DISTRICT OF
100 Mile House

Community Wildfire Resiliency Plan

2025

BRITISH COLUMBIA FireSmart™

UBCM

FORSITE FIRE

Registered Professional Signature and Seal

This CWRP has been prepared for the District of 100 Mile House.

RPF Printed Name	RPF #
Hailey Sigalet	5302
Date Signed	
October 21, 2025	
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
Forest Management Specialists

Acknowledgments

We acknowledge that this plan covers an area located on the unceded territory of the Secwépemc Peoples.

Forsite would like to acknowledge the contributions of many individuals who invested time and provided invaluable input during the building of this CWRP, including:

- **Ryan Dugaro** – 100 Mile House FireSmart Coordinator
- **David Bissat** – 100 Mile House Fire Chief
- **Thomas Foley** – Wildfire Prevention Officer - Cariboo, BC Wildfire Service
- **Catherine Cautley-Davis** – Land and Resource Specialist – 100 Mile House Resource District

This report was completed with support from the following staff at Forsite Consultants Ltd.

- **Hailey Sigalet**, RPF – Wildfire Management Specialist
- **Lindsay Hill**, RPF – Wildfire Management Forester
- **Liam Curran**, FIT – Fuel Management Specialist
- **Madison Hughes**, FIT, AAg – Fuel Management Technician

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Executive Summary

Wildfire is a natural disturbance agent on the landscape, but with warming temperatures and changing precipitation regimes due to climate change, British Columbia is experiencing a sustained increase in wildfire behaviour and events, particularly in the Wildland Urban Interface. The notable wildfire seasons of 2017, 2018, 2021, and 2023 highlight the potential impacts wildfire activity can have on communities. In 2017, the Gustafsen fire threatened 100 Mile House from the north, prompting an evacuation of the District and burning over 5,700 ha, resulting in the loss of multiple homes. Also in 2017, the Elephant Hill fire threatened 100 Mile House from the south. While it did not prompt an evacuation of the community, over 191,000 ha were burned. In 2023, the Flat Lake fire prompted an evacuation order within the Cariboo Regional District and burned over 73,000 ha.

The District of 100 Mile House acquired Forsite Consultants to develop a Community Wildfire Resiliency Plan (CWRP). The purpose of this CWRP is to:

1. Identify and assess wildfire hazards within the 100 Mile House municipal boundaries,
2. Assess potential risks and impacts to the community and infrastructure from wildfire, and
3. Provide effective and feasible mitigation strategies to reduce identified hazards and risk.

This CWRP is structured around the seven FireSmart disciplines, providing a comprehensive framework for addressing wildfire mitigation and risk reduction. The seven FireSmart disciplines are:

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

The development of this CWRP included a multi-phase approach including analysis of background data, 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 100 Mile House. The District is approximately 5,300 ha in size, with 2,655 ha classified as eligible Wildland Urban Interface (WUI). Within the WUI, 993.5 ha (37.4%) is classified as private land, and ineligible for assessment under this CWRP. This leaves the remaining 1,661.5 ha available for review.

The Action Plan below details the recommended action items for the District of 100 Mile House as identified by the CWRP. Expanded information on each action item including rationale, funding source, and metrics for success can be located under the respective FireSmart discipline found in Section 5.0. Implementing these measures will require coordinated efforts by the District 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.

District of 100 Mile House CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
Education						
Objective: *Help community members learn about wildfire and its potential impacts on their communities and understand their role in taking action to reduce risk to their homes/properties.*						
1. Read and understand this CWRP's identified risks and recommended actions and make this CWRP publicly available to community members on the District of 100 Mile House website.	FireSmart Coordinator	Very High	Immediately	District of 100 Mile House CWRP.	Read and understood CWRP identified risks and recommended actions. This CWRP is made available to community members on their respective websites.	Making this CWRP publicly available is important for community education and engagement. Community understanding is critical for the successful implementation of recommendations within this CWRP.

District of 100 Mile House CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
2. Continue to employ a full-time FireSmart Coordinator within the District. This position is responsible for implementing the FireSmart program and generally oversees actioning aspects of this CWRP.	District of 100 Mile House	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 100 Mile House CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
3. Continue to employ a seasonal Junior FireSmart Coordinator	FireSmart Coordinator	Moderate	Ongoing - Seasonally	Salary, some training and orientation will be required. Position can be funded through grant funding.	Successfully retain an individual who is enthusiastic about learning and promoting FireSmart.	Funding is currently available under the provincial **FireSmart Community Funding and Supports** program to support a salary for a seasonal Junior FireSmart Coordinator.
4. Promote FireSmart information and wildfire preparedness through the District website and Facebook page.	FireSmart Coordinator	Very High	Ongoing	Access to webpages, access to FireSmart resources, FCFS funding.	From May 1st to September 30th average four posts a month regarding FireSmart material.	Use the **FireSmart Social Media Handbook** as a guide for best practices. Funding is 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, and FireSmart BC materials.

District of 100 Mile House CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
5. Hold the following events to introduce FireSmart concepts to the community and educate members on actions they can take. • **Wildfire Community Preparedness Day (annually)** • **Neighbourhood Champion Workshop (annually)**	District of 100 Mile House	High	2025-2030	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 the local community and for the Fire Department to engage with and provide education for the community. Look to solicit help from other agencies such as BCWS and RDC. See **Wildfire Community Preparedness Day** and a **Neighbourhood Champion Workshop** for resources.

District of 100 Mile House CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
6. Promote and encourage the FireSmart Neighbourhood Recognition Program to local neighbourhoods.	FireSmart Coordinator	High	2025-2030	FCFS funding, Neighbourhood Champion and Local FireSmart Representative (LFR).	Have a minimum of three neighbourhoods recognized by the end of 2030.	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 available per the **FireSmart Community Funding and Supports** program and application guide.
7. Support the FireSmart Plant Program through local garden centers or nurseries.	FireSmart Coordinator	High	2025-2030	FCFS funding, relationship with local business owners.	Local garden centers or nurseries support the program.	The **FireSmart Plant Program** includes plant tags, banners, staff buttons and in-store FireSmart advertising.

District of 100 Mile House CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
8. Support the FireSmart BC Education Program at local School District 27.	FireSmart Coordinator	Moderate	2025-2030	Relationship with School District No. 27, FCFS funding.	The program is adopted for the 2026/2027 calendar school year.	This program includes wildfire resiliency literacy kits, Ember activity packages, coloring contest materials and access to Storytime videos with Ember. For more information refer to the **FireSmart BC Education Program** website.
9. Support the FireSmart BC Library Program at local library locations.	FireSmart Coordinator	Moderate	2025-2030	Relationship with the Cariboo Regional District Library, FCFS funding.	The program is adopted for the 2026/2027 calendar school year.	This program aims to help children understand wildfires in British Columbia and how they can help create a more resilient community.
Legislation and Planning						
Objective: *Utilize administrative tools available to local governments to implement wildfire risk reduction actions through local policies, plans, and bylaws.*						

10. As legislation is changed (Official Community Plan, Bylaws, housing policies), incorporate FireSmart objectives, language, and terminology. This may include: • **Address aspects of open fire that the District is responsible for regulating under the Wildfire Act** • **A preferred species and plant list (refer to the FireSmart BC Landscaping Guide)** • **Reference to FireSmart Home Ignition Zones (see FireSmart Begins at Home Guide)** • **Guidelines for coniferous tree spacing and pruning (as outlined in the FireSmart Begins at Home Guide)**	Legislative Services, FireSmart Coordinator	High	Ongoing	CRI funding	Bylaws and policies reflect FireSmart principles.	Funding is available through the **2025 FCFS Application-Based Funding– Program and Application Guide** to amend Official Community Plans and bylaws to incorporate FireSmart principles.

District of 100 Mile House CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
11. Update bylaws to create requirements for FireSmart material to be used on new buildings.	Legislative Services, FireSmart Coordinator	High	End of 2026	Access to bylaw amendment, time with City Council to get amendments approved, CRI funding	Amendment to the Building Regulations Bylaw that outlines requirements for FireSmart building materials.	This amendment to building bylaws will allow the District to enforce the use of FireSmart building materials on newly developed houses, allowing properties to be FireSmart prior to any residents living in the house. This will set the community up for successful wildfire risk reduction within the District.
12. Develop FireSmart policies and practices for the design and maintenance of publicly owned land, such as parks and green spaces, and incorporate into Section 9 Parks, Recreation & Open Spaces of the Official Community Plan.	FireSmart Coordinator, Director of Parks, Recreation and Culture	Moderate	2025-2029	FCFS funding, **FireSmart BC Landscaping Guide**.	FireSmart practices are incorporated into recreation planning.	FireSmart principles can be used to manage District owned and maintained parcels such as linear parks, rights-of-way trails, waterfronts and other green spaces.
Development Considerations						

District of 100 Mile House CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
Objective: *Consider and influence development decisions and requirements, such as land use, structure density, road patterns, etc. early in the development process to help reduce wildfire risk to property and enhance safety.*						
13. Complete FireSmart assessments for municipal owned critical infrastructure and/or green spaces. • **Use the FireSmart Critical Infrastructure Guide and Hazard Assessment Form to assess critical infrastructure vulnerability to wildfire in the AOI.** • **Complete the mitigation actions recommended from the Critical Infrastructure hazard assessment to reduce vulnerability of the critical infrastructure to wildfire in the AOI.**	FireSmart Coordinator	Very High	Immediately	Qualified LFR, or similar, to complete the FireSmart Assessments.	FireSmart CI Assessments have been completed on highest priority CI by 2027.	Funding is available through the UBCM's CRI program to complete FireSmart assessments for publicly owned buildings, critical infrastructure, culturally significant sites and/or green spaces.

District of 100 Mile House CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
14. Continue including the fire department and/or emergency personnel are included during the referral process for new developments.	100 Mile House Fire Department, Planning Department	Moderate	Ongoing	FCFS funding	The fire department continues to be included in the referral process for new developments.	Including the Fire Department in earlier decision-making will ensure that factors such as secondary egress routes and water availability are considered during development.
15. Implement a FireSmart rebate program which gives an incentive to private property owners to participate in the District of 100 Mile House FireSmart Program.	FireSmart Coordinator, District Emergency Preparedness staff	High	By June 2026	Program development and communication resources.	Residents are aware of the FireSmart Rebate program and are actively taking part in implementing eligible FireSmart activities and applying for rebates upon completion.	Funding is available through the UBCM's Community Resiliency Investment (CRI) program to support rebate programs. As of 2024, rebates are limited to 50% of the total cost of the eligible activities identified in the CRI Program Guide and up to $5,000 per property
Interagency Cooperation						
Objective: *Establish collaborative relationships among the District of 100 Mile House staff, BC Wildfire Service, local First Nations, local municipalities, and other stakeholder groups to foster district-wide wildfire resiliency.*						

District of 100 Mile House CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
16. Maintain the District of 100 Mile House CFRC and share findings of CWRP with partners.	FireSmart Coordinator	Very High	Ongoing	FCFS Funding	Continued participation in committees.	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.
17. Establish regular channels and protocols for exchanging records and plans between agencies, with a focus on documenting and sharing past wildfire risk reduction treatments and current or planned mitigation projects.	FireSmart Coordinator	High	Ongoing	CRI funding, representatives from partners	Have a meeting with identified partners prior to the 2026 wildfire season.	Consider working with BCWS and the Ministry of Forests.

