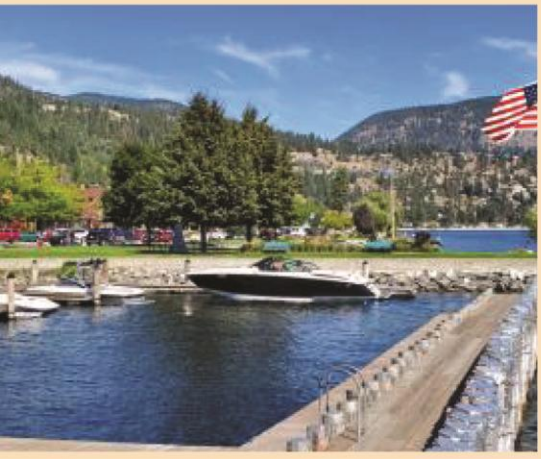
PEACHLAND
ON THE LAKE

Community Wildfire Resiliency Plan

2026



BRITISH COLUMBIA FireSmart™

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FORSITE

Registered Professional Signature and Seal

This CWRP has been prepared for the District of Peachland.

RPF Printed Name	RPF #
Hailey Sigalet, RPF	**FPBC #5302**
Date Signed	
June 3, 2026	
I certify that the work described herein fulfills the standards expected of a registrant of the Forest Professionals British Columbia and that I did personally supervise the work.	
Registered Professional Forester Signature & Seal	

FORSITE

Signature Page

Ian Cummings	Date
Fire Chief	
District of Peachland Fire & Rescue	

Acknowledgments

Forsite acknowledges that this project was carried out on the traditional and unceded territory of the distinct and sovereign Syilx/Okanagan Nation. Over the course of this project, we were afforded the opportunity to experience the diversity and beauty of Syilx Territory, and we reaffirm our support of the inherent jurisdiction of Syilx/Okanagan Nation to manage the land and resources within it.

As we plan for wildfire resilience, we recognize and respect Indigenous stewardship and cultural fire knowledge that have shaped these ecosystems for generations. This Community Wildfire Resiliency Plan will be reviewed and updated every five years to keep data current (including area and population figures) and to guide coordinated risk-reduction actions within and in proximity to the District of Peachland.

Forsite would like to acknowledge the contributions of many individuals during the building of this CWRP, including:

- Wes Aigro, Deputy Fire Chief, Peachland Fire Department
- Ian Cummings, Fire Chief, Peachland Fire Department
- Hailey Sigalet, RPF, Forsite Consultants Ltd
- Christine Pachkowski, RPF, RPBio, Forsite Consultants Ltd.
- Austin Frie, FTIT (SK), Forsite Consultants Ltd.
- Maximilian Moore, FIT, Forsite Consultants Ltd.
- Katlyn Wise, Forsite Consultants Ltd.
- Richelle Storla, E-submission Specialist, Forsite Consultants Ltd.

This report would not be possible without the Community Resiliency Investment (CRI) Program and funding from the Union of British Columbia Municipalities (UBCM) for the District of Peachland.

Executive Summary

The District of Peachland Community Wildfire Resiliency Plan (CWRP) was prepared with support from the Community Resiliency Investment (CRI) Program and administered by the Union of BC Municipalities (UBCM). The District of Peachland is situated in the Okanagan Valley, a region that has experienced some of the most severe wildfire seasons in British Columbia's recorded history. Four of the province's most significant wildfire seasons (2017, 2018, 2021, and 2023) have occurred within the last decade, reinforcing the increasing frequency and intensity of wildfire events across the province. Evacuation alerts and orders are becoming increasingly common in Peachland, including during three wildfire events in 2025 while this CWRP was being developed. These events further underscore the importance of proactive community preparedness and mitigation to reduce the risk of a future significant wildfire. This CWRP has been prepared to assess and identify wildfire threats and vulnerabilities within the District of Peachland and provide recommended action items that will help to increase the overall community wildfire resiliency of the area.

The purpose of this CWRP for the District of Peachland is to:

i. identify and assess wildfire hazards within and around the District of Peachland,

ii. assess potential risks and impacts to the community and infrastructure from wildfires, and

iii. provide effective and feasible mitigation strategies to reduce identified hazards and risk.

The CWRP is structured around the following seven FireSmart disciplines upon which the CRI FireSmart Community Funding and Supports program is based:

- Education
- Legislation and Planning
- Development Considerations
- Interagency Cooperation
- Cross-Training
- Emergency Planning
- Vegetation Management

In addition to identifying areas of the highest wildfire threat and risk within the District of Peachland, this plan is intended to support the District of Peachland and the Peachland Fire & Rescue Department to help provide a comprehensive understanding of the seven FireSmart disciplines and how they contribute to wildfire mitigation actions at numerous levels.

The development of this CWRP included a multi-phase approach including analysis of background data, engagement with District staff, local wildfire threat assessment through collection of field data, and development of a risk mitigation strategy based on the unique attributes of the District of Peachland.

The CWRP risk assessment and action plan below includes a summary of the most prevalent wildfire hazards and risk identified for the District of Peachland, followed by recommended actions intended to reduce the overall wildfire risk and strengthen overall wildfire resiliency throughout the District of Peachland. This includes suggested organizations or individuals who can lead the action, the action priority levels, expected timeframe, required resources, metrics for success, and additional notes. The District of Peachland needs to lead and initiate these actions to effectively meet the objectives listed under each FireSmart discipline.

Implementing these measures will require coordinated efforts by the District of Peachland in partnership with other agencies and stakeholders, including but not limited to: Indigenous Governments, provincial government agencies, adjacent municipal governments and partners, and community members/private landowners.

Summary of CWRP Actions

Risk Assessment
The purpose of a risk assessment is to identify the specific risks to a community and its assets. An ongoing review of the risk assessment should occur annually.
The risks outlined below were determined through background research, field site visits, and discussions with District of Peachland staff. The risks below are not listed in order of priority. 1. **Wildfire Exposure:** The District of Peachland is situated in a fire-prone environment. Since 2003, several large wildfires have entered the Okanagan Valley from nearby forested plateaus, resulting in structure loss, damage to critical infrastructure, and community evacuations. The threat of wildfire affecting the District remains a significant and ongoing concern. 2. **Evacuation Challenges:** The steep topography of the District limits agriculture and housing expansion, resulting in a higher population density than neighbouring districts such as West Kelowna and Summerland. A higher population density in the Wildland Urban Interface (WUI)presents challenges for emergency response and evacuations. Several neighbourhoods within the District have single points of access and egress, which can also pose significant evacuation and emergency response challenges during wildfire events. 3. **Privately Owned Land:** Peachland's WUI is approximately 4,101hectares, and of this, 35% (1,446 hectares) is private land and 29% (1,171 hectares) is water. This only left a small area eligible for proposed fuel treatment units. Under the current provincial funding model, wildfire risk reduction and fuel management activities on private lands are ineligible. This places a heavy burden on private landowners to take proactive measures and limits the areas where the District can manage fuels.

Note: Many of the recommended action items within this CWRP and associated Action Plan are fundable under the provincial Community Resiliency Investment (CRI) program during the time of development. However, eligible activities under the program are subject to change annually.

District of Peachland CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
Education						
Read and understand this CWRPs identified risk and recommendations.	FireSmart Coordinator	Very High	Immediately	District of Peachland 2026 CWRP	Read and understand this CWRP, identified risks to the community, and recommended action items.	N/A
Continue to maintain and update the FireSmart dedicated webpage on the District of Peachland Website.	FireSmart Coordinator	High	Ongoing	FireSmart information, CRI funding	Maintain relevant information that promotes FireSmart and wildfire preparedness, hosts the CWRP, and includes contact information for home ignition zone assessments, Burn Permit information, etc.	N/A

District of Peachland CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
Share this CWRP on the District of Peachland Website.	FireSmart Coordinator	Very High	Immediately	District of Peachland 2026 CWRP	CWRP and associated information uploaded to a District of Peachland FireSmart/ Wildfire Preparedness website.	This CWRP is a public document that should be made publicly available for community members to understand FireSmart, the wildfire environment within Peachland, and what actions the District of Peachland will be making for mitigation and prevention work.

District of Peachland CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
Employ a full or part-time FireSmart Coordinator within the District of Peachland. This position is responsible for implementing the FireSmart program and generally oversees actioning aspects of this CWRP.	Peachland Fire & Rescue	Very High	Ongoing	An annual salary, some training and orientation will be required. Position can be funded through grant funding.[1]	Successfully retain an individual who is enthusiastic about promoting FireSmart.	Funding is currently available under the provincial **FireSmart Community Funding and Supports** program to support a salary for a FireSmart Coordinator, Local FireSmart Representative, Wildfire Mitigation Specialist, or Wildfire Forest Professional. A local FireSmart Coordinator position is required to receive additional FCFS funding for eligible FireSmart and wildfire risk reduction activities under the Program.

[1] For more information regarding funding opportunities, please refer to the most up to date FireSmart Community Funding and Supports program and application guide.

District of Peachland CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
Promote FireSmart information and wildfire preparedness through social media and communication tools.	FireSmart Coordinator	Very High	Ongoing	Access to webpages, access to FireSmart resources, FCFS funding.	From May 1st to September 30th, an average of four posts a month regarding FireSmart material.	Use the FireSmart Social Media Handbook as a guide for best practices. Funding is currently available through the **FireSmart Community Funding and Supports** for promotion and distribution of FireSmart education resources, such as FireSmart 101, Wildfire Risk Reduction Basics, FireSmart Canada Ambassador training, FireSmart Begins at Home app, social media, FireSmart BC materials.

District of Peachland CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
Continue to hold an annual FireSmart event/open house to introduce concepts to community members and educate them on actions they can take on their properties to reduce wildfire risk. This could be a specific Wildfire Community Day in the spring prior to wildfire season.	Peachland Fire & Rescue	High	2026-2031	Participation and in-kind support from community, other agencies, location to hold events, FCFS funding.	Hold events annually in the spring and fall.	Hosting an event is an excellent opportunity to solicit participation from local community and for the Fire Department to engage and provide education for the community. Look to solicit help from other agencies such as BCWS and the Regional District of Central Okanagan. See Wildfire Community Preparedness Day for resources.
Continue to offer free FireSmart home and property assessments on private property.	FireSmart Coordinator, District staff with Wildfire Mitigation Specialist training	High	Ongoing	CRI funding, Local FireSmart Representative	Residents are requesting and getting assessments completed	Funding is currently available per the **FireSmart Community Funding and Supports Program through the Community Resiliency Investment.**

District of Peachland CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
Support the FireSmart BC Education Program through the Central Okanagan School District (No. 23).	FireSmart Coordinator, School District No. 23 representative	Moderate	Ongoing	Relationship with School District No. 23, CRI Funding	Program is adopted for the 2026/2027 school year	This program includes wildfire resiliency literacy kits, Ember activity packages, colouring contest materials and access to Storytime videos with Ember. For more information refer to the FireSmart BC Education Program website.
Support the FireSmart Plant Program through local garden centers.	FireSmart Coordinator	High	2026-2031	FCFS funding, relationship with local business owners.	Local garden centres or nurseries continue to support the program.	The FireSmart Plant Program includes plant tags, banners, staff buttons and in-store FireSmart advertising.

Encourage neighbourhoods to apply for FireSmart Canada's Neighbourhood Recognition Program. Once recognized, annually renew for FireSmart Recognition.	FireSmart Coordinator	High	2026-2031	FCFS funding, Neighbourhood Champion and Local FireSmart Representative (LFR).	Have a minimum of four neighbourhoods recognized by the end of 2027.	Peachland has three recognized neighbourhoods. These neighbourhoods should be encouraged to renew for FireSmart recognition. The program focuses on bringing neighbours together to address threats on their respective properties. For more details regarding the FireSmart Canada Neighbourhood Recognition Program and steps towards recognition status, please see here. Funding is currently available per the FireSmart Community Funding and Supports program and application guide.

District of Peachland CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
Ensure appropriate signage is in place for highly visible fuel-management activities.	FireSmart Coordinator, individual organizing fuel management treatment	High	Ongoing as fuel management is completed	Signage for before, during, and after fuel management activities are completed.	Signage is in place before, during, and after fuel management work.	Signage should be located in a highly visible location at the start of trail heads, and should alert community members to what the current activities are and how they will reduce wildfire risk and threat.
Legislation and Planning						
As legislation is changed (official Community Plan, Bylaws, policies), incorporate FireSmart objectives, language, and terminology.	FireSmart Coordinator, Peachland Bylaw/Council Representative	Moderate	Ongoing	CRI Funding	Bylaws, Policies, and the Official Community Plan reflect FireSmart principles over time.	Funding is available through the **FireSmart Community Funding and Supports Program through the Community Resiliency Investment** to amend Official Community Plans and Bylaws to incorporate FireSmart principles.

District of Peachland CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
Development Considerations						
Update wildland fire Development Permit Area (DPA) boundaries to reflect changes in development and growth within the District of Peachland, as needed.	Peachland Fire & Rescue, Planning Department	Moderate	As needed as Peachland expands.	FCFS funding, professional expertise in wildfire DPAs	The current DPA boundary is updated to reflect changes.	An updated DPA boundary will accurately capture the recent development within Peachland. Refer to the **FireSmart Wildfire Development Permit Areas Guide** as a resource.
Amend existing wildfire DPAs to incorporate additional FireSmart considerations.	Peachland Fire & Rescue, Planning Department	High	2026-2031	FCFS funding, professional expertise in wildfire DPAs	The current DPA is updated.	Refer to the **FireSmart Wildfire Development Permit Areas Guide** as a resource.

District of Peachland CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
Interagency Cooperation						
Continue to participate in the Okanagan Regional Community FireSmart and Resiliency Committee (CFRC) and share findings of CWRP with partners.	FireSmart Coordinator	Very High	Ongoing	FCFS funding	The District of Peachland continues to attend any CFRC meetings.	The committee meets quarterly to discuss FireSmart and emergency management. Share high priority action items with other agencies/partners and identify synergies and opportunities to collaborate. Participation in a FireSmart Resiliency Committee is a requirement for CRI funding as of 2024.

District of Peachland CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
Continue to annually attend the Wildfire Resiliency Training Summit.	FireSmart Coordinator, Peachland Fire & Rescue, Peachland municipal staff	Very High	Annually	FCFS funding.	A minimum of two people attend annually from Peachland.	The intention of having multiple people attend the event from the District is to foster awareness and education regarding wildfire resiliency across various District departments. Funding for attendance is available through the FireSmart Community Funding and Supports program.

District of Peachland CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
Provide Indigenous cultural safety and humility training to emergency management personnel.	Peachland Fire & Rescue	High	Ongoing	FCFS funding	Aim to provide training annually for staff until all emergency management staff have received training.	Training will provide emergency management staff with knowledge that can be used to successfully contribute to partnerships and assist Indigenous communities in both wildfire prevention and suppression.

District of Peachland CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
Participate in integrated fuel management, cultural burning, and/or prescribed fire planning table to support the integration of fuel management planning across jurisdictional boundaries.	FireSmart Coordinator	Moderate	Ongoing	FCFS funding	Participation in planning table.	Partnership with the Ministry of Forests (MoF), BC Wildfire Service, adjacent municipalities and First Nation governments is encouraged for a successful planning table. Consider engaging with the MoFOkanagan Shuswap Natural Resource District and inquire if any current planning tables exist within the Okanagan.

District of Peachland CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
Cross-Training						
Continue to provide SPP-WFF1 training for all Peachland Fire & Rescue members.	Peachland Fire & Rescue	Medium	Ongoing	FCFS funding, qualified trainers.	All fire department members receive SPP-WFF1 training.	Interface wildfire training is essential for fire department members to successfully respond to interface wildfires. The SPP-WFF1 course includes ICS-100, S-100 and S-185.

District of Peachland CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
Provide training opportunities for District of Peachland staff members, such as the Wildfire Mitigation Specialist, the Local FireSmart Representative and other fundable opportunities through the FCFS program.	Peachland Fire & Rescue	High	Ongoing	FCFS funding, qualified trainers.	A minimum of two Wildfire Mitigation Specialists are on staff by the end of 2027.	Wildfire Mitigation Specialist and Local FireSmart Representative training are essential qualifications for conducting various FireSmart assessments and activities. Having trained staff within Peachland increases the municipality's capacity to implement wildfire mitigation measures and advance FireSmart initiatives effectively. Please see the FireSmart Community Funding and Supports program and application guide for a list of eligible courses.

District of Peachland CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
Facilitate cross training and response exercises with the BCWS Penticton Fire Zone and the fire department.	Peachland Fire & Rescue	Moderate	Bi-annually in spring or fall	FCFS funding, relationship with BCWS Penticton Fire Zone.	Have a minimum of one cross training exercise annually.	Established relationships between agencies will lead to increased efficiency and coordinated responses during a wildfire event. Funding is currently available through the FireSmart Community Funding and Supports program and application guide.
Provide emergency management cross-training courses, such as *ICS-100* and *Introduction to Emergency Management in Canada*, for District municipal staff involved in emergency management.	Peachland Fire & Rescue	High	Ongoing	FCFS funding, qualified trainers.	Municipal staff receive appropriate cross training in emergency management.	Participation in these courses will improve Peachland's ability to effectively respond to an emergency event. Please see the FireSmart Community Funding and Supports program and application guide for funding details.
Emergency Planning						

District of Peachland CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
Encourage residents to sign up for the Regional District of Central Okanagan emergency notification program.	Peachland Fire & Rescue	High	Ongoing	Communication resources and channels.	75% of residents are subscribed by the end of 2027.	Residents need access to trusted, timely and accurate information to ensure their own safety during an emergency event. Promote signup at FireSmart and Fire Department events and through the Peachland Fire & Rescue Facebook page.

District of Peachland CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
Develop and/or participate in cross-jurisdictional meetings and tabletop exercises specifically focused on wildfire preparedness and response, including wildfire readiness meetings.	Peachland Fire & Rescue	High	Immediately and then annually.	FCFS funding, venue.	Annual or biannual participation in a meeting and or tabletop exercise.	Funding for attendance is currently available per the FireSmart Community Funding and Supports program and application guide. Consider hiring an emergency management consultant to facilitate an annual tabletop exercise focused on a wildfire event impacting Peachland. Consider partnership with the Regional District of Central Okanagan (RDCO) on this initiative.

District of Peachland CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
Continue to assess, inventory and purchase FireSmart structure protection equipment.	Peachland Fire & Rescue	Moderate	Ongoing	FCFS funding	FireSmart Structure Protection Trailer and required equipment are acquired.	The FireSmart Structure Protection Trailer can be purchased through four phases. The District of Peachland apply annually for funding. For more information, please refer to the FireSmart Community Funding and Supports program and application guide.

District of Peachland CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
Review the UBCM Community Emergency Preparedness Fund annually for funding opportunities	Peachland Fire & Rescue	Moderate	Annually	Emergency Program Lead	Annually review for eligible opportunities.	Peachland should consider applying for the following: • Emergency Operations Centres Equipment and Training • Emergency Support Services Equipment and Training • Extreme Temperatures Risk Mapping, Assessment and Planning

District of Peachland CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
Assess community water delivery ability as required for suppression activities in the municipal area and wildland urban interface.	Peachland Fire & Rescue	High	2026-2031	FCFS funding	Report and next steps are generated.	Water delivery lessons learned from McDougall Creek could inform the report. Consider the impacts of a large, fast-moving wildfire through the District of Peachland and the potential limitations of current water availability.

District of Peachland CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
Develop a Wildfire Response Preparedness Condition Guide that speaks to standard operating procedures for District staff during periods of High or Extreme fire behavior.	Peachland Fire & Rescue	Moderate	2026-2030	Professional expertise, funding.	Guide is created by the end of 2030.	A Wildfire Response Preparedness Condition Guide would include local daily action guidelines based on expected wildfire conditions. Peachland would use these guidelines to guide decision-making and actions to best respond to wildfire. For example, during periods of High Fire Danger, parks and maintenance crews would not use equipment that may cause sparks, such as chainsaws.

District of Peachland CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
Promote the Emergency Management and Climate Readiness (EMCR) Wildfire Preparedness Guide and Wildfire Evacuation Checklist at open houses and community engagement events.	FireSmart Coordinator	Moderate	Ongoing	FCFS funding, **EMCR Wildfire Preparedness Guide** and **Wildfire Evacuation Checklist**	Resources are promoted to the community.	As demonstrated during the 2023 wildfire season, evacuation orders can be issued suddenly due to fast-moving wildfires. Prepared communities are better equipped to respond quickly and safely during an evacuation.

District of Peachland CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
Vegetation Management						
Apply for funding to complete fuel/vegetation management treatments and prescribed burning activities to reduce hazardous forest fuels on municipal or provincial crown land within the eligible WUI.	FireSmart Coordinator	Very High	Ongoing	CRI Funding	Fuel management treatments are conducted around the community	Eligible funding to cover planning and development for fuel management, fuel management treatments, prescribed burning, maintenance treatments, and fuel management community demonstration projects may be available per the **FireSmart Community Funding and Supports Program through the Community Resiliency Investment.**

District of Peachland CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
Complete recommended mitigation activities identified in FireSmart assessments for residential homes and properties owned by seniors (65 years or older), elders, people with limited mobility, or vulnerable populations who cannot undertake mitigation activities themselves.	FireSmart Coordinator	High	Ongoing	FCFS funding	Target mitigation activities for five properties a year.	Funding is available through the FireSmart Community Funding and Supports program and application guide.

District of Peachland CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
Conduct FireSmart Home Ignition Zone (HIZ) assessments and Wildfire Mitigation Program assessments for individual residential properties or homes. Encourage property/homeowners to implement FireSmart recommendations from the HIZ and Wildfire Mitigation Program assessments.	FireSmart Coordinator	High	Annually	FCFS funding	Conduct 50 HIZ or Wildfire Mitigation Program assessments annually.	Target areas within the wildland urban interface. Funding is currently available per the FireSmart Community Funding and Supports program and application guide.
Complete FireSmart assessments (HIZ, Critical Infrastructure and Home Partners) on eligible local critical infrastructure and community assets.	FireSmart Coordinator	High	2026-2031	FireSmart HIZ Assessment, FireSmart Critical Infrastructure Assessment, FireSmart Home Partners Program Assessment, FCFS funding	All eligible infrastructure is assessed.	Funding is currently available for assessment of structures via the FireSmart Community Funding and Supports program and application guide.

District of Peachland CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
Create an inventory system to track areas that have been fuel managed, their respective maintenance cycles, and various FireSmart assessments.	FireSmart Coordinator, GIS Department	Moderate	Annually	Excel spreadsheet tracking system or geospatial database.	Creation of a tracking system.	Establishing a tracking system will streamline the monitoring of ongoing fuel treatments and help identify necessary maintenance tasks at various intervals. This will ensure that treatments remain effective over time and allow for timely interventions to address any emerging risks or concerns. The tracking system should also consider various FireSmart assessments.

District of Peachland CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
Complete initial FireSmart Cultural Sites and Green Spaces (CSGS) Assessment and checklist on all District owned green spaces and cultural sites.	FireSmart Coordinator	Moderate	2026-2031	Cultural Sites and Green Spaces Guide and Assessment, FCFS funding	All eligible District owned cultural sites, and green spaces are assessed and inventoried.	Funding is currently available via the FireSmart Community Funding and Supports program and application guide.

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Frequently Used Acronyms

AOI	Area of Interest
AOP	Annual Operating Plan
BCBC	British Columbia Building Code
BC	British Columbia
BCWS	British Columbia Wildfire Service
BEC	Biogeoclimatic Ecosystem Classification
CFFDRS	Canadian Forest Fire Danger Rating System
CFRC	Community FireSmart Resiliency Collaborative
CI	Critical Infrastructure
CLWRR	Crown Land Wildfire Risk Reduction
CIFFC	Canadian Interagency Forest Fire Centre
CRI	Community Resiliency Investment
CWRP	Community Wildfire Resiliency Plans
DP	Development Permit
DPA	Development Permit Area
EMCR	Emergency Management and Climate Readiness
EMP	Emergency Management Plan
EPA	Emergency Program Act
FBP	Fire Behaviour Prediction System
FCI	Forest Carbon Initiative
FCFS	FireSmart Community Funding and Supports
FESBC	Forest Enhancement Society of British Columbia
FESIMS	Forest Enhancement Society Information Management System
FMP	Fire Management Plan
FNESS	First Nations Emergency Services Society
FRPA	Forest & Range Practices Act
GIS	Geographic Information Systems
FSCCRP	FireSmart Canada Community Recognition Program

HIZ	Home Ignition Zone
HVRA	Hazard, Risk, and Vulnerability Analysis
LRMP	Land and Resource Management Plan
MOF	Ministry of Forests
MOTT	Ministry of Transportation and Transit
PSOE	Provincial State of Emergency
PSTA	Provincial Strategic Threat Assessment
OCP	Official Community Plan
RSWAP	Resource Sharing Wildfire Allocation Protocol
SARA	Species at Risk Act
SOLE	State of Local Emergency
SPU	Structure Protection Units
UBCM	Union of British Columbia Municipalities
VAR	Values at Risk
WRR	Wildfire Risk Reduction
WUI	Wildland-Urban Interface

1.0 Introduction

In British Columbia, four of the most severe wildfire seasons in the past century have occurred within the last eight years: 2017, 2018, 2021, and 2023.[2] The District of Peachland, located in the Okanagan Valley, has experienced firsthand the impacts of contemporary fire regimes and their effects on the landscape and local communities. Several major wildfires have occurred near Peachland over the past decade, triggering evacuations and state of emergency declarations. Major fires occurred in 2017 (2,224 ha), 2018 (1,789 ha), and 2021 (975 ha). The catastrophic wildfire seasons of 2021 and 2023 saw losses of hundreds of homes within the Okanagan Valley. More recently, in the summer of 2025, two wildfire events caused evacuations of neighbourhoods within the District of Peachland.

