally prohibited in all zones including illegal dumping, storage of fuel and flammable liquids, and waste and/or hazardous waste facilities.</p>



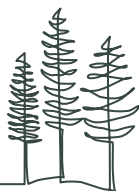
Jurisdiction	Legislation and Regulations
Skawahlook First Nation	<p><u>Outdoor Fires Law (2018)</u> requires a permit for ceremonial fires.</p> <p><u>Environmental Management Law (2017)</u> allows for:</p> <ul style="list-style-type: none"> • Prohibition of improper storage and disposal of wastes, industrial wastes, and litter, and unsightly lands; • The development and implementation of Environmental Operating Procedures; • The prohibition of the discharge of contaminants; • Control of handling, storage and transportation of fuel and environmental contaminants; • The issuing of Environmental Permits for the handling, treatment, transportation, storage and introduction of contaminants into the environment; and • Enforcement of the Law.
Shxw'ōwhámél First Nation	<p><u>Cultural Law (2018)</u> provides for the respect, recognition, conservation and protection of Shxw'ōwhámél culture and heritage. It aims to facilitate the conservation, protection and management of identified and unidentified cultural heritage resources on reserve lands.</p>
Matsqui First Nation	<p><u>Environmental Assessment Law</u> requires considerations for adverse environmental impacts, including to environmentally and culturally sensitive species and areas, prior to applicable land development activities and establishes requirements for:</p> <ul style="list-style-type: none"> • Environmental assessments and approvals; • Project applicability and exemptions; • The environmental assessment process and associated procedures; and • Administration and enforcement including penalties.
Province of British Columbia	<p><u>Water Sustainability Act</u> contributes to the protection surface waters and groundwater by prohibiting the introduction of debris, refuse, carcasses, human or animal waste, pesticides, fertilizers, and contaminants into a stream, stream channel, or an area adjacent to a stream and requires consideration of First Nation uses of water (including spiritual/cultural) when reviewing water license applications, and includes provisions for Water Sustainability Plans that incorporate traditional ecological knowledge.</p> <p><u>Groundwater Protection Regulation</u> outlines requirements for well construction, operation and maintenance, and deactivation and decommissioning to support groundwater protection.</p>
Province of British Columbia	<p><u>Environmental Assessment Act</u> requires considerations for adverse environmental impacts prior to applicable land development activities including:</p> <ul style="list-style-type: none"> • Impacts associated with solid and/or hazardous waste; impacts on the biophysical environment (including wildlife, plants, species at risk, and culturally important species); • Impacts on surface waters and groundwater prior to applicable land development activities; • Impacts associated with noise and air quality; and • The integration of Indigenous knowledge and considerations for adverse environmental impacts on the biophysical environment and resources, cultural and heritage resources, and Indigenous cultural practices and rights.



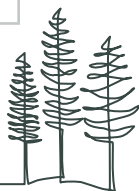
Jurisdiction	Legislation and Regulations
<p>Province of British Columbia</p>	<p><u><i>Heritage Conservation Act</i></u> establishes a mechanism for the identification and conservation of sites of heritage or archaeological value, including during land development, and establishes a permitting process for when working with or near sites of potential or known value.</p>
	<p><u><i>Environmental Management Act</i></u> includes prohibitions for businesses and industry in terms of waste disposal (what can and cannot be disposed of), the release of pollutants, and spills.</p>
	<p><u><i>Municipal Wastewater Regulation</i></u> establishes municipal effluent quality requirements and applies to all discharges to the ground and sewer systems.</p>
	<p><u><i>Spill Reporting Regulation</i></u> requires that spills to waters must be reported to the Ministry regardless of the quantity.</p>
	<p><u><i>Contaminated Sites Regulation</i></u> establishes requirements for the identification, investigation and remediation of contaminated sites.</p> <ul style="list-style-type: none"> • Open Burning Smoke Control Regulation outlines what can and cannot be burned and where open burning can occur (e.g., must occur at least 100 m from neighbouring residences and businesses, and 500 m from schools in session, hospitals and facilities used for continuing care). • Waste Discharge Regulation establishes the types of industries, trades, businesses, activities and operations that require authorization to introduce waste into the environment. Only the lowest risk operations do require a waste discharge authorization. • Hazardous Waste Regulation addresses the proper handling and disposal of hazardous wastes. • Contaminated Sites Regulation establishes requirements for the identification, investigation and remediation of contaminated sites.
	<p><u><i>Drinking Water Protection Act</i></u> and <u><i>Drinking Water Protection Regulation</i></u> establishes requirements for the installation, maintenance, testing, treatment, reporting and decommissioning of drinking water systems other than single-family dwellings.</p>
<p>Under the <u><i>Public Health Act</i></u>:</p> <ul style="list-style-type: none"> • The <u><i>Health Hazards Regulation</i></u> requires specific distances of wells from possible sources of contamination. • The <u><i>Sewage System Regulation</i></u> requires specific distances of sewage holding tanks and sewerage systems from drinking water wells; requires owners to keep records of maintenance carried out for holding tanks; and outlines the required education and certification required for sewerage systems construction and maintenance. 	
<p><u><i>Riparian Areas Protection Act</i></u> and <u><i>Riparian Areas Protection Regulation</i></u> requires local governments to protect riparian areas during land development - any development within 30 m of a watercourse may require a Qualified Environmental Professional to determine the width of the riparian area to be protected.</p>	