District of 100 Mile House CWRP Action Plan						
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18. Annually attend the Wildfire Resiliency Training Summit.	FireSmart Coordinator, 100MH Fire Department, District staff	Very High	Annually	FCFS funding.	A minimum of two people attend annually from the District.	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 100 Mile House CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
19. Continue to provide Indigenous cultural safety and humility training to emergency management personnel in order to more effectively partner with, and provide assistance to, Indigenous communities for both wildfire prevention and suppression.	100 MH Fire Department, Grants Coordinator	High	Ongoing	FCFS funding	Aim to provide training annually for staff until all emergency management staff have received training.	Training provides 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 100 Mile House CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
Cross-Training						
Objective: *Develop a diverse skill set within the local Fire Department, local governments, community members, and other emergency response personnel engaged in risk reduction activities and wildfire planning/response.*						
20. Develop and/or participate in cross-jurisdictional meetings and tabletop exercises specifically focused on wildfire preparedness and response, including wildfire readiness meetings.	100 MH Fire Department	High	Immediately and then annually	FCFS funding, venue.	Annual or biannual participation in a meeting and or tabletop exercise.	Funding for attendance is 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 the District. Consider partnership with the RDC on this initiative.
21. Send FireSmart Coordinator to the Wildfire Mitigation Specialist training.	FireSmart Coordinator	High	March 2026	CRI funding	Completion of the Wildfire Mitigation Specialist training	The **FireSmart BC Wildfire Mitigation Program** allows an individual to complete a professional home assessment with property-specific recommendations.

District of 100 Mile House CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
22. Provide opportunities for residents to attend Local FireSmart Representative training, FireSmart 101 courses, and FireSmart Community Champion Training.	FireSmart Coordinator	Moderate	Immediately	Facility to hold any in-person training, FireSmart resources, communication, and promote to interested community members	Recruit residents to participate in Local FireSmart Representative training and FireSmart Community Champion Training. These residents will continue to promote FireSmart throughout their neighbourhood and community.	Funding is available per the **2025 FCFS Application-based – Program and Application Guide**
23. Provide opportunities for the District of 100 Mile House Fire Rescue members and key District staff to receive additional training in wildfire, FireSmart, emergency management, and incident command system.	100 MH Fire Department	High	Ongoing	FCFS funding, qualified trainers.	Staff receive appropriate cross training in emergency management.	Participation in these courses will improve the District's ability to effectively respond to an emergency event. Please see the **FireSmart Community Funding and Supports** program and application guide for funding details.

District of 100 Mile House CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
24. 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.	100 MH Fire Department	High	Ongoing	FCFS funding, qualified trainers.	A minimum of one Wildfire Mitigation Specialist is on staff by the end of 2026.	**Wildfire Mitigation Specialist** and **Local FireSmart Representative** training are essential qualifications for conducting various FireSmart assessments and activities. Having trained staff within the District 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.
Emergency Planning						
Objective: *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 event.*						

25. Finalize the District of 100 Mile House Emergency Management Plan. Incorporate pre-incident planning measures, including mapping of water resources, base camp locations, and heli-spots, as well as establishing wildfire response preparedness condition guidelines. These elements should be reviewed and updated prior to each fire season to ensure readiness. Assess community water delivery ability as required for suppression activities, limited to current water system evaluation and available flow analysis.	FireSmart Coordinator & Emergency Program Management Committee	Very High	Immediately and ongoing	Emergency Management Plan	The 100 Mile House EMP is completed and updated following any major emergency.	Completing and updating the EMP with lessons learned will allow any flaws or improvements to be made prior to the next emergency. This will allow for continual improvement of emergency response within the city.

District of 100 Mile House CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
26. Encourage local residents to sign up for the Voyent Alert system.	100 MH Fire Department, FireSmart Coordinatior	High	Ongoing	Communication resources and channels.	60% 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 community events, and through the District's Facebook page.
27. Continue to maintain wildfire structure protection equipment inventory and annually assess if further equipment is required.	100 MH Fire Department	Moderate	Ongoing	FCFS funding.	FireSmart Structure Protection Trailer and required equipment are maintained.	For more information, please refer to the **FireSmart Community Funding and Supports** program and application guide.

District of 100 Mile House CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
28. Develop a Wildfire Response Preparedness Condition Guide that speaks to standard operating procedures for District staff, including the Public Works department, during periods of High or Extreme fire behavior.	100 MH Fire Department	Moderate	2026-2028	Professional expertise, *Wildfire Act*, *Wildfire Regulation*, funding.	Guide is created by the end of 2028.	A Wildfire Response Preparedness Condition Guide would include local daily action guidelines based on expected wildfire conditions. The District would use these guidelines to guide decision-making and actions to best respond to wildfire. For example, during periods of High Fire Danger, Public Works personnel would not use equipment that may cause sparks, such as chainsaws.

District of 100 Mile House CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
29. Annually review the UBCM Community Emergency Preparedness Fund for funding opportunities.	100 MH Fire Department	Moderate	Annually	Emergency Program Lead	Annually review for eligible opportunities.	The District 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
30. Promote the 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.	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 100 Mile House CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
Vegetation Management						
Objective: *Proactively manage vegetation within the wildland urban interface at multiple scales such as the Home Ignition Zone, Neighbourhood Zone, and Landscape Zone to reduce the potential wildfire intensity and ember exposure to people, infrastructure, and other values.*						
31. Apply for funding to complete fuel/vegetation management treatments 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, maintenance treatments, and fuel management community demonstration projects is available per the **2025 FCFS Application-based – Program and Application Guide.**

District of 100 Mile House CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
32. 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	2026 and beyond	FCFS funding	Target mitigation activities for two properties a year.	Funding is available through the **FireSmart Community Funding and Supports** program and application guide.

District of 100 Mile House CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
33. Create and publish a directory of local contractors experienced in FireSmart vegetation management and fuel mitigation practices to assist residents in selecting qualified service providers. This resource should be updated regularly and made accessible through the District's website and community outreach materials.	FireSmart Coordinator	Moderate	Ongoing	Knowledge of local contractors completing FireSmart vegetation management work	Completion and ongoing update of the directory	A published directory will remove obstacles to the completion of FireSmart activities for residents

District of 100 Mile House CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
34. 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 and 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. It is critical to know spatially where treatments are proposed and implemented.
35. Complete FireSmart assessments (HIZ, Critical Infrastructure and Home Partners) on eligible local critical infrastructure and community assets.	FireSmart Coordinator	High	2026-2027	**FireSmart HIZ Assessment, FireSmart Critical Infrastructure Assessment, FireSmart Home Partners Program Assessment**, FCFS funding.	All eligible infrastructure is assessed.	Funding is available for assessment of structures via the **FireSmart Community Funding and Supports** program and application guide.

District of 100 Mile House CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
36. Complete recommended mitigation activities identified in the FireSmart assessments on local critical infrastructure and community assets.	FireSmart Coordinator	High	2026-2029	FCFS, materials and labor.	Complete recommended mitigation activities on top three priority structures by the end of 2029.	Prioritize mitigation activities based off assessments scores and the needs of the District. For more information refer to **Section 3.4.5 Critical Infrastructure.**
37. Complete initial FireSmart Cultural Sites and Green Spaces (CSGS) Assessment and checklist on all cultural sites and District owned green spaces.	FireSmart Coordinator	Moderate	2026-2028	**Cultural Sites and Green Spaces Guide and Assessment**, FCFS funding.	All eligible cultural sites, and District green spaces are assessed and inventoried.	Funding is available via the **FireSmart Community Funding and Supports** program and application guide.
38. Complete recommended mitigation activities identified in the FireSmart CSGS Assessment.	FireSmart Coordinator	Moderate	2026-2029	FCFS funding, materials and labor.	Complete recommended mitigation activities on three CSGS sites by the end of 2029.	Funding is available for eligible locations including building materials and labor per the **FireSmart Community Funding and Supports** program and application guide. Please refer to **Section 3.4.8 Cultural Sites and Green Spaces** for further details.

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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 Committee
CFS	Community Funding and Support
CI	Critical Infrastructure
CSGS	Cultural Sites and Green Spaces
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
HVRA	High Value Resources and Assets
LRMP	Land and Resource Management Plan
MOF	Ministry of Forests
MOTI	Ministry of Transportation and Infrastructure
PSOE	Provincial State of Emergency
PSTA	Provincial Strategic Threat Assessment
OCP	Official Community Plan
OFC	Office of the Fire Commissioner
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 100 Mile House (hereafter referred to as "the District"), located on the Cariboo Plateau, has experienced firsthand the impacts of changing fire regimes and the impact to local communities. During the 2017 wildfire season, the Elephant Hill and Gustafsen fires, combining to burn nearly 200,000 ha, both threatened the District. In 2021, the Flat Lake fire resulted in an evacuation for 100 Mile House and over 73,000 ha burned. While the Flat Lake fire was ignited by lightning, both the Gustafsen fire and the Elephant Hill fire were determined to be human caused.

Out of concern for the protection of the community from wildfire, the District of 100 Mile House continues to grow their FireSmart program. Creating a Community Wildfire Resiliency Plan (CWRP) is the next step for the program. This CWRP will build upon the Community Wildfire Protection Plan (CWPP) that was developed by the District in 2007. Developed by Forsite Consultants Ltd. (Forsite), this CWRP provides a holistic approach to wildfire risk reduction and resilience for the District. CWRPs address the seven FireSmart Disciplines of FireSmart Canada and apply them to the various aspects of wildfire management. The seven FireSmart disciplines/principles include:

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

1.1 Plan Goals

The purpose of this CWRP is to identify wildfire hazards within 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 the seven FireSmart disciplines. In accordance with the 2023 Community Wildfire Resiliency Plan Instruction Guide, this plan will:

1. Increase community understanding of wildfire risk,
2. Promote collaboration within and across administrative boundaries,
3. Address the specific needs of the District of 100 Mile House, and
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

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

- **Gathering background information:** A thorough review of existing relevant plans and compilation of spatial data to help inform this CWRP.
- **Identifying values at risk:** A review of values at risk through information provided by the District.
- **Assessing local wildfire threat:** On the ground wildfire threat assessments were completed in forested areas on Crown land within the Wildland Urban Interface (WUI). The results of these assessments were the basis for the identification and delineation of recommended areas for fuel management treatments.
- **Developing risk mitigation strategies and recommendations:** The data and information collected in the above phases provided the necessary content to develop an actionable CWRP tailored to the District. The action table provides a comprehensive list of recommendations for the District to implement over the next five years to increase its wildfire resiliency.

This project follows the 2023 CWRP template as per CRI funding requirements.

1.3 Community Resiliency Investment Program

The Community CRI Program was announced by the provincial government in 2018 with the goal of providing support and guidance to BC communities to reduce the risk and impacts of wildfire. For municipalities and regional districts, the program is administered by the Union of BC Municipalities (UBCM) on behalf of the Ministry of Forests. Communities apply for CRI funding through the FireSmart Community Funding & Supports (FCFS) stream. The CRI program provides funding to local governments and First Nations to undertake FireSmart planning and activities within their community that help build and support overall wildfire resiliency.

As of 2024, the CRI program requires each community to have an up-to-date **Community Wildfire Resiliency Pla**n, a **FireSmart Coordinator position**, and participate in a **Community FireSmart Resiliency Committee** to be eligible to receive additional funding to undertake other FireSmart activities. This CWRP is designed to meet the requirements and expectations of the CRI program at the time of development; recommendations within the Action Plan are intentionally organized to facilitate future CRI funding applications. However, it is important to note that government funding programs are subject to government budget availabilities and allotment. As such, the CRI program and eligible activities are subject to change annually.