In response to these events, the District of Peachland has built a robust FireSmart program, led by the Peachland Fire Department. Creating a Community Wildfire Resiliency Plan (CWRP) is the next step in building the program. The 2025 CWRP will mark the fourth iteration of wildfire planning for the District, following the original Community Wildfire Protection Plan (CWPP) commissioned in 2005 and most recently updated in 2021. The CWRP takes a holistic approach to wildfire risk reduction and community resilience. It integrates the seven FireSmart Canada disciplines into various aspects of wildfire management. These seven disciplines include:

1. Education
2. Legislation and Planning
3. Development Consideration
4. Interagency Cooperation
5. Cross-Training
6. Emergency Planning
7. Vegetation Management

1.1 PLAN GOALS

The purpose of the District of Peachland's CWRP is to identify wildfire hazards within and around the District's municipal boundary, assess the potential risks and impacts to the community from wildfires, and provide strategies to reduce these identified threats and risks guided through FireSmart principles. In accordance with the *2024 Community Wildfire Resiliency Plan Instruction Guide*, this plan will:

1. Increase community understanding of wildfire risk.
2. Foster greater collaboration within and across administrative boundaries.
3. Be responsive to the needs of the District of Peachland in terms of its size, capacity, and the threat the community faces.
4. Develop achievable and accountable action items to mitigate these identified risks.[3]

[2] Parisien, M. A., Barber, Q. E., Bourbonnais, M. L., Daniels, L. D., Flannigan, M. D., Gray, R. W., ... & Whitman, E. (2023). Abrupt, climate-induced increase in wildfires in British Columbia since the mid-2000s. *Communications Earth & Environment*, *4*(1), 309.

[3] **Community Wildfire Resiliency Plan Instruction Guide 2023**. British Columbia FireSmart.

1.2 PLAN DEVELOPMENT SUMMARY

Forsite Consultants Ltd. (Forsite) was retained to develop the 2025 District of Peachland CWRP. A thorough analysis of all background information and fieldwork data was conducted to develop key recommendations and action items for each FireSmart discipline. These actions support the stated objectives and were written according to SMART goal criteria, ensuring they are Specific, Measurable, Achievable, Realistic, and Time-bound.

In developing this CWRP, Forsite worked through the following four primary phases:

1. **Gathering background information:** A thorough review of existing relevant plans and compilation of spatial data to help inform this CWRP.

2. **Identification of values-at-risk:** Development of a values-at-risk spatial database for the District of Peachland through information provided by the District.

3. **Assessment of local wildfire hazard and risk:** On the ground, wildfire threat assessments were completed in forested areas on Crown and municipal land within the Wildland Urban Interface adjacent to homes and other values. Forsite staff also visited key interest areas, parks and green spaces, and critical infrastructure with a representative from the District of Peachland. The results of the assessments and site visits were utilized to identify and delineate recommended areas for fuel management treatments.

4. **Development of a risk mitigation strategy with actionable recommendations:** The data and information collected in the above phases provided the necessary content to develop an actionable CWRP tailored to the District of Peachland. The action table provides a comprehensive list of recommendations for the District to implement over the next five years to increase its wildfire resiliency.

2.0 Relationship to Other Plans

Numerous plans offer valuable insights to inform the CWRP, providing essential background information and guiding its development. The plans listed in Table 1 were consulted during the CWRP development process to ensure alignment with existing community and land objectives.

Table 1: Key Plans and Relationship to CWRP

Key Plans and Relationships to CWRP		
Plan Type	**Description**	**Relationship to CWRP**
Peachland Official Community Plan (2018)	The purpose of the Official Community Plan (OCP) is to be a tool for a community to guide growth in their jurisdiction. The Peachland OCP reflects the values and goals of the community.[4]	The OCP guides policy development and outlines the overall vision for the District of Peachland. Consequently, it is essential to integrate FireSmart principles and wildfire resiliency into the plan. The following sections are identified as relevant: • **Section 4.0 Land Use Strategy:** Identifies land uses and their objectives and policies. Relevant sections include rural areas, and parks and trails. • **Section 5.4 Infrastructure:** Outlines the variety of services that Peachland is responsible for to meet community needs. Emphasizes that the relative infrastructure is critical in the delivery of these services. • **Section 5.4.2 Community Water System:** Provides a high-level overview of Peachland's community water system. Identifies the Source Water Protection Plan to regulate activities in the watershed. Objectives and policies include protecting water supply and sources in rural areas and on crown land. • **Section 5.5 Interjurisdictional Relationships:** Describes Peachland's commitment to

[4] Official Community Plan – District of Peachland (2018)

Key Plans and Relationships to CWRP		
Plan Type	**Description**	**Relationship to CWRP**
		maintaining productive working relationships with regional partners. • **Section 5.6 Natural Environment**: Emphasizes the protection of Peachland's abundant natural environment, including forested areas, woodlands, and riparian areas. Identifies objectives and policies for specific aspects of the natural environment including environmentally sensitive areas. • **Section 5.6.4 Natural Hazards:** Identifies natural hazards that Peachland is vulnerable to, including hazards related to Peachland's proximity and overlap with hillsides and wildfire interface. Identifies objectives and policies. • **Section 5.6.7 Climate Action:** Emphasizes Peachland's commitment to achieving carbon neutrality and water use reduction goals, and to addressing climate change challenges. • **Section 6.4.1.10 Wildfire Interface Development Permit Areas:** Explicitly addresses wildfire risk through identifying areas within the urban-wildland fire interface where additional requirements apply to development.
Okanagan Shuswap Land and Resource Management Plan (2001)	A regional plan providing high-level objectives for Crown land and resource use. Resource Management Zones are identified within the planning area to guide resource management related activities.	Includes management direction for Resource Management Zones (RMZs). Relevant RMZs include: • **Community/Crown Interface** Section 7: Protect populated areas from forest fire hazards in the wildland-urban interface, and protect the provincial forest from fires

Key Plans and Relationships to CWRP		
Plan Type	**Description**	**Relationship to CWRP**
		originating on contiguous private land. • **Ecosystem Management – Natural Disturbance Type 4 (NDT4) (open forests and grasslands)** Includes goals, objectives and strategies for maintaining the health and function of fire-dominated ecosystems.
Regional District of Central Okanagan Emergency Plan (2020)	The Regional Emergency Management Plan has been developed to meet the Provincial requirements for regional district emergency preparedness.	As a member of the RDCO, the District of Peachland is included in this plan. The RDCO primary Emergency Operations Centre (EOC) is located at the Kelowna Fire Department, Station #1. The plan details EOC structure and function with templated examples that can be utilized during an emergency event.
Regional Evacuation Planning Framework (2022)	Provides a framework for planning and coordination of evacuation or shelter-in-place response for all communities within the regional boundaries.	This document provides strategies and processes for evacuation during a wildfire event, including notification of residents, designation of evacuation routes, traffic control and security.
District of Peachland Community Wildfire Protection Plan (2021)	The Community Wildfire Protection Plan (CWPP) is intended to provide the basis for all future wildfire mitigation actions in the District of Peachland. The plan provides a clear description of the wildfire environment, wildfire risks to the community, as well as strategic and operational recommendations to reduce risk and increase the community's resilience to wildfire threat.[5]	The CWPP was the predecessor to the CWRP and includes relevant information such as: • **Summary of CWPP Recommendations (vi)** – Recommendations from the 2021 CWPP. • **4.3 Local Wildfire Threat Assessment (pg. 28)** – Summary of fuel types, fire spread patterns and topography. • **Risk Management and Mitigation Factors (pg. 28)** – Fuel management and FireSmart recommendations. The CWPP serves as a resource for informing decision-making in the CWRP. Its recommendations are reviewed and assessed for their effectiveness, shaping and

[5] Community Wildfire Protection Plan - District of Peachland (2021)

Key Plans and Relationships to CWRP		
Plan Type	**Description**	**Relationship to CWRP**
		guiding the development of CWRP recommendations.
Westbank First Nation CWPP, 2020	The Westbank First Nation (WFN) CWPP establishes a strategic framework for reducing wildfire risk to WFN's five reserve areas (IR 8, 9, 10, 11, 12). It defines the local threat to human life, property and critical infrastructure from wildfires, and identifies measures to mitigate those threats and outline a plan of action to implement the measures.	The Area of Interest (AOI) for this CWPP includes IR 9 – Tsinstikeptum which is located approximately 2.5km north of Peachland's AOI. While there is no AOI overlap or connectivity, there is potential opportunity to target Fire Smart activities collaboratively.
Regional District of the Central Okanagan CWRP, in development	While this CWRP was in development, the Regional District of the Central Okanagan (RDCO) was also developing a CWRP for the Central Okanagan East and Central Okanagan West Electoral Areas.	While there is no AOI overlap between the RDCO and Peachland CWRPs, the two plans are directly adjacent, and several regional district parks lie within Peachland's municipal boundaries. As such, there is an opportunity to pursue FireSmart activities collaboratively, particularly fuel management initiatives where proposed Fuel Treatment Units (FTUs) from each plan abut one another.

In addition to existing plans, community bylaws were reviewed for their relevance to the CWRP, as outlined in Table 2.

Table 2. Key Bylaws and Relationship to CWRP

Key Bylaws and Relationships to CWRP		
Plan Type	**Description**	**Relationship to CWRP**
Regional District of Central Okanagan – Smoke Control Regulatory Bylaw No. 773 (2011)	A bylaw to require the owners or occupiers of real property, or their agents, to eliminate or reduce smoke/emissions.	**2.6 – Open burning and smoke regulations (pg. 3):** • Burning period is defined as between 7:00 a.m. and sunset of the same day except for burning permitted under section 2.6 d. • For large fires such as pile burning with fuel management, the fire may be maintained for up to 72 hours if the fire is substantially smokeless. • A minimum separator of 30 meters shall be maintained between the location of a fire and all property lines, buildings, and structures. This bylaw needs to be referred to during fuel management pile burning activities. Note: under Bylaw No. 612, fuel management activities can apply for exemptions to the burning window.
Fire and Life Safety and Smoke Control Bylaw No. 1718	The bylaw establishes the legal framework for fire prevention, life safety, wildfire interface protection, and smoke control within the District of Peachland. It gives authority to the Fire Chief and Peachland Fire and Rescue Service (PFRS) to regulate fire risks, enforce safety measures, and manage burning activities.	**Section 7.3 Removal of Fire Hazards:** New and existing buildings constructed in the Interface Zone, which is within the forest or adjacent to a forest, shall have a fuel modified area that conforms to the requirements of Schedule C of this Bylaw (Interface Zone Regulations), which align with FireSmart and provincial wildfire guidance.

Key Bylaws and Relationships to CWRP		
Plan Type	**Description**	**Relationship to CWRP**
		Section 7.6 Forests: Where the safety of life or property in an area within the Municipality is endangered through the hazardous condition of the forest cover or the occurrence of fire in any forest or woodland, the Fire Chief or Officer in Command may declare access to the area be closed. **Section 8 – Smoke Control Regulations:** Regulates open burning within the Peachland municipal boundary. This bylaw needs to be referred to during fuel management pile burning activities. **Section 9 – Permits:** A permit is required in conformance with Section 8 of this bylaw "Smoke Control Regulation" and Section 14 of this bylaw "Open Burning". **Section 14 – Open Burning*:** Requires a burning permit for outdoor burning between the hours of 7:00 a.m. and sunset. *As per this bylaw, "open burning" does not include the burning of material for the purposes of fire hazard reduction by authorities having jurisdiction to manage ecosystems.
District of Peachland Zoning Bylaw (2023)	Zoning Bylaw No. 2400 is the primary land-use regulation for the District of Peachland. Its overall purpose is to divide the municipality into zones and regulate how land,	The Zoning Bylaw contains explicit, enforceable provisions that directly support wildfire risk reduction and align with FireSmart principles. The

Key Bylaws and Relationships to CWRP		
Plan Type	**Description**	**Relationship to CWRP**
	buildings, and structures may be used and developed, in alignment with the Official Community Plan.	following sections are identified as relevant: **Part 3 – Definitions:** Provides descriptions for "Fire-Prone Tree and Fire-Prone Shrub", and "Fire-Resistant Tree and Fire-Resistant Shrub". **Section 5.19.13 – Landscaping and Buffers:** Establishes mandatory landscaping requirements that align with FireSmart principles. The regulations apply to the **installation** of new shrubs, trees, and landscaping materials on residential or commercial properties for the area within 10 meters of a building or structure. **Section 5.19.14 – Landscaping and Buffers:** Establishes mandatory landscaping requirements that align with FireSmart principles. Applies to the maintenance of **existing** landscaping on residential or commercial properties for the area within 10 meters of a building or structure.
Tree Protection Bylaw No. 2404	Tree Protection Bylaw No. 2404 regulates when and how trees may be cut or removed, establishes a permit system, and requires replacement planting, while balancing environmental protection with FireSmart and wildfire risk reduction objectives.	This regulation may apply to certain fuel management treatments and FireSmart activities that involve the cutting or alteration of trees on lands owned by the District of Peachland.
Brent Road Fire Protection Service Establishment Bylaw No. 1702	This bylaw establishes a fire protection service for the Brent Road area, which lies south of the municipal boundary of the District	While the northern portion of the Brenda Road subject area falls within the Peachland CWRP AOI, the southern portion falls within the

Key Bylaws and Relationships to CWRP		
Plan Type	**Description**	**Relationship to CWRP**
	of Peachland, through a formal service arrangement with the Regional District of Central Okanagan (RDCO). This ensures that residents receive organized fire, rescue, and emergency services.	RDCO CWRP AOI. Aspects of the Peachland CWRP that relate to fire protection services are applicable and extend to the southern Brent Road subject area, including, but not limited to: • Fire suppression and prevention • Rescue • Medical first response • Disaster planning Other CWRP components that are not directly related to fire protection service delivery, such as vegetation management, do not apply under the Peachland CWRP and instead fall within the scope of the RDCO CWRP. Given this geographic and functional overlap, there is a clear opportunity for coordination and collaboration between the District of Peachland and RDCO.

3.0 Community Description

3.1 AREA OF INTEREST

The Peachland CWRP Area of Interest (AOI) is defined by the District of Peachland (hereafter referred to as Peachland) municipal boundary, encompassing approximately 1,817 hectares, of which 983 hectares constitute the land base, excluding lake areas. Peachland is situated in the Okanagan Valley between Summerland and West Kelowna. The eastern boundary of the municipality is bordered by Okanagan Lake, which runs north-south, while the western boundary extends into the Trepanier Valley in the Thompson Plateau. The District of Peachland is located on the ancestral, traditional, and unceded territory of the Syilx People of the Okanagan Nation.

3.2 ELIGIBLE WILDLAND-URBAN INTERFACE

The Wildland Urban Interface (WUI) encompasses any area where combustible forest fuel is adjacent to homes, farm structures, or other outbuildings. This interface can occur at well-defined boundaries, known as the interface, or in areas where development and forest fuel intermingle with no clearly defined boundary, known as the intermix.

In this Community Wildfire Resiliency Plan (CWRP), the WUI differs from the AOI due to the criteria set forth by the provincial FireSmart Community Funding and Support (FCFS) program. For FCFS eligibility, the WUI is defined as a one-kilometre buffer surrounding areas with a structured density greater than six structures per square kilometre.[6] This buffer represents a reasonable distance within which embers from a wildfire can travel and ignite structures.

Modifications were made to the eligible WUI to exclude areas that fall within the jurisdiction of the Regional District of the Central Okanagan (RDCO). For Peachland's CWRP, the eligible WUI encompasses 4101 ha (Figure 1). Major land classifications within the eligible WUI are as follows:

Table 3: Major land classifications within the eligible WUI

	Area (ha)	%
Private Land	1,446.89	35.3
Crown Provincial	1,388.69	33.8
Municipal	94.68	2.3
Mixed Ownership	0.12	0.0
Water	1,171.55	28.6
Total	4101.93	100.0

[6] FireSmart Community Funding and Supports

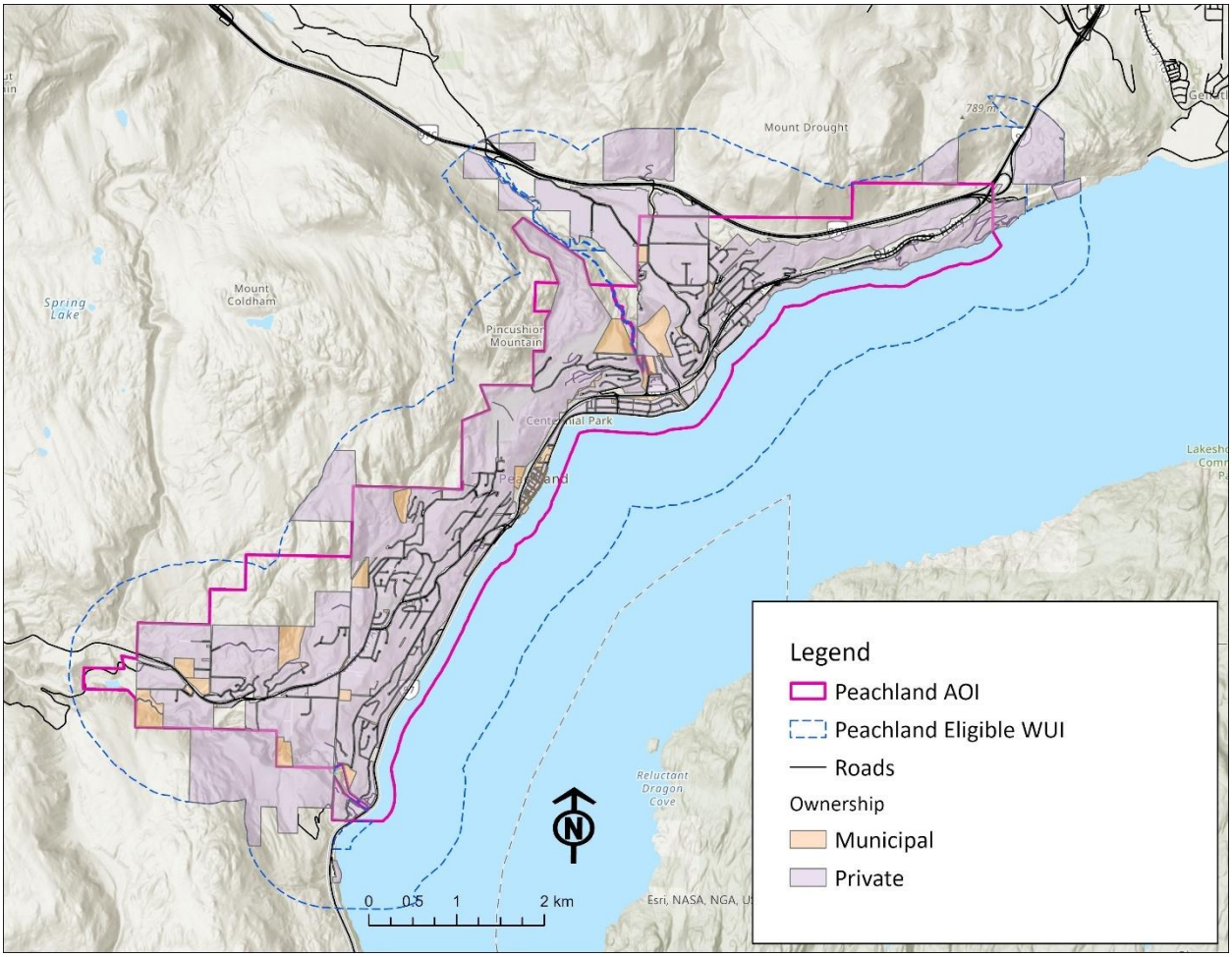

Figure 1: District of Peachland CWRP Area of Interest (AOI) and Eligible Wildland Urban Interface (WUI)

3.3 COMMUNITY INFORMATION

The District of Peachland has a land area of approximately 16.10 km^2 with a population density of around 360 people per square kilometer. Peachland is growing steadily, with a 6.7% increase in population from 2016 to 2021. The steep topography of the District limits agriculture and housing expansion, resulting in a higher population density than neighbouring districts such as West Kelowna and Summerland. A higher population density in the WUI presents challenges for emergency response and evacuations.

Table 4: Community profile: District of Peachland

Community Information	
Total Population (2021)	5,789
Total Population (2016)	5,428
Population Percentage Change (2016 -2021)	6.7%
Total Private Dwellings	2,936
Private Dwellings Occupied by Usual Residents	2,689
Population Density Per Square Kilometer	359.6
Land Area	16.10 km^2

3.4 VALUES AT RISK

The following section is a description of the extent to which wildfire has the potential to impact the values at risk (VAR) identified within the Area of Interest. VAR are the human or natural resource values that may be impacted by wildfire; this includes human life, property, critical infrastructure, high environmental and cultural values, and resource values.

3.4.1 Human Life and Safety

In a threatening wildfire, safeguarding human life and safety is paramount, often necessitating the evacuation of at-risk areas. Evacuations, while crucial, can be impeded by factors such as vehicle congestion, accidents, or the rapid and unpredictable behaviour of wildfires.

Peachland is situated in the Okanagan Valley between West Kelowna to the north and Summerland to the south. These communities are connected by Highway 97, the primary north-south transportation corridor. Highway 97 would serve as the primary evacuation route for residents in an

emergency that triggers a widespread evacuation of the District. Secondary evacuation routes include Highway 97C west towards Merritt, or Brenda Mines Road, an unpaved road to the west that connects to Highway 97C.

Recent studies have shown that wildfire impact is not solely limited to damage within the burn-affected area. Wildfire smoke contains several hundred compounds, including carcinogenic gases such as carbon monoxide, nitrogen oxides, and particulate matter (PM), a mix of microscopic solid particles and liquid droplets containing organic and black carbon[7]. In addition, smoke contains fine particles less than 2.5 micrometres (μm), referred to as PM2.5. Even short-term exposure to the PM2.5 found in wildfire smoke can be detrimental to public health due to its ability to infiltrate deep into the respiratory system.[8]

More emergency information is made available from the District of Peachland here: https://www.peachland.ca/departments/peachland-fire-rescue/emergency-planning

3.4.2 Emergency Management

Provincial legislation and policies are in place to support local governments during disasters. On November 8, 2023, the new Emergency and Disaster Management Act (EDMA) came into force, replacing the previous Emergency Program Act. The updated legislation reflects the changing nature of emergencies (e.g. global pandemics, climate change) and shifts from focusing on emergency response to the four phases of emergency management: mitigation, preparation, response, and recovery. To support the new legislation, the provincial government is updating and developing regulations in consultation and cooperation with First Nations, and informed by engagement with Indigenous organizations, provincial ministries, municipalities, regional districts, critical infrastructure owners, public sector agencies, service providers, emergency management practitioners and the public.

The District of Peachland is included in the Regional District of Central Okanagan (RDCO) Emergency Plan, which is coordinated by the RDCO, and unifies emergency response across the City of Kelowna, City of West Kelowna, District of Lake Country, District of Peachland, and Westbank First Nation. The emergency plan is intended to:

- assist emergency personnel to respond to disasters and major emergencies, such as floods, wildfires, major spills, plane crashes, etc.
- establish a centralized assessment and decision-making organization to share regional resources or request assistance from the provincial or federal governments.
- guide post-emergency recovery operations.

The RDCO also has a *Regional Evacuation Planning Framework*, which identifies high priority areas based on hazard analysis, provides hazard and access challenge data, and provides an approach for coordinating evacuations for all residents in the Regional District.

7 Woodsmoke Health Effects: A Review. Inhalation Toxicology. https://doi.org/10.1080/08958370600985875

8 Evidence Review: Wildfire smoke and public health risk. BC Centre for Disease Control.

Some emergencies are managed through the Central Okanagan's Regional Emergency Program and residents will find important emergency information posted at www.cordemergency.ca. Residents and visitors are encouraged to sign up to receive e-notices from www.peachland.ca/newsletter and www.cordemergency.ca/email-updates.

Peachland currently has no emergency response specific documentation or plans of its own. Information regarding local emergencies, emergency services, road closures, and news releases are posted to the District of Peachland website page: https://www.peachland.ca/departments/peachland-fire-rescue/emergency-planning.

3.4.3 Fire Suppression Capabilities

Peachland provides fire services out of the following station:

Peachland Fire & Rescue – 4401, 3rd Street, Peachland BC.

The Department provides 24-hour fire and emergency response services to the District of Peachland. With the exception of the Fire Chief and Deputy Fire Chief, the department is staffed entirely by approximately 35 paid on-call firefighters. Peachland firefighters train on a weekly basis and are on call throughout the year. Peachland Fire & Rescue works closely with the Province of British Columbia on wildfire prevention in the community and conducts fire safety training for residents. The Department also oversees the community's FireSmart program.

The District of Peachland has a mutual aid agreement with the Regional District of the Central Okanagan, which includes Kelowna, Lake Country, West Kelowna, and all RDCO fire stations (Joe Rich, Ellison, Wilson's Landing, and North Westside). The District of Peachland also provides protection services for the Brent Road area (south of Peachland, outside the municipal boundary) through a formal service arrangement with the Regional District of Central Okanagan (RDCO).

The Fire department resources include:

- 2 Engines
- 1 Water tender
- 1 Bush truck (type 6 Wildland engine)
- 1 Utility pickup truck
- 1 Command pickup truck
- 1 Fire prevention pickup truck
- 1 SPU trailer
- 1 Marine rescue boat
- 1 Marine Spill Response Trailer
- 1 FireSmart van

3.4.4 Critical Infrastructure

Critical infrastructure (CI) assets are structures or facilities that are vital to a community's health, safety, security, and economic well-being. Protecting these assets during a wildfire event is crucial for emergency response preparedness, ensuring coordinated evacuations, and maintaining or

restoring essential services promptly afterward. Critical infrastructure encompasses emergency and medical services, electrical and gas utilities, transportation networks, water and wastewater systems, social support services, and communication infrastructure. Implementing FireSmart activities around critical infrastructure can significantly reduce wildfire losses and impacts.

Critical infrastructure within the District of Peachland AOI was identified and mapped using data provided by the District's geospatial team (Table 5 and Figure 2).

