

COMMUNITY WILDFIRE RESILIENCY PLAN



Village of Port Alice
February 2023



COMMUNITY WILDFIRE RESILIENCY PLAN

Signature Page



2023-02-21

Chantal Dunne, RFT
Forester
Strategic Natural Resource Consultants Inc.

Date

Taylor Wall, RPF
Team Lead
Strategic Natural Resource Consultants Inc.

Date

COMMUNITY WILDFIRE RESILIENCY PLAN

Contents

Tables and Figures	iii
Acknowledgments.....	iv
Frequently Used Acronyms.....	1
Executive Summary.....	2
Introduction	3
Overview	3
Plan Goals.....	4
Plan Development Summary	4
Relationship to Other Plans	5
Community Description	6
Area of Interest	6
Wildland-Urban Interface	6
Community Information	7
Wildfire Risk Assessment	8
Wildfire Environment.....	9
Topography	9
Fuel.....	9
Weather	11
Fire History.....	12
Provincial Strategic Threat Analysis (PSTA)	14
Wildfire Threat Assessment.....	15
Hazard, Risk and Vulnerability Assessment	15
Education	18
Legislation and Planning	19
Municipal Bylaws	19
Official Community Plan	19
Development Considerations	20

COMMUNITY WILDFIRE RESILIENCY PLAN

Interagency Cooperation	21
Community FireSmart and Resiliency Committee.....	21
Cross-Training	23
Emergency Planning.....	24
Pre-Incident Planning and Wildfire Preparedness Condition Level.....	24
Emergency Social Services	24
Proposed Evacuation Routes	24
Firefighting Capabilities	25
Vegetation Management.....	26
Home Ignition Zone	26
Community and Landscape Zone.....	27
Fuel Management Planning and Objectives	28
Action Plan & Implementation	31
Appendix A: Wildfire Threat Assessment Plot Summary Table.....	36
Appendix B: Fuel Type Change Rationales.....	37
Appendix C: Public Engagement	38
Appendix D: Maps.....	38

COMMUNITY WILDFIRE RESILIENCY PLAN

Tables and Figures

Table 1 Key plans and relationship to the CWRP	5
Table 2 Port Alice community information from Statistics Canada	7
Table 3 Fire History	13
Table 4 Values at Risk.....	16
Table 5 Summary of FireSmart Zones	28
Table 6 Fuel Treatment Unit Summary.....	30
Table 7 Community Wildfire Resilience Plan Action Table	31
Table 8 Wildfire Threat Assessment (Site Level) Plot Summary.....	36
Figure 1 The fire behavior triangle	8
Figure 2 Initial Spread Index (ISI) Roses from the TS Artlish weather station for 2007-2015 showing the prevailing wind direction.	12
Figure 3 Historic fire boundaries in and surrounding the Village of Port Alice	14
Figure 4. FireSmart Home Ignition Zone	27

COMMUNITY WILDFIRE RESILIENCY PLAN

Acknowledgments

The Village of Port Alice CWRP was developed by Strategic Natural Resource Consultants. The project consulting team included:

Strategic Natural Resource Consultants Team:

- Chantal Dunne, RFT
- Taylor Wall, RPF
- Brendan Mohan, RPF
- Ryan Brunt, RFT
- Evan Ross, RFT

The development of the Port Alice CWRP would not be possible without the guidance, knowledge, and direction of:

Village of Port Alice

- Tanya Spafford

British Columbia Wildfire Service

- Tony Botica, RPF
- Dan Harris

COMMUNITY WILDFIRE RESILIENCY PLAN

Frequently Used Acronyms

AOI	Area of Interest
BC	British Columbia
BCWS	British Columbia Wildfire Service
BEC	Biogeoclimatic Ecosystem Classification
CFFDRS	Canadian Forest Fire Danger Rating System
CFS	Community Funding and Support
CI	Critical infrastructure
CIFFC	Canadian Interagency Forest Fire Centre
CRI	Community Resiliency Investment
CWRP	Community Wildfire Resiliency Planning
DP	Development Permit
DPA	Development Permit Area
EMBC	Emergency Management British Columbia
EPA	Emergency Program Act
FBP	Fire Behavior Prediction System
FESBC	Forest Enhancement Society of British Columbia
FESIMS	Forest Enhancement Society Information Management System
FCNRP	FireSmart Canada Neighborhood Recognition Program
FMP	Fire Management Plan
FSCCRP	FireSmart Canada Community Recognition Program
FNESS	First Nations Emergency Services Society
HIZ	Home Ignition Zone (also see Structure Ignition Zone)
HRVA	Hazard Risk and Vulnerability Analysis
HVRA	High Value Resources and Assets
LRMP	Land and Resource Management Plan
MOF	Ministry of Forests
MOTI	Ministry of Transportation and Infrastructure
PSOE	Provincial State of Emergency
PSTA	Provincial Strategic Threat Assessment
OCP	Official Community Plan
OFC	Office of the Fire Commissioner
SOLE	State of Local Emergency
UBCM	Union of British Columbia Municipalities
VAR	Values at Risk
WRR	Wildfire Risk Reduction
WUI	Wildland Urban Interface

COMMUNITY WILDFIRE RESILIENCY PLAN

Executive Summary

The Port Alice CWRP identifies the village's risk to wildfire and identifies opportunities for education and operational planning to ensure the Village of Port Alice's wildfire resiliency through the seven FireSmart disciplines (Education, Legislation and Planning, Development Considerations, Interagency Cooperation, Emergency Planning, and Vegetation Management). This CWRP was funded through the UBCM's Community Resiliency Investment Program, and is the first CWRP for the Village.

This CWRP has many action items, however, it is recommended that the Village of Port Alice focus on the three following initiatives that encompass several of the CWRP recommendations:

1. **Development of a Community FireSmart Resiliency Committee.** Funding should be pursued through the UBCM CRI to facilitate these meetings, and create a FireSmart coordinator position.
2. **Review of current plans and legislation to identify deficiencies and create new policy.** Wildfire is rarely specifically mentioned in any of Port Alice's current legislation and policy and needs to be added.
3. **Development and coordination of emergency planning.** Port Alice's limited wildfire emergency planning makes them susceptible to an extreme wildfire disaster due to the lack of emergency planning for wildfire.

A total of 24 action items have been identified in Table 7 and are discussed throughout the report in the appropriate sections. An annual review of the CWRP should be conducted to ensure that the action items are being completed. A comprehensive review of the CWRP should be completed to determine if the risk has changed and to determine if an updated report is required.

COMMUNITY WILDFIRE RESILIENCY PLAN

Introduction

Overview

In 2022, Strategic Natural Resource Consultants Inc. was hired by the Village of Port Alice to develop a Community Wildfire Resiliency Plan (CWRP). This plan is the first of its kind for the Village and has the aim of developing wildfire risk reduction recommendations for the community in accordance to the seven FireSmart disciplines. The science-based approach to the plan incorporates community and provincial level priorities, with the goal of prevention and reduced impacts from wildfire.¹

This plan is intended to provide wildfire risk reduction guidance to the Village of Port Alice, natural resource and other emergency managers, the Regional District of Mount Waddington (RDMW), BC Wildfire Service, and other key stakeholders in the form of actionable recommendations which can aid decision makers in the planning of next steps. The planning and implementation of recommendations is outside of the scope of this plan and funding source. This project was funded through the Community Resiliency Investment (CRI) program, which is a program intended to reduce the risk of wildfires and the subsequent impacts to communities.²

The Village of Port Alice and other stakeholders listed above should use this plan to:

- Implement action items to increase Port Alice's wildfire resiliency
- Access funding to complete the action items listed through the UBCM and other funding sources
- Monitor and report the action items listed in this plan

BC Wildfire Service and other governing bodies should review the CWRP and:

- Support Port Alice in the implementation of the action items
- Act as an advisory and support role to the Village of Port Alice when implementing the action items listed in the CWRP