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**
District of 100 Mile House Official Community Plan, 2016	A comprehensive document which provides vision and a set of objectives and policies to guide the orderly growth and development of the District of 100 Mile House, particularly around the form and character of future land use. It addresses various aspects such as housing, land uses, infrastructure, public facilities, the environment, and social services. The OCP serves as a guide for community planning, decision making, and development of bylaws to ensure coordinated and sustainable growth while preserving the unique character and quality of life of the District of 100 Mile House.	The OCP provides essential information relevant to the CWRP, describing aspects such as the natural environment, environmentally sensitive areas, hazardous lands, resource areas, and climate change within the District of 100 Mile House. The following sections incorporate wildfire environment considerations into land use policies and goals: • Section 11: Natural Environment • Section 13: Servicing & Infrastructure • Section 15: Climate Change A new Official Community Plan is currently under development. It is not anticipated to have a significantly different relationship to the CWRP; however, once completed this should be assessed.
District of 100 Mile House Local Emergency Management Plan (EMP), 2023 (Draft)	The District of 100 Mile House is in the process of developing its Emergency Management Plan (EMP); however, a preliminary draft was made available to support the preparation of this CWRP. This draft version was also utilized during the	The Emergency Management Plan identifies interface and wildfire as a top risk priority. The plan describes the response organization and protocols, special population considerations, evacuation planning, and recovery organization. It also identifies

	2017 wildfire-related evacuation of the community. The EMP describes guidelines and procedures to be used by all first responders and municipal staff, plus members of the Cariboo Regional District (CRD) Emergency Preparedness Program in the event of a major emergency in the District of 100 Mile House. This plan guides the operations, organization, responsibilities and coordination necessary to provide for effective response to and recovery from major emergencies or disasters.	populations at risk and critical infrastructure and their locations.
Cariboo-Chilcotin Land Use Plan (CCLUP), 1994	A higher-level plan that guides the long-term balance of environment and economy in the Cariboo region.	While forest management for wildfire risk reduction purposes is not specifically addressed in this plan, any wildfire-related activities will be consistent with the overarching objectives and targets outlined in the plan. It should be noted that the CCLUP applies only to Crown Land.
100 Mile House Sustainable Resource Management Plan (SRMP), 2005	Encompassing an area similar to the 100 Mile House Forest District and the 100 Mile House Timber Supply Area, it is one of seven SRMPs covering the Cariboo-Chilcotin Region. The SRMP provides detailed objectives and recommendations to guide operational planners in implementing the CCLUP over the long term. SRMPs address CCLUP strategies and targets at a sub-regional scale through detailed objectives and strategies for the management of	Section 6.2 Forest Health of this plan recognizes wildfire as a natural forest disturbance agent that contributes to ecosystem diversity and forest resilience. While such disturbances play a key role in maintaining long-term forest health and productivity, they can also lead to significant economic losses of timber. The planning goal is not to eliminate wildfire, but rather to manage forests in a way to reduce the risk of large-scale losses while preserving the ecological complexity that forest values depend on.

	natural resources and environmental values. The SRMPs provided a foundation for the order made under the Land Use Objectives Regulation of the Land Act for the Cariboo Region in 2010. The 100 Mile SRMP remains as non-legal guidance.	This plan also includes certain exceptions to recommendations for the purpose of wildfire management.
District of 100 Mile House Trails Linkage Plan, 2009	This plan identifies a unified network of existing and proposed trails with the objective of providing a complete trail network throughout the District of 100 Mile House. It describes existing trails, their condition, user groups, parking, accessibility, and their unique attributes including wildlife and ecosystem values. It also identifies existing issues and opportunities for trail improvements and expansions.	Fire awareness is identified as being an existing issue that should be considered as the District of 100 Mile House's population grows. Educational signage describing FireSmart principles for recreation users in forested areas is a proposed action item.
99 Mile Area Master Recreation Plan, 2018	This document provides guidance and policy for the management and development of recreation use in the 99 Mile Recreation Area (located within 100 Mile House's municipal boundary). The plan describes the trails within the 99 Mile Recreation Area, the user groups, stakeholders, and recommendations for improvement.	Recent forest fire activity has prompted the need to establish fuel breaks within the District-owned 99 Mile Area woodlot, within which the 99 Mile Area is largely located. Although the District intends to work with user groups to preserve recreation features, there is a potential for the fuel breaks to alter recreation patterns. In the summer, the Stormrider Wildfire Unit Crew is based out of the cross-country ski club lease area and uses the Nordic Day Lodge. The unit crew depends on the lease area for secure parking and equipment storage during the fire season. At present, no single organization is responsible for overseeing trail maintenance in the area. The responsibility for upkeep has largely fallen to the individual clubs and user groups, however maintenance practices

		vary widely between groups, and there is no formalized schedule or standard of care applied consistently across the area. Some seasonal arrangements exist, for example the Fire Protection unit crew has had an agreement with the 100 Mile Nordic Ski Club to maintain trails in the summer while they are using the day lodge and staging areas. Similarly, some winter/summer groups will conduct minor brushing, deadfall removal and weed clearing so that select trails get two maintenance visits per year. Regular maintenance is important for several reasons including managing fuels that can pose a wildfire risk.
District of 100 Mile House Woodlot License #0577 Woodlot Management Plan, 2001	Woodlot #0577 is managed by the District of 100 Mile House. The Woodlot License Plan describes the woodlot tenure and outlines management goals, ensuring sustainable forest management and compliance with regulation.	The Woodlot Management Plan outlines a broad range of forestry objectives. Although wildfire or wildfire management is not specifically addressed, any wildfire-related activities within Woodlot #0577 should be consistent with the overarching goals and principles outlined in the management plan.
District of 100 Mile House Woodlot License #0577 Woodlot License Plan, 2023	The Woodlot License Plan outlines forestry practices and harvest strategies to be used within the woodlot area, to ensure that forestry operations are conducted in a sustainable and environmentally responsible manner. This plan aligns with the broader goals and objectives outlined within the Woodlot Management Plan.	Appendix 2B outlines stocking standards, regeneration dates, and free growing dates for fire management fuel mitigation areas. The standards define requirements for different fuel treatment types and provide guidance on the inclusion of birch and aspen as preferred species for meeting regeneration targets where ecologically suitable.

District of 100 Mile House Community Wildfire Protection Plan (CWPP), 2007	The 2007 Community Wildfire Protection Plan (CWPP) aimed to identify and reduce the risk of life, property, and environmental losses directly or indirectly to wildfire within or threatening 100 Mile through effective pre-planning and preparation.	This CWPP was the first for the District of 100 Mile House and serves as background for this CWRP on previous FireSmart work and fuel management work.
District of 100 Mile House Development Corporation Forest Stewardship Plan, Community Forest Agreement K2W, 2022	The 100 Mile Development Corporation manages the Community Forest on a multi-use basis with the primary focus on good environmental stewardship, guaranteed recreational and public use opportunities and the continued enhancement of the forest resource. The Forest Stewardship Plan (FSP) outlines how forest activities will be carried out over a five-year term in compliance with government objectives for resource values in the Community Forest.	There are no wildfire management strategies identified in the plan; however, wildfire management strategies should comply with overarching FSP guidance for forest activities. There are also several exemptions for wildfire management activities.
2017 Wildfire Recovery Plan, South Cariboo	The 2017 South Cariboo Wildfire Recovery Plan was developed in response to the devastating wildfires that swept through the region during that summer, including the Gustafsen Lake Fire. The plan focuses on assessing and addressing the short-, medium-, and long-term impacts of the fires across four key pillars: economic, social/psychosocial, environmental, and infrastructure.	This plan is primarily focused on post-wildfire recovery, whereas the CWRP is a proactive document, aiming to reduce the impacts of potential future wildfire events. That said, the 2017 Wildfire Recovery Plan provides valuable insights into the community's values, priorities, and wildfire awareness. Relevant action items in the plan include: • District of 100 Mile House to undertake a wildfire mitigation project within the land-based areas under their jurisdiction (parks, community forest, roadside vegetation management) to reduce fire

		hazards and risks in and around the community. • 100 Mile House to become a Recognized FireSmart Community. • With the BCWS, research opportunities for local businesses to contribute to suppression activities and access contracts for fire suppression, forest restoration and nature rehabilitation services.
District of 100 Mile House Active Transportation Plan, 2023	The Active Transportation Network Plan (ATNP) provides insight into the status and vision of the active transportation network within 100 Mile House. It considers the local context, characteristics, and challenges of the community and provides recommendations.	While wildfires or related challenges are not identified as a concern, the proposed Active Transportation Network trails should be taken into consideration when planning vegetation management within the AOI.
District of 100 Mile House Community Tourism Plan, 2024	The 100 Mile House Community Tourism Plan serves as a stepping stone for continued planning within the community, guides future investment into tourism initiatives, and promotes long-term and sustainable growth tourism.	Wildfire is identified as a primary threat that the 100 Mile House tourism industry faces. The plan acknowledges that there is an upward trend in the frequency of wildfires within the region that pose a threat and operational challenges to the community and tourism industry. An action item identified in the Plan is to develop a Tourism Emergency Communications Plan that provides direction on how tourism marketing will be adjusted to respond to and recover from wildfires and other emergencies. Another action item provided is to encourage tourism operators to

		undertake FireSmart initiatives to increase resiliency to wildfires. The CRI program is referenced as a government funding program that can be leveraged to address the wildfire risk challenges identified in the plan.

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**
District of 100 Mile House Open Burning Bylaw No. 951	This bylaw regulates outdoor burning within the District of 100 Mile House. Key provisions include prohibited and regulated burning, permit requirements, fire safety measures, and enforcement.	All burning activities recommended in this CWRP will be carried out in accordance with this bylaw.
District of 100 Mile House Zoning Bylaw No. 1290	This bylaw establishes land use regulations to guide development and land management within the municipality.	**Section 4.25 Fire Hazard Areas** provides direction that if a proposed site is in an area with a high or extreme wildfire hazard as identified in this CWRP, the applicant must submit a wildfire hazard assessment and mitigation strategy—prepared by a qualified forest professional—before the District will approve rezoning, building permits, or subdivision applications.
District of 100 Mile House Fire Protection Bylaw No. 959	This bylaw outlines the establishment, responsibilities, and regulations of the District of 100 Mile House Fire Department.	Outlines the responsibilities of the 100 Mile House Fire Department in areas such as evacuations, mutual aid, and fire prevention. It also outlines the obligations of property owners regarding fire hydrant and water supply systems, and fire hazard reduction.
District of 100 Mile House Land Use and Development Application Procedures and Fees House Bylaw No. 1275, 2014	This bylaw outlines the procedures and fee schedules for land use and development applications.	Functions as a procedural gateway through which wildfire-resilient development standards can be integrated into planning processes.

3.0 Community Description

3.1 Area of Interest

For the purposes of this Community Wildfire Resiliency Plan (CWRP), the Area of Interest (AOI) refers to the municipal lands situated within the boundaries of the District of 100 Mile House (Figure 2). Incorporated in 1965, 100 Mile House serves as the primary commercial and service center for the South Cariboo region. While 100 Mile House itself has a population of approximately 1,928 residents, it supports a wider regional population of over 15,000, which can increase to more than 25,000 during the summer months. The municipal boundary encompasses approximately 53 km^2 (5,300 ha).