Further information on available funding opportunities and evaluated critical infrastructure are provided in **Section 5.7.1.1 FireSmart Critical Infrastructure Assessments.**

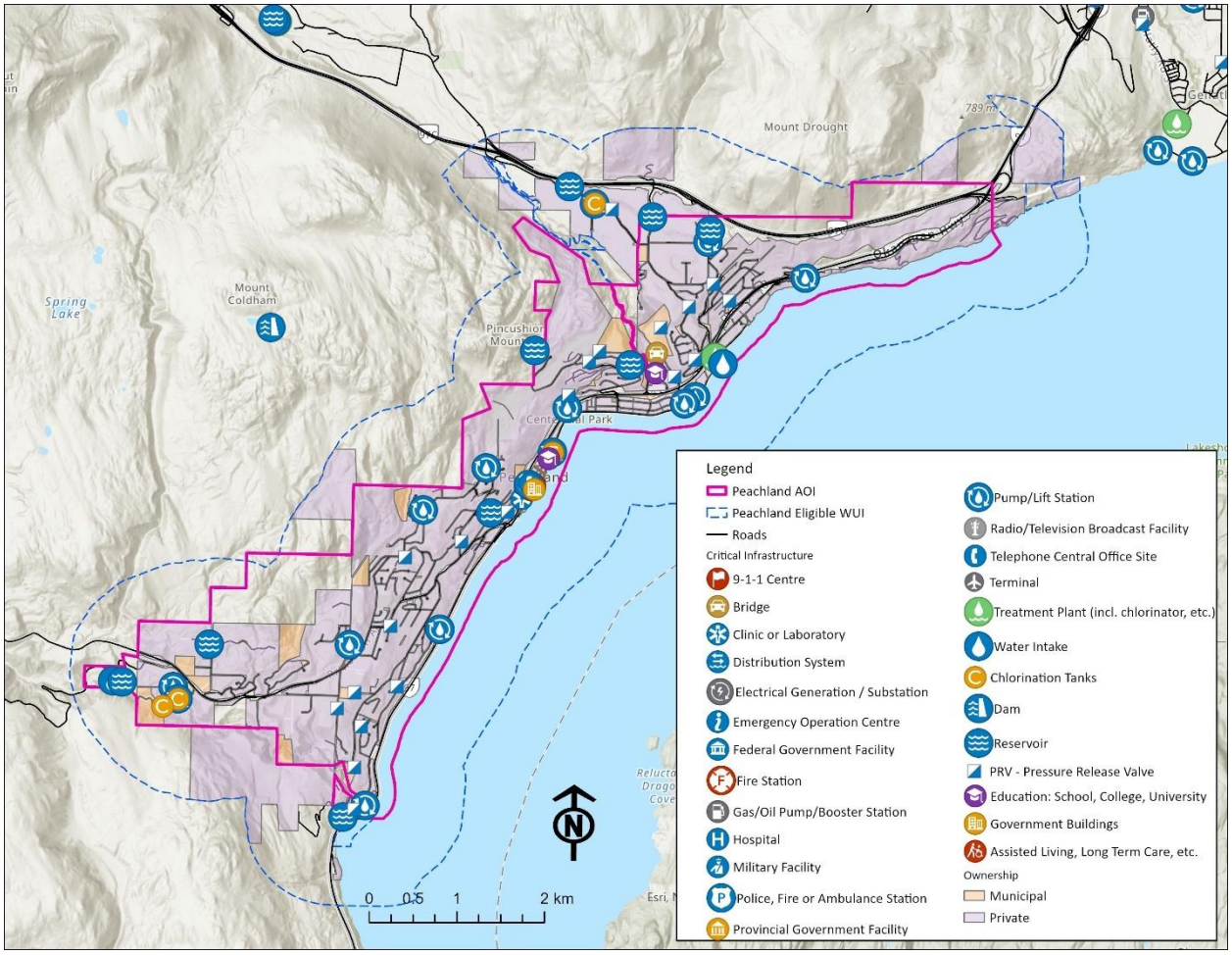

Figure 2: Critical infrastructure. grouped by category, located within the District of Peachland CWRP AOI.

Table 5. Critical infrastructure located within the District of Peachland, provided by District staff.

Critical Infrastructure	Ownership	Location	Category
First United Church of Canada	Peachland	4421 4th St	Church/Place of Worship
United Church Annex	Peachland	4421 4th St	Church/Place of Worship
St Margarets Anglican Church	Peachland	4464 4th St	Church/Place of Worship
Peachland Baptist Church	Peachland	0 Lake Ave	Church/Place of Worship
Peachland Baptist Church	Peachland	4124 Lake Ave	Church/Place of Worship
Peachland Medical Clinic	Peachland	4438 1st St	Clinic or Laboratory
Peachland Community Centre	Peachland	4450 6th St	Cultural/Heritage Site
Law Street Reservoir	Peachland	5306 Law St	Reservoir
Lower Ponderosa Reservoir	Peachland	4187 6th Ave	Reservoir
Cousins Reservoir	Peachland	5102 Cousins Rd	Reservoir
Peachland Municipal Office	Peachland	5806 Beach Ave	Government Buildings
BC Ambulance Service Station 342	Peachland	4479 3rd St	Police, Fire or Ambulance Station
Fire Stn 21 - Peachland	Peachland	4401 3rd St	Fire Station
Sanderson PRV	Peachland	6256 Sanderson Ave	Pump/Lift Station
Robinson Sewer Lift Station	Peachland	5175 Robinson Pl	Pump/Lift Station
Deep Creek Pump Station	Peachland	5420 Pierce St	Pump/Lift Station
Renfrew Sewer Lift Station	Peachland	6235 Renfrew Rd	Pump/Lift Station
Beach Ave Water Intake and Pump House/Chlorinator	Peachland	3896 Beach Ave	Pump/Lift Station
Todd Road Sewer Lift Station	Peachland	3986 Beach Ave	Pump/Lift Station
Winery Pump Station	Peachland	5102 Cousins Rd	Pump/Lift Station
Hardy Street Sewer Lift Station	Peachland	6235 Hardy St	Pump/Lift Station
Peachland Elementary School	Peachland	5486 Clements Cres	Education: School, College, University

Critical Infrastructure	Ownership	Location	Category
Peachland Primary School (Old)	Peachland	5684 Beach Ave	Education: School, College, University
Telus Switch Exchange	Peachland	4454 3rd St	Telephone Central Office Site
Deep Creek Chlorinator and Intake Ponds	Peachland	5475 Pierce St	Treatment Plant (incl. chlorinator, etc.)
Reservoir	RDCO	Access via Trepanier Rd.; 11U 303480 5520524	Reservoir
Reservoir	Peachland	11U 303038 5518664	Reservoir
Water Pump Station	Peachland	Access via Gerrie Rd.; 11U 301720 5516877	Pump/Lift Station
6th Street Lift Station	Peachland	Access via Beach Ave.; 11U 303210 5517498	Pump/Lift Station
Pump station	Peachland	Access via Highway 97; 11U 303392 5517996	Pump/Lift Station
Beach Ave and Trepanier Creek	Peachland	Access via Beach Ave.; 11U 304764 5517987	Bridge
Manholes along Trepanier Creek near OK Lake	Peachland	11U 304730 5518014	Sanitary Emergency Storage
Peachland Creek Intake	Peachland	11U 298129 5515019	Water Intake
Trepanier PRV Station	Peachland	Access via Trepanier Bench Rd.; 11U 305093 5519368	Reservoir
Chidley PRV Station	Peachland	11U 305273 5519175	PRV
Desert Pines PRV Station	Peachland	11U 303655 5518519	PRV
Ponderosa PRV Station	Peachland	11U 303413 5518141	PRV
Eagle's View PRV Station	Peachland	11U 302684 5516830	PRV
Arthur Street PRV Station	Peachland	11U 305273 5519175	PRV
Somerset PRV Station	Peachland	11U 302147 5516504	PRV
Minto PRV Station	Peachland	11U 301501 5516343	PRV
Topham PRV Station	Peachland	11U 301368 5514870	PRV

Critical Infrastructure	Ownership	Location	Category
York PRV Station	Peachland	11U 300884 5514814	PRV
Vernon PRV Station	Peachland	11U 300680 5514638	PRV
Sherburn PRV Station	Peachland	11U 300951 5514424	PRV
Bulyea Ave PRV Station	Peachland	11U 300860 5513961	PRV
Ponderosa Booster Station	Peachland	Accessed Through 4117 Ponderosa Dr	PRV
Peachland Creek CT Tank	Peachland	11U 298236 5515005	PRV
Okanagan Lake Facility	Peachland	11U 305094 5518531	PRV
PVR	Peachland	11U 304625 5518324	Chlorination Tanks
Trepanier Watermain Bridge	Peachland	11U 304428 5518600	Chlorination Tanks
PVR	Peachland	11U 303777 5518639	Pump/Lift Station
Peachland Creek	Peachland	11U 298691 5514712	Reservoir

3.4.4.1 Electrical Power

The District of Peachland is served via a single powerline from the nearby Westbank Substation and is located at the southern end of BC Hydro's service territory (BC Hydro 2011). For most of its route, this feeder parallels Highway 97. In 2011, $2.5 million was invested by BC Hydro to improve the electrical distribution system in Peachland and the BC Hydro served areas south to Fish Lake Road (BC Hydro 2011). This improvement included the addition of a second feeder for service to Peachland, the relocation of both feeders away from difficult to access areas, and the replacement of 45-foot poles with 60-foot poles along portions of Highway 97, Drought Road and Buchanan Road (BC Hydro 2011). The current distribution feeder line travels along portions of Highway 97 from Westbank, down Drought Road, Buchanan Road and back onto Highway 97 to central Peachland (BC Hydro 2011).

Other electrical supply values in the surrounding area include 740 kV BC Hydro Transmission lines running W-E from Nicola Valley to West Kelowna, approximately 800 m straight-line distance to the north of the District of Peachland AOI and run-of-river hydro projects on Trepanier Creek off of Clement Crescent, west of Thorne Road and east of highway 97 in the south of the District of Peachland AOI (ImapBC 2019).

As well, the nearby Westbank substation is located 4 km (straight line distance) to the north of the AOI in West Kelowna; Brenda Mines substation is located 18.5 km (straight line distance) to the north west of the AOI off highway 97C; and Summerland substation is located approximately 15 km to the south of the AOI in Summerland (ImapBC 2019).

3.4.4.2 Communications, Pipelines, and Publicly Owned Buildings

The following infrastructure are noted:

- A Fortis BC natural gas pipeline running NE- SW (approximately 200- 600 m west of and parallel to Highway 97) runs through the middle of the District of Peachland AOI (ImapBC 2026).
- There are no cellular towers within or immediately adjacent to the District of Peachland AOI.
- Key municipal buildings are summarized in Table 5.

3.4.5 Community Watersheds and Water Supply

Peachland's water supply is wholly from upland reservoirs refilled through annual snowmelt. Peachland Creek currently supplies the District's potable water. Water sources include Glen Lake, Peachland Lake, and Silver Lake, all to the northwest of the community. The district operates the Peachland Water Treatment Plant, located in the western reaches of the municipality. The treatment plant was commissioned for use in 2021and provides year-round, safe, clean drinking water for the community of Peachland. The implications of a wildfire impacting the facility are significant, given its role in supplying water to serve Peachland's residential, commercial, and industrial users.

The Peachland Community Watershed and the Trepanier Creek Community Watersheds are upslope of the District of Peachland. In 2010 a Watershed Assessment Report For Drinking Water Source

Protection was developed for Peachland and Trepanier Creek Community Watersheds, which identifies impact from wildfires as an intrinsic natural risk to the watersheds[9].

3.4.6 Cultural Values

The District of Peachland is located on the ancestral, traditional, and unceded territory of the Syilx People of the Okanagan Nation. The Westbank First Nation Community Forest is directly adjacent to the District of Peachland municipal boundary, and overlaps a portion of the AOI – providing opportunity for collaboration on FireSmart activities where there is overlap.

Indigenous cultural sites in BC are generally not shared with the public due to their sensitive and confidential nature. Local First Nations have the right to keep access to these resources private. Due to an extensive and uninterrupted First Nation presence throughout the region, wildfire and associated suppression operations have the potential to inadvertently impact or destroy cultural heritage resources. Any planned activities or treatments for the purpose of wildfire mitigation must be appropriately communicated to local First Nations.

3.4.7 High Environmental Values

As outlined in *Section 5.6 Natural Environment* of the Peachland OCP (2018), Peachland hosts one of the longest uninterrupted and undeveloped foreshore areas in the Okanagan, offering a unique combination of natural beauty and environment that supports a variety of species. Protection of Peachland's abundant natural environment is a significant community priority[10]. Protection and management of these sensitive ecosystems can include fuel management and prescribed fire, as these ecosystems are located within historical wildfire disturbance regimes.

The BC Conservation Data Centre (CDC) provides information about species and ecosystems at risk through the BC Species and Ecosystems Explorer, and CDC iMap. Recorded occurrences of Red and Blue listed animals and ecological plant communities at risk within the AOI have been summarized in Table 6 below. Red listed species represent any species or ecosystem that is at risk of being lost (extirpated, endangered or threatened). Blue listed species are any species or ecosystem that is of special concern.

Table 6. Red and blue listed species found in the AOI

Common Name	Scientific Name	Element Type	BC List Status
Western screech owl – macfarlenei supspecies	*Megascops kennicottii macfarlanei*	Vertebrate animal	Blue
Lewis's woodpecker	*Melanerpes lewis*	Vertebrate animal	Blue

[9] Peachland Creek and Trepanier Creek Watershed Assessment Report For Drinking Water Source Protection. Goler Associates. 2010
[10] Peachland Official Community Plan. 2018.

Common Name	Scientific Name	Element Type	BC List Status
Olive clubtail	*Stylurus olivaceus*	Invertebrate animal	Blue
Black cottonwood / Douglas-fir / common snowberry / red-osier dogwood	*Populus trichocarpa - Pseudotsuga menziesii / Symphoricarpos albus - Cornus sericea*	Ecological community	Red
Trembling aspen / common snowberry / Kentucky bluegrass	*Populus tremuloides / Symphoricarpos albus / Poa pratensis*	Ecological community	Red

All site-level vegetation/fuel management activities and operational wildfire risk reduction treatment plans must follow any and all legal requirements set out in legislation, orders and high-level plans, or consider best management practices for identified environmental resources and species at risk and their habitats. Assistance and advice from a Registered Professional Biologist or other qualified professional may be required prior to the implementation of any wildfire risk reduction activities in the area to determine potential impacts and guide treatment activities.

3.4.8 Green Spaces

The FireSmart Community Funding (FSCF) and Supports program through CRI currently has funding for Culturally Significant Sites and Green Spaces (CSSGS). The funding is intended for assessing the vulnerability of First Nations Cultural Sites and Local Government Green Spaces to damages from wildfire. For additional information on the FireSmart Projects for **Culturally Significant Sites** and **Green Spaces** and requirements, review the following:

- Checklist for CRI Requirements for Fuel Management Prescription is required to be completed before CSSGS Assessment is started (completed checklist must be submitted at time of application but the cost is an eligible expense provided the assessment is completed within six months prior to the date of application submission).
- Completion of FireSmart CSGS Assessment before mitigation work is started (completed assessment must be submitted at time of application but the cost is an eligible expense provided the assessment is completed within six months prior to the date of application submission).
- Community-scale FireSmart vegetation management practices to decrease CSGS wildfire risk.

Indigenous cultural sites in BC are generally not shared with the public due to their sensitive and confidential nature. Local First Nations have the right to keep access to these resources private. Due to an extensive and uninterrupted First Nation presence throughout the region, wildfire and associated suppression operations have the potential to inadvertently impact or destroy cultural heritage resources.

Green spaces include parks, gardens, cemeteries, naturalized spaces, trails and pathways, linear parks and greenways, rights-of-way and boulevards. Green spaces play many important roles in the District of Peachland, including aesthetic value, environmental value, recreational opportunities, moderating fluctuations in temperature or minimizing the "urban heat island effect", and trees provide noise-dampening effects to minimize ambient city noise. Although green spaces are critical features in cities, they create an interface fire hazard. Areas of forest fuels adjacent to structures or areas of fuel between structures can allow for rapid fire spread within the interface. To minimize the fire hazard created by green spaces, they must be well maintained and managed. Management activities include selecting fire-resistant vegetation, allowing for a non-vegetated buffer between values and green spaces, and continuous removal of dead vegetation to avoid fuel loading. Table 7 includes a list of parks, green spaces, and trails that could qualify for the additional CSSGS funding to conduct FireSmart activities[11]. Several municipal parks identified in Table 7 overlap with proposed Fuel Treatment Units (FTUs) (see Section 7), and will be addressed through site-specific Fuel Management Prescriptions. Eligibility for funding will be subject to BCWS approval and at their discretion.

Table 7: Identified greenspaces, parks, and trails within the District of Peachland

Name	Location
13th St Viewpoint	Beach Avenue and 13th Street, along the waterfront
Burdekin Lane	Buchanan Road (at Stonewater Development)
Cenotaph Park	Beach Avenue and 2nd Street, next to the Day Use Wharf and Heritage Park, in the downtown core
Centennial Way	Heritage Park (1st Street) to 13th Street
Chevallier Park	At the corner of Desert Pines Avenue and Coldham Road
Cousins Park	Beach Avenue & 6th Street, next to the Community Centre and across from Swim Bay and the Peachland Yacht Club
Cove Beach	Beach Avenue North
Eaglesview Trail	Below the Eaglesview subdivision and above 4th, 2nd, and 1st Avenues, accessed only at the Eaglesview subdivison entrance, at a set of stairs before the first building
Elizabeth Warrendorf Trail	Connects Bulyea Avenue, Stuart Crescent South and Renfrew Road
Forest Hill Drive Wilderness Park	Forest Hill Drive
Gillam Crescent Park	Gillam Crescent

[11] As identified on the District of Peachland website https://www.peachland.ca/parks-recreation/parks-trails. Sites listed on the website that do not contain vegetation (e.g., boat launches) are not included in Table 7. Regional parks are also excluded and will be addressed through the RDCO Community Wildfire Resiliency Plan (CWRP).

Name	Location
Gladstone Trail	The trailhead is the end of Harrington Court (off Victoria Street)
Heritage Park	5834 Beach Ave
Knoblauch Park	4979 Elliott Avenue
Lambly Park	Highway 97 & San Clemente Avenue, across from the Peachland mall
Lang Trail	Connects Trepanier Bench Road with Sutherland, Clarence, Greata and Huston Roads
Law Street Park	Law Street
MacKinnon Park	MacKinnon Road and Upton Road
Morrison Park	Corner of Morrison Place and Morrison Crescent
Outdoor Fitness Trail	In Lambly Park, Highway 97 & San Clemente Avenue, across from the Peachland mall
Peachland to West Kelowna Multi-Use Trail	Robinson Lane to Drought Hill
Pentowna Park	The bottom of Princeton Avenue, on the Highway Right of Way, on the lake side of the road abutments, between the Blind Angler restaurant and Doggy Beach/"T" Boat Launch
Pincushion Mountain Trail	The trailhead is at the very top of Ponderosa Drive, at the Chateau on the Ridge Entrance
Sanderson Park	5900 Sanderson Avenue
Stairway to Heaven	Between 5825 & 5827 Victoria Street, Peachland
Swim Bay	6th Street &, Beach Ave, Peachland
Trepanier Linear Park	6114 Turner Avenue
Turner Park	6114 Turner Avenue
W.A. Lang Wilderness Park (AKA Pincushion Park)	Accessed by the trailhead at Pincushion Place and by the Regional District trailheads: one on the west side of Peachland Elementary and one at the end of Chidley Road, the Trepanier Creek entrance.
Westside Trail	The newly constructed trail sections begin at Robinson Lane. It connects to Goat's Peak Park near the Seclusion Bay Road underpass under Highway 97 near the boundary of Peachland and West Kelowna.

Additionally, a number of areas were delineated in the previous District of Peachland CWPP (2021) that would be appropriate to pursue through CSSGS funding (Figure 3). These are identified in Table 8 below.

Table 8: Greenspaces, parks, and trails delineated in the District of Peachland 2021 CWPP

PT_010	119.719200°W 49.786286°N
PT_012	119.711056°W 49.788654°N
PT_002	119.709176°W 49.792978°N
PT_011	119.71358°W 49.790387°N
PT_013	119.727797°W 49.784703°N
PT_014	119.738759°W 49.775409°N
PT_020	119.761286°W 49.749906°N
PT_020	119.762841°W 49.750365°N
PT_001	119.708731°W 49.794783°N
PT_040	119.754433°W 49.764753°N
TCG1	119.719233°W 49.786936°N

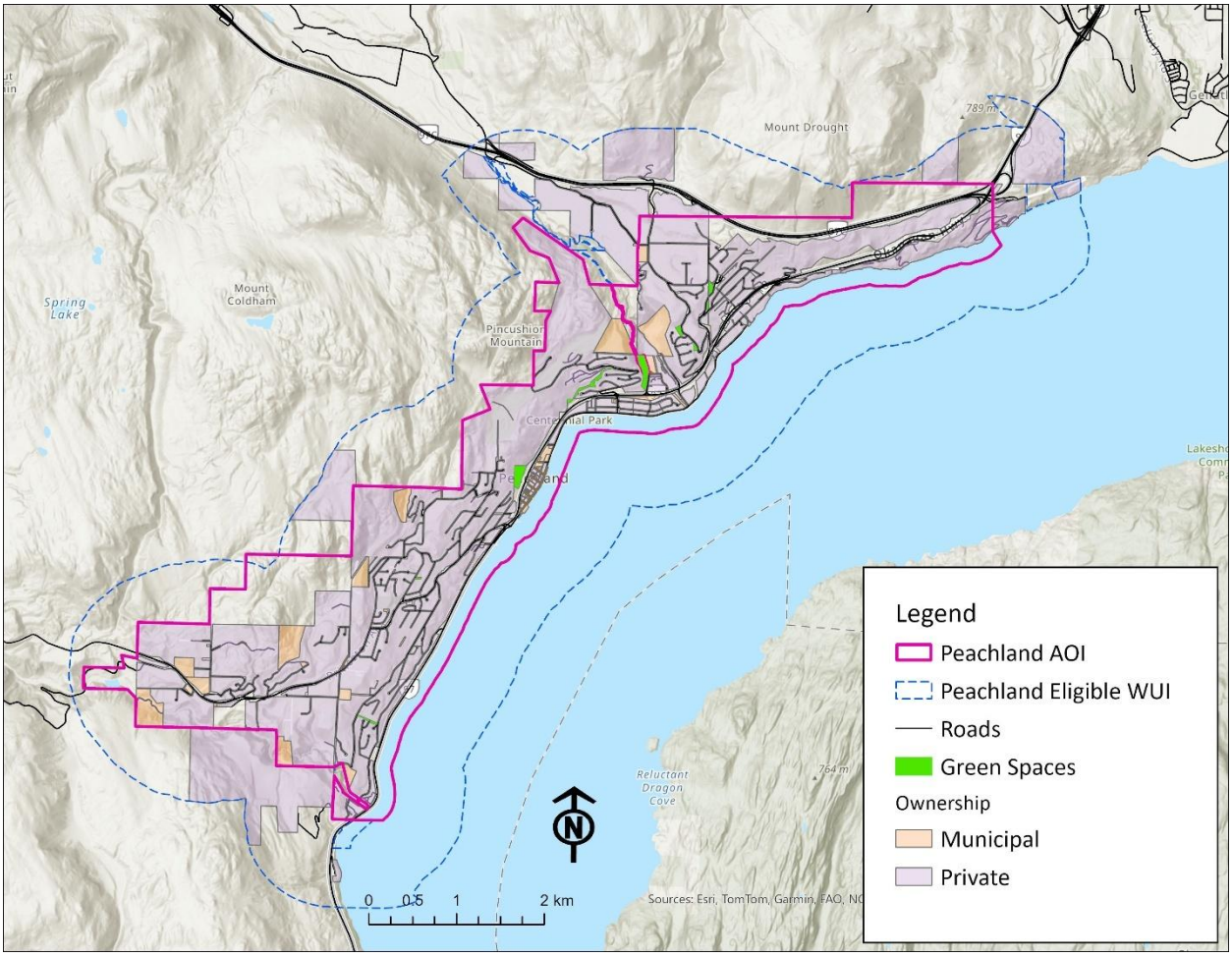

Figure 3: Greenspaces, parks, and trails delineated in the District of Peachland 2021 CWPP.

4.0 Wildfire Risk Assessment

The wildfire risk assessment is a decision support tool intended to determine wildfire risk reduction activities and opportunities that will increase the District of Peachland's resiliency to wildfire.

It is important to understand the difference between **wildfire risk** and **wildfire threat**, and their context for the wildfire risk planning process. A wildfire risk-based framework considers the likelihood of an unwanted wildfire event, combined with the consequences to communities and high value resources and assets. Overall **wildfire risk** can be defined as a combination of the following:

- Likelihood (or probability) of an unwanted wildfire event occurring,
- Associated fire behaviour, and
- Consequence – the resulting impact or damage to values.

Wildfire risk is measured as the product of likelihood and consequence, but multiple inputs are also required to effectively quantify risk, including potential wildfire behaviour severity, value type, and value vulnerability. Identifying wildfire risk levels through the wildfire risk assessment results in a wildfire mitigation priority list, while presenting opportunities to enhance community resiliency.

Wildfire threat refers to the potential for a wildfire to ignite, spread, and consume organic material, such as trees, shrubs, and woody debris, across the landscape. Three main components are used to define wildfire threat, as follows:

- **Topography** – slope (affecting wildfire rate of spread), terrain (affecting wildfire direction and intensity) and aspect (affecting fuel dryness).
- **Fuel** – loading, size/shape, arrangement (horizontal/vertical), compactness, chemical properties, and fuel moisture.
- **Weather** – temperature, relative humidity, wind speed and direction, and rainfall.

Together these three components interact to characterize the overall wildfire environment and influence wildfire behaviour (Figure 4.)

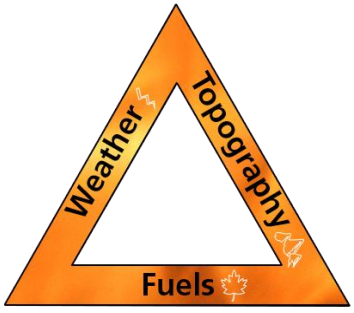

Figure 4. The fire behaviour triangle - interacting components that drive a wildfire.

4.1 LOCAL WILDFIRE ENVIRONMENT

4.1.1 Topography

Topography describes the landscape that can influence fire behaviour including elevation, slope steepness, and slope direction (e.g., south-facing). Topography also includes prominent land features such as canyons and valleys. All these features can increase, or slow wildfire spread. Elevation influences weather conditions (like air temperature). The slope aspect influences vegetation growth and dryness (south-facing slopes in the northern hemisphere have more heat

from the sun and are drier). Slope also influences how fast a fire moves: faster uphill due to pre-heating of vegetation from rising hot air and flame, and slower downhill. Additionally, features such as valleys influence wildfire spread by directing wind flow.

The district of Peachland is situated in the Okanagan Valley, bordered by Okanagan Lake to the east and steep slopes that rise rapidly to the west. Features like Okanagan Lake can act as a natural barrier or break in flammable vegetation, however, as seen during the 2023 McDougall Creek wildfire, during periods of extreme fire behaviour relying on natural water body features to stop a wildfire cannot be depended on.[12]

Many neighbourhoods and access roads are built on the steep hillsides that characterize the western portion of Peachland. Trepanier Creek and Peachland Creek cut down toward Okanagan Lake, forming narrow, incised corridors that can channel winds and support concentrations of fuels. Slopes within the AOI are predominately steep, south- and southeast facing, resulting in increased solar exposure and warmer and drier conditions that support a strong grass component. The combination of a strong grass component and steep, south/southeast facing slopes contributes to a rapid rate of spread.