¹ Community Wildfire Resiliency Plan Instruction Guide

² Community Resiliency Investment Program - 2022 FireSmart Community Funding & Supports Program & Application Guide

COMMUNITY WILDFIRE RESILIENCY PLAN

Plan Goals

The long-term outcomes of this CWRP development and implementation are to ensure that Port Alice has a plan moving forward to reach key wildfire resiliency goals for the community. The key goals of the Village of Port Alice CWRP are:

- Increase education about wildfire amongst the community members
- Increase collaboration between Port Alice and government and other stakeholders
- Develop achievable action items that are in line with all seven FireSmart disciplines
- Increase the capacity of Port Alice to respond to wildfire and mitigate wildfire risk
- Create operationally feasible fuel treatment units
- Increase the overall resiliency of Port Alice and surrounding community for wildfire risk

To achieve the goals outlined above, this plan will provide:

- Identification of the values at risk within the community
- Wildfire threat risk rating for the community
- Maps indicating the local fire risk and proposed fuel treatment units
- Provide options to reduce wildfire risk using the seven FireSmart disciplines

Plan Development Summary

The following CWRP development process was used when developing this plan:

- 1) Consultation and information sharing with local government and stakeholders
- 2) Review of relevant plans and legislation regarding wildfire preparedness and emergency response (SECTION 2)
- 3) Community description and identification of values at risk (SECTION 3)
- 4) Assessment of the local wildfire risk including field assessment (SECTION 4)
- 5) Analysis and action plan for each of the seven FireSmart disciplines including identification of future fuel treatment areas (SECTION 5)

COMMUNITY WILDFIRE RESILIENCY PLAN

Relationship to Other Plans

Other plans that have been developed for the Village of Port Alice such as the Official Community Plan all have influence on this CWPR. Reviewing existing plans helps reduce redundancies and increases opportunities for collaboration. Plans that have information pertaining to the Village of Port Alice and wildfire planning are summarized in the below table.

Table 1 Key plans and relationship to the CWRP

KEY PLANS AND RELATIONSHIP TO CWRP		
Plan Type	Description	Relationship to CWRP
Village of Port Alice Official Community Plan - 2010	Port Alice has the authority under the Local Government Act to create and implement a comprehensive plan that outlines the vision for social needs, cultural needs, economic needs, land use, infrastructure and transportation, and other community-based priorities.	In 2010, Port Alice had an Official Community Plan prepared for the community to provide long-term guidance when making community development decisions. The Village is currently in the process of updating the current OCP and will integrate the CWRP findings to create a more resilient plan.
Emergency Management Plan	This plan encompasses all potential large-scale disasters or emergencies that could impact Port Alice. The EMP addresses what preparations may look like for a given emergency, facilitate and coordinate a response and how recovery can look post event.	Within the 2011 Emergency Management Plan there is a section that goes into detail of Potential Actions that may need to be taken in the event of a wildfire and the Agencies/Person Responsible for carrying out that given action.

COMMUNITY WILDFIRE RESILIENCY PLAN

Community Description

Area of Interest

The Village of Port Alice is located southwest of Port McNeill along the East side of Neroutsos Inlet, on Vancouver Island. The Village can be accessed either by taking highway 30 off of highway 19 between Port McNeill and Port Hardy, or by boat through Quatsino Sound. The Village of Port Alice is one of the many communities encompassed within the Regional District of Mount Waddington (RDMW).

The 765ha village is located on west and south facing forested slopes. The slopes that surround the village are known to be unstable, as evident in the two landslides that occurred in 1973 and 1975³. Following these two slide events, a dike (critical infrastructure) was built to provide slope stability and protect the community. Other critical infrastructure that services the community includes a domestic water supply system where water is drawn from the Alice Lake and Victoria Lake watersheds, a sanitary sewage treatment facility, a Public Works yard, RCMP, Fire Hall, Community Center, gas station and shopping center.

Wildland-Urban Interface

Wildland Urban Interface (WUI) is defined by FireSmart Canada to be “any developed area where the combination of human development and vegetation have the potential to result in negative impacts from wildfire on the neighborhood”⁴. For this plan, in accordance with the FireSmart Community Funding & Supports program, the Wildland Urban Interface was defined at the maximum one-kilometer buffer from the structure density class greater than 6⁵. This polygon was extracted from iMapBC data catalog and covers 1388.0 hectares.

The WUI for Port Alice is in two different polygons, both are largely located within the municipal boundary of the village. The first being localized around the village center and the smaller of the two is concentrated around the former Neucel Pulpmill Plant south of the community.

³ Village of Port Alice Official Community Plan

⁴ https://firesmartcanada.ca/about-firesmart/?doing_wp_cron=1656968634.6296970844268798828125#WUI

⁵ Community Wildfire Resiliency Plan Instruction Guide – Pg18.

COMMUNITY WILDFIRE RESILIENCY PLAN

Community Information

The Village of Port Alice is situated within the traditional territory of the Quatsino First Nation. Known archeological and ethnographic evidence indicate the Neroutsos Inlet area was continuously occupied through time immemorial.⁶ European settlement began in the early 1900s for the construction of a pulp mill to provide accommodation for millworkers. The population steadily grew through the years until the early 1980s, when it then began to slowly decline. The latest census data was collected in 2021, and totaled the population at 739.⁷

Table 2 Port Alice community information from Statistics Canada

Community Information	
Total Population (2021)	739
Population Density (people per sq. km)	105.1
Median Age (years)	58.8
Total Private Dwellings	538
Private Dwellings Occupied by Residents	415
Data Sources: Statistics Canada, 2021 Census of Population	

⁶ Official Community Plan, Page 5

⁷ Statistics Canada, 2021 Census of Population.

COMMUNITY WILDFIRE RESILIENCY PLAN

Wildfire Risk Assessment

Wildfire risk is defined as the likelihood of a wildfire event occurring and what impacts or consequences may result in a given area.⁸ The threat of a wildfire is influenced by the environmental conditions that enable the ignition, spread and consumption of organic materials such as shrubs and woody material. The environmental conditions that influence the behavior of wildfire are the abundance and type of fuels present, the weather conditions and the topography.⁹ The fire triangle (fuel, weather, and topography) required all three components for a successful fire to ignite, and when one is removed or altered, fires have a smaller chance of igniting and spreading.

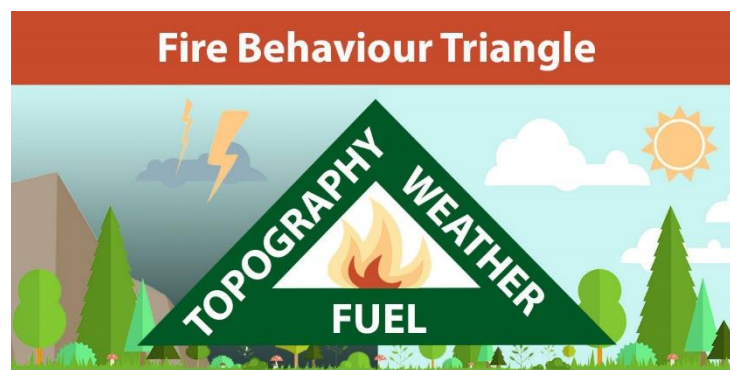


Figure 1 The fire behavior triangle.
<https://www.ontario.ca/page/wildland-fire-behaviour>

The wildfire risk assessment can aid community leaders in the decision-making process to identify and action wildfire risk reduction activities, which reduce the likelihood of ignition and lessen the potential for extreme fire behavior.