Figure 1: Centennial Park - Tsecwiléculécw – located east of downtown 100 Mile House

The community is strategically located along Highway 97, a critical north-south transportation corridor that connects the South Cariboo to major urban centers. In addition, the Canadian National Railway (CNR) line passes through the community. Primary land uses within 100 Mile House include agriculture, residential, commercial, forestry, and parks, recreation and open spaces.

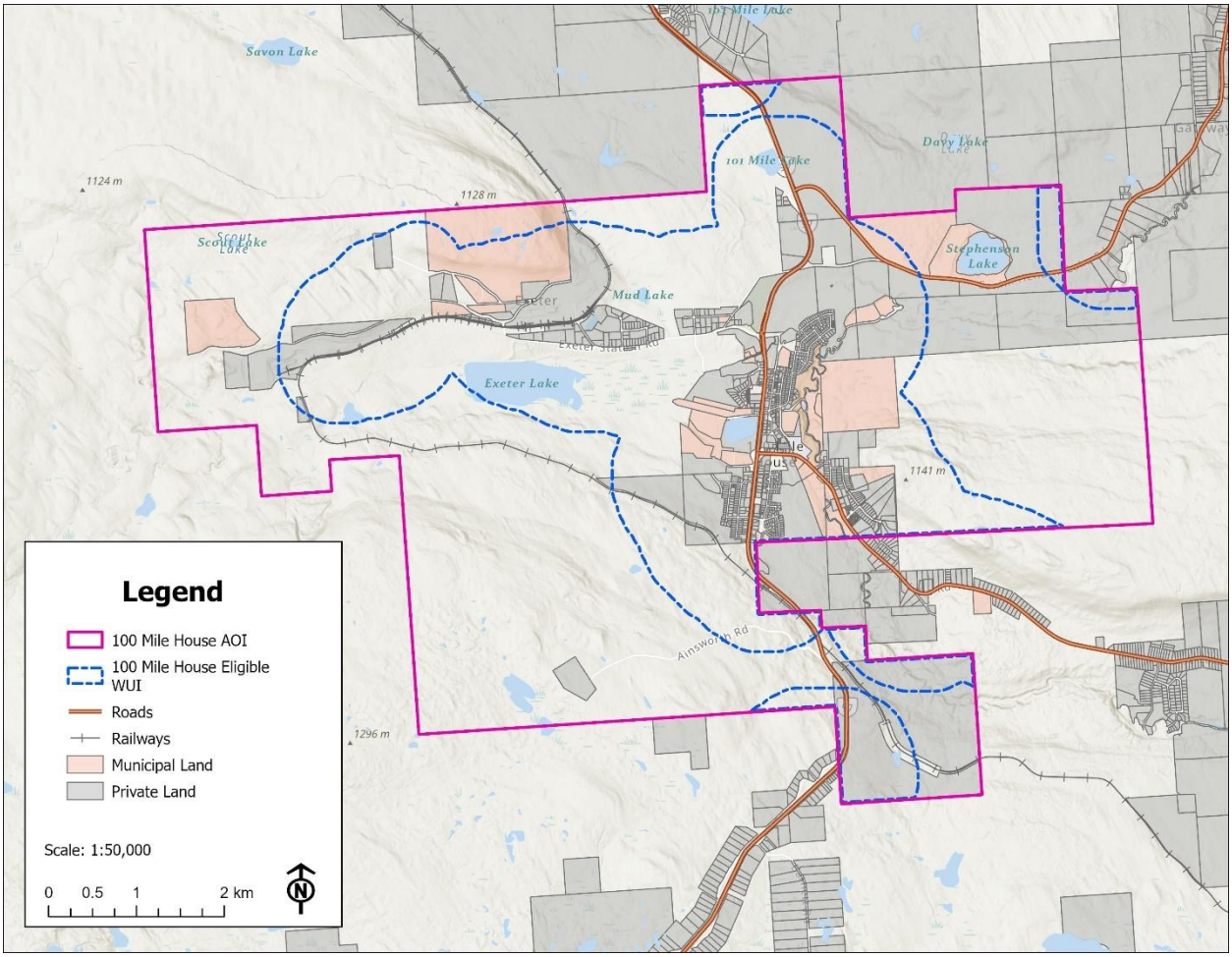

Figure 2: District of 100 Mile House Area of Interest (AOI)

The District's geographic location and natural setting provide significant opportunities for commercial and recreational development. There is also an increasing awareness of the value of the natural environment, and the District remains committed to practicing responsible stewardship of these resources.

3.2 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-kilometer buffer surrounding areas with a structured density greater than six

structures per square kilometer located within the District of 100 Mile House AOI.[4] This buffer represents a reasonable distance within which embers from a wildfire can travel and ignite structures. Figure 2 represents the resulting eligible WUI for this CWRP.

For this CWRP, the eligible WUI land base encompasses 2,655 hectares (Figure 2). Major land jurisdiction within the WUI is as follows:

- **Private:** 37.4% (993.5 hectares)
- **Crown Provincial:** 50.6% (1343.6 hectares)
- **Municipal:** 11.9% (316.9 hectares)
- **Federal & Mixed Ownership:** 0.1% (0.8 hectares)

[4] **FireSmart Community Funding and Supports**

3.3 Community Information

The District of 100 Mile House originated as "Bridge Creek," a rest stop on the fur trade route in the early 1800s. It was later named for its location—100 miles from Mile 0 in Lillooet—during the gold rush era. While the original roadhouse is gone, the community remains a key service center for the South Cariboo. As the gold rush subsided, settlement grew through ranching in the early 1900s, followed by a boom in forestry during the 1940s and 1950s. The town's development was shaped by land leases from the Marquis of Exeter's estate, eventually forming what is now known as the District of 100 Mile House.

The 2021 total population of the District of 100 Mile House is 1,928 and has been gradually growing over time (Table 3: Community profile for the District of 100 Mile House). The District of 100 Mile House has a higher median age population than the provincial average, as well as a higher percentage of the population aged 65+ compared to the provincial average (Table 4).

Table 3: Community profile for the District of 100 Mile House

Community Information	
Total Population (2021)	1,928
Total Population (2016)	1,918
Population Percentage Change (2016 -2021)	0.5
Total Private Dwellings	974
Private Dwellings Occupied by Usual Residents	907
Population Density Per Square Kilometres	36.4
Land Area	53.01km^2

Table 4: Age distribution of the population of the District of 100 Mile House

Age Group	Total	100 Mile House % Distribution	Provincial % Distribution
0 to 14 years	245	12.7	14.3
15 to 64 years	1035	53.6	65.3
65 years and over	655	33.9	20.3
Median Age	655	55.2	42.8

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.

A Hazard, Risk, and Vulnerability Assessment (HRVA) completed as a part of 100 Mile's Emergency Management Plan (2023) identifies interface and wildfire as a top risk priority due to the presence of wildland interface areas within and around the community. Wildfire have historically caused large scale damage to homes, infrastructure, and economic, cultural, and environmental values in British Columbia. 100 Mile House has not been immune to the threat of wildfire and will continue to be at risk.

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. Highway 97 intersects the District of 100 Mile House and serves as the main evacuation corridor to the north and south. Horse Lake Road and Canim Hendrix Road serve as the main evacuation corridors to the west and east, respectively. Depending on the event and the location of the event, the evacuation would proceed in either one of these directions. Evacuation of the West Fraser Mill plant would also proceed either north or south on Highway 97; however, particular attention would have to be paid to the access roads into the mills. If travel on this route was at all endangered by an event such as wildfire, sufficient lead time to evacuate the mill would be required.

Table 5: Evacuation routes, distances, and time considerations

Community	Distance (km)	Travel Time
City of Williams Lake	92	1hr 5 mins
City of Kamloops	196	2hrs 11mins
Cache Creek	112	1hr 13mins
Clinton	73	47mins
Barriere	134	1hr 41mins

Preceding an evacuation order, Mayor and Council would make a Declaration of Local Emergency. Once the state of local emergency has been declared and an evacuation ordered, members of the public must comply with the RCMP. Both the declaration of a state of local emergency and the evacuation order will be communicated to the area through the District's website, Facebook page, and the media. To notify households in an area affected by an Evacuation Alert or Evacuation Order, the District will prepare door-to-door notifications for distribution. Emergency responders such as the 100 Mile Fire Dept, RCMP, Search and Rescue, or government staff will undertake the door-to-door notification under the direction of the EOC.

As the designated Emergency Preparedness Program Coordinator for the District of 100 Mile House, it is the District's responsibility to identify hazards and be prepared to coordinate evacuations in areas that may be affected by emergency events.

Depending on the event and circumstances, evacuations could be ordered by:

- Province of BC
- Cariboo Regional District for the CRD Electoral Areas or the Mayor and Council for the District of 100 Mile House
- Office of the Fire Commissioner – for an emergency arising from a fire hazard or from a risk of explosion.
- Ministry of Health or the Local Health Authority
- Ministry of Environment. The Minister may order or designate a person to order.
- Ministry of Energy, Mines and Petroleum Resources, or
- Ministry of Forests and Range Wildfire Management Branch for tactical firefighting purposes.

An evacuation order may or may not be preceded by a notice or evacuation alert, depending on how much time is available to clear the affected area. After the event, and it is safe to return home, the order is lifted, and a public notice is issued. The 100 Mile District General Hospital and School District No. 27 each have evacuation plans they would implement.

Other human life and safety considerations include the impacts from wildfire smoke. Recent studies have shown that wildfire impacts are 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[5]. In addition, smoke from boreal and temperate forests contain fine particles less than 2.5 micrometres (µm), referred to as PM2.5. Even short-term exposure to PM2.5 found in wildfire smoke can be detrimental to public health due to its ability to infiltrate deep into the respiratory system[6].

The BC Centre for Disease Control summarizes the composition and health effects of wildfire smoke, how to protect yourself, and identifies the following groups as being most at risk:

- Elderly people,
- women who are pregnant,
- infants and small children, and
- people with existing chronic respiratory conditions such as asthma.

Information on emergency support services can be found on the District of 100 Mile House's website: https://www.100milehouse.com/district-services/emergency-services/emergency-support-services

[5] Naeher, L. P., Brauer, M., Lipsett, M., Zelikoff, J. T., Simpson, C. D., Koenig, J. Q., & Smith, K. R. (2007). Woodsmoke Health Effects: A Review. *Inhalation Toxicology*, *19*(1), 67–106. https://doi.org/10.1080/08958370600985875

[6] British Columbia Centre for Disease Control. (2021). *Evidence review: Wildfire smoke and health* (Version 3). http://www.bccdc.ca/resource-gallery/Documents/Guidelines%20and%20Forms/Guidelines%20and%20Manuals/Health-Environment/WFSG_EvidenceReview_WildfireSmoke_FINAL_v3_edstrs.pdf

3.4.2 Emergency Response

An Emergency Management Plan (EMP) is under development by the District of 100 Mile House; a preliminary draft was shared to inform this CWRP. This draft version was also utilized during the 2017 wildfire-related evacuation of the community. The EMP is designed to outline the structure and organization required to coordinate the response and recovery to emergencies within the District of 100 Mile House. The EMP is being written in accordance with provincial and local legislation and follows the British Columbia Emergency Management System (BCEMS) and is consistent with the CRD Emergency Response and Recovery Plan.