4.1.2 Fuel, Ecosystems and Fire Regimes

Fuel refers to any flammable material, including vegetation (leaves, bark, trees, duff), that fire burns. It can also include manufactured fuels, such as buildings. The fuel type, dryness, size, and arrangement can influence a wildfire's speed, size and severity. Fuel is the only component of a wildfire that we can control and the most significant (without fuel, a fire cannot burn).

4.1.2.1 Biogeoclimatic Zones

The vegetation (fuels) within any given area of British Columbia can be summarized using the provincial Biogeoclimatic Ecosystem Classification (BEC) system. The BEC system in BC describes and categorizes ecological zones by vegetation, soils, and climate. Regional subzones are derived from relative precipitation and temperature. By understanding the vegetative communities of an area, we can better predict the natural disturbance regime of those ecosystems and the potential effects of wildfire.

The District of Peachland WUI contains three BEC zones (Figure 5) consisting of the Ponderosa Pine zone including the very hot, dry subzone (PPxh1) encompassing 84% of the area, and the Interior Douglas-Fir zone including the very hot, dry subzone (IDFxh1) encompassing 16%. Less than 1% is comprised of the Interior Douglas-Fir dry, cool zone (IDFdk2). The PPxh1zone occurs across the valley bottom immediately adjacent to Okanagan Lake and describes most of the area within the municipal boundary. The IDFxh1 occurs immediately to the west, upslope and mainly occurs within the buffer area of the AOI.

[12] Daniels, L. D., Dickson-Hoyle, S., Baron, J. N., Copes-Gerbitz, K., Flannigan, M. D., Castellanos-Acuna, D., ... & Gray, R. W. (2024). The 2023 wildfires in British Columbia, Canada: impacts, drivers, and transformations to coexist with wildfire. *Canadian Journal of Forest Research*.

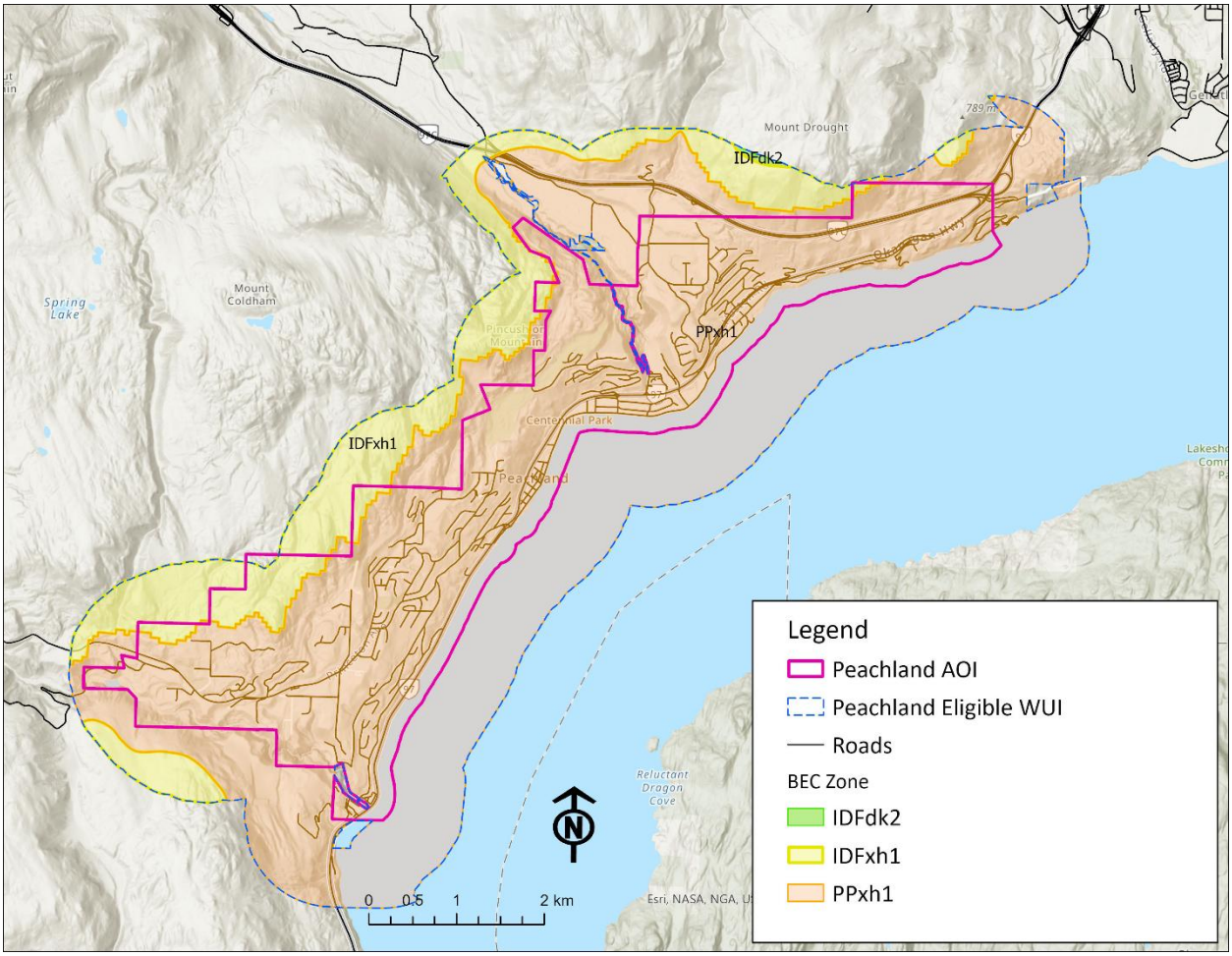

Figure 5: BEC zones within the District of Peachland CWRP AOI

All the listed BEC zones are categorized by warm to hot, dry climates with long growing seasons (five months or more). Soil moisture deficits are common in all three zones. Typically, increased elevations experience slightly cooler temperatures, marginal increases in precipitation, and a slightly shorter growing season compared to valley bottoms. Common tree species in PP and IDF zones include ponderosa pine (*Pinus ponderosa*), Douglas-fir (*Pseudotsuga menziesii*), and trembling aspen (*Populus tremuloides*) in wetter areas, such as ravines or riparian areas. IDF zones occasionally include lodgepole pine (Pinus contorta)[13]. Both climatic zones exhibit a pervasive fire history. Burn intervals were short, likely every four to 50 years for surface fires, with stand-replacing events occurring in forested areas every 150 to 250 years[14].

[13] University of British Columbia. (n.d.). About BEC and BGC units. Retrieved from: https://cfcg.forestry.ubc.ca/resources/cataloguing-in-situ-genetic-resources/about-bec-and-bgc-units/

[14] Hall, Erin. (2010). Maintaining Fire in British Columbia's Ecosystems: An Ecological Perspective. Wildfire Management Branch of British Columbia

Table 9: BEC zones and variants within the District of Peachland CWRP AOI

BEC Zone	Subzone	NDT	Area	% of WUI
PP	xh1 (very dry, hot)	NDT4	3,458 ha	84%
IDF	Xh1 (very dry, hot)	NDT4	639 ha	16%
IDF	Dk2 (dry, cool)	NDT4	4 ha	<1%

4.1.2.2 Natural Disturbance Type

In British Columbia, fire regimes are broadly categorized by Natural Disturbance Type (NDT) classifications, which consider the frequency and severity of disturbances, such as wildfire. NDTs are closely tied to the BEC zones and are categorized into five broad disturbance regimes, ranging from NDT1 to NDT5 (Table 10).

Table 10: Description of Natural Disturbance Types (NDTs) within British Columbia

Natural Disturbance Type	Natural Disturbance Regime Description	Frequency
NDT 1	Ecosystems with rare stand-initiating events	250 – 350 years
NDT 2	Ecosystems with infrequent stand-initiating events	200 years
NDT 3	Ecosystems with frequent stand-initiating events	100 – 150 years
NDT 4	Ecosystems with frequent stand-maintaining events	4 – 50 years (surface) 250 (stand replacing)
NDT 5	Alpine Tundra and Subalpine Parkland ecosystems	4 - 50 years

The Peachland AOI and WUI fall within a Natural Disturbance Type 4 (NDT4) category – ecosystems characterized by frequent stand-maintaining fires. Historically, frequent, low-severity fires maintained mostly open, savannah-like forests with bunchgrass, forb, and shrub-dominated understories. Fire killed most small trees, maintaining open forests and grassland. [15] Infrequent,

[15] Biodiversity Guidebook. Forest Practices Code of British Columbia. (1995).

high-severity fires may have occurred in denser forest patches, particularly on cool aspects. However, recent human activities have significantly altered fire regimes in much of this natural disturbance type. Fire suppression has led to the accumulation of litter (an increase in fine fuels), encroachment in some grasslands, and changes in canopy composition and density in forested areas, increasing the available fuel load to burn.

Frequent surface fires historically played an important role in consuming and regulating woody surface fuels, rejuvenating herb and shrub species, thinning understory conifer ingrowth, and raising the crown height of overstory trees. This regime of fire maintenance is the easiest to duplicate for wildfire risk reduction purposes, however, the situation is often complicated by decades of fire exclusion and suppression on the landscape, resulting in higher fuel accumulations in these stands.

The enduring consequences of fire suppression on wildfire dynamics in North America are increasingly recognized. Decades of effective fire exclusion, coupled with the suppression of Indigenous cultural burning traditions, have created a fire deficit in certain regions. In British Columbia, these practices have led to denser forest stands compared to the pre-suppression era, which has, in turn, elevated the risk of large, high-intensity wildfires.[16] These alterations disrupt the natural disturbance regime, underscoring the need for proactive management strategies to address these evolving challenges.

4.1.2.3 Fuel Types

For fire behaviour prediction purposes, Canadian forests and grasslands are categorized into different Fire Behaviour Prediction (FBP) System fuel types. These fuel types have different vegetation species and structure (e.g. vegetation density). Because of this, fire will behave differently in each fuel type. Table 11 outlines which fuel types are present in the Peachland WUI including a five-kilometre buffer. More detailed descriptions of these fuel types can be found on the Natural Resources Canada website.[17]

Fuel types are named to reflect fire behaviour in different vegetation groups. However, since fuel types are used to describe an expected fire behaviour, they may not actually reflect the tree species that are on the ground. For example, the C2 (Boreal Spruce) fuel type does not necessarily indicate there is upland and lowland black spruce and white spruce stands around the District of Peachland; rather, these fuel types correlate with the forest fuel complex and the fire behaviour that could be expected in that fuel complex. Fuel types should be regarded as a “best fit” rather than strictly based on tree species.

[16] Parisien, M. A., Barber, Q. E., Bourbonnais, M. L., Daniels, L. D., Flannigan, M. D., Gray, R. W., ... & Whitman, E. (2023). Abrupt, climate-induced increase in wildfires in British Columbia since the mid-2000s. Communications Earth & Environment, 4(1), 309.
[17] **FBP Fuel Type Descriptions**. Natural Resources Canada.

Table 11. Canadian Fire Behaviour Prediction (FPB System Fuel Types present within the District of Peachland AOI and a five-kilometre buffer[18]

Fuel Type		Fire Behaviour Characteristics	Size (ha)	Proportion*
C2	Boreal Spruce	A very volatile fuel type - C2 produce high intensity and fast-moving fires more easily than other fuel types. Fires can easily become crown fires.	0	0%
C3	Mature Jack or Lodgepole Pine	Fastest rate of spread overall, however requires high wind speeds and low fuel moistures to reach this faster rate of spread than other fuel types.	37	1%
C7	Ponderosa Pine – Douglas Fir	Lowest rate of spread and lowest fire intensity of the conifer fuel types.	1,006	25%
D1/D2	Deciduous (D1 leafless aspen, D2 green aspen)	Lower rates of spread, lower ember production and lower fire intensity (than conifer) when trees have leaves. Often used in urban interface areas to reduce fire behaviour around values.	97	2%
M1/M2 25	Mixedwood – 25% conifer	The rate of spread and intensity of fire depends on the conifer/deciduous mix. Higher conifer mix will have faster rates of spread, higher fire intensity and more embers produced.	34	1%
M1/M2 50	Mixedwood – 50% conifer			
M1/M2 75	Mixedwood – 75% conifer			
O1a/b	Grass	Fastest rate of spread potential.	874	21%
S1/2	Slash (Jack and lodgepole Pine or White Spruce/Balsam)	Slash resulting from clearcut logging, slash is typically one to two seasons old. Low threshold required for high fire intensity.	73	2%

* The remaining 48% of the AOI is made up of non-fuel components such as water bodies, buildings, paved areas, or mineral soil. Although buildings are flammable and can propagate fire spread, they do not have 'characteristic fire behaviors' and are not considered a fuel type.

[18] FBP Fuel Type Descriptions. Natural Resources Canada.

The FBP fuel types are generated for BC through the Vegetation Resource Inventory database, which is based on photo interpretation. Through the field work for this plan, the FBP fuel types were verified and ground-truthed to ensure what is depicted in the datasets and on maps is what is present on the landscape. Through the field work, three locations were identified to be incorrectly fuel typed. All three locations were wrongly identified as the grassland fuel type (O1a/b); however, as there were trees in the area that could allow crown fires they were reclassified to an open forested stand fuel type (C7).

The most common fuel types found within the District of Peachland are C-7 and O-1 a/b. The C-7 fuel type is the most prominent, representing 25% of the area, while the O-1 a/b represents over 20%. C-7 and O-1 a/b fuel types can often be found together as they generally overlap in the characteristics of their fuel components. C-7 fuel types are generally described as being comprised of uneven-aged ponderosa pine and Douglas-fir stands with minor components of lodgepole pine and spruce. Stand structure is relatively open with grasses and low shrubs occupying the forest floor. When maintained by routine fire, fire behaviour in this fuel type is generally low intensity and low rate of spread surface fires as the forest structure naturally resists crown fire activity.

O-1 a/b fuels are described as either matted or standing grasses at various stages of curing, depending on the time of year (O-1a being matted grasses in the spring after snowmelt and O-1b being standing, cured grass in the late summer and early fall). O-1 a/b fuel types may have some degree of standing trees of various species and age classes but are sparsely dispersed and are historically restricted by more frequent fire events, maintaining a grassland dominant ecosystem. Fire behaviour in this fuel type experiences the fastest rate of spread with light, flashy fuels that ignite quickly.

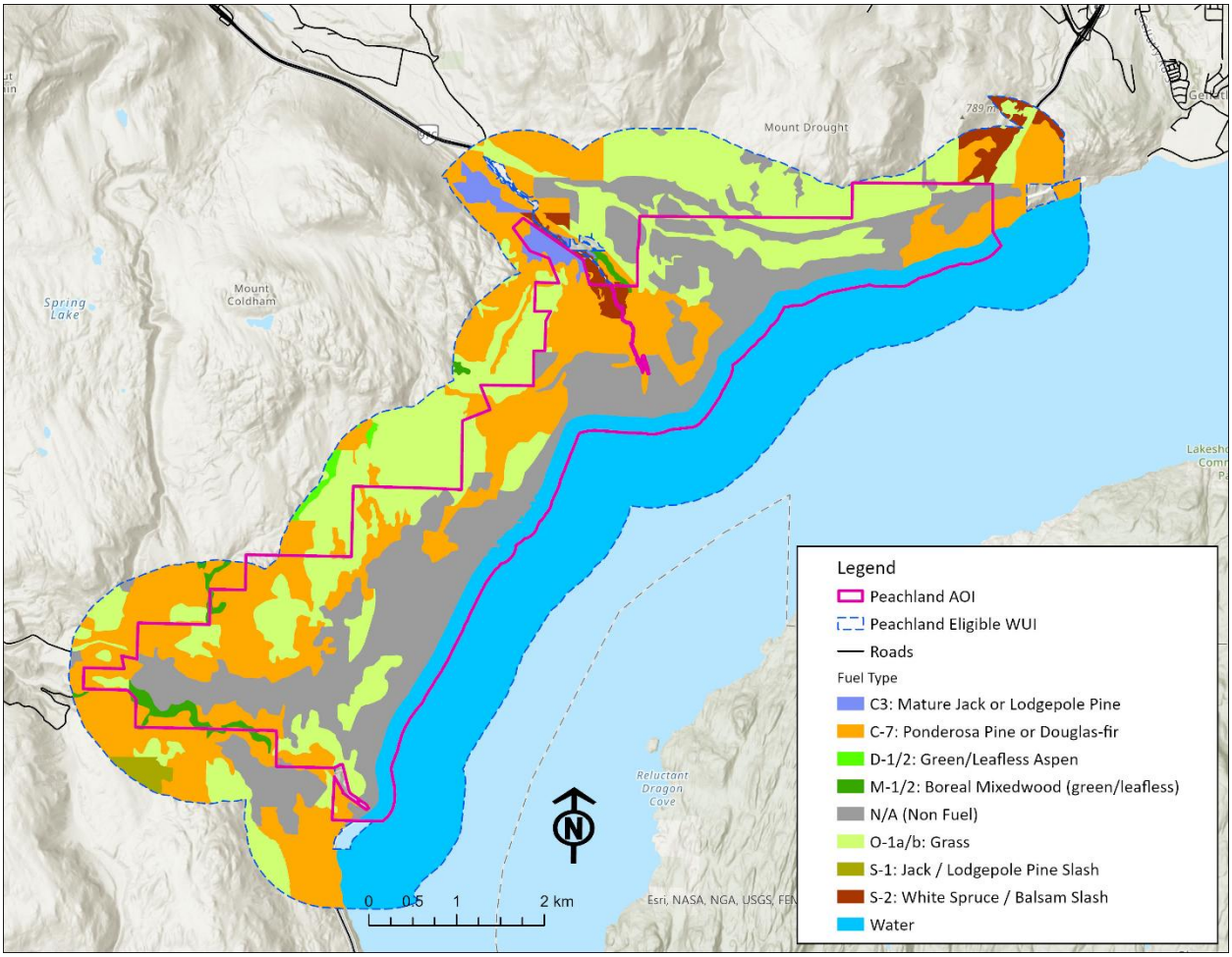

Figure 6: Fuel type spatial distribution within the AOI.

4.1.2.4 Fuel, Ecosystems and Fire Regimes Summary

Table 12. BEC variants within the District of Peachland WUI

BEC Variant	Regime	Fuel-types	Area (ha)	Proportion (%)
PP xh1	Natural Disturbance Type 4	C7, O1a / b, M1/2, S2	2286.8 ha	78%
IDF xh1	Natural Disturbance Type 4	C7, O1a / b, M1/2, C3	639.4 ha	22%
IDF dk2	Natural Disturbance Type 4	O1a/b	4.2 ha	<1%

4.1.2.5 Forest Health

The District of Peachland falls within the Okanagan Timber Supply Area (TSA), also known as the Okanagan Shuswap Natural Resource District. The Okanagan TSA has experienced instances of insect infestation, diseases, drought and wildfire over the last decade causing regionally isolated as well as landscape level impacts. The most recent Okanagan Forest Health Strategy (2019)[19] report includes a ranking of 13 forest health factors impacting forest management activities, ranking them from very low to very high priority. The 2019 report identifies drought, fire and the Phellinus fungus as high priority health factors and Douglas-fir beetle and the Armillaria ostoyae fungus as very high priority. It is important to note that the forest health factors mentioned here are experienced across the Okanagan TSA and may not currently exist within the Peachland AOI.

A survey for the Forest Health Strategy, covering a period from 2008 through to 2019, shows the most notable of impacts have been caused by the tree-killing bark beetles including mountain pine beetle (*Dendroctonus ponderosae*), spruce beetle (*Dendroctonus rufipennis*) and Douglas-fir beetle (*Dendroctonus pseudotsugae*). Impacts from the mountain pine beetle epidemic of the 2000's, targeting mature lodgepole pine as well as ponderosa pine have been decreasing at a relatively consistent pace since the mid-2010's as these pests have been determined to have "run their course" and are ranked at a low risk to forest health in the region, however, Douglas-fir beetle damage has been on the rise. It is important to note that the aftermath impact of beetle infestations that create large areas with severe tree mortality dramatically increases the fire risk in the area by creating favourable conditions for extreme fire growth and spread rate.

Defoliators (pests that feed on the needles and leaves of trees) of note include the western spruce budworm (*Choristoneurs occidentalis*) and the Douglas-fir tussock moth (*Orgyia pseudotsugata*). Both pose a threat to Douglas-fir stands within and adjacent to the Peachland AOI, which can be highly susceptible to large outbreaks, creating vast areas with severe tree mortality. The 2019 report has forecast a decrease in the populations of these pests for subsequent years.

In addition, root disease has been identified within the Okanagan TSA, including Laminated root disease (*Phellinus sulphurascens*) and Armillaria root disease (*Armillaria otoyae*), ranked respectively as high and very high risks. Root disease fungi damage tree roots leading to mortality and increased deadfall load due to escalated root decay and higher windthrow susceptibility. Primary host species for root disease are Douglas-fir, but ponderosa pine is susceptible to Armillaria as well. Areas with the most significant impact are often associated with timber harvest blocks as Armillaria can spread rapidly through the roots of infected stumps to nearby healthy trees[20].

[19] Okanagan TSA – Forest Health Strategy (2019). Okanagan Shuswap Natural Resource District. https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/forestry/forest-health/fh-strategies/okanagan_tsa_forest_health_strategy.pdf

[20] Managing Root Disease In British Columbia (2018). Ministry of Forests, Lands, Natural Resource Operations and Rural Development. https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/forestry/forest-health/forest-health-docs/root-disease-docs/rootdiseaseguidebookjune2018_4.pdf

4.1.3 Weather and Climate

Weather attributes including temperature, relative humidity, precipitation, wind speed and wind direction are critical factors in the ignition, spread, and duration of wildfires. Weather is the most variable component of the wildfire environment, and it has a direct relationship to fuel moisture, which is a crucial determinant of combustibility. Local differences in aspect, topography and vegetation will also influence fuel moisture at the site level.

Three BCWS fire weather stations (Figure 7) were reviewed for the District of Peachland CWPP update, including the West Kelowna station, recently installed in late 2016. The West Kelowna station provides representative weather observations and data, however, there are only nine complete fire seasons of data to analyze. The Penticton and Brenda Mines fire weather stations were also analyzed to provide a regional history of fire weather. As the West Kelowna station continues to operate, a clearer representation of persistent and ongoing fire weather conditions will emerge. The immediate benefits of the West Kelowna fire weather station include increased situational awareness for wildfire preparedness for Peachland Fire and Rescue Service personnel and BCWS firefighting resources, as well as better planning information for operational fuel management treatments.

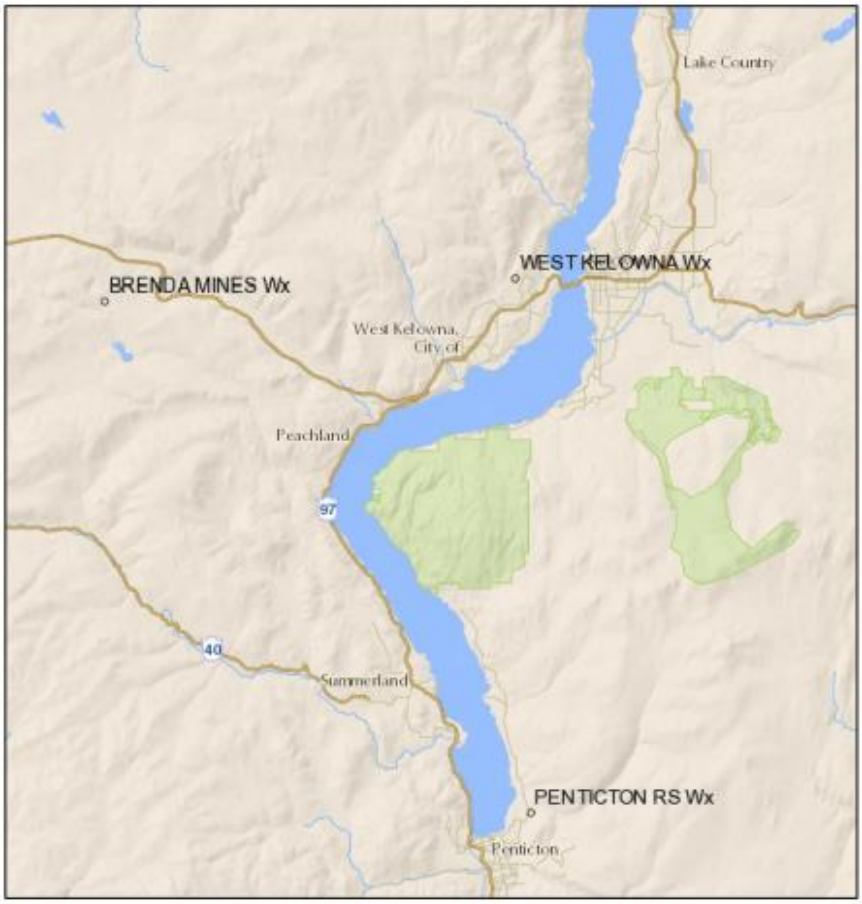

Figure 7: BC Wildfire weather stations relative to Peachland

Table 13: Weather station information for AOI (West Kelowna, Penticton, and Brenda Mines)

Weather Station	West Kelowna
Network	BCWS
Coordinates	49.8832 N / -119.5695 W

Weather Station	Penticton
Network	BCWS
Coordinates	49.517709 N / -119.552915 W

Weather Station	Brenda Mines
Network	BCWS
Coordinates	49.868417 N / -119.992517 W

Using the Penticton and Brenda Mines weather station and focusing on a period from May – September, which encompasses a typical fire season, the prevailing wind direction was dermined to be primarily west and northwest for Penticton, and southeast for Brenda Mines (Figure 8, Figure 9).[21]

However, it is crucial to also consider diurnal wind shifts influenced by local topgraphic features. As seen in the Penticton weather station, during the daytime hours of the month of August (06:00 – 18:00), winds predominantly blow from the west and northwest, while nighttime winds (18:00 – 06:00) are from the east.