⁸ CWFM Glossary – chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://ciffc.ca/sites/default/files/2022-03/CWFM_glossary_EN.pdf

⁹ <https://www2.gov.bc.ca/gov/content/safety/wildfire-status/wildfire-response/about-wildfire>

COMMUNITY WILDFIRE RESILIENCY PLAN

Wildfire Environment

Topography

Port Alice is located on the East side of Neroutsos inlet at Rumble Beach on a morphological feature called a colluvial fan.¹⁰ This is a primary southwesterly facing village that ranges from 0 to approximately 130m in elevation on the mountain side that peaks at 847m. There were two significant rain events that occurred in the 1973 and 1975 that led to two different slope failure events on the hillside above the village. As a result of the hillside releasing, debris flows consisting of mud and organic matter came down steep narrow gullies. Following these events, a Deflection Dike System was built to increase the stability of the hillside and provide increased protection for the residents of Port Alice. There are two bigger non-fish bearing streams that flow through the heart of the village as well as a number of other streams located along the hillside to the north and south of the main village.

Fuel

The area of interest of this plan falls within the Coastal Western Hemlock (CWH) biogeoclimatic (BEC) zone. In the CWH, the forests are dominated by Western Hemlock (*Tsuga herterophylla*) and Amabilis Fir (*Abies amabilis*), with a minor component of Western Red Cedar (*Thuja plicata*).¹¹ Generally, there is a well-established shrub and moss layer, with a sparse herb layer.







In this ecosystem, there are a number of forest pests including mammals such as deer and elk, and rodents (squirrels, voles, mice, and rats), disease, and insects. The most common pests that could occur either periodically or persistently on the landscape around Port Alice includes: blackheaded budworm, hemlock sawfly, balsam woolly adelgid, hemlock dwarf mistletoe, annosus and armillaria root rot.

Fourteen wildfire threat plots were established throughout the Port Alice WUI and the majority fuel type is consistent with the C-5 coastal definition fuel type. The C-5 consists of older low elevation stands dominated by Western redcedar and Western hemlock, with high dense canopies, low light and minimal wind penetration. The other fuel type encountered in the field was the D-1/2 in small clumps. The below table shows photos of the crown, ladder, and surface fuels of each fuel type encountered in the AOI.

¹⁰ 2014 Dike & Landslide Hazard Assessment

¹¹ A Field Guide to Site Identification and Interpretation for the Vancouver Island Region – Book Number 28

COMMUNITY WILDFIRE RESILIENCY PLAN

Crown Fuel	Ladder Fuel	Surface Fuel	Crown Fire/ Spotting Potential	Percent Cover (%)
C-5				
			High	33
D-1/2				
			Moderate	8

COMMUNITY WILDFIRE RESILIENCY PLAN

Weather

The area of interest of this plan falls within the Coastal Western Hemlock (CWH) biogeoclimatic (BEC) zone. This indicates Port Alice experiences a wet, humid climate with cooler summers and mild winters. The average temperature range is between 0 and 20 degrees Celsius.¹² On average, Port Alice receives 3,399mm rainfall and 28cm of snow annually.¹³ Thunderstorm events are uncommon in this area of Vancouver Island and only occur a few times per year. With the mild winters, Port Alice experiences a long growing season with on average 234 days frost free days per year.

The direction and rate of wildfire spread are influenced by the wind direction, wind speed and fine fuel conditions.¹⁴ The Initial Spread Index (ISI) Rose from the local BCWS weather station provides a visual representation that summarizes the prevailing wind direction at the TS Artlish weather station. Illustrated below in figure 2, is the ISI Rose from the TS Artlish weather station depicting the predominant summer fire spread patterns observed throughout fire season (April 1 to October 1) during 2007 – 2015. The ISI Roses indicate that that Port Alice experiences south to south east prevailing winds, and therefore Port Alice is most susceptible to a greater wildfire spread potential coming from the north to north west directions.

¹² <https://www.weather-atlas.com/en/canada/port-alice-climate>

¹³ <https://climate-change.canada.ca/climate-data/#/climate-normals>

¹⁴ chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www2.gov.bc.ca/assets/gov/public-safety-and-emergency-services/wildfire-status/prevention/fire-fuel-management/fuels-management/2020_determining_wildfire_threat_and_risk_at_a_local_level.pdf

COMMUNITY WILDFIRE RESILIENCY PLAN

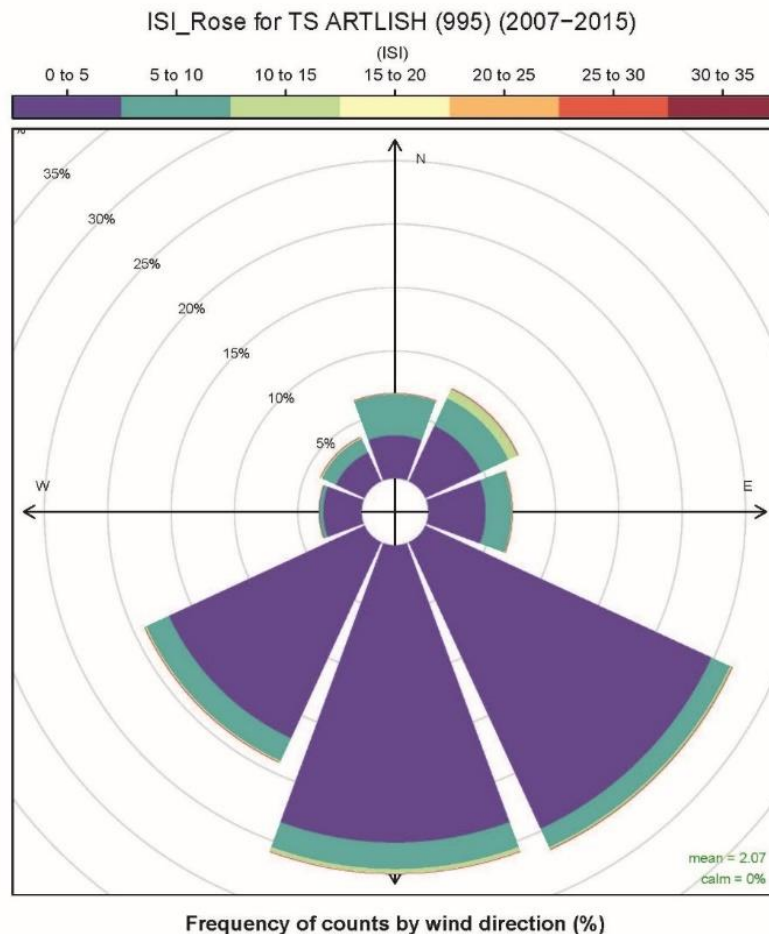


Figure 2 Initial Spread Index (ISI) Roses from the TS Artlish weather station for 2007-2015 showing the prevailing wind direction.

Fire History

Port Alice is within Natural Disturbance Type (NDT) 1 Coastal Western Hemlock (CWH) BEC Zone and rarely sees stand initiating disturbance events, occurring at intervals of 250 years. The two main disturbance agents influencing the forest stands surrounding Port Alice include windstorms and wildfire, with insects and landslides playing a minor roll on the landscape.

Table 3 and Figure 3 below outline the fire history in the vicinity of Port Alice.¹⁵ The majority of fires have been person caused with only one being caused by lightning in 1951, which was the

¹⁵ <https://catalogue.data.gov.bc.ca/dataset/22c7cb44-1463-48f7-8e47-88857f207702>

COMMUNITY WILDFIRE RESILIENCY PLAN

only fire recorded inside the municipal boundary of the Village. All other recorded fires have been located outside the municipal boundaries.