Jurisdiction	Legislation and Regulations
Province of British Columbia	<p><u>Weed Control Act</u> requires land occupiers to control the spread of noxious weeds on their lands and includes provisions for the transportation, movement and cleaning of machinery to prevent the spread of these weeds.</p>
	<p><u>Integrated Pest Management Act</u> regulates pesticide applications that may be used to control invasive plant infestations.</p>
	<p><u>Wildlife Act</u> regulates the hunting of wildlife on provincial and municipal lands, protects raptors and their habitats (e.g., requires bird nest sweeps prior to tree clearing activities), and protects public and native wildlife including beaver dams.</p>
	<p><u>Emergency Program Act</u> and <u>Emergency Program Management Regulation</u> regulate approaches to emergency management for local authorities (municipalities, regional districts, and treaty First Nations).</p>
	<p><u>Local Authority Emergency Management Regulation</u> includes considerations for local emergency plans, and outlines the powers and duties of a local authority.</p>
	<p><u>Local Government Act</u> includes provisions for Development Permits and floodplain bylaws, variances, and exceptions in flood-prone areas.</p>
	<p><u>Land Title Act</u>, <u>Bare Land Strata Regulations</u>, and the <u>Community Charter</u> regulate land use on flood-prone areas for subdivision approval, strata plan approvals, and for building permits, respectively.</p>
	<p><u>Climate Change Accountability Act</u> sets a province-wide target of at least 40 per cent reduction in the 2007 level of greenhouse gas emissions by 2030, at least 60 per cent reduction by 2040, and an 80 per cent reduction by 2050.</p>
	<p><u>Wildfire Act</u> and <u>Wildfire Regulation</u> enable the enforcement of wildfire bans and/or restrictions and define obligations and legal responsibilities for everyone in the province.</p>
	<p><u>Dike Maintenance Act</u> regulates the maintenance of dikes including providing provisions for inspections.</p>
Fraser Valley Regional District	<p><u>Waste Sorting Bylaw</u> applies to all owners/occupiers of all property types. To comply with this bylaw, all recyclable and compostable materials needs to be out of the garbage stream before it is collected/leaves the property.</p>



Jurisdiction	Legislation and Regulations
City of Chilliwack	<u><i>Development Cost Charges Bylaw</i></u> provides a fee schedule.
	<u><i>Tree Management (Land Development) Bylaw</i></u> establishes requirements at the time of development for tree management.
	With respect to the development application process and fees schedule, City of Chilliwack has a <u><i>Development Approval Information Bylaw</i></u> , and a <u><i>Development Application Fees Bylaw</i></u>
	<u><i>Building Regulation Bylaw</i></u> regulates construction in the City in the general public interest and includes provisions for roles and responsibilities, requirements, building permits, and conformity with the Building Code
	<u><i>Watercourse Protection Bylaw</i></u> provides for provisions for the regulation of watercourses
	<u><i>Sanitary Sewer Regulations Bylaw</i></u> regulates connections to common sewers.
	<u><i>Storm Sewer Connection & Regulation Bylaw</i></u> provides for the regulation, connection and use of storm sewers.
	<u><i>Business License Bylaw</i></u> regulates businesses and requires business licenses, with some exceptions
	<u><i>Community Standards Bylaw</i></u> regulates unsightliness and provides provisions for inspection.
	<u><i>Solid Waste Management Bylaw</i></u> regulates the disposal of solid waste and recyclable materials within the city.
	<u><i>Soil Removal and Deposit Bylaw</i></u> regulates soil removal and deposit, including measures to prevent the deposition of contaminated soil.
	<u><i>Soil Substance Removal or Deposit Permit Law</i></u> creates the permitting process for soil removal and deposit within the District.
	<u><i>Parks, Recreation, and Culture Bylaw</i></u> provides provisions for the use of civic properties and facilities, including for parking.
	<u><i>Open Burning Bylaw</i></u> regulates outdoor burning, sets permit fees and establishes setback distances. This bylaw is in place for fire prevention and air quality purposes.
	<u><i>Floodplain Regulation Bylaw</i></u> establishes flood construction levels and setbacks from water to reduce exposure to flood risk for new development.
<u><i>Fire Prevention and Protection Bylaw 2007, No. 3464</i></u> regulates fire prevention and the protection of life and property.	
<u><i>Waterworks Regulation Bylaw</i></u> establishes the terms and rates for the supply and use of water.	