Diurnal wind effects along Okanagan Lake significantly influence fire beahviour and have contributed to extreme fire behaviour conditions in the Okanagan Valley. The temperature difference between the land and water primary influence these wind effects. During the day, the land heats up quicker than water due to the difference in specific heat capacity, causing warm air to rise over the land, creating a low-pressure area. As a result, cooler air from the lake moves in to fill this void. Conversely, at night, the land cools down more rapidly, causing the air above to become cooler and denser, leading to a higher-pressure area over the land. Along Okanagan Lake, this phenomenon causes dense cool air from the plateau to flow downwards towards the lake. In terms

[21] Rationale for the development of "Core Wildfire Season" for use in the 90th Percentile Calculator. BCWS Predictive Services.

of fire behaviour, during nighttime diurnal wind patterns, fires tend to grow downhill from forested areas along the plateau towards the WUI along Okanagan Lake, as seen in the 2023 McDougall Creek Fire, 2021 White Rock Lake Fire, and 2014 Terrace Mountain Fire.

Wind speed and direction are the most variable factors during any fire season. Over the past decade, fire behaviour and severity observations have emphasized the importance of readiness for high winds from any direction. While historical wind data can aid in prioritizing treatment locations, communities must be prepared for wind-driven fires originating from any direction. Expectations should include fires moving uphill, downhill, or across slopes.

The images below use historical data from the Penticton weather stations to develop ISI roses. ISI roses provide a visualization of the predominant wildfire spread direction using prevailing wind direction and wind speed.

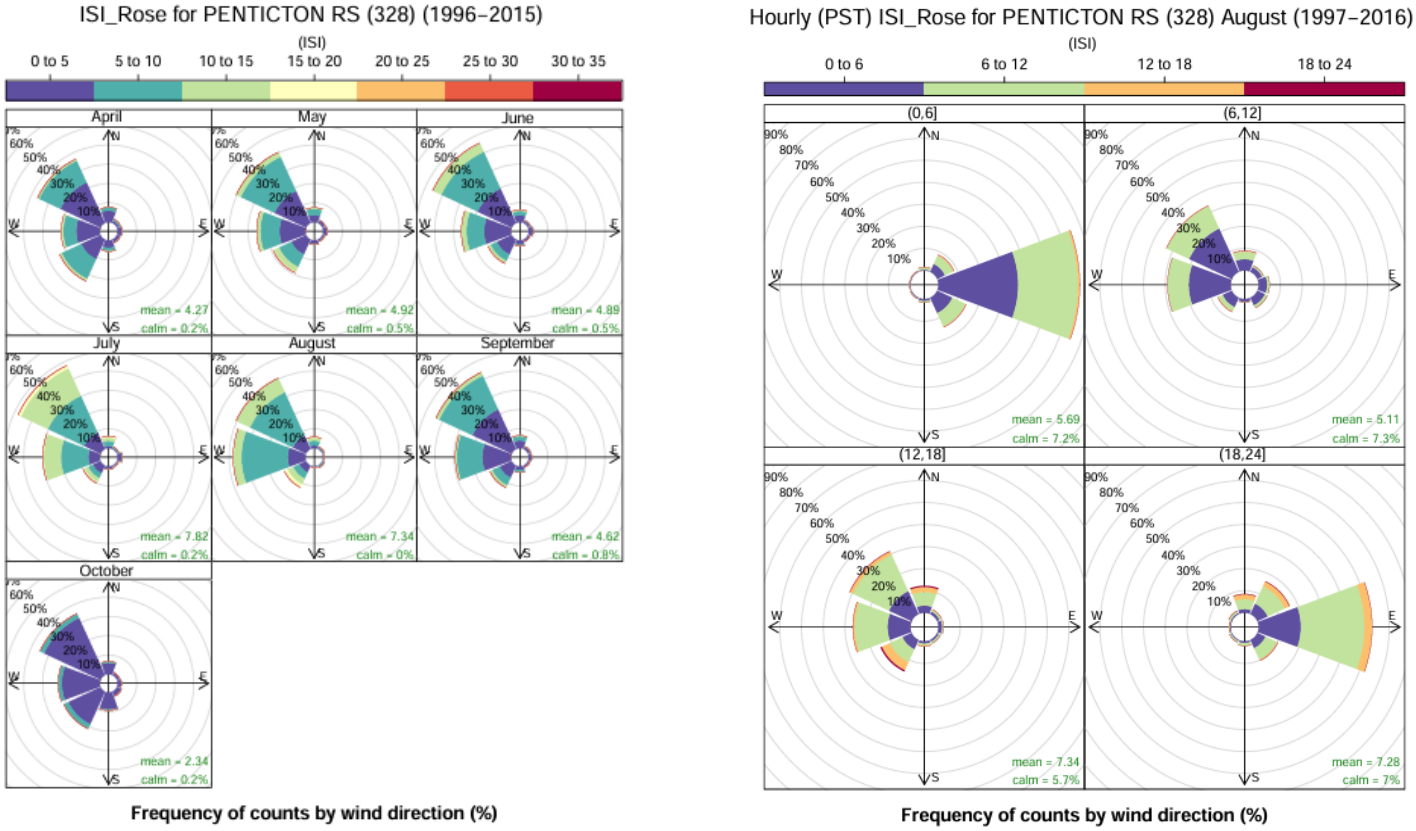

Figure 8: Initial Spread Index (ISI) Rose for the Penticton weather station observations between 1996 – 2015. Monthly averages (left), and August hourly averages (right). Hourly averages are binned into periods of six hours (00:00-06:00, 06:00-12:00, 12:00-18:00).

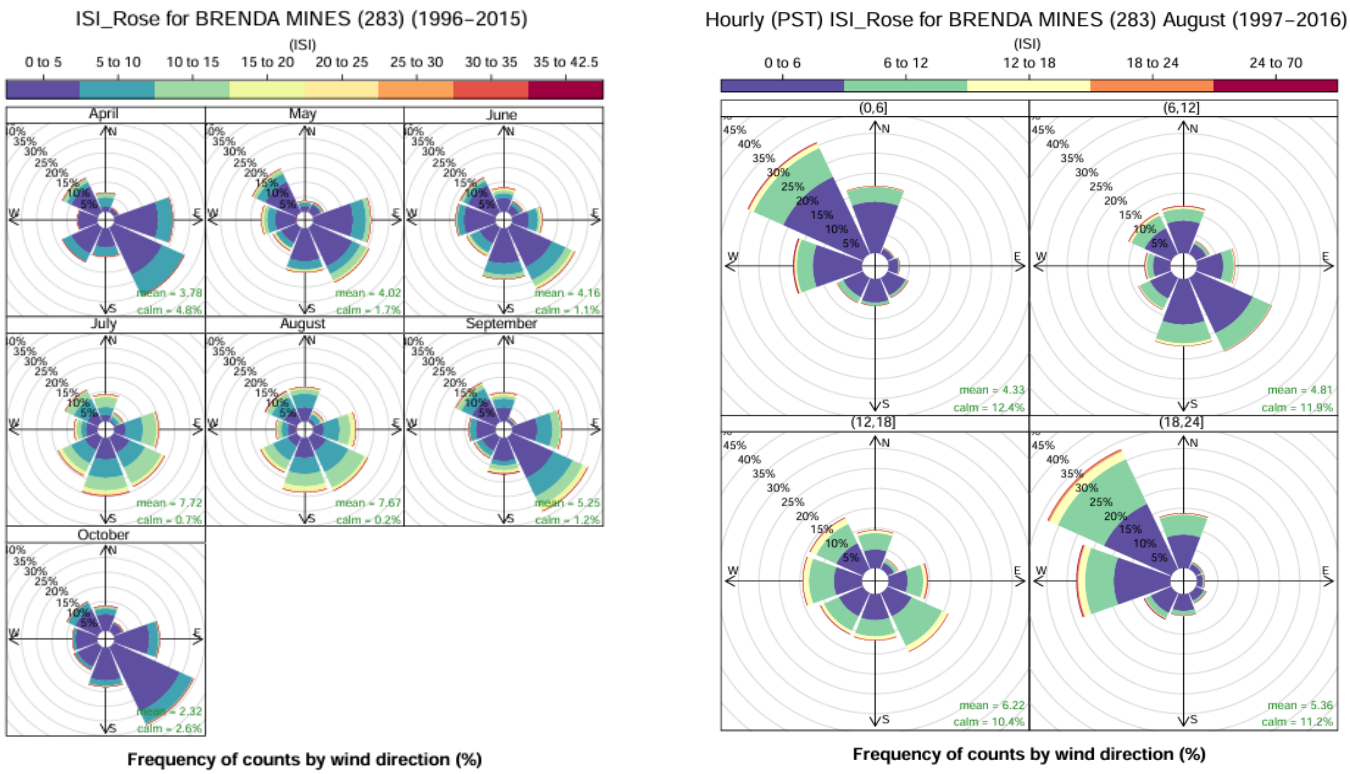

Figure 9: Initial Spread Index (ISI) Rose for the Brenda Mines weather station observations between 1996 – 2015. Monthly averages (left), and August hourly averages (right). Hourly averages are binned into periods of six hours (00:00-06:00, 06:00-12:00, 1200-18:00):

4.1.3.1 Climate Change

The province of BC has witnessed the most severe wildfire seasons of the last half-century, occurring in 2017, 2018, 2021, and 2023, all characterized by extreme weather conditions. The recent surge in fire activity is not entirely unexpected, given recent weather extremes. However, what is surprising is the early emergence of increased wildfire activity around 2000— decades earlier than anticipated from climate models—and the magnitude of fire-season severity. For instance, three of the past seven years saw more than 1 million hectares burned, or more than 1% of the land area, compared to only three wildfire seasons from 1919 to 2016, exceeding 0.5 million hectares. Additionally, the average length of the wildfire season, as inferred from weather records (measured by the number of frost-free days) and the onset of fire activity (defined as the date when 2% of the year's total area burned was reached), has increased by 26.7 and 27.1 days, respectively, since the early 20th century.[22] The observed effects of climate change on fuel, ignition, weather and their complex interactions and relationship to wildfire are summarized below in Figure 10.

[22] Parisien, M. A., Barber, Q. E., Bourbonnais, M. L., Daniels, L. D., Flannigan, M. D., Gray, R. W., ... & Whitman, E. (2023). Abrupt, climate-induced increase in wildfires in British Columbia since the mid-2000s. *Communications Earth & Environment*, *4*(1), 309.

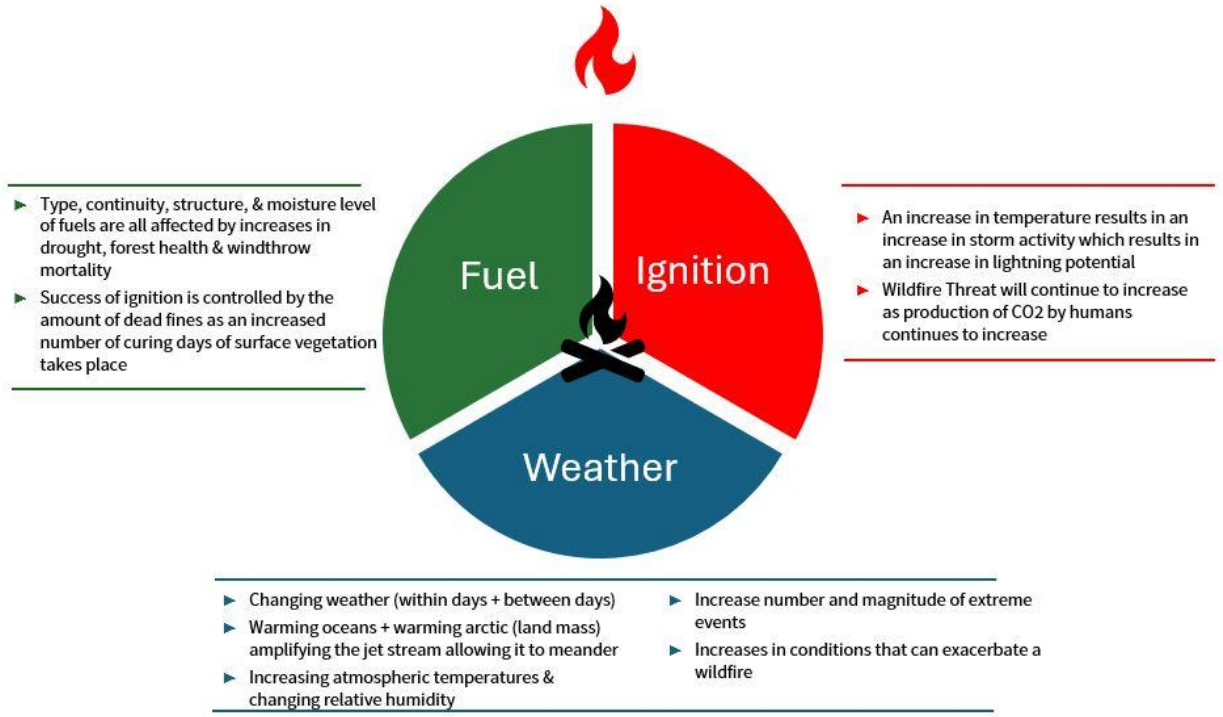

Figure 10. Effects of climate change graphic

The Pacific Climate Impacts Consortium (PCIC) conducts quantitative studies on the impacts of climate change and variability[23]. Projected climate change data from the PCIC presents a comprehensive view of potential climate change risks and impacts due to inputs from many raw data sources. Strong trends in temperature and precipitation, as well as an integrated measure of the two, the moisture deficit, have been observed in BC over the past century. Annual area burned correlates significantly to the climatic moisture deficit (CMD); even when total precipitation levels remain high, rapid warming typically results in increased evapotranspiration demand. It is estimated that for every degree of warming, a minimum increase of 15% in precipitation is required to compensate for increased biomass flammability.[24]

Based on projections from the PCIC, the Central Okanagan region is expected to experience an annual temperature increase of 1.3°C to 2.4°C by the 2030s. In addition, spring precipitation is projected to decrease by 11.2% to 3.3% and summer precipitation is expected to decrease by 23.6% to 3.7%. These changes will reduce precipitation during the spring and summer months, increasing the availability of fuels ready to burn. Combined with rising temperatures, warmer and drier conditions will likely escalate the potential for fire behaviour in the region.

[23] Pacific Climate Impacts Consortium. 2024.
[24] Parisien, M. A., Barber, Q. E., Bourbonnais, M. L., Daniels, L. D., Flannigan, M. D., Gray, R. W., ... & Whitman, E. (2023). Abrupt, climate-induced increase in wildfires in British Columbia since the mid-2000s. Communications Earth & Environment, 4(1), 309.

Table 14. Summary of projected changes in average (mean) temperature and precipitation in the Central Okanagan region from the historical baseline (1981 – 2010) to the 2030s (2021 – 2050).

Climate Variable	Season	Projected change from historical baseline (1981-2010) to the 2030s (2021-2050) for the Central Okanagan region	
		Ensemble Median*	**Range^ (10th to 90th percentile)**
Temperature (°C)	Annual	+1.6 °C	+1.3 °C to 2.4 °C
Precipitation (%)	Annual	-0.4%	-3.6% to + 2.7%
	Spring	-5.5%	-11.2% to +3.3%
	Summer	-14.2%	-23.6% to -3.7%
*The ensemble median is a mid-point value, chosen from a PCIC standard set of Global Climate Model (GCM) projections. ^The range values represent the lowest and highest results within the set.			

4.1.3.2 Extreme Heat Events

In June 2021, British Columbia experienced an extreme heat event known as the heat dome, which brought unprecedented high temperatures to the province. Some areas recorded temperatures soaring 20 degrees Celsius above seasonal norms. During this period, the BC Coroners Service reported 595 heat-related deaths. [25]

Extreme heat events increase the risk of heat-related illnesses and can coincide with elevated fire hazards. Higher fire activity during these periods can lead to increased smoke particulates in the air, further impacting public health.

Peachland has designated the Peachland Community Centre, located at 4450 6th street, as a cooling centre available to the public during extreme heat events.

[25] Be prepared for extreme heat and drought.

4.2 WILDFIRE HISTORY

A historical wildfire analysis was conducted for Peachland and a surrounding 10-kilometre area. Using data from the BC Wildfire Service's *Fire Incident Locations - Historical* database, Table 15 presents the types of wildfires within the Peachland AOI and a 10-kilometre buffer from 1950 to 2023.[26] Since 1950, approximately 86% of the area burned within the analysis area has been attributed to lightning-caused fires. However, the vast majority of this number is attributed to the Okanagan Mountain Park fire of 2003, which burned 25,912 ha. If this fire is excluded from the calculations, 41% of historical fires were lightning caused, and 59% caused by human activities.

Given the dense population along the Okanagan corridor and the intermix of communities within the wildland-urban interface, reducing human-caused fires can be addressed through targeted education and public awareness initiatives.

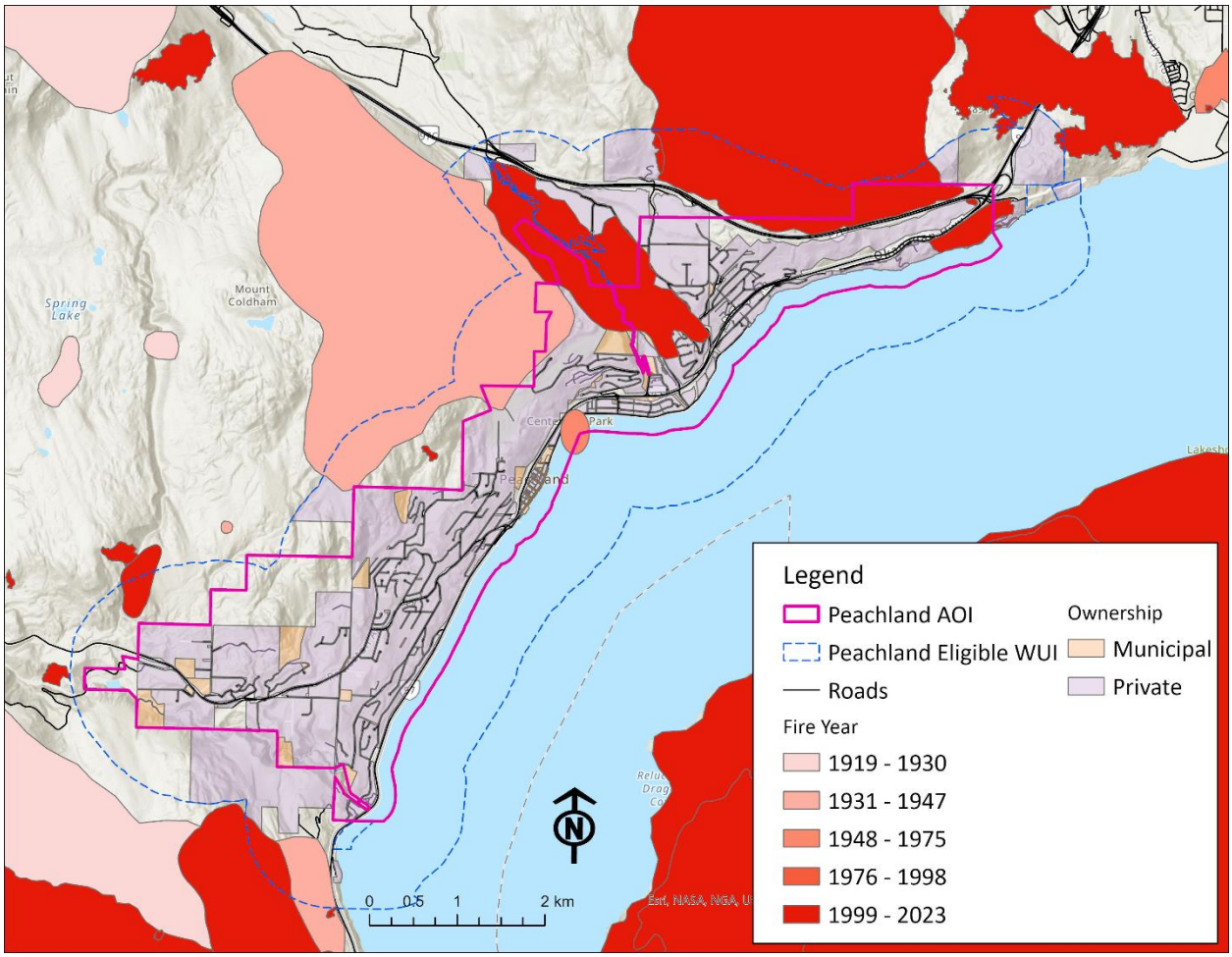

Figure 11: Fires greater than 0.1 hectares in size from 1919-2023 in Peachland and surrounding area.

[26] Historical wildfire data sets are available from BC Data Catalogue

Table 15. Area burnt summarized by fire start type for the Peachland AOI and a 10-kilometer buffer from 1950 to 2022.

	Lightning	Person	Unknown	All
Total Area Burnt (ha)	29,328	4,557	449	34,336
Percentage of Wildfires (%)	86	13	1	100

A secondary historical wildfire analysis was conducted for Peachland and a surrounding 10-kilometre area, covering 1919 to 2024. This analysis utilized multiple datasets provided by the BC Wildfire Service. Figure 12 illustrates the annual frequency of historical ignitions, with the mean annual ignition rate over the past decade calculated at 14. This implies that Peachland and the BC Wildfire Service can typically expect to respond to approximately 14 new fires per year on average within the analysis area. The analysis also examined historical wildfire ignitions by monthly frequency from 1919-2024. The analysis found that most ignitions occurred in the core summer months of July and August, as seen in Figure 13.

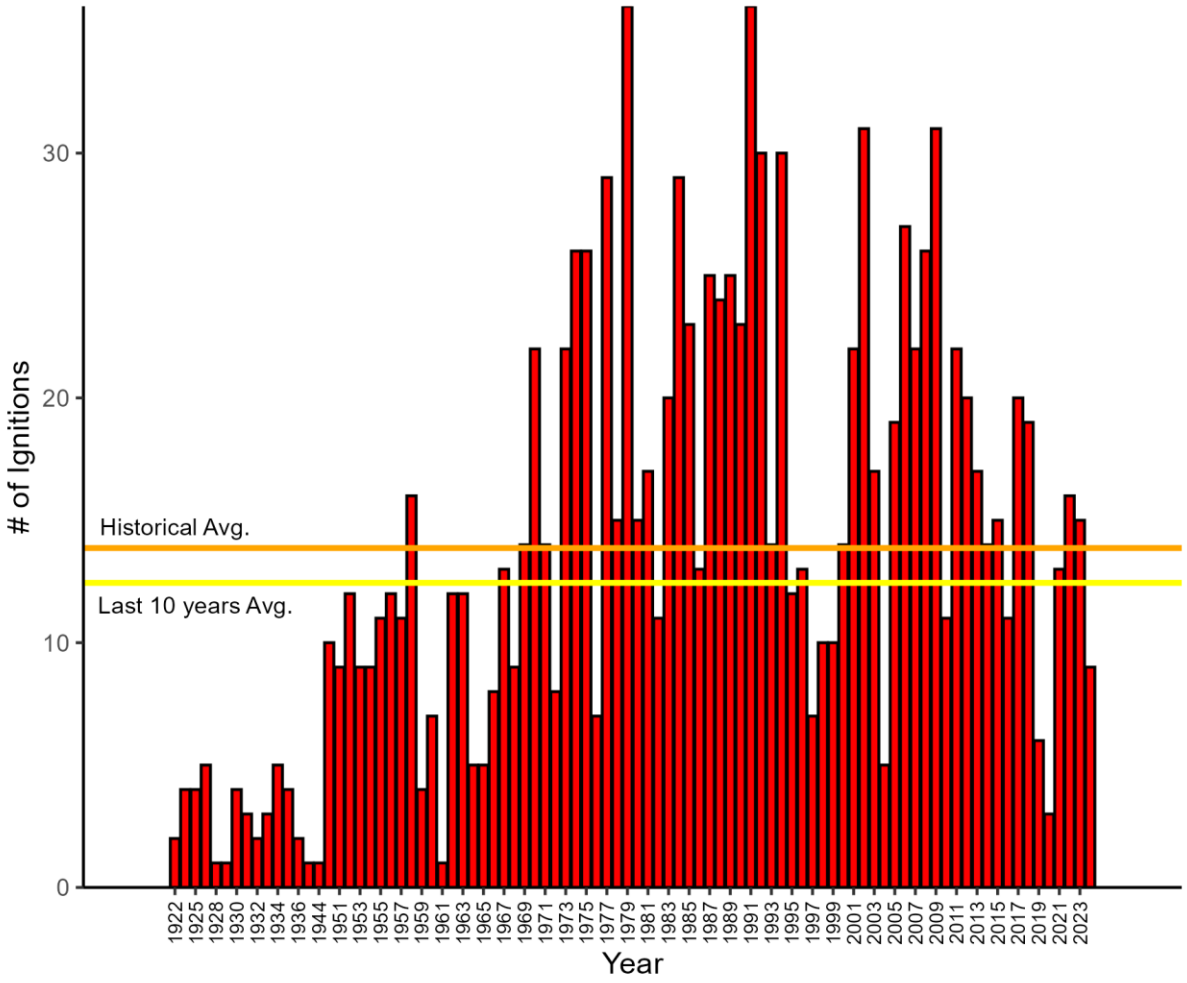

Figure 12: Annual frequency of historical wildfire ignitions, within 10 km radius of the AOI, between the years of 1922-202

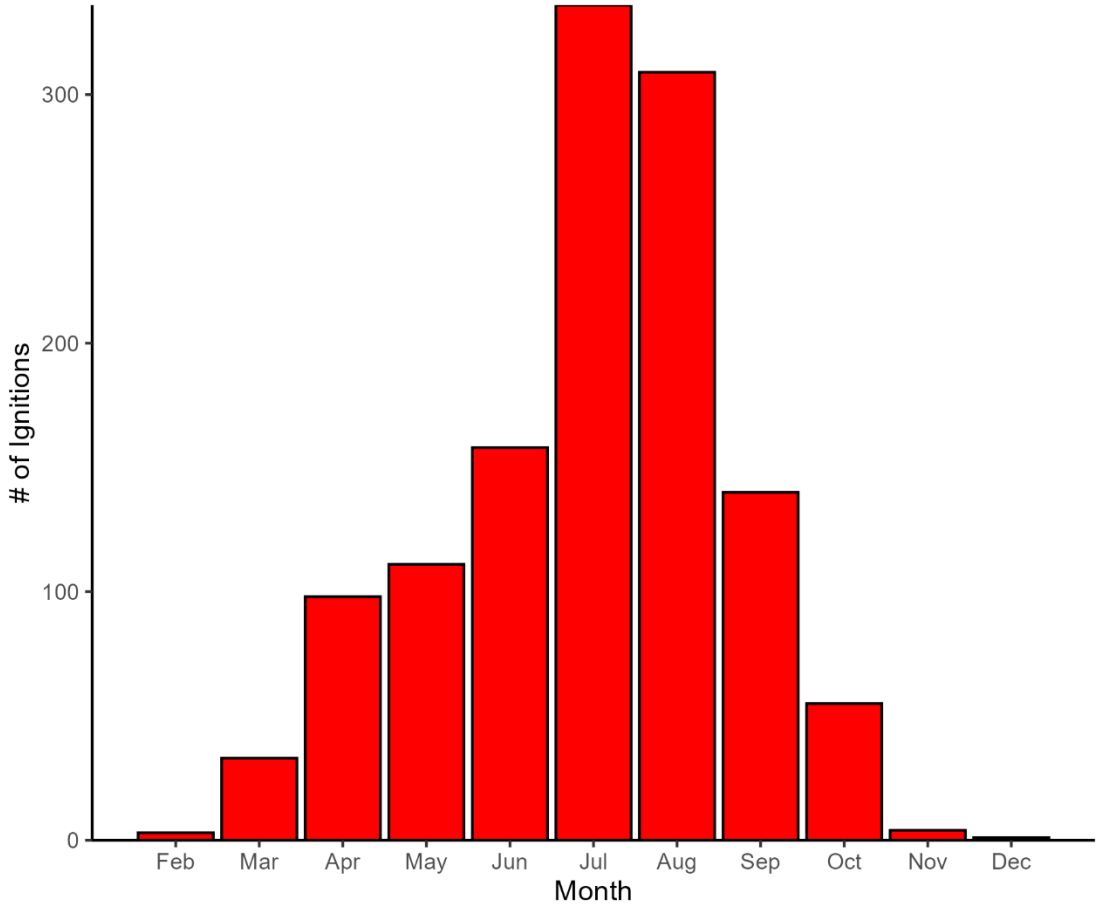

Figure 13: Historical wildfire ignitions by monthly frequency between the years of 1922-2024.