Table 3 Fire History

Fire History			
Fire Number	Fire Year	Cause (Person / Lightning)	Size (hectare)
V00192	1951	Person	2372.8
V00790	1960	Person	51.2
VG0252	1972	Person	81.5
VG0266	1973	Person	129.5
VG0266	1973	Person	67.6
V92442	2018	Lightning	20.7

COMMUNITY WILDFIRE RESILIENCY PLAN

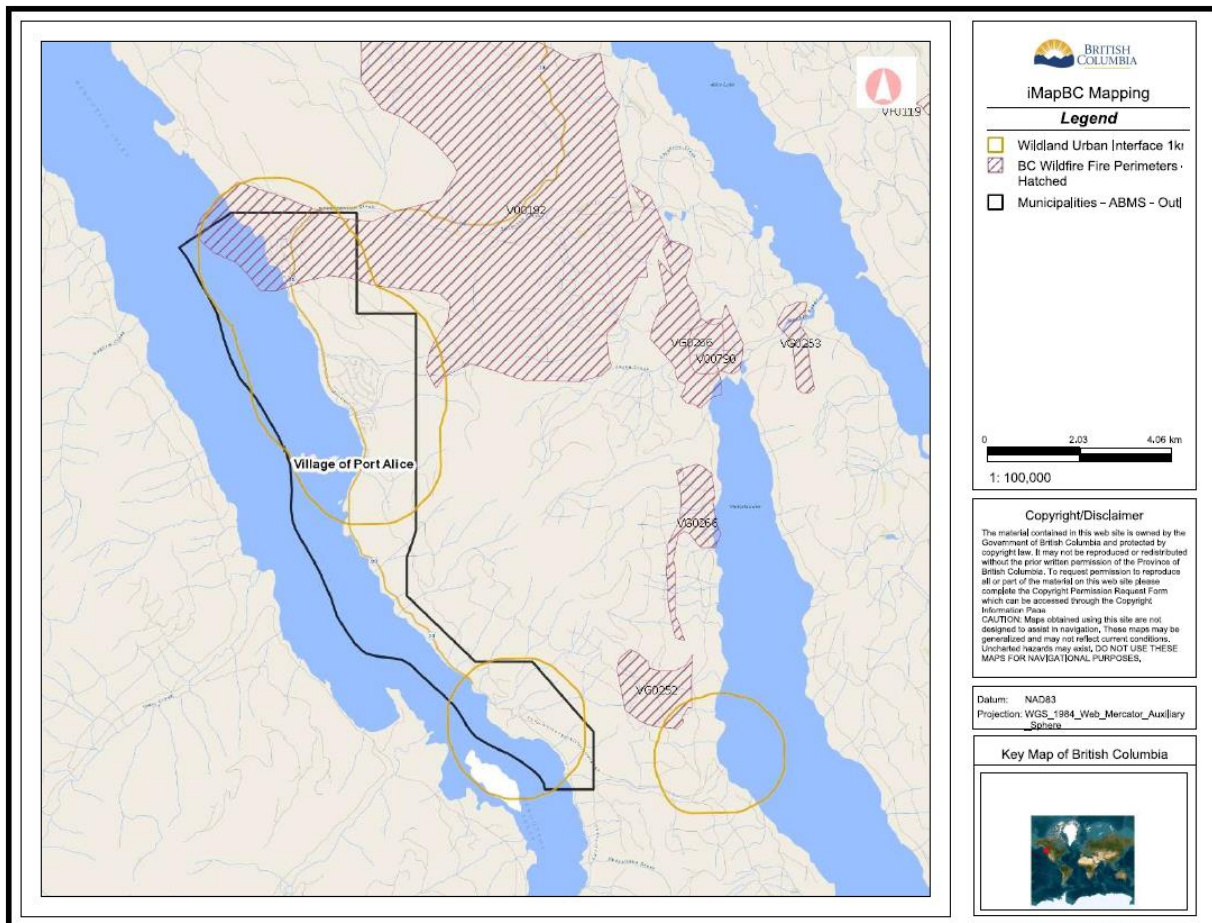


Figure 3 Historic fire boundaries in and surrounding the Village of Port Alice

Provincial Strategic Threat Analysis (PSTA)

At a provincial level, the purpose of the Provincial Strategic Wildfire Threat Analysis is to evaluate and map the wildfire threat present to values across the landscape in British Columbia. These values could be considered either man made community infrastructure or features that have social, economic, or environmental value.¹⁶ Datasets from a wide range of wildfire threat elements were input into modelling tools to produce threat maps that indicate the relative threat across the province. The results of this analysis can then be used to identify areas requiring treatment in order to reduce the wildfire risk to a community or value. For areas that

¹⁶ 2020 Wildfire Threat Assessment Guide

COMMUNITY WILDFIRE RESILIENCY PLAN

were identified to be a discrepancy in the PSTA classification, plots need to be established so that the change in threat class can be quantified.

Wildfire Threat Assessment

Wildfire threat data was collected at fourteen plots within the area of interest by following the methodology outlined in the 2020 Wildfire Threat Assessment Guide (Wildfire threat assessment summary table can be reviewed in Appendix A).¹⁵ The purpose of completing this assessment is to determine the level of fire hazard within the WUI, which will then inform fuel treatment planning. It was found that of the fourteen plots completed, six of the plots were low risk, four plots were moderate and four plots were high risk.

Based on the available PSTA fuel type data, the majority of the plots confirmed a C-5 fuel type, with a minor M-1/2. Following the field assessment, it has been found that the PSTA fuel type polygons that are currently represented as a M-1/2 should be reclassified as a C-5 type because these stands are coniferous leading with deciduous only lining the channels of riparian features (fuel type change rationales can be found in Appendix B). Additionally, there were two plots found to contain no fuels within the city center. These polygons are also recommended to have a fuel type change submitted and reclassified as non-fuel.

Hazard, Risk and Vulnerability Assessment

In 2011, the Village of Port Alice had a Hazard, Risk and Vulnerability Assessment (HRVA) completed that accompanied the new Emergency Plan.¹⁷ The HRVA is a legally required assessment that investigates emergency planning and hazards that threaten the Village. The purpose of this assessment is to identify and inform decision makers of the hazards and vulnerabilities that pose a risk to the community, and allow for the planning of emergency response.

This plan identifies the following critical infrastructure items in accordance with the Public Safety Canada (PSC) critical infrastructure sectors to be applicable to the Village:

- Electrical power supply
- Water supply
- Waste water management
- Highway access

¹⁷ Village of Port Alice Hazard, Risk and Vulnerability Analysis Report

COMMUNITY WILDFIRE RESILIENCY PLAN

The most common impact to critical infrastructure that Port Alice experiences is power outages during the winter months during periods of low temperatures and winter storms. The Community Reception Center is equipped with an emergency power system and has been identified as a centralized location for vulnerable residents to use as a “Warming/Comfort Center” in the event of a prolonged power outage or emergency. The likelihood of a power outage in the summer months is substantially less, and would not cause the same magnitude of impact to the local populations as it does in the winter months, however a prolonged outage would impact the tourism industry. Port Alice has individuals trained in the BC Emergency Response Management System (BCERMS). The Emergency Committee in place has few members and it is recommended that the Emergency Committee introduce volunteer members in order to increase the number of people trained for BCERMS.

In addition to the critical infrastructure identified through the Public Safety Canada sectors, a comprehensive list of the various values at risk were identified by the community and listed in Table 4 below. The majority of the values that were identified were related to critical infrastructure, there were other values identified which hold cultural and social importance to the residents.

Table 4 Values at Risk

Table 4. Values at Risk	
Value at Risk	Location
1. Dike	N, E and S side of community center
2. Wooded area around town	North, east and south of the city center
3. Industrial Park Mill site	
4. Fire hall*	1051 Marine Dr
5. Police station*	1092 Maquinna Ave
6. BC Ambulance Hall*	1031 Marine Dr
7. Port Alice Golf and Country Club	Mariner Dr
8. Firefighting equipment	1051 Marine Dr
9. Sea View Primary and Elementary School	1120 Nigei St

COMMUNITY WILDFIRE RESILIENCY PLAN

10. Sea View Activity Centre	901 Nigei St
11. Community Centre*	951 Marine Dr
12. Doug Bondue Arena	951 Marine Dr
13. Domestic water distribution system*	2 towers on the dike system (north side)
14. Sanitary sewage infrastructure*	
15. Port Alice Health Centre*	1090 Marine Dr
16. Cell Tower	Near sewer treatment plant
17. Transfer Station	791 Marine Dr Public Works

** Value was also identified by the HRVA Committee in the Hazard, Risk and Vulnerability report.*

Map of Critical Infrastructure and Values at Risk can be found in Appendix D: Maps.