Section 8 from the EMP describes the formal procedures for public and external communications during an emergency. It describes the roles and responsibilities of the Information Officer in managing official communications with the public and media, including the preparation of news releases, key messages, and coordination of interviews or public updates. It also highlights the role of the Emergency Planning Coordinator in maintaining communication with external agencies and assuming the role of Liaison Officer when the Emergency Operations Centre (EOC) is activated.

In terms of local emergency communication, the District of 100 Mile House, along with the Cariboo Regional District, uses the Emergency Notification System powered by VoyentAlert as its platform for emergency alerts and notifications. The system works across multiple devices, where community members can receive notifications on their mobile device, computer, or landline in the event of an emergency. To receive notifications, individuals must pre-register with the Cariboo Chilcotin Emergency Notification System. Registration can be completed using the following link: https://ca.voyent-alert.com/vras/client.html#!/registration.

General local wildfire communications, such as current wildfire hazard ratings and fire bans, are made via the District of 100 Mile House website, Facebook page, and using the Fire Danger Class boards in and around the community.

3.4.3 Fire Suppression Capabilities

The District of 100 Mile House Fire-Rescue Department, established in 1956, is a full-service department that has evolved from not only fire suppression, but also rescue services, medical aid, and public education and awareness programs. The Department operates from a single fire hall with between 25-30 members, two of which (the Fire Chief and Deputy Fire Chief) are full-time, the remainder are paid-on-call. During 2024, 100 Mile House Fire-Rescue responded to a total of 497 calls. Dispatch is provided by the Prince George Fire/Rescue Department using career fire dispatchers with call management software, including radio and paging systems.

The 100 Mile House Fire-Rescue Department responds to a wide range of emergency and non-emergency events such as Structure Fires, Wildland Fires, Motor Vehicle Incidents, Dangerous Goods Incidents, Medical Assists, Alarm Resets, among others. As such, members must be trained to provide proficient responses to all types of incidents. Members attend training sessions once a week, regular weekend training, and occasional cross-training with BCWS. Members receive training in the following areas:

- NFPA 1001 Level II Fire Fighter Standard (Full Service)
- First Responder Medical
- Fire Apparatus Driving and Operation
- Auto Extrication
- Embankment Rescue
- HAZMAT Ops
- Incident Command
- Fire Officer 1
- Fire Officer 2
- Fire Prevention

All members attending callouts have completed a WSPP-WFF1 course. Combined, members complete more than 3,000 hours of training each year.

The District of 100 Mile House Fire-Rescue Department has mutual aid agreements with the Lone Butte, 108 Mile, and the Forest Grove volunteer fire departments. These agreements enable equipment and personnel from neighbouring departments to provide support during large-scale fires or when multiple incidents occur simultaneously. However, as a paid-on-call fire department, 100 Mile House Fire-Rescue cannot guarantee full member availability during a major event. During the 2017 wildfire season, for example, mutual aid support was limited, as neighbouring departments were occupied with protecting their own fire protection areas from the Gustafsen Fire, and access to 100 Mile House was further restricted due to wildfire-related road closures. 100 Mile House is located within the BCWS Cariboo Fire Centre and the 100 Mile Fire Zone.

Figure 3: The 100 Mile House Fire Hall

Apparatuses and Fleet inventory available to the 100 Mile House Fire-Rescue for response as of 2025 include:

- 1 Tender (2500 gallons)
- 2 Engines (864 gallons & 1000 gallons),
- 1 Rescue Truck
- 1 Brush Truck (400 gallons)
- 1 SPU Trailer, and access to one other shared SPU trailer
- 2 Squad Trucks

3.4.4 Electric Power

BC Hydro provides electrical service to 100 Mile House by overhead transmission lines. Within the District, older neighbourhoods are primarily supplied with overhead distribution lines while some newer neighbourhoods are serviced with underground lines. The community maintains backup generators at the public works yard to supply power to water systems during electrical outages.

3.4.5 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.

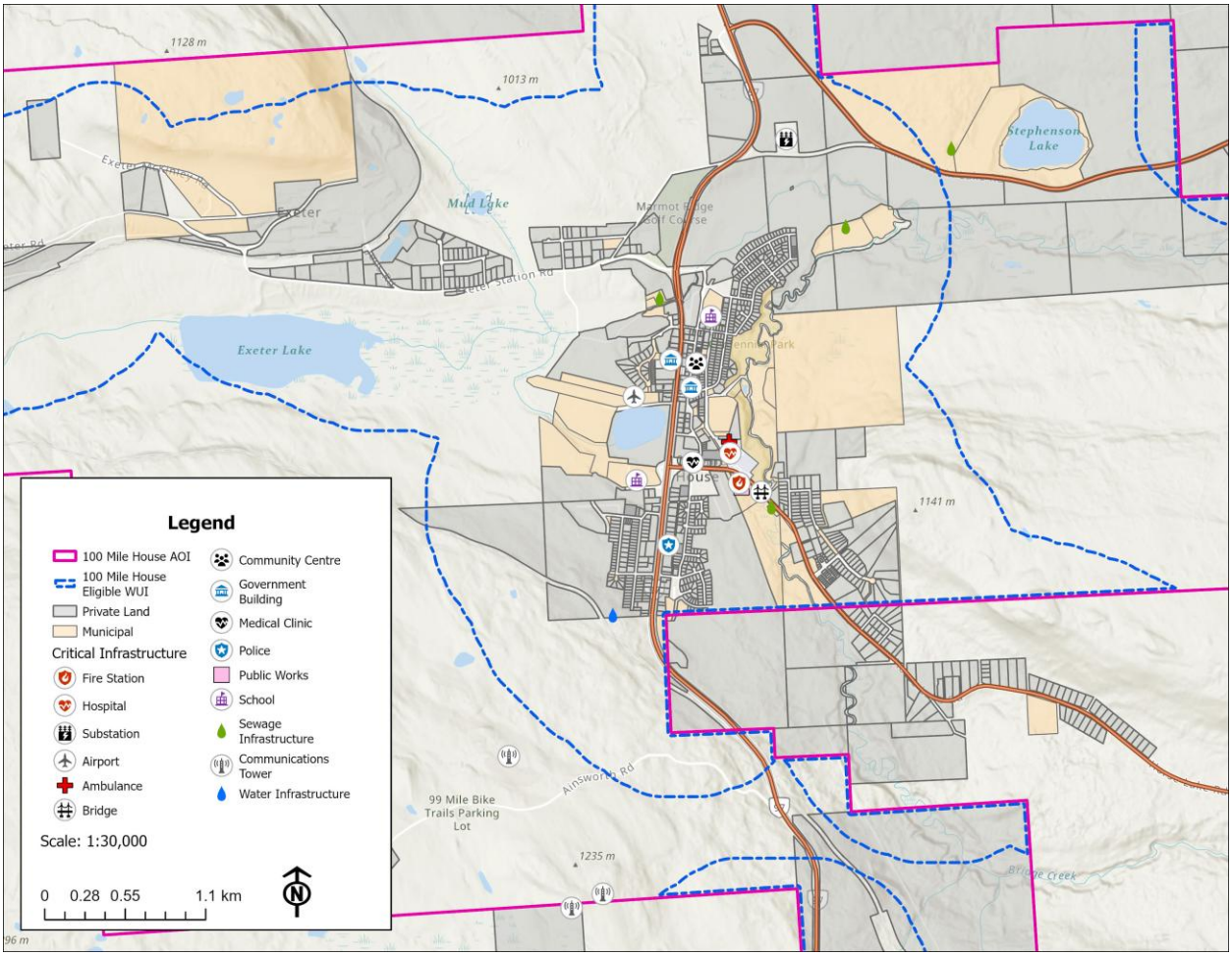

Figure 4: Critical Infrastructure located within the AOI

Critical infrastructure encompasses emergency and medical services, electrical and gas utilities, transportation networks, water and wastewater systems, social support services, and communication infrastructure (**Error! Reference source not found.**). Implementing FireSmart activities around critical infrastructure can significantly reduce wildfire losses and impacts.

Table 6. Critical infrastructure located within the District of 100 Mile House AOI

Critical Infrastructure	Ownership	Location	Comments
Repeater Tower	District of 100 Mile House	Ainsworth Rd	Fire & BC Ambulance Dispatch
2 Cell Towers	Rogers & Telus	Ainsworth Rd	
ABC Communication Tower	Telus	Town - Ski Hill	
High Zone Water Reservoir	District of 100 Mile House	99 Mile area	
BC Hydro Sub Station	BC Hydro	Canim Hendrix Lake Rd	
Fire Hall & Public Works Yard	District of 100 Mile House	Horse Lake Road	Includes high lift pump station, low zone reservoir, public works facility, water treatment plant, Fire Hall, equipment fleet
Municipal Office	District of 100 Mile House	Birch Avenue	
S.C. Health Centre	Interior Health	Cedar Avenue	
BC Ambulance	Interior Health	Cedar Avenue	
Wood Bridge	District of 100 Mile House	Horse Lake Road	Currently being replaced and will be a concrete bridge
Community Centre	District of 100 Mile House	Birch Avenue	
100 Mile Elementary School	School District 27	Birch Avenue	
Peter Skene Ogden High School	School District 27	Eighth Street	
RCMP Detachment	RCMP	Alder Avenue	
Stephenson Lake	District of 100 Mile House	Canim Hendrix Lake Rd	
Red Coach Lift Station	District of 100 Mile House	Cariboo Hwy 97	
Blackstock Lift Station	District of 100 Mile House	Horse Lake Road	
Main Lift Station	District of 100 Mile House	North Birch Avenue	

3.4.6 Community Watersheds and Water Supply

The District of 100 Mile House drinking water system consists of a single treatment plant that feeds the distribution system through the majority of the municipality. The water distribution system consists of 25.6 km of water mains, three reservoirs, one booster station, two pressure reducing stations, and a total of approximately 850 connections. The storage capacity of the reservoirs is as follows:

- Low Zone Reservoir: 1.2 million liters
- High Zone Reservoir – 455,000 liters
- Exeter Reservoir – 1.6 Million Liters.

A water treatment plan, commissioned in September 2018, treats ground water that is collected from three deep wells located next to the treatment plant.

A Supervisory Control and Data Acquisition (SCADA) system provides operators with real time data on how the water treatment plant and distribution system are functioning, as well as enabling the operator to adjust the operation of the water treatment plant and booster station. The SCADA system will also send an alarm to the operator if there is a problem within the system.

Water used for emergency fire suppression is primarily sourced from fire hydrants or water tenders. Fire suppression is time-limited using water from hydrated areas before the system loses pressure and becomes ineffective. Approximately 500,000 gallons is available from lowest supplied hydrants.

3.4.7 Cultural Values

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 referred to local First Nations.

3.4.8 Culturally Significant Sites and Green Spaces

The FireSmart Community Funding (FSCF) and Supports program through CRI now has funding for culturally significant sites and green spaces. The funding and associated assessments are intended for assessing the vulnerability of First Nations Cultural Sites and local government Green Spaces. For additional information on the FireSmart projects for Cultural Sites and Green Spaces and requirements, review the following: https://firesmartbc.ca/resource/culturally-significant-sites-and-green-spaces-guide-assessment/ .

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 Nations 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.

Green spaces include parks, gardens, cemeteries, naturalized spaces, trails and pathways, linear parks and greenways, rights-of-way, and boulevards. The Green Space designation for areas within the District of 100 Mile House municipal boundary allows the community to use FireSmart principles within these locations.