4.3 LESSONS LEARNT – PREVIOUS WILDFIRE SEASONS

Wildfire is a common occurrence in the District of Peachland and surrounding area (Figure 11). As discussed in **Section 4.1.2.2 Natural Disturbance Type**, the District of Peachland is situated within a NDT4, which are ecosystems characterized by frequent stand-maintaining fires.

Notable large landscape level fires in the Okanagan region over the past five years include:

- **McDougall Creek Fire (2023):** First detected on August 15th near West Kelowna, the fire grew to approximately 13,500 hectares and caused the evacuation of 35,000 people. The fire jumped Okanagan Lake in two locations into the City of Kelowna and the District of Lake Country. The cause of the fire is still under investigation.
- **White Rock Lake Fire (2021):** First detected on July 13th and caused by lightning, this fire consumed 83,342 hectares by the end of the fire season. It prompted evacuation alerts for the City of Vernon and City of Armstrong.

Since 2017, the District of Peachland has experienced several smaller fires. The summer of 2025 saw three wildfires prompting hundreds of evacuation alerts and orders.

- Munro Lake Fire (September 2025)
- Peachland Creek Fire (August 2025)
- Drought Hill Wildfire (July 2025) – Between Peachland and West Kelowna

4.4 CANADIAN FOREST FIRE DANGER RATING SYSTEM (CFFDRS)

The Canadian Forest Fire Danger Rating System (CFFDRS), developed by the Canadian Forestry Service, assesses fire danger and potential fire behaviour. Fire Danger Classes offer a relative index of how easily a fire can ignite and the anticipated difficulty in controlling it. The BC Wildfire Service and Ministry of Forests maintain a network of fire weather stations throughout the province that are used to determine the daily Fire Danger Class. Table 166 describes the five Fire Danger Classes.

Table 16. The five fire danger classes and general fire descriptions[27]

Fire Danger	Description
Very Low	Fires likely to be self-extinguishing and new ignitions unlikely. Any existing fires limited to smouldering in deep, drier layers.
Low	Fires may start easily and spread quickly but there will be minimal involvement of deeper fuel layers or larger fuels.
Moderate	Forest fuels are drying and there is an increased risk of surface fires starting. Carry out any forest activities with caution.
High	Forest fuels are very dry, and the fire risk is serious. New fires may start easily, burn vigorously, and challenge fire suppression efforts. Extreme caution must be used in any forest activities. Open burning and industrial activities may be restricted.
Extreme	Extremely dry forest fuels and the fire risk is very serious. New fires will start easily, spread rapidly, and challenge fire suppression efforts. General forest activities may be restricted, including open burning, industrial activities and campfires.

High (DGR4) and extreme (DGR 5) fire danger ratings occur with high drying conditions, creating a serious fire start risk that may challenge wildfire suppression. These Fire Danger Classes may restrict open burning, industrial and recreational forest activities. The fire weather analysis below summarizes the number of days per year when the Fire Danger Class was high or extreme as recorded by the Penticton RS Weather Station (Figure 14). The Penticton RS Weather Station was

[27] Fire Danger. BC Wildfire Service.

utilized for this analysis as its elevation and the impacts from the lake effect are more relevant and representative for the AOI than the Brenda Mines Weather Station.

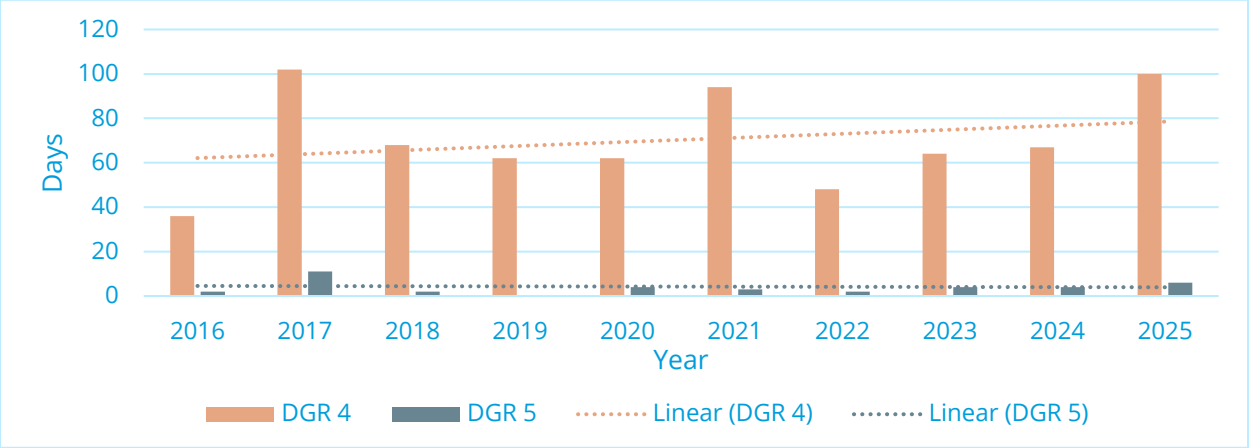

Figure 14: BC Wildfire Service Penticton RS Weather Station Fire Danger Class 4 and 5 (2014 – 2025)

In addition to the graph, summary table (Table 17) provides an overall summary of Fire Danger Class ratings for the Penticton RS Weather Station in terms of average, median and maximum days, as well as the year of maximum Fire Danger Class days.

Table 17: Summary of Fire Danger Class 4 and 5 days from BC Wildfire Service Penticton RS Weather Station (2014 - 2025)

Danger Class	Days			Year of Maximum
	Average	Median	Maximum	
DGR 4	70.3	65.5	102	2017
DGR 5	4.2	4	11	2017

A review of the Fire Danger Class data reveals that the Penticton RS Weather Station records around 70 Danger Class 4 days per year and shows a minor upward trend over the last ten years. While Danger Class 5 days occur on average around 4 times per year and show no changing trend over the ten-year analysis, 2017 was a peak year for both the number of Danger Class 4 and 5 days recorded during the fire season and was a notable wildfire year for BC, overall.

4.5 PROVINCIAL STRATEGIC THREAT ANALYSIS (PSTA)

The BC Wildfire Service developed the Provincial Strategic Threat Analysis (PSTA) to evaluate and forecast potential wildfire threats. Leveraging provincial fuel type mapping, historical fire occurrence data, topography, and historical weather station data, the PSTA generates a wildfire threat score. Outputs from the PSTA include information and maps delineating fuel types, historical fire density, the potential for embers to land in an area (spotting impact), head fire intensity, and wildfire threat. Further details regarding the derivation of the PSTA dataset are available through the BC Wildfire Service.[28]

A key funding requirement for fuel management activities through the FireSmart Community Funding and Supports program is that treatments must occur within the WUI. As such, a spatial analysis was conducted using the provincially available PSTA dataset (Table 18 and Figure 15).

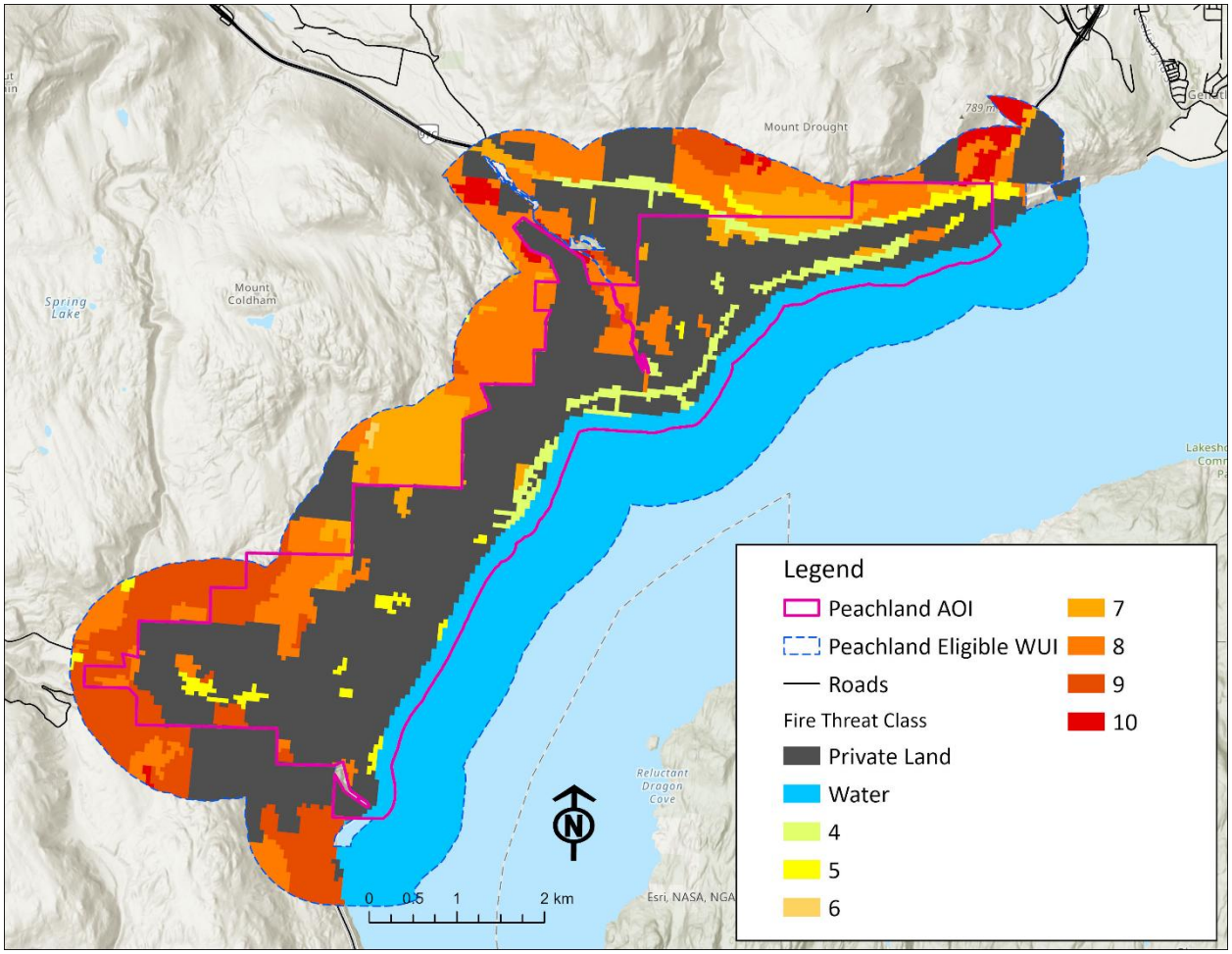

Figure 15: Provincial Strategic Threat Analysis (PSTA) layer for the District of Peachland AOI.

[28] 2021 Update: Provincial Strategic Threat Analysis (PSTA).

The analysis identified approximately 1181 hectares within the eligible WUI classified as either High or Extreme Threat. In addition, approximately 37% of the land in the eligible WUI is privately owned. Due to the high proportion of privately owned land within Peachland, a robust FireSmart program is crucial. The FireSmart Program should emphasize engagement, education, and raising awareness among private property owners to increase wildfire resilience.

Table 18. PSTA Fire Threat class and associated areas for the Peachland eligible WUI

FIRE THREAT CLASS	AREA (HA)	PERCENTAGE (%)
No Data (Private Land)	1,584	37
Extreme	410	10
High	771	19
Moderate	166	5
Low	0	0
Water	1,170	29
Total	4,101	100

4.6 HAZARD, RISK, AND VULNERABILITY ASSESSMENT

Hazard, Risk, and Vulnerability Assessments (HRVAs) are a mandatory requirement under the Emergency and Disaster Management Act. The District of Peachland is currently in the process of developing a HRVA and it is expected to be completed in 2026.

4.7 LOCAL WILDFIRE THREAT ASSESSMENT

To develop this CWRP, on-the-ground verification and assessment of local vegetation types and the inherent wildfire threat of forested areas within and around communities were conducted. The local wildfire threat assessment for the District of Peachland area utilized the *2020 Wildfire Threat Assessment Guide and Worksheets* from BCWS, which focus on forest stand attributes and fuel structure, independent of fire weather and other fire behaviour components contained in the PSTA data. The assessment process targeted areas mapped as having potentially threatening fuel types and involved completing threat assessment worksheets and fieldwork photographs. The assessment results are available in Appendix D.

Fieldwork was conducted in July 2025, including fuel type verification and wildfire threat analysis for the Peachland WUI. A total of 15 threat assessments were conducted within the CWRP WUI. Peachland's WUI is approximately 4,101hectares, and of this, 35% (1,446 hectares) is private land

and 29% (1,171 hectares) is water. This only left a small area eligible for proposed fuel treatment units. Wildfire threat assessments, in general, were found to have Moderate and Low ratings. Locations of wildfire threat assessments are provided in Appendix E.

It is important to understand that the concept of wildfire threat, as used in this assessment, differs from wildfire risk. Wildfire threat, in this context, does not consider proximity to values or the potential consequences of damage to those values in a wildfire event. Instead, it focuses on the inherent danger posed by the local vegetation types and fuel structure.

5.0 FireSmart Disciplines

This CWRP is designed to comprehensively plan for all aspects of community wildfire planning by structuring strategies based on the seven FireSmart disciplines:

1. Education
2. Legislation and Planning
3. Development Considerations
4. Interagency Cooperation
5. Cross-Training
6. Emergency Planning
7. Vegetation Management

Each FireSmart discipline and its role in resiliency planning for the District of Peachland is outlined in the subsequent sections below.[29]

NEW in 2024: Starting in 2024 as per the *FireSmart Community Funding and Supports Program and Application Guide* (February 2024), it will be required for all applicants to have the following FireSmart components developed/active in their community:

- FireSmart Position
- Community FireSmart and Resiliency Committee
- Current Community Wildfire Resiliency Plan[30]

The purpose of the FireSmart Coordinator is to ensure that FireSmart activities are supported, developed, and implemented in accordance with Provincial guidelines as well as with the direction and policy provided by the District of Peachland. FireSmart Coordinators are an integral part of wildfire risk reduction and act as the main point of contact linking local government, the public, and the provincial FireSmart Program. The FireSmart Coordinator is responsible for organizing and implementing the action items and initiatives identified within this CWRP.

[29] For more information on the BC FireSmart program, visit: **https://firesmartbc.ca/**
[30] For more information regarding FireSmart Community Funding & Supports Program visit: **https://www.ubcm.ca/cri/firesmart-community-funding-supports**

5.1 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.

Goal: The Community Wildfire Resiliency Plan (CWRP) is only successful if community members and stakeholders are engaged in taking action to reduce the wildfire risk. This CWRP aims to establish effective communication and develop educational activities so that each member of the community understands the potential for interface wildfire in the District of Peachland and can play their role to reduce that risk.

Context: The District of Peachland has been active in public education and outreach efforts to engage residents in the FireSmart program. These initiatives have been led by Peachland Fire & Rescue, where senior staff members take on key roles, including FireSmart Coordinator. Peachland Fire & Rescue hosts an annual Wildfire Community Preparedness Day each spring, providing residents with FireSmart educational materials to help manage wildfire risk on private property, as well as information on available rebate programs, wildfire mitigation initiatives, home assessment services, and emergency preparedness resources, among other information. Peachland has also promoted FireSmart landscaping practices by offering free yard waste vouchers to cover yard waste disposal fees.

The District of Peachland has a number of current and previously recognized neighbourhoods through the FireSmart Canada Neighbourhood Recognition Program (FCNRP) including:

- Bulyea Ave. (currently recognized)
- Trails Place (currently recognized)
- Eagles View (currently recognized)
- Chateaux on the Lake (working towards recognition)
- Forest Hills and Thompson Drive (previously recognized)
- Upper Princeton South (previously recognized)
- Vernon Ave. (previously recognized)

To enhance community engagement and education, several outreach tools and tactics can be employed, including:

- Hosting **community workshops** or seminars on FireSmart principles and practices.

- **Distributing informational** pamphlets or brochures to residents.
- Utilizing **social media** platforms to share FireSmart tips and updates.
- Organizing **neighbourhood meetings** or events focused on wildfire preparedness.
- Collaborating with **local schools** to integrate FireSmart education into curriculum or extracurricular activities.
- Conducting **home assessments** and providing personalized recommendations for wildfire mitigation measures.
- Establishing a community **FireSmart committee** to spearhead education and mitigation efforts.

Actions: The following are recommended action items for Peachland to further increase FireSmart awareness, education, and action within the community.

Action #1: Read and understand this CWRP's identified risk and recommendations.

Action #2: Continue to maintain and update the FireSmart dedicated webpage on the District of Peachland Website.

Action #3: Share this CWRP on the District of Peachland Website.

Action #4: Employ a full- or part-time FireSmart Coordinator within the District of Peachland. This position is responsible for implementing the FireSmart program and generally oversees actioning aspects of this CWRP.

Action #5: Promote FireSmart information and wildfire preparedness through social media and communication tools.

Action #6: Continue to hold an annual FireSmart event/open house to introduce concepts to community members and educate them on actions they can take on their properties to reduce wildfire risk. This could be a specific Wildfire Community Day in the spring prior to wildfire season.

Action #7: Continue to offer free FireSmart home and property assessments on private property.

Action #8: Support the FireSmart BC Education Program through the Central Okanagan School District (No. 23).

Action #9: Support the FireSmart Plant Program through local garden centres.

Action #10: Encourage neighbourhoods to apply for FireSmart Canada's Neighbourhood Recognition Program. Once recognized, annually renew for FireSmart Recognition.

Action #11: Ensure appropriate signage is in place for highly visible fuel-management activities.

5.2 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 bylaws.

Goal: The goal is to facilitate an understanding of how local, provincial and federal legislation can either support or restrict the ability to implement local policies and bylaws and other wildfire risk reduction activities.

Context: Several types of provincial and federal legislation, including acts and regulations, play a role in supporting or influencing the CWRP process. A comprehensive list of existing bylaws, provincial, and federal regulations and legislation is available in more detail in **Appendix C: Additional Resources for FireSmart Disciplines**.

The District of Peachland has proactively incorporated wildfire and FireSmart practices into a number of its planning documents. A comprehensive review of local community plans and bylaws was conducted as part of the District of Peachland's CWRP, as detailed in Section 2.0 Relationship to Other Plans.

Actions

Action #12: As legislation is changed (official Community Plan, Bylaws, policies) incorporate FireSmart objectives, language, and terminology.

5.3 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.

Goal: To implement a strategy for decreasing the chance of structural losses within the AOI due to a wildfire, by utilizing regulatory and administrative tools to reduce wildfire hazard and increase the number of homes and other infrastructure compliant with FireSmart guidelines (with low ignition potential).

Context: The District of Peachland has established Wildland Fire Development Permit Area (DPA) Guidelines, outlined in Section 6.4.2 of the *District of Peachland Official Community Plan (2021)*. These guidelines aim to minimize the risk to life and property in balance with preservation of forested and natural areas that contribute to the character of Peachland. The DPA applies to all land identified in Figure 16: Wildfire Interface Development Permit Area identified in the District of Peachland OCP (2022)

and includes site planning, building and structural design, and landscaping considerations.

Future iterations of the DPA could consider the following improvements:

- **Sprinkler Protection Systems:** require the installation of roof sprinkler systems on all newly constructed primary residences or commercial buildings.
- **Building Materials:** utilize fire-resistant building materials and construction techniques recommended by FireSmart, such as non-combustible roofing materials, fire-rated siding, and ember-resistant vents.
- **Roof Design:** to reduce the risk of ember intrusion and flame penetration, opt for a fire-resistant roof design recommended by FireSmart, such as a steep slope or metal roofing.
- **Eaves and Vents:** design eaves and vents according to FireSmart recommendations to minimize ember entry into the structure. Incorporate ember-resistant vents and cover eaves with non-combustible materials or metal flashing.
- **Water Supply:** maintain a reliable water supply for firefighting efforts, including installing fire hydrants and water storage tanks at strategic locations throughout the community.

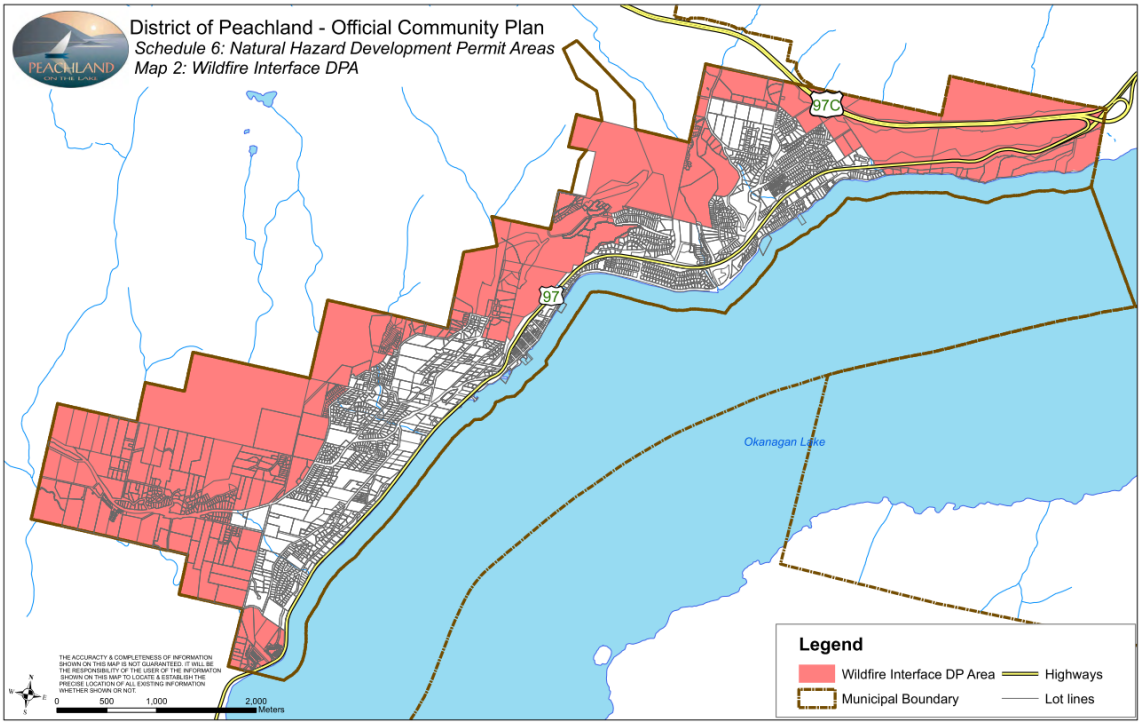

Figure 16: Wildfire Interface Development Permit Area identified in the District of Peachland OCP (2022)

Actions: The following are recommended action items regarding incorporating FireSmart and wildfire hazard into new development considerations and existing infrastructure.

Action #13: Update wildland fire DPA boundaries to reflect changes in development and growth within the District of Peachland, as needed.

Action #13: Amend existing DPA to incorporate additional FireSmart considerations.

5.4 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 the stakeholder organizations are dependent upon each other to develop an effective Community Wildfire Resiliency Plan and undertake a successful wildfire response.

Goal: To encourage and establish collaborative relationships among the District of Peachland Fire Department, District of Peachland Council, British Columbia Wildfire Service, Regional District of Central Okanagan and other stakeholder groups to achieve a wildfire resilient community.

Context: Starting in 2024 as per the *FireSmart Community Funding & Supports Program and Application Guide* (February 2024) it will be required for all applicants to have a *Community FireSmart and Resiliency Committee* (CFRC).[31] A CFRC fills a key level of collaboration and organization on a scalable level that is currently missing across British Columbia. The CFRC involves the collaborative efforts of multiple stakeholders working together to achieve a wildfire resilient community. This can provide the missing link and bring partners together under a common vision connected to the seven FireSmart disciplines. Some suggested activities that could be part of a *Community FireSmart Resiliency Committee* include:

- Collaborate on a communication and **public education strategy** with multiple local governments.
- Participate in or liaise with a government led **fuel management planning table** in collaboration with MoF and other agency staff.
- Develop/update, implement and monitor the success of your **Community Wildfire Resiliency Plan**.
- **Streamline FireSmart Home Assessment** and **FireSmart grant programs** by sharing capacity between multiple local authorities.
- Develop a network of **Local FireSmart Representatives** in the area and coordinate their activities within the region.