COMMUNITY WILDFIRE RESILIENCY PLAN

Education

Public education and outreach efforts help community members learn about wildfire and its potential impacts to their communities. In addition, these efforts should be designed to help individuals understand their role in taking action to reduce risk. Education and outreach activities are designed for all groups to benefit, including elected officials, community planners, residents, visitors, businesses, land managers, first responders, and more.

Education and outreach are essential to empowering a community to be FireSmart. Community education plays a critical role in the resiliency and preparation of a community's ability to respond to wildfire. Implementation of FireSmart activities builds awareness and understanding for community members and incentivizes community members to practice FireSmart disciplines every day.

It is recommended that the education initiatives are to be led by a FireSmart Coordinator. This position is currently eligible for funding through the UBCM CRI funding.

Education materials such as posters and brochures are freely available through the FireSmart BC website, and the materials are suitable for all ages. It is recommended that Village of Port Alice work towards becoming a member of the FCNRP. Port Alice will be holding FireSmart education events available to members of the community, emergency responders, elected officials, and other stakeholders.

A variety of methods to distribute educational materials are available to Port Alice such as the community website, local news letters, in-person community events, public information sessions, Wildfire Community Preparedness Days. Feedback is important for community education and is encouraged through community meetings and surveys. Since Port Alice is a 1 way in and 1 way out community by paved provincial highway roads, the involvement of the community is essential for wildfire emergency preparedness.

COMMUNITY WILDFIRE RESILIENCY PLAN

Legislation and Planning

Legislation and Regulation can be a very effective tool for reducing wildfire risk on provincial crown lands and within the administrative boundaries of a local government or First Nation communities. Provincial acts and regulations provide the means for local governments and First Nation communities to implement wildfire risk reduction actions through by-laws.

Legislative tools are a good place to start implementing FireSmart goals and initiatives throughout the Village of Port Alice. The Village does not have any wildfire specific bylaws or policies. It is recommended that the Village develop wildfire emergency bylaws and that these bylaws and policies are clearly communicated to the residents of Port Alice, and implementation needs to be supervised and recorded. The Village of Port Alice has started planning for wildfire within the emergency bylaws and the OCP, however further recommendations are listed in the action planning table.

Municipal Bylaws

Port Alice municipal bylaws mention the processes involved with emergencies and disasters (such as a wildfire). *Bylaw No. 622, 'A bylaw to develop and implement plans for emergencies and disasters in the Village of Port Alice'*, outlines the requirements of the Emergency Measures Policy/Planning Committee including certain responsibilities within the group, minimum meeting times and deferred responsibilities in case of an emergency – including wildfires.

Official Community Plan

The Village of Port Alice has recently developed an Official Community Plan (OCP) in 2022. The main goal of the plan is to ensure the Village maintains adequate land availability to accommodate the anticipated growth of the Village. Goal number 3 of the OCP is to increase the population of the Village of Port Alice. The goal has listed advocacy policies. Policy 8.2.6 under goal 3 encourages that any infrastructure growth of the Village have a 10 meter buffer between buildings and forested areas and in all areas adjacent to forested land in order to provide a fuel free zone for fire protection purposes.

COMMUNITY WILDFIRE RESILIENCY PLAN

Development Considerations

Development decisions, such as land use types, structure density, road patterns, and other considerations, shape the built and natural environments. These decisions can bring lasting impacts to the WUI and wildfire risk by affecting public and first responder safety and survivability of homes, critical infrastructure, and other community features. Considering these factors early in the development process can reduce wildfire risk to life safety and property.

As outlined in the OCP, the desire of Port Alice is to expand in population as there has been a drop in the younger demographic and an increase in the senior demographic. Development is intended to meet the needs of what is expected to be an expanding population, including the influx of a younger demographic.

Port Alice has been searching for an economic growth generator within the town. As expressed in the OCP, tourism is a likely replacement as the area offers a rich diversity of outdoor terrestrial activities and is a convenient gateway to the west coast of Vancouver Island. The desired tourism increase will likely result in the development of nearby lands. This is outlined in the OCP, section 3.3 *Development Strategy*. A separate document, titled *Port of Potential* outlines the economic development strategy for the Village. As Port Alice is confined based on steep slopes in the north, east, and south and the ocean to the west, it is important to consider all facets of an area for development. Development goals and objectives are outlined in section 4.0 *General Planning* and includes Comprehensive Development Areas (CDAs) and Development Approval Information Areas (DAIAs). In addition to development areas, building structure materials must be considered for flammability. Procurement and use of fire mitigating appropriate building materials must be managed in order to reduce fire risk. Construction in Port Alice is guided by the Village's Building Bylaw No 610, 2010 and the BC Building Code. Under the bylaw, building permits are required.

The OCP has outlined two policies regarding reducing wildfire potential. These can be found in *Policy 8.2.6* which outlines the minimum fuel free zone between buildings and forested areas. *Policy 8.2.7* discusses the encouragement of development activities to reduce the risk of forestry interface fires.

COMMUNITY WILDFIRE RESILIENCY PLAN

Interagency Cooperation

It takes the collaborative efforts of multiple stakeholders working together to achieve a fire resilient community. These people include the local fire departments, local government staff, elected officials, First Nations representatives, industry representatives and provincial government residents in your area. Individually they are responsible to their own organizations, but all of the stakeholder organizations are dependent upon each other to develop an effective Community Wildfire Resiliency Plan and undertake a successful wildfire response.

A successful CWRP hinges on the collaborative efforts of stakeholders working together to achieve a wildfire resilient community. Increasing the capacity of interagency cooperation through the stakeholders for the Village of Port Alice is essential to be prepared in the event of a wildfire emergency.

Currently the Village of Port Alice has agreements with the surrounding communities within the Regional District of Mount Waddington for mutual aid in the event of an emergency. It is recommended that Port Alice continue to make these mutual aid agreements with other key stakeholders that are on the Community FireSmart Resiliency Committee.

Community FireSmart and Resiliency Committee

Currently, the Village of Port Alice does not have a Community FireSmart and Resiliency Committee (CFRC). The stakeholders involved with the development of this CWRP will be a good pillar to a strong CFRC and the implementation of the CFRC will be completed when the CWRP is finalized. The goal of the CFRC is to incorporate all stakeholders ideas and opinions into creating a FireSmart community that works together to complete FireSmart disciplines. The group effort is imperative to a resilient community.

Port Alice's remote location can be challenging to creating meaningful partnerships. Port Alice is limited in their access to resources and personnel required to respond to a wildfire and other associated emergencies. A CFRC will facilitate the collaboration of the Village of Port Alice, adjacent communities, First Nations, the Regional District of Mount Waddington, BC Wildfire Service, and other relevant organizations.

COMMUNITY WILDFIRE RESILIENCY PLAN

A successful CFRC should account for the needs of those impacted by wildfire and include a range of knowledge and expertise. The following is a suggested list of members to be represented in the CFRC:

- The Village of Port Alice
- BC Wildfire Service
- Port Alice Fire Department
- Western Forest Products Inc.
- Protective Services – Port Alice emergency program coordinator
- Land Managers
- Emergency Management BC
- Port Alice Emergency Operations Management and Policy Group
- Emergency Committee

Suggested activities that should be completed by the CFRC include:

- A monitoring program for the implementation and success of this CWRP
- Identifying funding sources to access and support the recommendations in this CWRP
- Creating a communication and public education strategy
- Job creation and economic gain through building local wildfire resiliency
- Participate in planning to support the integration of FireSmart across jurisdictional boundaries
- Streamlining funding opportunities and grant programs through shared capacity between agencies

Currently, the Village of Port Alice has an Emergency Operations Management and Policy Group that assumes the responsibility once the declaration of a state of local emergency is made. The Village of Port Alice has an Emergency Committee that responds to emergencies before the state of local emergency is made. Together these two groups work together in the event of emergencies.