References

Ch'iyáqtel First Nation & Dillon Consulting Limited. (2019). Ch'iyáqtel First Nation Comprehensive Community Plan.

CH2MHILL. (2002, May). Policy Design Criteria Manual for Surface Water Management. <https://waterbucket.ca/rm/wp-content/uploads/sites/5/2018/04/Chilliwack-Manual.pdf>

City of Chilliwack. (2011, August 19). City of Chilliwack Emergency Response and Recovery Plan. <https://www.chilliwack.com/main/attachments/attachView.cfm?attachID=4532>

City of Chilliwack. (2022). Community Profile. <https://www.chilliwack.com/main/page.cfm?id=2215>

City of Chilliwack. (2022). Recycling, Compostables, & Garbage. <https://www.chilliwack.com/main/page.cfm?id=1260>

Fraser Basin Council. (2022). First Nations Home EnergySave. Programs & Services. https://www.fraserbasin.bc.ca/First_Nations_Home_EnergySave.html

Fraser Valley Regional District. (2021). Air Quality Management Plan. <https://www.fvrd.ca/assets/Services/Documents/Air~Quality/2021%2009%2024%20AQMP%20-%20Final%20reduced.pdf>

Fraser Valley Regional District. (2022). Solid Waste Management Plan Update 2016-2026. <https://www.fvrd.ca/assets/Services/Documents/Garbage/SWMP.pdf>

Fraser Valley Regional District. (2022). How We Are Governed. <https://www.fvrd.ca/EN/main/government/board-of-directors/how-the-fvrd-is-governed.html#:~:text=The%20FVRD%20is%20governed%20by,eight%20from%20the%20electoral%20areas>.

Government of Canada (2021, December, 7). Registered Population. https://fnp-ppn.aadnc-aandc.gc.ca/fnp/Main/Search/FNRegPopulation.aspx?BAND_NUMBER=575&lang=eng

IQAir. (2022). Air quality in Chilliwack. <https://www.iqair.com/ca/canada/british-columbia/chilliwack>


Metro Vancouver. (2016, June). Climate Projections for Metro Vancouver. <http://www.metrovancouver.org/services/air-quality/AirQualityPublications/ClimateProjectionsForMetroVancouver.pdf>

Law Insider. (2013-2022). Search Contracts, Clauses, and Definitions. <https://www.lawinsider.com/>

Lower Fraser Fisheries Alliance. (2010-2022). Welcome To the Lower Fraser Fisheries Alliance: A Voice for the First Nations of the Lower Fraser River. <https://www.lffa.ca/>

S'ólh Téméxw Stewardship Alliance. (2022). S'ólh téméxw te íkw'elò. Xyólhmet te mekw' stám ít kwelát. <https://thetsa.ca/>





Statistics Canada. (2022, September 13). Population and dwelling counts: Canada and census divisions. <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=9810000701>

Stewardship Centre for British Columbia. (n.d.). Chilliwack Master Drainage Plan. <https://stewardshipcentrebc.ca/scbc-case-studies/chilliwack-master-drainage-plan/>

Stó:lō Nation Lalems ye Stó:lō Si:ya:m. (2003, May 5). Stó:lō Heritage Policy Manual. <https://thetsa.ca/wp-content/uploads/2020/01/Stolo-heritage-Policy.pdf>

Stó:lō Research and Resource Management Centre. (2016). Stó:lō Research and Resource Management Centre. <http://www.srrmcentre.com/index.php?pageld=1>

Ts'elxwéyeqw Tribe. (n.d.). Ts'elxwéyeqw Tribe Management Ltd. <https://www.ttml.ca/>

Tzeachten First Nation. (2010). Timber Cutting and Removal Process and Permit Policy.

Tzeachten First Nation. (2015). Tzeachten First Nation Zoning Law.

Tzeachten First Nations. (2018). Welcome to the home of Tzeachten First Nation. <https://www.tzeachten.ca/>

Tzeachten First Nation & Dillon Consulting Limited. (2018). Tzeachten First Nation Land Use Plan.

Tzeachten First Nation. (2019). All Hazards Emergency Plan Version 2.8.

University of British Columbia. (n.d.). Coastal Western Hemlock Zone. Centre for Forest Conservation Genetics. <https://cfcg.forestry.ubc.ca/resources/cataloguing-in-situ-genetic-resources/cwh-zone/>