[31] For more information regarding FireSmart Community Funding & Supports Program visit: **https://www.ubcm.ca/cri/firesmart-community-funding-supports**

- Provide collaboration and coordination on **Community Funding and Supports Projects** and **Crown Land Wildfire**.
- Create an advocacy program for participation in the **FireSmart Canada Neighbourhood Recognition Program** and work towards increasing the number of recognized neighbourhoods in the region each year.
- Identify FireSmart activities that should be undertaken to best build **wildfire resiliency** in higher risk areas.
- Connect and share via social media.
- Identifying **funding sources** to access and support priority projects from Provincial, Federal and Regional Programs.
- Ensure **information sharing** of project initiatives that span multiple jurisdictions and scale over space and time.
- Identify and **recommend opportunities** for continuous program improvement to BC FireSmart Committee.
- Share information to help identify **Risk Reduction** project initiatives that reduce risk to First Nation and Municipal communities and support critical infrastructure. [32]

The District is participating in the **Okanagan Regional Community FireSmart and Resiliency Committee**. The committee includes communities throughout the Okanagan Valley, including all communities with RDCO, Regional District of South Okanagan (RDSO), Regional District of North Okanagan (RDNO), Okanagan Nation Alliance, and the First Nations Emergency Services Society of BC (FNESS).

Actions: The following actions are recommended for enhancement and continuity of successful interagency cooperation:

Action #14: Continue to participate in the Okanagan Regional Community FireSmart and Resiliency Committee and share findings of CWRP with partners.

Action #15: Continue to annually attend the Wildfire Resiliency Training Summit.

Action #16: Provide Indigenous cultural safety and humility training to emergency management personnel.

Action #17: Participate in integrated fuel management, cultural burning, and/or prescribed fire planning table to support the integration of fuel management planning across jurisdictional boundaries.

[32] For more information regarding the Community FireSmart and Resiliency Committee, visit: **https://firesmartbc.ca/cfrc/**

5.5 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,

Goal: Develop a diverse skill set within community members, local Fire Department and the British Columbia Wildfire Service and facilitate understanding across participants engaged in risk reduction activities and wildfire planning/response. This will allow for skilled workers to support the development of comprehensive and effective CWRP activities, including a safe and effective wildfire response.

Context: Peachland Fire & Rescue has highly trained firefighters and staff to respond to structural and wildfires within the District of Peachland. All department members receive ICS-100 and SPPF-WFF1 training.

Additional training should be made available for other members of the District of Peachland staff to understand the basics of wildfire prevention, mitigation, response, and recovery as needed. Private property owners and residents should also be offered training course opportunities. This can include the Local FireSmart representative training, Home Partners Program Wildfire Mitigation Training[33], and basic structural protection training. This training can be provided by official trainers or by the local fire department.

Cross training opportunities between agencies should be conducted to practice response coordination during multi-agency scenarios. Emergency evacuation scenarios or other response scenarios would foster interagency relationships and help identify strengths and weaknesses in the current evacuation plan. Additionally local FireSmart Representatives and Peachland Fire & Rescue should be encouraged to participate in available training courses. This will help build capacity and enhance wildfire risk reduction and suppression tactics knowledge.

Some examples of available training courses include:

- **Wildfire Risk Reduction Basics Course:** free, online course for non-forest professionals that introduces the key concepts to minimize the negative impacts of wildfires in BC.
- **Fire Life and Safety Educator:** a public education course for fire safety education.
- **ICS-100 (Incident Command System):** Introduction to an effective system for command, control, and coordination of response at an emergency site.

[33] BC FireSmart. Home Partners Program Wildfire Mitigation Training. https://firesmartbc.ca/wmp/

- **S-100:** Basic fire suppression and safety and S-100A (annual refresher).
- **S-185:** Fire entrapment avoidance and safety.
- **SPP-WFF1:** Wildland Firefighter Level 1 (includes S-100, S-185, and ICS-100).
- **Wildland Structure Protection Program (WSPP-115):** training for structure protection unit crews and WSPP-FF1(train the trainer).
- **S-231:** Engine Boss (training for structure protection program in a WUI event).
- **Task force leader (TFL-1 & TFL-Advanced):** for structure defense only – course for structural fire personnel to monitor and assess specialty resources that work together to accomplish a common task.
- **Structure Division/Group Supervisor (DivS/GrpS):** for structure defense only – course for structural fire personnel to implement assigned portion of the Incident Action Plan and be responsible for all operations conducted in the division/group)

Cross-training opportunities also exist for Peachland Emergency Services staff and the FireSmart Coordinator position. Eligible training courses available to these local government personnel include:

- **Local FireSmart Representative (LFR) training:** free online course to enhance understanding of current Wildland Urban Interface concepts and wildfire hazard assessments.
- **Introduction to Emergency Management in Canada (EMRG-1100):** basic concepts and structure of emergency management.
- **ICS-100 (Incident Command System):** introduction to an effective system for command, control, and coordination of response at emergency sites.

More information regarding **FireSmart training courses** can be found on the FireSmart BC website.

Actions: The following are recommended action items relating to FireSmart and wildfire response cross training.

Action #18: Continue to provide SPP-WFF1 training for all Peachland Fire & Rescue members.

Action #19: Provide emergency management cross-training courses, such as *ICS-100* and *Introduction to Emergency Management in Canada*, for District of Peachland municipal staff involved in emergency management.

Action #20: Provide training opportunities for District of Peachland staff members, such as the **Wildfire Mitigation Specialist**, the **Local FireSmart Representative** and other fundable opportunities through the FCFS program.

Action #21: Facilitate cross training and response exercises with the BCWS Penticton Fire Zone and the fire department.

Action #22: Provide emergency management cross-training courses, such as *ICS-100* and *Introduction to Emergency Management in Canada*, for District municipal staff involved in emergency management.

5.6 EMERGENCY PLANNING

Community preparation 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.

Goal: The goal of emergency planning is to coordinate response efforts amongst the community, first responders, and local and provincial authorities to increase the efficiency and effectiveness of communications and evacuations in the event of an emergency, such as a wildfire. Emergency management programs should focus on the four pillars of emergency management planning:

1. Prevention and mitigation
2. Emergency preparedness
3. Response activities
4. Recovery

This CWRP aims to increase the number of community members with the following skills:

- Understand the hazard and risk associated with wildfire in their community,
- Know what to do in the event of an emergency,
- Take action to increase individual preparedness and mitigate damage to their properties, and
- Participate in community resiliency planning.

Context: As observed in recent busy fire seasons, simultaneous wildfire emergencies across the province can strain resources, leading to shortages in heavy equipment, BCWS staff, contractors, and equipment. Resource availability may be severely limited or scarce during such times, necessitating the triage or prioritization of emergencies provincewide. Therefore, local governments, resources, and individuals must be prepared and proactive in their response efforts.

Peachland's primary emergency management document is the *Regional District of Central Okanagan Emergency Plan* (2020). As the District of Peachland is a member of the Regional Emergency Program for the Central Okanagan, the *Emergency Plan* is a joint document that provides guidance and procedures for activating emergency operations centres across municipalities within the Central Okanagan.

5.6.1 Pre–Incident Wildfire Response Planning

Pre-incident wildfire response planning is recommended for the District of Peachland to guide wildfire suppression strategies and tactics. Also known as a pre-suppression plan, the pre-incident plan incorporates essential fire management knowledge and information into one place, which guides wildfire response tactics and increases fire suppression efficiencies. The plan may be developed with BCWS, and adjacent response partners to facilitate firefighting assistance. The plan should be reviewed before each fire season, and updates should be made if needed. *Canada's National Guide for WUI Fires* is a valuable resource for facilitating the planning process.[34] The guide includes a planning checklist, which is listed below (Table 19), to help develop the plan and accompanying maps. Evacuation route planning and testing are high priorities for incorporating into the pre-incident plan.

[34] National guide for wildland – urban – interface fires **https://nrc-publications.canada.ca/eng/view/object/?id=3a0b337f-f980-418f-8ad8-6045d1abc3b3**

Table 19. Example of a pre–incident planning checklist

Command	Operations
• Escape Fire Situation Analysis (if appropriate) • Pre -positioning needs • Draft delegation of authority • Management constraints • Interagency agreements • Evacuation protection needs • Closure procedures	• Heli–spot, Heli–base locations, flight routes, restrictions, water sources • Control line locations • Natural barriers • Safety zone options • Staging area locations • Fuel caches • GPS locations for helicopter access
Logistics	**Planning**
• Base camp locations • Roads, trails (including limitations) • Utilities • Medical facilities • Stores, restaurants, service stations, accommodations • Transport resource locations • Rental equipment sources (by type) • Construction contractors • Sanitary facilities • Police, fire departments, forest service, ambulance • Power utility companies (gas and pipeline companies) • Communications (radio and frequencies, telephone) • Sanitary landfills • Potable water sources • Maintenance facilities	• Community base map • Topographic maps • Infrared imagery • Vegetation/fuel maps • Hazard locations (ground and aerial) • Archeological and cultural base map • Endangered species and critical habitat • Sensitive plant populations • Water Sources • Land status • Priority zoning • Access and egress points and routes • High risk facilities (e.g., schools, hospitals) • Infrastructure

5.6.2 Wildfire Preparedness Planning

As part of pre-incident planning, the municipality may consider developing local daily action guidelines based on expected wildfire conditions. The table below provides a template that can be tailored specifically to the Municipality, outlining actions that staff, fire department members, and other emergency staff can take as fire danger levels change throughout the year. Some of these actions are already undertaken annually, (e.g. during Extreme fire danger, EOC staffing availability information is updated, and natural area closures occur), while other actions have not yet been initiated. Year-round, fire danger signs posted throughout the municipality should be updated to reflect the current fire danger.

Table 20: Wildfire Response Preparedness Condition Guide

Wildfire Response Preparedness Condition Guide	
Prep-Con Level	**Action Guidelines**
I LOW	• All Community staff on normal shifts. • Staff will update fire danger signs.
II MODERATE	• All Community staff on normal shifts.
III HIGH	• All Community staff on normal shifts. • Daily detection patrols by staff. • Regional fire situation evaluated. • Daily fire behaviour advisory issued. • Wildland fire-trained Community staff and EOC staff notified of Prep- Con level. • Establish weekly communications with local wildland fire agency contacts • Hourly rain profile for all weather stations after lightning storms. • Update fire danger signs.
IV EXTREME	• Rain profile (see III). • Daily detection patrols by Staff. • Daily fire behaviour advisory issued. • Regional fire situation evaluated. • EOC staff considered for stand-by. • Wildfire Incident Command Team members considered for stand-by/extended shifts. • Designated Community staff: water tender and heavy machinery operators, arborists may be considered for stand-by/extended shifts. • Consider initiating Natural Area closures to align with regional situation. • Provide regular updates to media services members/community staff on fire situation. • Update public website as new information changes.
V FIRE(S) ONGOING	• All conditions apply as for Level IV (regardless of actual fire danger rating). • Provide regular updates to media/structural fire departments/park staff on fire situation. • Mobilize EOC support if evacuation is possible, or fire event requires additional support. • Mobilize Wildfire Incident Command Team under the direction of the Fire Chief. • Implement Evacuation Alerts and Orders based on fire behaviour prediction and under the direction of the Fire Chief.

Actions: The following are recommended action items to improve emergency planning and preparedness relating to wildfire.

Action #23: Encourage local residents to sign up for the Regional District of Central Okanagan emergency notification program.

Action #24: Develop and/or participate in cross-jurisdictional meetings and tabletop exercises specifically focused on wildfire preparedness and response, including wildfire readiness meetings.

Action #25: Review the UBCM Community Emergency Preparedness Fund annually for funding opportunities.

Action #26: Assess community water delivery ability as required for suppression activities in the municipal area and wildland urban interface.

Action #27: Develop a Wildfire Response Preparedness Condition Guide that speaks to standard operating procedures for District staff during periods of High or Extreme fire behaviour.

Action #28: Promote the **EMCR Wildfire Preparedness Guide** and **Wildfire Evacuation Checklist** at open houses and community engagement events.

5.7 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.

Goal: The goal of vegetation management is not to completely eliminate the risk of wildfire, but to decrease the potential wildfire intensity, severity, and ember exposure. This CWRP will recommend vegetation management at multiple scales to proactively reduce wildfire risk throughout the District of Peachland. This includes the recommendation to re-treat and monitor previously fuel managed areas to upkeep with past wildfire risk reduction activities.

Context: Fuel management, also referred to as vegetation management or fuel treatment, is an important element of wildfire risk reduction within the WUI. The objective of fuel management is to reduce fuels available to burn and alter aspects of wildfire behaviour, such as decreasing potential wildfire intensity, to help limit damage to infrastructure and allow for safer and more effective response strategies.

Within the context of wildfire risk reduction, vegetation management encompasses strategies aimed at manipulating vegetation fuels to mitigate the potential hazards they pose to valued societal features. These involve actions taken at various scales and methods, prioritizing reducing fuels and potential wildfire behaviour that present the highest threat to the community's homes, businesses, and critical infrastructure. Vegetation management is generally conducted with three primary levels of focus and responsibility:

1. **Residential and Critical Infrastructure FireSmart Activities:** These activities target the Immediate, Intermediate, and Extended Zones. These zones are strategically selected to maximize the reduction of fuel hazards around residential areas. Discussed in Section 5.1.
2. **Cultural Sites and Green Space Treatments:** These treatments work to create a FireSmart landscape within municipal green spaces and parks and cultural sites.
3. **Stand or Landscape-Level Treatments:** These interventions address fuel complexes that could pose hazards to the Wildland Urban Interface (WUI) and may include methods such as mechanical thinning, fuel modification, and prescribed burning to reduce wildfire risk at a broader scale.

Only 34% of Peachland's WUI is eligible for fuel management activities, with the remainder being occupied by private land parcels (on which fuel management is ineligible for funding) or water. The effectiveness of fuel management on Crown land is compromised in absence of the continuation of fuel management on to adjacent private land. This highlights the importance of private landowners implementing FireSmart treatments on their homes/structures and extending into the Immediate, Intermediate, and Extended Zones.

Research investigating recent WUI disasters presents the case that catastrophic loss of homes due to wildfires is often due to structure ignition from ember showers, which can ignite fuel surrounding, or in contact with, the structure.[35,36] Once a home or other infrastructure is ignited, the fire can spread through the built environment and quickly overwhelm suppression resources.

The findings of a 2023 FPInnovations study on the McDougall Creek wildfire revealed that embers caused nearly all structure ignitions, often igniting nearby vegetation or flammable materials on decks, which then spread to the structures. The study looked at 117 structures burnt by the fire and found only one structure had evidence of direct flame contact from the wildfire—embers ignited or contributed to the damage on all others. Strong winds carried embers significantly, and once structures caught fire, they generated more embers, perpetuating the spread. Effective measures to combat ember ignitions included managing vegetation, using fire-resistant materials, maintaining a green zone around structures, removing yard debris, and using sprinklers to dampen areas.

[35] Cohen JD, Westhaver A. 2022. An Examination of the Lytton, British Columbia wildland-urban fire destruction. Summary Report to the British Columbia FireSmart Committee. Available: https://firesmartbc.ca/wp-content/uploads/2022/05/An-examination-of-the-Lytton-BC-wildland-urban-fire-destruction.pdf

[36] Knapp, E.E., Valachovic, Y.S., Quarles, S.L. et al. 2021. Housing arrangement and vegetation factors associated with single-family home survival in the 2018 Camp Fire, California. fire ecol 17, 25. Available: https://doi.org/10.1186/s42408-021-00117-0

5.7.1 FireSmart Landscaping (Residential and Critical Infrastructure)

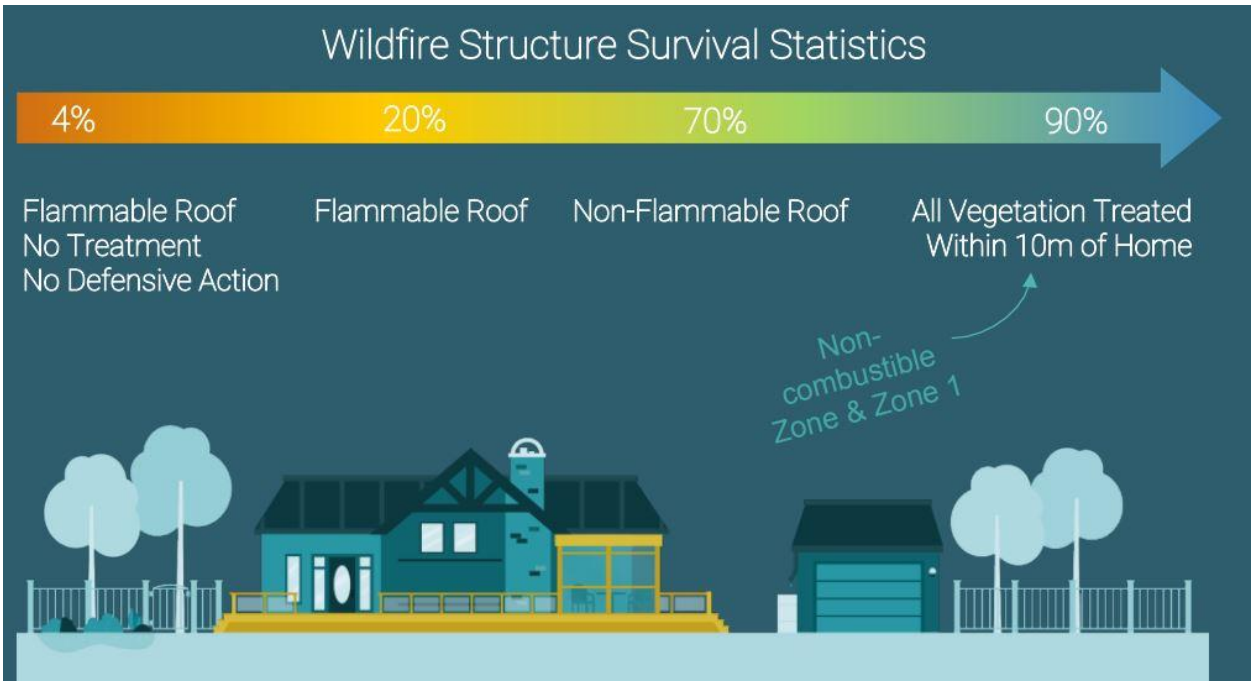

Figure 17. FireSmart wildfire structure survival statistics.

FireSmart landscaping is the removal, reduction, or conversion of flammable plants (such as landscaping for residential properties parks, open spaces, and critical infrastructure) in order to create more fire–resistant areas in the FireSmart Non–combustible Zone and Priority Zones 1 and 2 (refer to the **FireSmart Guide to Landscaping**).

Vegetation management at the residential scale is further delineated by the FireSmart priority zones, as described in the FireSmart Home Ignition Zone (HIZ) and Priority Zones (refer to Appendix B).

5.7.1.1 FireSmart Critical Infrastructure Assessments

Critical infrastructure assets are publicly or provincially owned structures or facilities that are essential to a community's health, safety, security, economic well-being, and effective government function.

Through the *FireSmart Community Funding and Supports Program*, funding is available (as of 2025) for communities to implement recommended FireSmart improvements to critical infrastructure. To qualify, all critical infrastructure projects must have a completed FireSmart assessment at the time of application. Eligible projects include publicly owned buildings vital for emergency wildfire response, such as Emergency Operations Centres, Emergency Support Services facilities (e.g.,

reception centres and group lodging for evacuees), water pump stations, communications towers, and electrical generating stations. [37]

5.7.2 Cultural Sites and Green Spaces (CSGS)

The FireSmart Cultural Sites and Green Spaces (CSGS) assessment is a qualitative process intended to assess the vulnerability of First Nation cultural sites and local government green spaces.

Cultural sites are locations of historical and cultural importance to Indigenous preservation of their heritage, traditions, and connection to the land. These include, but are not limited to, culturally modified trees, traditional dwellings, burial sites, and ceremonial sites.

As discussed in Section 3.4.8, green spaces include parks, gardens, cemeteries, naturalized spaces, trails and pathways, linear parks and greenways, rights-of-way, and boulevards. They are limited to First Nations-owned or publicly owned land.

Implementing FireSmart activities involves managing vegetation and adopting fire-resistant landscaping practices to reduce wildfire risk and enhance resilience. Vegetation management activities in cultural sites and green spaces look to implement fire-resistant landscaping practices and remove or reduce flammable plants and vegetation.[38]

Figure 18: FireSmart Green Space infographic

FireSmart Cultural Sites and Green Space Hazard Assessment forms should be completed to address potential mitigation action for the Green Spaces within the District of Peachland. There are

[37] For more information regarding funding requirements for FireSmart projects for critical infrastructure and community assets see the most recent FireSmart Community Funding and Support program and application guide.
[38] Culturally Significant Sites and Green Spaces Guide

30 identified parks and green spaces within Peachland that could qualify for this funding to receive the initial assessment and follow-up with mitigation efforts (Table 7: Identified greenspaces, parks, and trails within the District of Peachland). Note that several of these parks have been identified as Proposed Fuel Treatment Units (see Section 5.7.4), as they are expected to require a higher level of treatment than is eligible under CSGS FireSmart activities.

For additional information on the FireSmart Projects for Green Spaces and requirements, review the following guidelines: https://firesmartbc.ca/wp-content/uploads/2023/08/08.30.23_FSBC_CSSGS_Guide.pdf

5.7.3 Complete or Active Fuel Treatment Units

Fuel management has occurred throughout the Okanagan in recent years, as seen below in Table 21. Specifically, Peachland currently has several areas that have either been fuel managed or had fuel management prescriptions in place at the time this plan was written (those areas with prescriptions written that have not yet been treated have been carried over to this plan's proposed fuel treatments, listed in Table 22 , and as such will be listed in both tables). Spatial data was not altered from the treatment units that currently have approved prescriptions.

Table 21. Known areas sourced from District of Peachland staff with planned or completed fuel management in Peachland as of winter 2026.

Fuel Treatment Unit ID	Size (ha)	Status
Log Chute Road (SWPI544)	22.4	Treated
Cousins Reservoir (SWPI643 / CRI 150)	8.0	Treated
Sanderson Dog Park & Forest Hill Drive (CRI 324)	9.23	Treated
PL-7-M (2026 CWRP)	2.3	Treated
PL-8-M (2026 CWRP)	10.8	Treated
PT018 TU1 (2021 CWPP)	4.6	Prescription written
PT018 TU3 (2021 CWPP)	1.5	Prescription written
PT019 TU2 (2021 CWPP)	5.1	Prescription written
PT019 TU1 (2021 CWPP)	1.6	Prescription written

Fuel Treatment Unit ID	Size (ha)	Status
PT017 TU 2 (2021 CWPP)	4.0	Prescription written
PT_008_TU1a (2021 CWPP)	5.1	Prescription written
PT_009 TU1b (2021 CWPP)	4.3	Prescription written
PT_009 TU2 (2021 CWPP)	5.0	Prescription written

5.7.4 Proposed Fuel Treatment Units

The proposed fuel treatment units (FTUs) for this CWRP were identified based on field work completed, available provincial crown land located within the eligible WUI, proximity to values, accessibility, and fuel types. The areas identified for potential treatment within the District of Peachland are detailed in Table 22.

Priority Level assignment took into consideration both the Wildfire Threat Assessment Scores and Priority Setting Scores from the *Wildfire Threat Assessment Worksheet,* as well as other local factors such as overlapping values or constraints to fuel management activities. The FTUs identified as part of this CWRP are only proposed and require further refinement based on data collected during the fuel management prescription development phase.

Once an area is identified as a proposed fuel treatment unit, completing the vegetation/fuel management on the land base is a two-phase approach; the first phase involves the development of a Fuel Management Prescription (FMP) by a BC Registered Professional Forester (RPF). The FMP details the site-specific attributes and ecology of the identified area and prescribes appropriate strategies for fuel reduction that meet objectives for wildfire risk reduction, as well as other important overlapping values such as wildlife habitat, ecological restoration, or recreation. It is the responsibility of the prescribing forester during the FMP development phase to ensure the proposed fuel treatment activities are ecologically suitable for the existing stand and site conditions. Additionally, it is during the FMP development phase where further information sharing is completed with First Nations and stakeholders to ensure all concerns are identified and addressed/incorporated.

The final phase is the implementation of the FMP where treatment operations occur on the ground. Operational contractors must be engaged to complete the treatment specifications as outlined in the FMP.

Table 22. Proposed fuel management treatment summary table.

FTU # and Stratum	*Total Area (ha)*	Treatment Unit Type / Objective	Local Fuel Threat (ha)	Overlapping Values / Treatment Constraints	Treatment Rationale
PT018 TU1 (2021 CWPP FTU)	4.63	Community Resiliency	Moderate	-Guide outfitters: K9sCougarCanyonOutfittersInc -trapline: TR0808T038 -Visual Quality Objective: PR -Ungulate Winter range conditional harvest: u-8-001	This FTU was proposed in Peachland's 2021 CWPP and has a prescription developed. Recommend that the treatment be implemented as prescribed.
PT018 TU3 (2021 CWPP FTU)	1.48	Community Resiliency	Moderate	-Guide outfitters: K9sCougarCanyonOutfittersInc -trapline: TR0808T038-Visual Quality Objective: PR---Ungulate Winter range conditional harvest: u-8-001	This FTU was proposed in Peachland's 2021 CWPP and has a prescription developed. Recommend that the treatment be implemented as prescribed.
PT019 TU2 (2021 CWPP FTU)	5.06	Community Resiliency	Moderate	-Guide outfitters: K9sCougarCanyonOutfittersInc -Range tenure: RAN077309-Range unit: Meadow Valley -trapline: TR0808T038 -Visual Quality Objective: PR; R -Ungulate Winter range conditional harvest: u-8-001	This FTU was proposed in Peachland's 2021 CWPP and has a prescription developed. Recommend that the treatment be implemented as prescribed.
PT019 TU1 (2021 CWPP FTU)	1.60	Community Resiliency	Moderate	-Guide outfitters: K9sCougarCanyonOutfittersInc -trapline: TR0808T038 -Visual Quality Objective: PR-Ungulate Winter range -conditional harvest: u-8-001-waterworks	This FTU was proposed in Peachland's 2021 CWPP and has a prescription developed. Recommend that the treatment be implemented as prescribed.