COMMUNITY WILDFIRE RESILIENCY PLAN

Cross-Training

Wildland-Urban Interface resiliency planning and incident response draw on many different professions who do not typically work in wildfire environment. Cross-training of fire fighters, public works staff, utility workers, local government and First Nations administration, planning and logistics staff, and other key positions will help support the development of comprehensive and effective wildfire risk reduction planning and activities, as well as a safe and effective response.

The need for cross training in isolated communities such as the Village of Port Alice is pertinent to wildfire resiliency. Cross training provides the sharing of knowledge among different disciplines to increase the local capacity. The small population of Port Alice could correlate to limited expertise and lesser capacity. It is recommended that the Village of Port Alice seek all cross-training opportunities to create a broader set of personnel to draw upon in the event of a wildfire emergency.

The Village of Port Alice has a volunteer fire department that is trained in structural firefighting. Cross training between BCWS and the Port Alice Volunteer Fire Department is advised to create safe synergy between BCWS and the Port Alice Volunteer Fire Department in the event of a wildfire emergency. Spring clinics should be held before the wildfire season starts to refresh crews and train any new crew members. The spring clinics should also include S-100 and S-185 training for the volunteers at the fire department.

COMMUNITY WILDFIRE RESILIENCY PLAN

Emergency Planning

Community preparations for a wildfire emergency requires a multi-pronged approach. Individuals and agencies need to be ready to react by developing plans, mutual-aid agreements, resource inventories, training and emergency communication systems. All of these make it possible for a community to respond effectively to the threat of wildfires as a whole.

Because the wildfire danger in and around the Village of Port Alice has typically been low in past years, wildfire emergency planning is deficient in the community. The Regional District of Mount Waddington and Port Alice work together in the event of an emergency but Port Alice is an incorporated community and is not under the RDMW's emergency planning tools.

Pre-Incident Planning and Wildfire Preparedness Condition Level

The Village does not currently have any pre-incident planning tools nor has a wildfire preparedness condition level table been developed. It is recommended that the Village of Port Alice develop both items.

Emergency Social Services

The Village of Port Alice has an Emergency Social Services organization to aid individuals and families that are displaced from their homes due to an emergency. The Port Alice Community Center is set up to receive people in the event of an emergency.

Proposed Evacuation Routes

The Village of Port Alice has 3 potential evacuation routes, but only one of these routes is feasible for all of the population. Only one of the three proposed routes is paved.

1. Highway 30, a paved 2 lane highway that leave the community in the north and is roughly 65 kilometers to the nearest community of Port McNeill.
2. To the south, Highway 30 continues for roughly 5.6 kilometers. Turning left onto the Port Alice Road/Marine Drive, following this road for roughly 3 kilometers. Turning left onto the W Road, following this road north for roughly 7.7 kilometers. From there, turn right onto the SE Main Road, and follow for roughly 4.9 kilometers. Turning left on to Alice Lake Road, follow for roughly 5.7 kilometers. Turning left onto Port Hardy Road,

COMMUNITY WILDFIRE RESILIENCY PLAN

follow for roughly 10 kilometers. Turning right onto Highway 30 for roughly 10.3 kilometers to Highway 19.

- a. Evacuation route 2 includes many unpaved gravel roads that could be susceptible to washouts or other conditions that would become difficult for non-pickup trucks to navigate. This route is also dependent on where the wildfire is located. This route is not recommended unless necessary. Additionally, depending if/where Highway 30 is closed, this route may not be accessible as an evacuation route.
 - b. The south of town has many other evacuation routes along back roads that can be utilized and it is recommended that a map with routes is made that is clear and concise to hand out in the event of an evacuation. Routes should be able to be highlighted on the map before given to residents leaving town.
3. The third evacuation route is by boat, however this route is not feasible for everybody and is recommended as a last resort.

Firefighting Capabilities

Port Alice currently only has a structural fire department and are not trained in wildland firefighting. Additionally, there is no specific structure protection equipment for the event of a wildfire. It is recommended that both Port Alice Fire Department engage with BCWS for wildland firefighting training and Port Alice applies for funding to acquire a FireSmart Structure Protection trailer and equipment training.

The Village of Port Alice has a good relationship with Western Forest Products Inc. (WFP). WFP has committed to using their heavy equipment in the event of a wildfire.

COMMUNITY WILDFIRE RESILIENCY PLAN

Vegetation Management

The general goal of vegetation management is to reduce the potential wildfire intensity and ember exposure to people, infrastructure, structures and other values through manipulation of both the natural and cultivated vegetation that is within or adjacent to a community. A well-planned vegetation management strategy that is coordinated with development, planning, legislation and emergency response wildfire risk reduction objectives can greatly increase fire suppression effectiveness and reduce damage and losses to structure and infrastructure.

Vegetation management is a key part of planning for community wildfire resiliency. Fuel build up is a natural process of forest succession, but can become a problem in the wildland urban interface if left untreated. Vegetation modification is one of the best ways to create opportunities and circumstances for wildfire suppression in the event of a wildfire emergency.

Home Ignition Zone

Homes and other buildings typically ignite when the Home Ignition Zone (HIZ) is not properly maintained, and the building is not built or clad with fire resistant materials. Modifying fuels and reducing fuel load in the HIZ is one of the best ways that residents can protect their homes in the event of a wildfire.

COMMUNITY WILDFIRE RESILIENCY PLAN



Figure 4. FireSmart Home Ignition Zone

Work in Port Alice is still to be completed on homes and critical infrastructure. Home Ignition Zone assessments and critical infrastructure assessments are to be completed and all mitigation activities following assessments are to be completed. Funding is available through the UBCM.

Community and Landscape Zone

The community zone for the Village of Port Alice is all of the land within the municipal boundaries. The Landscape Zone is the land outside of the municipal boundaries, but is still within the eligible WUI. Vegetation management planning and implementation should be carried out through formal fuel management prescriptions (funding available through UBCM). The table below summarizes the HIZ, Critical infrastructure, Community and Landscape Zones.

COMMUNITY WILDFIRE RESILIENCY PLAN

Table 5 Summary of FireSmart Zones

Zone Type	Area of Concern	Vegetation Management	Responsibility
Home Ignition Zone (and Priority Zones)	Extends 100m from every home.	FireSmart landscaping.	Home owners/resident
Critical Infrastructure Ignition Zone (and Priority Zones)	Extends 100m from all critical infrastructure.	FireSmart landscaping or Fuel Management Prescription – infrastructure dependent	Village of Port Alice, FireSmart coordinator
Community Zone	Area within the Port Alice municipal boundary	Fuel Management Prescriptions/ FireSmart Landscaping	Village of Port Alice/ FireSmart coordinator
Landscape Level Zone	The WUI – 1km max from structural density classes >6.	Fuel Management Prescriptions coordinated by provincial government agencies (MoF).	Ministry of Forests

Fuel Management Planning and Objectives

The Village of Port Alice has not initiated any fuel management for wildfire risk reduction projects however, areas identified in the field work done for this CWRP indicated that some areas directly adjacent to the community are in need of fuel reduction treatments. Four areas have been identified for fuel reduction treatments. The municipal land directly in the WUI, private land north of the community, and TFL land north and south of the community.

The private land is owned by Western Forest Products and there is an agreement between WFP and the Village to treat private land.