Figure 5: Marsh Trail Park adjacent to the highway and tourist information center

Green spaces play many important roles in the District of 100 Mile House, including aesthetic 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. The District of 100 Mile House has

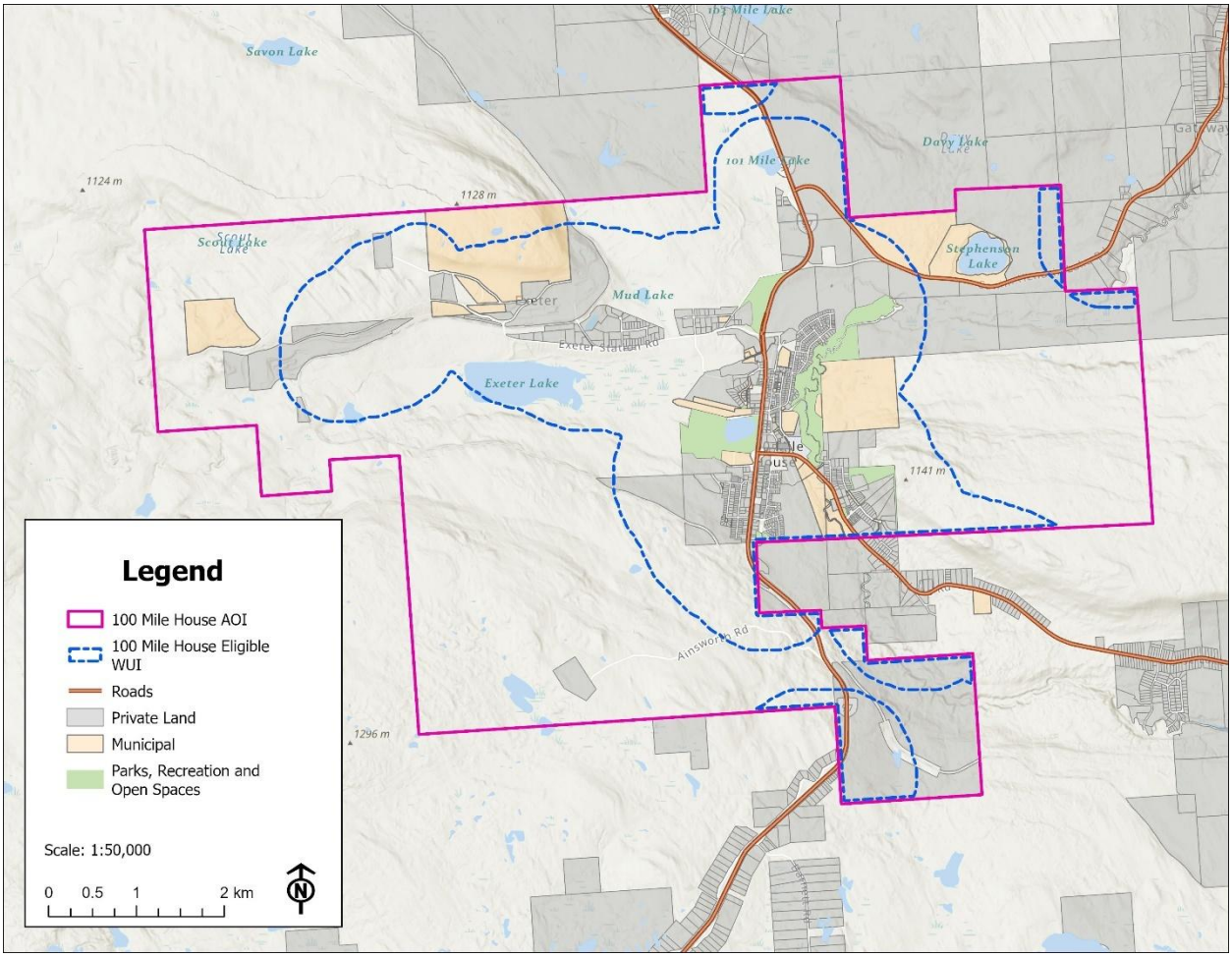

Figure 6: Parks, Recreation, and Open Spaces within the District of 100 Mile House AOI

approximately 102.45 ha of municipal parks, recreation and green spaces that could qualify for FSFC funding to help with wildfire mitigation work in these areas (Figure 6).

3.4.9 High Environmental Values

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 7 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 7. Red and blue listed species found in the AOI

Common Name	Scientific Name	Element Type	BC List Status
Great Blue Heron	*Ardea herodias herodias*	Vertebrate Animal	Blue
American Badger	*Taxidea taxus*	Vertebrate Animal	Red
River Jewelwing	*Calopteryx aequabilis*	Invertebrate Animal	Blue
Yellow-banded Bumble Bee	*Bombus terricola*	Invertebrate Animal	Blue

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.

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 100 Mile House 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), and aspect (affecting fuel dryness);
- **Fuel** – loading, size/shape, arrangement (horizontal/vertical), compactness, chemical properties, and fuel moisture; and
- **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 7).

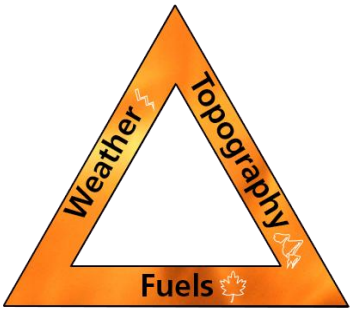

Figure 7. The fire triangle – interacting components that drive a wildfire

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 elevation of 100 Mile House exhibits relatively low variation because it is located within the Cariboo Plateau. The elevation ranges from approximately 920 metres above sea level (MASL) to 1220 MASL within the AOI (Figure 8). The 100 Mile House center sits at 920 MASL and has a moderately flat aspect. Elevation does not increase significantly to the north of the district. Elevation increases to the west and south of 100 Mile House, reaching 1220 MASL around the 99 Mile Cross Country Ski Trails. There are extensive backcountry areas surrounding 100 Mile House that could support landscape-level wildfires.

As the District is located on the Interior Plateau, it is surrounded by continuous fuels due to the nature of

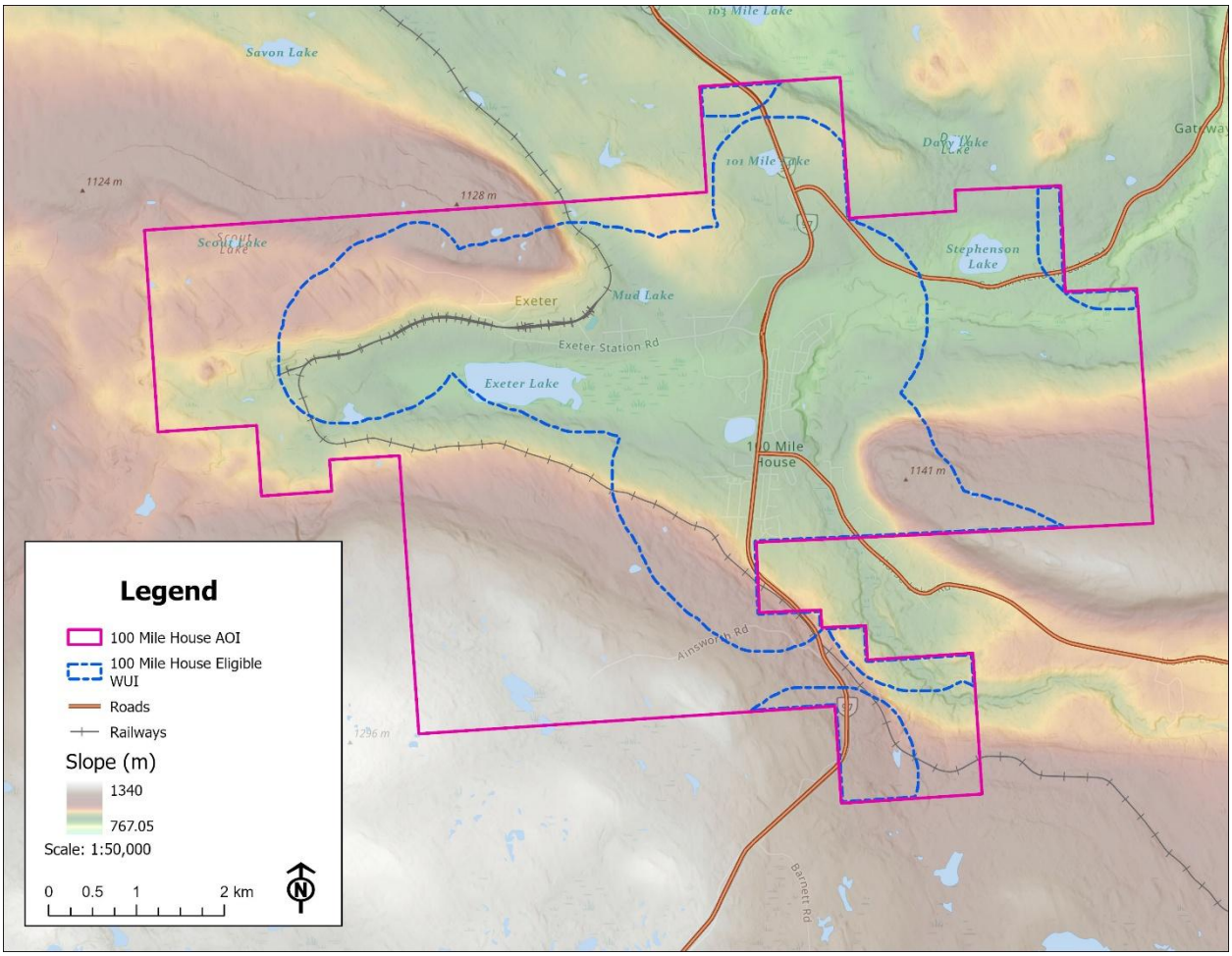

Figure 8: Topography of the District of 100 Mile AOI

the surrounding terrain. Unlike areas where nearby mountain ranges can limit or influence fire spread, the

District has fewer natural barriers to wildfire movement. As a result, the likelihood of large, landscape-level fires, such as those seen in recent fire seasons, is higher in this region. This means the District is at risk of being impacted by wildfires that originate well outside the area of interest for this plan.

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 wildfire that we can control and the most significant (without fuel, a fire cannot burn).

The District of 100 Mile House overlaps one Biogeoclimatic (BEC) Zone – Fraser dry cool Interior Douglas fir (IDFdk3). There is also overlap with only one Natural Disturbance Type (NDT) – NDT4 ecosystems with frequent stand-maintaining fires. Even though there is overlap with only one BEC Zone and one NDT, a range of fuel types are present (Table 8). The Fire Behaviour Prediction (FBP) System of the Canadian Forest Fire Danger Rating System (CFFDRS) defines 17 standard fuel types[7], seven of which occur within the buffered area and are explained in further detail below in *Section 4.1.2.3 Fuel Types*.

Table 8: FBP fuel types located within the District of 100 Mile House AOI. This does not include non-fuel areas and water.

FBP Fuel Types	Area (ha)	Proportion (%)
C2 - Boreal Spruce	131.6	1.9
C3 - Mature Jack or Lodgepole Pine	214.8	3.1
C7 - Ponderosa Pine–Douglas-Fir	2904.8	42.2
D1/2 – Leafless/Green Aspen	473.1	6.9
M1/2 - Boreal Mixedwood–Leafless/Green	363.5	5.3
O1a/b – Matted / Standing Grass	2718.7	39.5
S1 - Jack or Lodgepole Pine Slash	75.9	1.1

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

[7] Hirsch KG. 1996. Canadian forest fire behavior prediction (FBP) system: user's guide. Vancouver (BC): UBC Press.