FTU # and Stratum	*Total Area (ha)*	Treatment Unit Type / Objective	Local Fuel Threat (ha)	Overlapping Values / Treatment Constraints	Treatment Rationale
PT017 TU 2 (2021 CWPP FTU)	3.95	Community Resiliency	Moderate	-Guide outfitters: K9sCougarCanyonOutfittersInc -Species at risk: Great Basin Gophersnake -Trapline: TR0808T038 -Visual Quality Objective: R -Ungulate Winter range conditional harvest: u-8-001	This FTU was proposed in Peachland's 2021 CWPP and has a prescription developed. Recommend that the treatment be implemented as prescribed.
PT_008_TU1a (2021 CWPP FTU)	5.11	Community Resiliency	Moderate	-Guide outfitters: K9sCougarCanyonOutfittersInc -Species at risk: Great Basin Gophersnake -Trapline: TR0808T038 -Visual Quality Objective: PR -Ungulate Winter range conditional harvest: u-8-001 -Waterworks	This FTU was proposed in Peachland's 2021 CWPP and has a prescription developed. Recommend that the treatment be implemented as prescribed.
PT_009 TU1b (2021 CWPP FTU)	4.26	Community Resiliency, prescribed burning	Moderate	-Guide outfitters: K9sCougarCanyonOutfittersInc -Species at risk: Great Basin Gophersnake -Trapline: TR0808T038 -Managed License: K1P A SCHEDULE_B -OGMA nonlegal: KAM_TOK_864 -Visual Quality Objective: PR, R -Ungulate Winter range conditional	This FTU was identified in Peachland's 2021 CWPP and has an existing treatment prescription. It is recommended that the treatment be implemented as prescribed. Given the low slopes and the presence of strong anchor points, this FTU is well suited for prescribed burning. Inclusion of this FTU in a prescribed burning program with regular maintenance burns is recommended.

FTU # and Stratum	*Total Area (ha)*	Treatment Unit Type / Objective	Local Fuel Threat (ha)	Overlapping Values / Treatment Constraints	Treatment Rationale
				harvest: u-8-001	
PT_009 TU2 (2021 CWPP FTU)	4.92	Community Resiliency, prescribed burning	Moderate	-Guide outfitters: K9sCougarCanyonOutfittersInc -Species at risk: Great Basin Gophersnake -Trapline: TR0808T038 -Visual Quality Objective: PR, R -Ungulate Winter range conditional harvest: u-8-001	This FTU was identified in Peachland's 2021 CWPP and has an existing treatment prescription. It is recommended that the treatment be implemented as prescribed. Given the low slopes and the presence of strong anchor points, this FTU is well suited for prescribed burning. Inclusion of this FTU in a prescribed burning program with regular maintenance burns is recommended.

FTU # and Stratum	*Total Area (ha)*	Treatment Unit Type / Objective	Local Fuel Threat (ha)	Overlapping Values / Treatment Constraints	Treatment Rationale
PL-1	50.06	Community Resiliency	Moderate	-Community watershed: Peachland Community Watershed -Critical habitat: Great Basin Gophersnake -Managed license: K1P A SCHEDULE_B -Guide outfitters: K9sCougarCanyonOutfittersInc -OGDA: priority deferral area -OGMA nonlegal: KAM_TOK_823 -Range infrastructure: fence, gate, water development -terrain erosion potential: very low -terrain stability class: stable -trapline: TR0808T038 -Visual Quality Objective: R -waterworks -range tenure: RAN077178, RAN077322 -Ungulate Winter Range conditional harvest: u-8-001	This proposed FTU is adjacent to private property and ties into proposed / previously treated FTUs in the east, and Brenda Mine Rd in the southwest. The area is best represented by a C7 fuel type, with an open, mature Fd and Py overstory, and thickets of Fd in the understory. A relatively low CBH, patches of elevated surface fuel loading, and conifer ingrowth elevate the threat rating for this area to Moderate (MM_Peach1). This FTU would benefit from pruning, understory thinning, and surface fuel reduction, which would increase wildfire resiliency adjacent to private property. However, large tracts of untreated private land reduce the effectiveness of this treatment, reducing the priority of this treatment to low.
PL-2	15.27	Community Resiliency	Moderate	-Critical habitat: Great Basin Gophersnake -Guide outfitters: K9sCougarCanyonOutfittersInc -Managed license: K1P A SCHEDULE_B	The proposed FTU is located adjacent to private property and is anchored to completed fuel treatments to the south. The area is best represented by a C7 fuel type, with a mature Fd and Py overstory, and thickets of Fd in the understory. A patchy understory and low CBH

FTU # and Stratum	*Total Area (ha)*	Treatment Unit Type / Objective	Local Fuel Threat (ha)	Overlapping Values / Treatment Constraints	Treatment Rationale
				-OGMA non-legal: KAM_TOK_823 -trapline: TR0808T038 -Ungulate Winter Range conditional harvest: u-8-001 -Visual Quality Objective: R	elevate the threat rating to Moderate (PL_5). Surface fuel loading is variable throughout. Proposed treatment activities include understory thinning, pruning of conifer trees, surface fuel reduction, and retention of deciduous trees and shrubs. Partial harvest could be considered. Treatment of this FTU would create continuous treated area by tying to previously treated and proposed fuel treatment areas, thereby increasing the defensible space around the community.
PL-3	7.95	Community Resiliency	Moderate	-Critical habitat: Great Basin Gophersnake -Guide outfitters: K9sCougarCanyonOutfittersInc -Managed license: K1P A SCHEDULE_B -OGMA non-legal: KAM_TOK_823 -trapline: TR0808T038 -Ungulate Winter Range conditional harvest: u-8-001 -Visual Quality Objective: R	This proposed FTU is located adjacent to private property (including an orchard) and a dog park and is anchored to completed fuel treatments to the east. The area is best represented by a C7 fuel type, with a mature Fd and Py overstory, and thickets of Fd in the understory. A patchy understory and low CBH elevate the threat rating to Moderate (PL_7). Surface fuel loading is variable throughout. Proposed treatment activities include understory thinning, pruning of conifer trees, surface fuel reduction, and retention of deciduous trees and shrubs. Partial harvest could be considered. Treatment of this FTU would create continuous treated area by tying to previously treated areas and cleared private property (orchards), and increasing the

FTU # and Stratum	*Total Area (ha)*	Treatment Unit Type / Objective	Local Fuel Threat (ha)	Overlapping Values / Treatment Constraints	Treatment Rationale
					defensible space around the community.
PL-4	13.79	Community Resiliency	Moderate	-Critical habitat: Great Basin Gophersnake -Guide outfitters: K9sCougarCanyonOutfittersInc -Managed license: K1P A SCHEDULE_B -OGMA non-legal: KAM_TOK_864 -trapline: TR0808T038 -Range tenure: RAN077178 -Ungulate Winter Range conditional harvest: u-8-001 -Visual Quality Objective: R, PR	This proposed FTU is directly adjacent to residential private property and also overlaps critical infrastructure (a water reservoir) and Pincushion Mountain and Gladstone recreation trails. The area is best represented by a C7 fuel type. An open, mature Py and Fd stand with low CBH, but relatively low surface fuel loading (FWD: <8tph, CWD <8tph) result in a borderline low/moderate threat rating (PEACHLAND_8; LH_W26). A treatment focusing primarily on pruning would be sufficient, as the stand is already relatively open with low surface fuel loading. Slopes may require additional understory spacing and surface fuel reduction. Treatments would ensure that the open stand is maintained and reduce hazardous fuels in an area adjacent to and overlapping multiple values.
PL-5	36.16	Community Resiliency, prescribed burning	Moderate	-Critical habitat: Great Basin Gophersnake -Guide outfitters: K9sCougarCanyonOutfittersInc -Managed license: K1P A SCHEDULE_B -OGMA non-legal: KAM_TOK_864 -Range tenure: RAN077178	This proposed FTU overlaps Gladstone recreation trails and is adjacent to several private properties. The unit overlaps the K1P Community Forest. Any treatment unit will need to be coordinated with the Westbank First Nation Community Forest. The unit is best represented by the C-7 fuel type. The stand has a relatively open over and understory, with a

FTU # and Stratum	*Total Area (ha)*	Treatment Unit Type / Objective	Local Fuel Threat (ha)	Overlapping Values / Treatment Constraints	Treatment Rationale
				-Ungulate Winter Range conditional harvest: u-8-001 -Visual Quality Objective: R, PR -Trapline: TR0808T038	fuel strata gap <3 m and surface fuels ranging from 10-13 tph. This has resulted in a Moderate Threat Rating and a Moderate Priority. The objective of treatment is to increase defensible space surrounding the private properties. Treatment could include pruning, understory thinning and prescribed fire. A partial harvest is not feasible in this area.
PL-6	63.00	Community Resiliency, Critical Infrastructure	Moderate	-Community watershed: Peachland Community Watershed -Guide outfitter: K9sCougarCanyonOutfittersInc -Fish observation: Brook Trout; Rainbow Trout -Managed license: K1P A SCHEDULE_B -OGDA tap deferral: Priority deferral area -OGMA non-legal: KAM_TOK_765; KAM_TOK_773; KAM_TOK_776 -Range infrastructure: fence, stock trail, water development, cattleguard, gate -Range tenure: RAN077178; RAN077309; RAN077322 -terrain slope stability: Stable; Potentially unstable	The proposed FTU is adjacent to critical infrastructure including the Peachland Creek CT Tank, Peachland Creek water intake, and the Deep Creek chlorinator and intake ponds. It is also adjacent to Brenda Mines Rd and industrial private property. The area is comprised of C-7 fuel types with patches of elevated surface fuel loading and variable CBH, ranging from 0-5m. The stand is composed of a predominantly mature Fd overstory and patchy Fd understory. This area has an overall threat rating of low-moderate (LH_W21, LH_W22, PL-2). Patches within the stand have a high CBH (5-8m), driving the threat ranking lower in these areas. Proposed treatment activities would include understory thinning, pruning of conifer trees, and surface fuel reduction. Partial harvest could be considered. This treatment would reduce coniferous fuels adjacent to critical

FTU # and Stratum	*Total Area (ha)*	Treatment Unit Type / Objective	Local Fuel Threat (ha)	Overlapping Values / Treatment Constraints	Treatment Rationale
				-terrain erosion potential: very low, low, moderate, high, very high -traplines: TR0808T038 -Visual Quality Objective: R, PR -Ungulate Winter Range conditional harvest: u-8-001 -Endangered species: Western Screech-Owl, macfarlanei subspecies -waterworks	infrastructure.
PL-7-M	2.29	Community Resiliency, prescribed burning	Moderate	-Critical habitat: Great Basin Gophersnake -Guide outfitter: K9sCougarCanyonOutfittersInc -traplines: TR0808T038 -Visual Quality Objective: PR -Ungulate Winter Range conditional harvest: u-8-001 -waterworks	The proposed FTU is located in Mackinnon Park, a municipal park bordered by private property. The unit is best represented by the C-7 fuel type. The stand has a relatively open over and understory, with a fuel strata gap <4 m and both CWD and FWD surface fuel loading <8tph. This has resulted in a Moderate, borderline Low Threat Rating. The stand has previously been treated and would benefit from a maintenance treatment to maintain an open understory and low fuel loading surrounding the private properties. Given the low slopes and the presence of strong anchor points, this FTU is well suited for prescribed burning. Inclusion of this FTU in a prescribed burning program with regular maintenance burns is recommended. The significance of re-introducing burning to this landscape increases the priority of this FTU

FTU # and Stratum	*Total Area (ha)*	Treatment Unit Type / Objective	Local Fuel Threat (ha)	Overlapping Values / Treatment Constraints	Treatment Rationale
					to moderate.
PL-8-M	10.79	Community Resiliency, Critical Infrastructure	Moderate	-Critical habitat: Great Basin Gophersnake -Guide outfitter: K9sCougarCanyonOutfittersInc -Managed license: K1P A SCHEDULE_B -Range tenure: RAN077416-Traplines: TR0808T038 -Visual Quality Objective: PR, R -waterworks -Ungulate Winter Range conditional harvest: u-8-001 -provincial crown land	The proposed FTU is located adjacent to Hwy 97C, critical infrastructure (Cousins reservoir and Winery pump station), and private property. The unit is best represented by the C-7 fuel type. The stand has a relatively open over and understory, with a fuel strata gap <4 m and both CWD and FWD surface fuel loading <8tph. This has resulted in a Moderate, borderline Low Threat Rating. The FTU was treated in 2021 and should be considered for a maintenance treatment to raise pruning heights and address conifer ingrowth and surface fuel accumulation. The objective of treatment is to maintain an open understory and low fuel loading surrounding the private properties.
PL-9	2.07	Community Resiliency	Moderate	-Critical habitat: Great Basin Gophersnake; Lewis's Woodpecker -Guide outfitter: K9sCougarCanyonOutfittersInc -OGMA non-legal: KAM_TOK_759 -Endangered occurrences: Lewis's Woodpecker -Traplines: TR0808T038 -Ungulate Winter Range conditional harvest: u-8-00 -Visual Quality Objective: PR	The proposed FTU is small in size and surrounded by private land and is located adjacent to Hardy Falls Regional Park. The fuel type of this unit is C-7. This has resulted in a Moderate Threat Rating and a Low priority. The objective of treatment would be to reduce hazard around private land should a fire start within the park. Treatment would be a low impact thin, prune and surface fuel clean-up. This FTU should be considered in the event the RDCO is treating within Hardy Falls Regional

FTU # and Stratum	*Total Area (ha)*	Treatment Unit Type / Objective	Local Fuel Threat (ha)	Overlapping Values / Treatment Constraints	Treatment Rationale
					Park - otherwise this would be an operationally challenging treatment.

Actions: The following are recommended action items regarding FireSmart Vegetation Management and fuel treatments.

Action #29: Apply for funding to complete fuel/vegetation management treatments to reduce hazardous forest fuels on municipal or provincial crown land within the eligible WUI.

Action #30: Complete recommended mitigation activities identified in FireSmart assessments for residential homes and properties owned by seniors (65 years or older), elders, people with limited mobility, or vulnerable populations who cannot undertake mitigation activities themselves.

Action #31: Conduct FireSmart HIZ assessments and Wildfire Mitigation Program assessments for individual residential properties or homes. Encourage property/homeowners to implement FireSmart recommendations from the HIZ and Wildfire Mitigation Program assessments.

Action #32: Complete FireSmart assessments (HIZ, Critical Infrastructure and Home Partners) on eligible local critical infrastructure and community assets.

Action #33: Create an inventory system to track areas that have been fuel managed, their respective maintenance cycles, and various FireSmart assessments.

Action #34: Complete initial FireSmart CSGS Assessment and checklist on all District owned green spaces and cultural sites.

6.0 Implementation

6.1 FIRESMART ROADMAP

No two FireSmart journeys are the same, however FireSmart has created a roadmap to help local governments understand where to start and general steps to take on the way to community wildfire resiliency[39]. The roadmap is broken into four different phases, and should be completed sequentially, but will depend on previous FireSmart activities and the recommended action items in this CWRP.

FireSmart Roadmap Phases

Engagement Phase

In this phase, the primary objective is awareness. The focus is on building an understanding of the risk of wildfire and the benefits of developing and growing a local FireSmart program.

Activities that could be completed in this phase are suggested below, but not limited to:

- **FireSmart Positions:** Hiring and training; local FireSmart program development.
- **Education:** Create a Public Education/Communications Plan. Develop/update signage, social media, community websites and/or newsletters; organize and host public information meetings and workshops; promote and distribute FireSmart educational materials and resources; host a Wildfire Community Preparedness Day.
- **Interagency Cooperation:** Participate in a Community Wildfire Resiliency Collaborative or Community Wildfire Roundtable; attend the annual Wildfire Resiliency and Training Summit.
- **Residential Areas:** Offer and undertake FireSmart Home ignition Zone assessments; offer off-site debris removal programs.

Initiative Phase

In this phase, the primary objective is action and implementation of local FireSmart activities. The focus is on building capacity both in local government personnel and residents, and the community's overall capacity to prepare and respond to wildfire events.

Activities that could be completed in this phase are suggested below, but not limited to:

- **Education:** Support neighbourhoods to apply for FireSmart Canada Neighbourhood Recognition Program.
- **Community Planning:** Complete FireSmart assessments for critical infrastructure, community assets, culturally significant sites and/or green spaces.
- **Emergency Planning:** Assess community water delivery ability; FireSmart structure Protection Trailer development and plan.

[39] FireSmart. (2023). The FireSmart Roadmap. Referenced from: https://firesmartbc.ca/resource/the-firesmart-roadmap/

- **Training:** Undertake training for other FireSmart positions (beyond initial FireSmart coordinator), fire departments, and emergency management staff; develop local Home Partners program.
- **FireSmart Projects:** Complete mitigation activities for critical infrastructure, community assets culturally significant sites and/or green spaces with completed assets.
- **Residential areas:** Offer local rebate programs.

Expansion Phase

In this phase, the primary objective is FireSmart activities within the Eligible WUI. The focus is on broader community planning.

Activities that could be completed in this phase are suggested below, but not limited to:

- **Education:** Support the organization of a Farm and Ranch Wildfire Preparedness workshop.
- **Community Planning:** Develop FireSmart policies and practices for the design and maintenance of publicly owned land and infrastructure.
- **Fuels Management:** Develop prescriptions and/or burn plans and undertake fuel reduction treatments, including cultural and prescribed fire.

Integration Phase

In this phase, the primary objective is long-term and permanent changes to support community wildfire resiliency. The focus is on development considerations and collaboration with other partners.

Activities that could be completed in this phase are suggested below, but are not limited to:

- **Education:** Support the FireSmart BC Library program at local/regional libraries.
- **Development Considerations:** Amend Official Community Plans, Comprehensive Community Plans and/or land use, engineering, and public works bylaws to incorporate FireSmart principles; revise landscaping requirements in zoning and development permit documents; establish Development Permit Areas for Wildfire Hazard; amend referral processes for new developments to ensure multiple departments, including the fire department and/or emergency management personnel, are included.
- **Interagency Cooperation:** Support the FireSmart BC Plant Program at local garden centres or nurseries; partnerships with local landscapers, developers, real-estate agents, insurance, etc.

6.2 PLAN MONITORING TRACKING AND REPORTING

The CWRP action items should be reviewed annually to capture any significant changes that could affect implementation or priority levels, as well as to track which actions have been completed or are in progress. Completed actions should be summarized, including information on specific measurable outcomes that demonstrate reduced wildfire risk in Peachland. In addition, a five-year comprehensive review/update should take place in 2030 including specific updates on:

- How wildfire risk has changed based on recent wildfires.
- Relevant additions or consideration regarding the new Emergency and Disaster Management Act (EDMA).
- Progress made regarding FireSmart activities.
- Which vegetation management activities have been completed.
- Any significant changes to the built environment due to growth and development, economic changes, or other factors.

Annual updates to the CWRP should occur each year. Tracking progress annually helps create accountability and reports on accomplishments and successes. Summaries of specific, measurable outcomes are valuable for informing decision-makers and seeking future funding.

Table 23. District of Peachland monitoring, tracking and update summary

Plan Version	Update Year	Update Type	Actions in Progress	Completed Actions	Notes
1.0	2005	CWPP	N/A	Various	Original CWPP
	2012	CWPP	N/A	Various	Second version of the CWPP
2.0	2021	CWPP	N/A	Various	Third version of the CWPP
3.0	2026	CWRP	Ongoing	Ongoing	First version of the CWRP structure. Plan is guided by the seven FireSmart principles.
4.0	2031	Review	N/A	N/A	As per the *2024 CWRP Instruction Guide,* a comprehensive review should occur after five years to review the entire plan and consider how risk has changed.

7.0 Appendices

Appendix A Glossary of Terms

Area of Interest: The AOI for a CWRP includes the area that lies within the municipal boundary, regional district boundary, or First Nations land, including First Nation reserve land, land owned by a Treaty First Nation (as defined by the Interpretation Act) within treaty settlement lands, or land under the authority of an Indigenous National Government boundary. The AOI should reflect how the community is organized and how it approaches other similar planning projects within its jurisdictional boundaries. When communities are located close together and are geographically aligned, a "regional" approach may be most effective.

Critical Infrastructure (CI): are assets owned by the Provincial government, local government, public institution (such as health authority or school district), First Nation or Treaty First Nation that are essential to the health, safety, security or economic wellbeing of the community and the effective functioning of government, or assets identified in a Local Authority Emergency Plan Hazard, Risk & Vulnerability, and Critical Infrastructure assessment.

FireSmart Landscaping: the removal, reduction, or conversion of flammable plants (such as landscaping for residential properties, parks, open spaces, and critical infrastructure) in order to create more fire-resistant areas in FireSmart Non-combustible Zone and Priority Zones 1 and 2 (refer to the FireSmart Guide to Landscaping).

Fuel Management Treatment: Fuel management treatment is the manipulation or reduction of living or dead forest and grassland fuels to reduce the rate of spread and fire intensity, and enhance the likelihood of successful suppression, generally outside of FireSmart Non-combustible Zone and Priority Zones.

Values at Risk (VAR): are the human or natural resources that may be impacted by wildfire. This includes human life, property, critical infrastructure, high environmental and cultural values, and resource values.

Wildfire Risk: Wildfire risk is measured as the product of likelihood and consequence, but multiple inputs are also required to effectively quantify risk, including potential wildfire behaviour severity, value type, and value vulnerability. Identifying wildfire risk levels through the wildfire risk assessment results in a wildfire mitigation priority list, while presenting opportunities to enhance community resiliency.

- Likelihood of a fire occurring
- Associated fire behaviour
- Impacts of the fire (consequence)

Wildfire Threat: The ability of a wildfire to ignite, spread, and consume organic material (trees, shrubs, and other organic materials) in the forest. The major components used to define wildfire threat are fuel, weather, and topography.

Wildland Urban Interface (WUI): The WUI is defined in the FireSmart manual as any area where combustible forest fuel is found adjacent to homes, farm structures, or other outbuildings. This may occur at the interface, where development and forest fuel (vegetation) meet at a well-defined boundary, or in the intermix, where development and forest fuel intermingle with no clearly defined boundary.

Appendix B Home Ignition Zone

FireSmart describes three Priority Zones around a building, collectively named the Home Ignition Zone (Figure 19) alongside descriptions of what these zones should look like, starting from the edge of a building and moving outwards.

- **Immediate Zone (0 – 1.5 m)** Non-combustible surface should extend around the entire home and any attachments, such as decks.
- **Intermediate Zone (1.5 – 10 m)** This should be a fire-resistant area, free of all materials that could easily ignite from a wildland fire.
- **Extended Zone (10 – 30 m)** Thinned and pruned coniferous trees, alongside routine dead surface fuel cleanup.

Figure 19. FireSmart Home Ignition Zone, which is comprised of four priority zones, as illustrated in the BC FireSmart Begins at Home Manual

Of particular importance are neighbourhoods where homes and buildings are situated close together in a relatively higher density than in more rural areas. This means that FireSmart Priority Zones frequently overlap with one another (i.e., Immediate Zone or Intermediate Zone from one building may encroach into an adjacent building's Zone Immediate or Intermediate). This highlights the importance of community resilience towards wildfire though working together to reduce wildfire hazard, especially within the WUI.

Appendix C Additional Resources for FireSmart Disciplines

Education

- FireSmart BC website
- BC Wildfire Prevention website
- First Nations' Emergency Services Society
- Programs FireSmart Canada
- Wildfire Preparedness Guide
- First Nations Forestry Council
- BC Wildfire Service
- BC Government - Wildfire
- Emergency Management in BC
- Destination BC - Emergency Preparedness
- Educational Messages Desk Reference (the National Fire Protection Association)
- BC Hydro - be prepared for emergencies
- TRU Wildfire

Local Bylaws

- Regional District of Central Okanagan – Smoke Control Regulatory Bylaw No. 773 (2011)
- Peachland Tree Protection Bylaw No 2404 (2024)

Provincial Acts and Regulations

- Emergency Management and Disaster Act (2024)
- BC Local Government Act (2015)
- BC Open Burning and Smoke Control Regulations (2023)
- BC Wildfire Act and Regulations (2005)
- Forest and Range Practices Act (2021)

Federal Acts

- Forestry Act (1985)
- Migratory Birds Convention Act (1994)
- Canadian Environmental Protection Act (1999)
- Species At Risk Act (2002)
- Fisheries Act (2019)

Development Considerations

- Information on Development Permit Areas is available at **FireSmart BC - Development Considerations**
- Additional guidance on land use planning tools and strategies for the Wildland-Urban Interface include the American Planning Association's PAS Report 594 **Planning the Wildland-Urban Interface (2019)**, which available at no charge through the association's website.
- The National Research Council (NRC) Wildland-Urban Interface Technical Committee has also published **National Guide for Wildland-Urban Interface (WUI) Fires** (2021); this guide provides guidance to Canadian local governments and First Nations on WUI land use planning and regulation implementation.

Interagency Cooperation

- **FireSmart BC**
- **Indigenous Services Canada**
    - Emergency Management Assistance Program (EMAP), which supports communities in accessing emergency assistance services. Will provide funding for communities to build resiliency and prepare and respond to natural hazards.
- **First Nation Health Authority**
    - Emergency Management Branch – ensures FN communities are effectively incorporated into emergency preparedness, prevention, response and recovery initiatives.
- **First Nation Emergency Services Society**
    - Emergency Management department provides community-based emergency management guidance, support, and assistance to BC First Nation communities.
    - Fire Services Department assists communities to increase level of fire protection.
    - Forest Fuel Management Department liaises with governments and other agencies to assist with wildfire prevention activities.
- **Emergency Management BC**
    - BC Wildfire Service and Emergency Management BC (EMBC), along with several other Ministries and agencies, are working in close collaboration to provide First Nation training, equipment, and capacity support

- TRU Wildfire – Centre for Wildfire Research, Education, Training and Innovation
    - With extreme wildfire behaviour and activity becoming more common, Thompson Rivers University (TRU) is addressing this new reality through a unique partnership with the BC Wildfire Service. TRU offers a solutions-focused and comprehensive approach to current and future wildfire challenges, bringing together and linking research, education, training and innovation.

Cross-Training

- OH&S (06) - Fire Safety Planning & Systems
- FireSmart training courses
- Recognized British Columbia S-100 instructors

Emergency Planning

The following resources are available for reference and to assist with emergency planning:

- National guide for wildland-urban-interface fires - which provides guidance to Canadian local governments and First Nations on WUI land use planning and regulation implementation, as well as guidance on wildfire response preparedness planning.
- FireSmart BC Emergency Planning
- Emergency management in B.C. – which contains several valuable resources including fire services, education and toolkits, and preparedness and recovery information.

Vegetation Management

- The BCWS Fire and Fuel Management web page offers a number of tools that support fuel management planning and implementation and can be accessed **here**.

Contact your local **BC Wildfire Service Fire Centre** office to learn more about, engage and collaborate on Landscape Zone vegetation management planning.

- FireSmart Guide to Landscaping
- Funding resources for fuel management treatments can vary from year to year as funding pots change over time. Current available funding opportunities can be initiated through conversation with **First Nation Emergency Services Society** (FNESS) prior to completion of treatments.

Appendix D Wildfire Threat Assessments

Appendix D: Wildfire Threat Assessments are provided under separate cover.

Appendix E Maps

Appendix E: Maps are provided under separate cover.