The objectives of the fuel management treatment are to create a shaded fuel break free of ladder and surface fuels. Factors that influenced the decision of where the FTUs were placed are:

- Proximity to values at risk
- Access
- Topography

COMMUNITY WILDFIRE RESILIENCY PLAN

- PSTA risk rating

The treatment units are developed with the following fuel reduction targets in mind:

- Reducing the fire behavior under the 90th percentile fire weather index conditions
- Reducing the surface fire intensity to below 2000 kw/m
- Reducing the potential for crown fire ignition through the removal of surface and ladder fuels

Fuel treatment units create a more fire resilient community and ecosystem and with proper maintenance, ensure long term effectiveness when reducing the wildfire risk. Fuel treatment units are designed to be linear and easily accessible by fire responder personnel. Fuel treatment boundaries may end up getting moved when prescriptions and layout occur and the final treatment area is up to the prescribing Forester.

Map of the proposed fuel treatment units identified in the table below can be found in Appendix D.

COMMUNITY WILDFIRE RESILIENCY PLAN

Table 6 Fuel Treatment Unit Summary

FTU #	Total Area (ha)	Treatment Unit Type	Treatment Unit Objective	Local Fuel Threat (Hectares)				Overlapping Values / Treatment Constraints	Treatment Rationale
				Extreme	High	Moderate	Low		
Municipal	24.21	Polygon treatment area	Treat to remove surface and ladder fuel, and thin existing conifer stand	1.3	17.2	4.4	0.09	This area is directly behind residential property	This area falls within high to moderate PSTA risk and is within 100m of values at risk
North Private	26.93	Polygon treatment area	Treat to remove surface and ladder fuel, and thin existing conifer stand	0.1	26.8	0.0	0.0	Area is Western Forest Products privately owned land – tenure agreement in place	This area falls within high to moderate PSTA risk and is within 100m of values at risk
North TFL	2.89	Polygon treatment area	Treat to remove surface and ladder fuel, and thin existing conifer stand	1.1	0.1	1.6	0.0	WFP TFL Land	This area falls within high to moderate PSTA risk and is within 100m of values at risk
South TFL	6.65	Polygon treatment area	Treat to remove surface and ladder fuel, and thin existing conifer stand	5.2	0.0	1.5	0.0	WFP TFL Land	This area falls within high to moderate PSTA risk and is within 100m of values at risk

COMMUNITY WILDFIRE RESILIENCY PLAN

Action Plan & Implementation

Table 7 Community Wildfire Resilience Plan Action Table

Table 7. COMMUNITY WILDFIRE RESILIENCE PLAN ACTION TABLE						
Action	Lead(s)	Priority	Timeframe	Resources Required	Metric for Success	Notes
Risk Assessment						
Objective: Complete a more rounded risk assessment on Critical Infrastructure and Emergency Planning						
1. Gain volunteers for the Emergency Committee	Emergency Committee	High	2023	Volunteers	Have volunteers attend committee meetings and commit to being on the Emergency Committee	
2. Complete Critical Infrastructure ignition zone assessments	FireSmart Coordinator	High	2023-2024	FireSmart Coordinator, funding	Completed CI assessments for all CI listed in the CWRP	Apply for UBCM funding
Education						
Objective: Conduct an annual FireSmart education campaign to educate the public on wildfire risk and support local resident actions.						
3. Participate in FireSmart Community Preparedness Day	Local FireSmart Representative	High	Annually (May)	Posters, social media	Participation by minimum of 50 residents	Apply for grant from FireSmart Canada
4. Identify a FireSmart coordinator within the community	Village of Port Alice	High	ASAP	UBCM Funding	Successful FireSmart coordinator position	Apply for UBCM Funding
5. Signage for parks and other heavily trafficked public areas.	FireSmart Coordinator	Moderate	Spring/Summer of 2023	Signs	Erected signs	
Legislation and Planning						
Objective: Incorporate FireSmart guidance into the Village of Port Alice's community planning and policy frameworks.						

COMMUNITY WILDFIRE RESILIENCY PLAN

Table 7. COMMUNITY WILDFIRE RESILIENCY PLAN ACTION TABLE						
Action	Lead(s)	Priority	Timeframe	Resources Required	Metric for Success	Notes
6. Develop wildfire specific emergency plan	Village of Port Alice	High	2023	Qualified external and internal personnel	A plan that provides residents with information regarding egress routes and outlines FireSmart guidance for residents	
7. Develop internal policies for further growth of any community development to follow FireSmart disciplines	Village of Port Alice	High	2023	Qualified external and internal personnel	Policies outlining further development FireSmart principles	
8. Review current bylaws to assess where the laws inadvertently promote favorable wildfire conditions that contribute to spread	Village of Port Alice	High	2023	Qualified internal and external personnel	An outline of the changes that need to be made to aid in action item 7	
Development Considerations						
Objective: To establish fire resistant and retardant materials into critical infrastructure and home improvements and development						
9. Complete critical infrastructure assessments and mitigation	Village of Port Alice, FireSmart coordinator	High	1-2 years	Local FireSmart Representative	Completion of CI assessments and completed mitigation documented	Apply for funding through UBCM
10. Complete home ignition zone assessments for the houses directly at the wildland urban interface	Village of Port Alice, FireSmart Coordinator	Moderate	1-5 years	Local FireSmart Representative	Completion of HIZ assessments documented	Apply for funding through UBCM
Interagency Cooperation						
Objective: Create new and stronger partnerships between Port Alice and neighboring communities and stakeholders.						

COMMUNITY WILDFIRE RESILIENCY PLAN

Table 7. COMMUNITY WILDFIRE RESILIENCE PLAN ACTION TABLE						
Action	Lead(s)	Priority	Timeframe	Resources Required	Metric for Success	Notes
11. Development of a CFRC	The Village of Port Alice Firesmart coordinator	High	2023	Members from multiple organizations and communities	A CFRC has been developed and had its first meeting	Apply for funding to facilitate CFRC meetings through UBCM CRI
12. Do outreach to gauge the potential of mutual aid with surrounding key stakeholders	The Village of Port Alice	Moderate	2023-2024		Contact made between Port Alice and other stakeholders to have written mutual aid agreements in place	
Cross-Training						
Objective: Increase capacity of the wildfire suppression, emergency response and FireSmart skills.						
13. Cross training between BCWS and the Village of Port Alice Volunteer Fire Department	Village of Port Alice, BCWS	High	2023-ongoing	Port Alice Volunteer Fire Department members and BCWS participation	Successful training day with both parties and continued training	Apply for funding for cross training.
14. Port Alice Volunteer Fire Department internal FireSmart training	Port Alice Volunteer Fire Department	Moderate	2023-ongoing	Port Alice Volunteer Fire Department and FireSmart coordinator	Ongoing training for FireSmart principles	
Emergency Planning						
Objective: To increase Port Alice's capacity and preparedness in the event of a wildfire						
15. Identify alternative evacuation routes and map to make available for residents	The Village of Port Alice	High	2023	GIS Technician	Maps of the proposed evacuation routes with specific directions	

COMMUNITY WILDFIRE RESILIENCY PLAN

Table 7. COMMUNITY WILDFIRE RESILIENCY PLAN ACTION TABLE						
Action	Lead(s)	Priority	Timeframe	Resources Required	Metric for Success	Notes
16. Obtain fire suppression trailer with all gear	FireSmart Coordinator/ Village of Port Alice	High	2023-2024		Wildfire suppression trailer with all tools and equipment	Apply for funding through the UBCM for phase 1 trailer.
17. Update the OCP to include wildfire specific planning	Village of Port Alice	High	2023-2024	Qualified internal and external personnel	Updated OCP to include wildfire planning	
18. Engage in formal evacuation planning (draft and execute alternate route evacuation plan)	Emergency Response Team	Moderate	2023-2024	Emergency response plan	A formal evacuation plan, that is demonstrated annually	Work with the Province, Regional District, and road tenure holders to improve signage along backroads to improve evacuation routes
19. Update Emergency Management Plan	Emergency Response Team	Moderate	2023-2025	Qualified personnel	A formal Emergency Management Plan	
20. Develop a pre-incident plan	The Village of Port Alice, Emergency Management team	High	2023-2024	Qualified personnel	A written pre-incident plan	Add this plan to the CWRP when reviewed in 5 years
21. Develop a wildfire preparedness condition level table	The Village of Port Alice/ Emergency Management team	Moderate	2023-2025	Qualified personnel	Wildfire preparedness condition table	Add to the CWRP when reviewed in 5 years.
Vegetation Management						
Objective: Create WUI and HIZ that are consistent with FireSmart recommendations.						