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 100 Mile House municipal boundary overlaps only one BEC Zone and one variant. The District falls within the Fraser dry cool Interior Douglas fir BEC Zone (IDFdk3). This BEC Zone is found extensively throughout the Cariboo Plateau, occurring on flat to gently rolling slopes. The primary tree species within the IDFdk3 are Douglas fir (*Pseudotsuga menziesii*) and lodgepole pine (*Pinus contorta*). Wetter areas include hybrid white spruce (*Picea engelmannii x glauca*) and trembling aspen (*Populus tremuloides*). Historically, the fire regime within this BEC Zone consisted of frequent, low-intensity wildfires and less frequent, more intense stand destroying fires.

4.1.2.2 Natural Disturbance Type

In British Columbia, fire regimes are broadly categorized according to Natural Disturbance Type (NDT) classifications, which consider the frequency and severity of disturbances. These classifications range from NDT1 to NDT5.

The enduring consequences of fire suppression on wildfire dynamics in North America are garnering growing attention. Decades of effective fire exclusion, coupled with the suppression of Indigenous cultural burning traditions, have resulted in a fire deficit in certain regions. In British Columbia, these practices have contributed to the densification of forest stands compared to the pre-suppression era in certain areas, consequently elevating the risk of large, high-intensity wildfires.[8] These alterations may disrupt the natural disturbance regime, highlighting the need for proactive management strategies to address these challenges.

The District of 100 Mile House, and surrounding area, falls within the Natural Disturbance Type Four, characterized by ecosystems experiencing regular (every four to fifty years), low-intensity, stand-maintaining fires when not subjected to fire suppression and infrequent (150 – 250 years) stand-replacing events. This resulted in the presence of both uneven-aged and even-aged forest stands.

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 9 outlines which fuel types are present in the District of 100 Mile House AOI including a five-kilometre buffer. More detailed descriptions of these fuel types can be found on the Natural Resources Canada website.[9]

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

[8] 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.
[9] **FBP Fuel Type Descriptions**. Natural Resources Canada.

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 100 Mile House; rather, these fuel types correlate the forest fuel complex and how the fire could be expected behave in that fuel complex. Fuel types should be regarded as a "best fit" rather than strictly based on tree species.

Table 9. Canadian Fire Behaviour Prediction (FPB System Fuel Types present within the District of 100 Mile House AOI and a five-kilometre buffer[10]

Fuel Type		
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.
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.
C7	Ponderosa Pine – Douglas Fir	Lowest rate of spread and lowest fire intensity of the conifer fuel types.
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.
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.
M1/M2 50	Mixedwood – 50% conifer	
M1/M2 75	Mixedwood – 75% conifer	

[10] **FBP Fuel Type Descriptions**. Natural Resources Canada.

Fuel Type		
O1a/b	Grass	Fastest rate of spread potential.
S1/2	Slash (Jack and lodgepole Pine or White Spruce/Balsam)	Slash resulting from clearcut logging, slash is typically between one and two seasons old. Low threshold required for high fire intensity.

The mapping of the FBP fuel types is created using an algorithm that will classify a polygon into the best-fit fuel type based on the BC Vegetation Resource Inventory (VRI) data (Figure 9). Although this forms a good starting point to create the FBP fuel type maps, there are limitations, and the FBP fuel type layers are verified during the fieldwork process. Where fuel types observed in the field are inconsistent with the mapped classification, a fuel type change is documented and updated accordingly (**see Appendix E**).

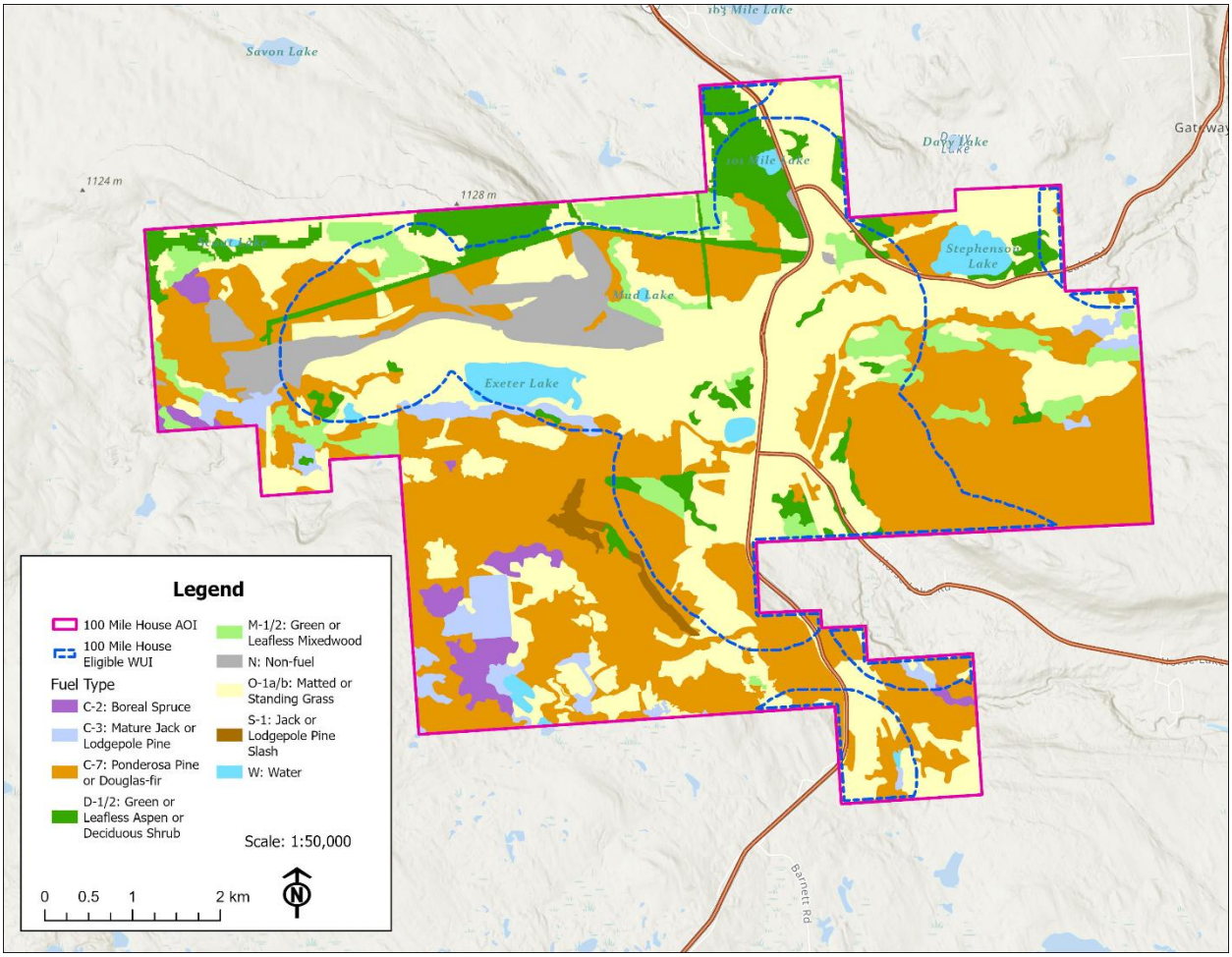

Figure 9: Fuel types within the District of 100 Mile House Boundary

4.1.2.4 Fuel, Ecosystems and Fire Regimes Summary

The CWRP also considered the possibility of a large landscape level fire entering the District from the adjacent forested plateaus as seen with large-landscape level wildfires throughout the Cariboo over the last decade (refer to *Section 4.2 Wildfire History* for further details). As such, a twenty-kilometer buffer was applied to the District's municipal boundary for a spatial analysis. The analysis looked at the biogeoclimatic zones for the area, associated natural disturbance type, associated fuel types and respective areas they encompass. Table 10 below outlines the area and proportion of the AOI and buffer that is comprised of each BEC subzone and variant, and the associated NDT and fuel types.

The fuel types and associated NDTs found within the buffered area are conducive to supporting large landscape-level fires, as supported by historic wildfire burnt areas in in *Section 4.2 Wildfire History* and the threat ratings in *Section 4.4 Provincial Strategic Threat Analysis (PSTA)*.

Table 10. Biogeoclimatic ecosystem classification (BEC) zones and variants found within the District's AOI including a twenty-kilometer buffer.

BEC Variant	Regime	Fuel-types	Area (ha)	Proportion (%)
IDF dk 3	NDT 4	O-1a/b, C-7, N, M-1/2, D-1/2, C-3, W, C-2, S-1, S-2, C-6	154,738.4	78.6
SBPS mk	NDT 3	M-1/2, O-1a/b, C-3, D-1/2, C-7, W, C-2	1,328.5	<1
SBS dw 1	NDT 3	C-7, C-3, O-1a/b, M-1/2, W, S-1, D-1/2, C-2, N, C-6	6,811.4	3.5
SBS dw 2	NDT 3	C-7, M-1/2, O-1a/b, C-3, D-1/2, W, C-2, S-1, C-6, N	3,3873.3	17.2

4.1.2.5 Forest Health

While natural forest disturbances play an important role in maintaining forest diversity and ecosystem health, they can also contribute to significant timber losses and can impact the local economy and community safety. Forest health in this region has been significantly shaped by a history of pest outbreaks, pathogens, wildfire events, and a shifting climate. Today, proactive management of forest health is increasingly prioritized to maintain ecosystem resiliency and reduce wildfire risk.

The District of 100 Mile House falls within the 100 Mile House Natural Resource District and the 100 Mile House Timber Supply Area (TSA). The dominant tree species within the AOI is Interior Douglas-fir (*Pseudotsuga menziesii*), along with Trembling Aspen (*Populus tremuloides*), Lodgepole Pine (*Pinus contorta*), and Spruce (*Picea × lutzii*) occurring at lower quantities.

The Mountain Pine Beetle (MPB) outbreak that began in the late 1990s had a profound impact on forests across British Columbia, including those in the 100 Mile House Timber Supply Area (TSA). The outbreak peaked in 2004, eventually affecting over 18 million hectares of pine forest province wide. The most severe year of MPB attack was 2005, when approximately 140 million cubic meters of pine were impacted[11]. Since then, the volume of MPB infected pine has declined rapidly; however, the legacy of MPB remains evident. In the 2017 fire season, most of the provincial forest area impacted by fire (about 80%) occurred in forests significantly impacted by MPB within the Quesnel, Williams Lake and 100 Mile House TSAs[11].

[11] History of the mountain pine beetle infestation (n.d) MFLNRO

The Douglas-fir beetle (*Dendroctonus pseudostugae*) and western spruce budworm (*Choristoneura freemani*) are now ranked as the highest priority for forest management activities in the 100 Mile TSA area[12].

Area affected by Douglas-fir beetle has seen a steady increase since 2012, particularly in and around stands affected by previous fires or drought conditions. The 2021 wildfire season saw a significant amount of area burnt that was primarily Douglas-fir-leading stands. These damaged trees are now vulnerable to beetle infestation, and populations of Douglas-fir beetles are expected to increase in the coming years. This is especially concerning due to the widespread distribution and ecological significance of Douglas-fir forests in the area, many of which overlap with Old Growth Management Areas (OGMAs) and Mule Deer Winter Ranges (MDWR), adding a layer of operational complexity.