COMMUNITY WILDFIRE RESILIENCY PLAN

Table 7. COMMUNITY WILDFIRE RESILIENCY PLAN ACTION TABLE						
Action	Lead(s)	Priority	Timeframe	Resources Required	Metric for Success	Notes
22. Critical Infrastructure hazard assessment	FireSmart Coordinator/ Local FireSmart Representative	High	2023	Qualified Personnel	Summary of all critical infrastructure and mitigation report	UBCM funding
23. Fuel Management prescriptions in identified areas	The Village of Port Alice/ FireSmart coordinator	Moderate	2023-2026	Qualified Professionals, funding	Fuel management prescriptions for identified area	Apply for funding
24. Treat prescribed areas	The Village of Port Alice	Moderate	2024-2028	Qualified professionals	Treated areas	Apply for funding

COMMUNITY WILDFIRE RESILIENCY PLAN

Appendix A: Wildfire Threat Assessment Plot Summary Table

Table 8 Wildfire Threat Assessment (Site Level) Plot Summary

Plot	Location	Depth of Organic Layer (cm)	Surface Fuel Composition	Dead and Down Material Continuity (<7cm)	Ladder Fuel Composition	Ladder Fuel Horizontal Continuity	SPH Understory	Overstory / Crown Base Height (CBH)	Fuel Strata Gap (m)	SPH Overstory	Crown Closure	Dead and Dying (% of Dominant and Codominant Stems)	Score	Rank	Current Fuel PSTA Type	Proposed Fuel Type Change	Comments
1	50°25'14.2" -127°28'42.7"	10-20	Dead fine fuel (<1cm)	10-25% coverage	Other conifer	Scattered 10-39% coverage	<500	Conifer /moderate (5-9m)	>10	601-900	61-80%	Standing dead/partial down 21-50%	54	Moderate	M-1/2	C-5	This M1/2 is an extension of the C-5 and deciduous are only present around riparian areas
2	50°25'08.1" -127°28'42.6"	10-20	Dead fine fuel (<1cm)	10-25% coverage	Other conifer	Scattered 10-39% coverage	801-1200	Conifer /moderate (5-9m)	>10	601-900	41-60%	Standing dead/partial down <20%	52	Moderate	M-1/2	C-5	This M1/2 is an extension of the C-5 and deciduous are only present around riparian areas
3	50°25'19.7" -127°28'41.7"	10-20	Dead fine fuel (<1cm)	26-50% coverage	Other conifer	Patchy 40-60% coverage	801-1200	Conifer / High (>10m)	>10	601-900	41-60%	Standing dead/partial down <20%	57	Moderate	M-1/2	C-5	This M1/2 is an extension of the C-5 and deciduous are only present around riparian areas
4	50°25'24.5" -127°28'55.3"	2 - <5	Moss, herbs, deciduous shrubs	10-25% coverage	Mixwood	Scattered 10-39% coverage	<500	Mixwood (50% conifer)	<3	401-600	<20%	Standing dead/partial down <20%	41	Low	C-5	-	This plot exists on the edge of a previously cleared area and walking trail that would otherwise be classified as C5
5	50°25'27.5" -127°28'43.8"	10-20	Dead fine fuel (<1cm)	26-50% coverage	Elevated dead fuel	Scattered 10-39% coverage	<500	Conifer / Low (<4m)	<3	401-600	41-60%	Standing dead/partial down 21-50%	62	High	C-5	-	Large amount of dead standing and downed fuels result in a small area of high wildfire threat rating within th polygon
6	50°25'24.8" -127°28'44.5"	10-20	Dead fine fuel (<1cm)	10-25% coverage	Elevated dead fuel	Scattered 10-39% coverage	<500	Conifer / High (>10m)	<3	601-900	41-60%	Standing dead/partial down <20%	54	Moderate	C-5	-	
7	50°25' 33.4" -127°28'42.7"	2 - <5	Moss, herbs, deciduous shrubs	Absent	Deciduous / None	Absent	<500	Deciduous (<25% conifer) / All CBH	>10	<400	<20%	Standing dead/partial down <20%	11	Low	NF	-	Surface fire is possible due to presence of dry grass, but fuel assessment rating remains low.
8	50°25'50.1" -127°29'10.5"	1 - <2	Moss, herbs, deciduous shrubs	Scattered <10% coverage	Deciduous / None	Sparse <10% coverage	<500	Conifer /moderate (5-9m)	6-9	401-600	20-40% of deciduous overstory	Standing dead/partial down <20%	23	Low	D-1/2	-	Stand dominated by red alder with few coniferous trees near by.
9	50°25'33.8" -127°28'54.0"	1 - <2	Moss, herbs, deciduous shrubs	Absent	Deciduous / None	Absent	<500	Deciduous (<25% conifer) / All CBH	<3	<400	<20%	Standing dead/partial down <20%	14	Low	NF	-	This non-fuel area is a residential suburb with little to no fuel and mostly ornamental vegetation with some native conifers/deciduous trees. Very low wildfire hazard rating is a result of lacking natural fuel types
10	50°25'33.3" -127°29'10.4"	1 - <2	Moss, herbs, deciduous shrubs	Absent	Deciduous / None	Absent	<500	Deciduous (<25% conifer) / All CBH	<3	<400	<20%	Standing dead/partial down <20%	14	Low	D-1/2	NF	This non-fuel area is a residential suburb with little to no fuel and mostly ornamental vegetation with some native conifers/deciduous trees. Very low wildfire hazard rating is a result of lacking natural fuel types. This area should be adjusted from D 1/2 to represent the non fuel wildfire type.
11	50°25'45.1" -127°29'14.0"	1 - <2	Moss, herbs, deciduous shrubs	Absent	Deciduous / None	Absent	<500	Deciduous (<25% conifer) / All CBH	<3	<400	<20%	Standing dead/partial down <20%	14	Low	D-1/2	NF	This low- non area is a residential suburb / school with sports fields and is bordered by Nigei St and Haida Avenue. Vegetation includes mostly ornamental shrubs with some native conifers/deciduous trees. Very low wildfire hazard rating is a result of lacking natural fuel types. This area should be adjusted from D 1/2 to represent the non fuel wildfire type.
12	50°25'57.2" -127°28'52.6"	10-20	Dead fine fuel (<1cm)	26-50% coverage	Elevated dead fuel	Scattered 10-39% coverage	<500	Conifer / High (>10m)	<3	601-900	41-60%	Standing dead/partial down <20%	58	High	M-1/2	C-5	This M1/2 is an extension of the C-5 and deciduous trees are only present around riparian areas.
13	50°25'58.6" -127°28'47.6"	10-20	Dead fine fuel (<1cm)	26-50% coverage	Elevated dead fuel	Scattered 10-39% coverage	<500	Conifer / High (>10m)	<3	601-900	41-60%	Standing dead/partial down <20%	58	High	M-1/2	C-5	This M1/2 is an extension of the C-5 and deciduous trees are only present around riparian areas.
14	50°25'51.5" -127°28'47.9"	10-20	Dead fine fuel (<1cm)	26-50% coverage	Elevated dead fuel	Patchy 40-60% coverage	<500	Conifer / Low (<4m)	<3	601-900	41-60%	Standing dead/partial down <20%	62	High	C-5	-	Evidence of historic fire in this area

COMMUNITY WILDFIRE RESILIENCY PLAN

Appendix B: Fuel Type Change Rationales

COMMUNITY WILDFIRE RESILIENCY PLAN

Appendix C: Maps