Despite its name, the Western Spruce Budworm primarily targets Douglas-fir foliage and is another key forest health agent in the region. This defoliator has been increasingly active in the 100 Mile House TSA, contributing to stress in affected trees, reduced growth, and—when infestations are repeated—tree mortality. More importantly, budworm-weakened trees are more susceptible to other pests and pathogens, specifically Douglas-fir beetle attack, further compounding forest health concerns.

Bark beetles, defoliating insects, parasites and fungal pathogens are natural components of forest ecosystems in British Columbia, and are typically present at low or endemic levels. As of 2025, no forest health agent in the 100 Mile House Natural Resource District has reached epidemic levels, with the possible exception of western spruce budworm[12].

Abiotic disturbances such as wildfire, drought, windthrow, and frost have also played a significant role in shaping forest health within the 100 Mile House Natural Resource District and are often closely linked to the above pest outbreaks. Catastrophic wildfire seasons in 2017 and 2021 in the region have caused extensive forest mortality, particularly in Douglas-fir leadings stands, and have contributed to ongoing forest health challenges such as delayed tree mortality and increased vulnerability to pest outbreaks. Drought stress and frost damage are also notable challenges in the 100 Mile House area and contribute to weakened trees that are more susceptible to insect infestation and disease, compounding the effects of biotic agents listed above.

Forest management practices are shifting to take a proactive approach that prioritize management for ecosystem health and resiliency. Healthy stands are more resilient to the stresses of forest health agents and climate change; furthermore, managing forests at a landscape scale can mitigate the spread of not only pests and pathogens, but also mitigate the effects of wildfire and climate change.

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

[12] 100 Mile House Natural Resource District Forest Health Strategy, 2023

determinant of combustibility. Local difference in aspect, topography and vegetation will also influence fuel-moisture at the site level. All weather forecasting for the AOI is dependent on observations from the Lone Butte weather station which is the nearest weather station to the AOI. A local private weather station also exists at the District of 100 Mile House Municipal Airport.

Table 11. Weather station information for the AOI

Weather Station	Lone Butte
Network	BCWS
Coordinates	121.162 W 51.507 N
Elevation	1158 m

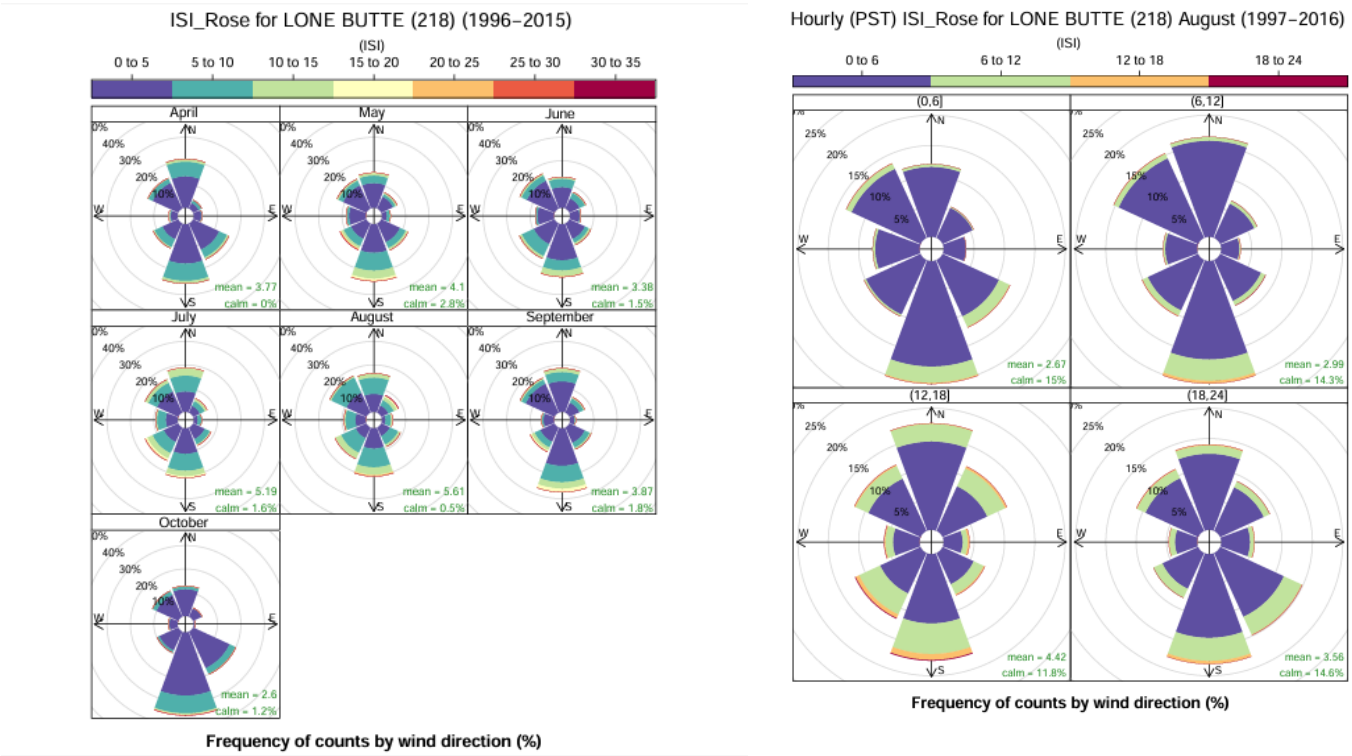

Figure 10: Initial Spread Index (ISI) Rose for the Lone Butte weather station observations between 1996 – 2015. Monthly averages (left), and August hourly averages (right). Hourly averages are binned into periods of six hours (00:00-06:00, 06:00-12:00, 12:00-18:00, 18:00-24:00).

Using the Lone Butte weather station and focusing on a period from May – September, which encompasses a typical fire season, the prevailing wind direction is variable, but primarily from the south and north (Figure 10).[13]

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.

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

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.[14] The observed effects of climate change on fuel, ignition, weather and their complex interactions and relationship to wildfire are summarized below in Figure 11.

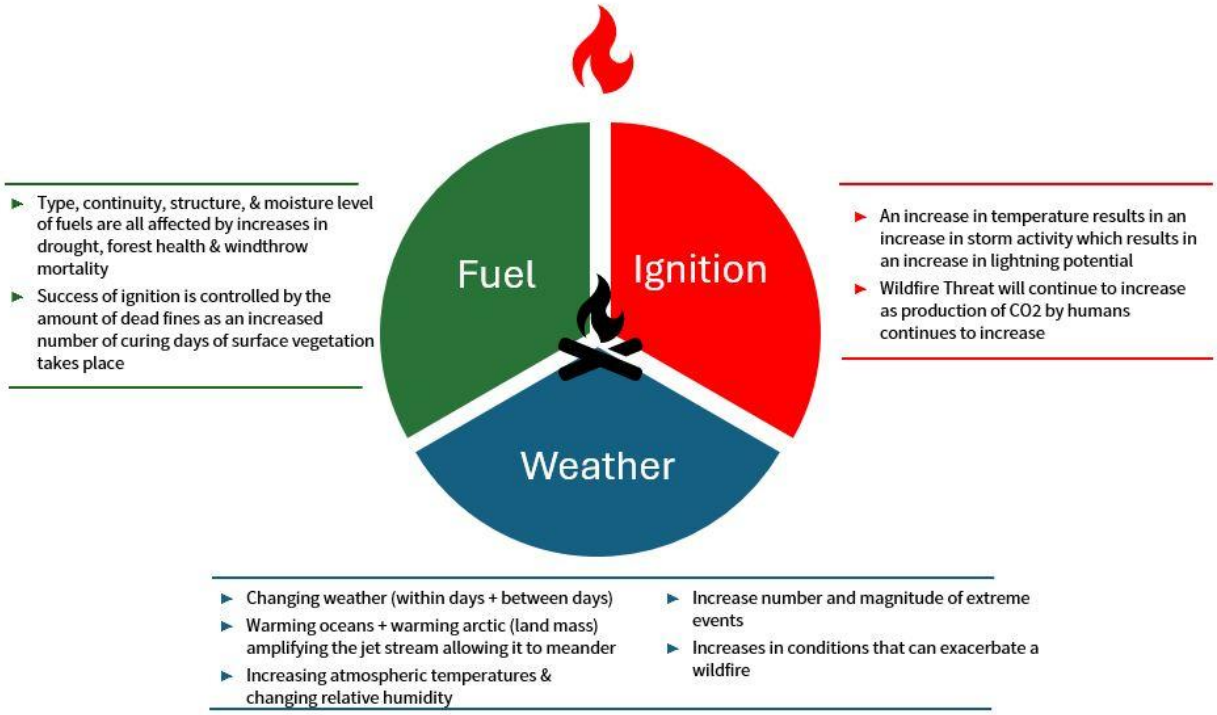

Figure 11: Effects of climate change

The regional climate service center for the Pacific and Yukon Regions, located at the University of Victoria, is called the Pacific Climate Impacts Consortium (PCIC). This non-profit corporation conducts quantitative studies on the impacts of climate change and climate variability.[15] Findings from these

[14] 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.
[15] **Pacific Climate Impacts Consortium**. 2024.

studies are incorporated into practical tools for end-user application. For example, the PCIC website offers a map-based data portal for downloading information, analysis tools for the various regions in BC (Plan2Adapt, Climate Explorer, and seasonal anomaly maps), downloadable publications, and software for climate data interpretation.

Based on the projections from the PCIC, the Cariboo region is expected to experience an annual temperature increase of 1.3°C to 2.4°C, and an annual increase in precipitation of +2% to + 6% by the 2030s (Table 12).

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 results in increased evaporation 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.[16] So, although precipitation for the District of 100 Mile House region is expected to increase during the summer season (Table 12), so is the annual temperature, resulting in increased biomass flammability and an increased fire season length.

Table 12: Summary of projected changes in average (mean) temperature and precipitation in the Cariboo region from historical baseline (1981- 2050)

Climate Variable	Season	Projected change from historical baseline (1981-2010) to the 2030s (2021-2050) for the Cariboo region	
		Baseline Mean Variable	Ensemble Median*
Temperature (°C)	Annual	2.3°C	+1.5°C
Precipitation (%)	Annual	2.04 mm/day	+4%
	Spring	1.55 mm/day	0%
	Summer	1.91 mm/day	+1%

*The ensemble median is a mid-point value, chosen from a PCIC standard set of Global Climate Model (GCM) projections.

[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.

4.2 Wildfire History

Wildfire is a common occurrence in the District of 100 Mile House and surrounding area. As discussed in Section **4.1.2.2 Natural Disturbance Type**, the District of 100 Mile House is situated within a NDT4, ecosystem characterized by frequent stand-maintaining fires (Figure 12).

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

Flat Lake fire (C41602) – 2021

Located southwest of DOH, the Flat Lake Fire burned a total of 73,862.5 ha. The fire was ignited by lightning and resulted in an evacuation alert being issued for DOH.

Gustafsen fire (C40621) – 2017

The Gustafsen Fire, located north of DOH and determined to be human caused, spread south into the northern portion of the District. The fire burned a total of 5,710.8 hectares, prompting the evacuation of DOH to Prince George (primary) and Kamloops.

Elephant Hill Fire (K20637) – 2017

The Elephant Hill Fire, located south of the District of 100 Mile House (DOH), burned approximately 191,865 hectares. The fire was determined to be human caused. Originating in the Kamloops Fire Centre, it spread north into the Cariboo Fire Centre. Although it did not reach the DOH, neighbouring areas within the Cariboo Regional District experienced structural losses.

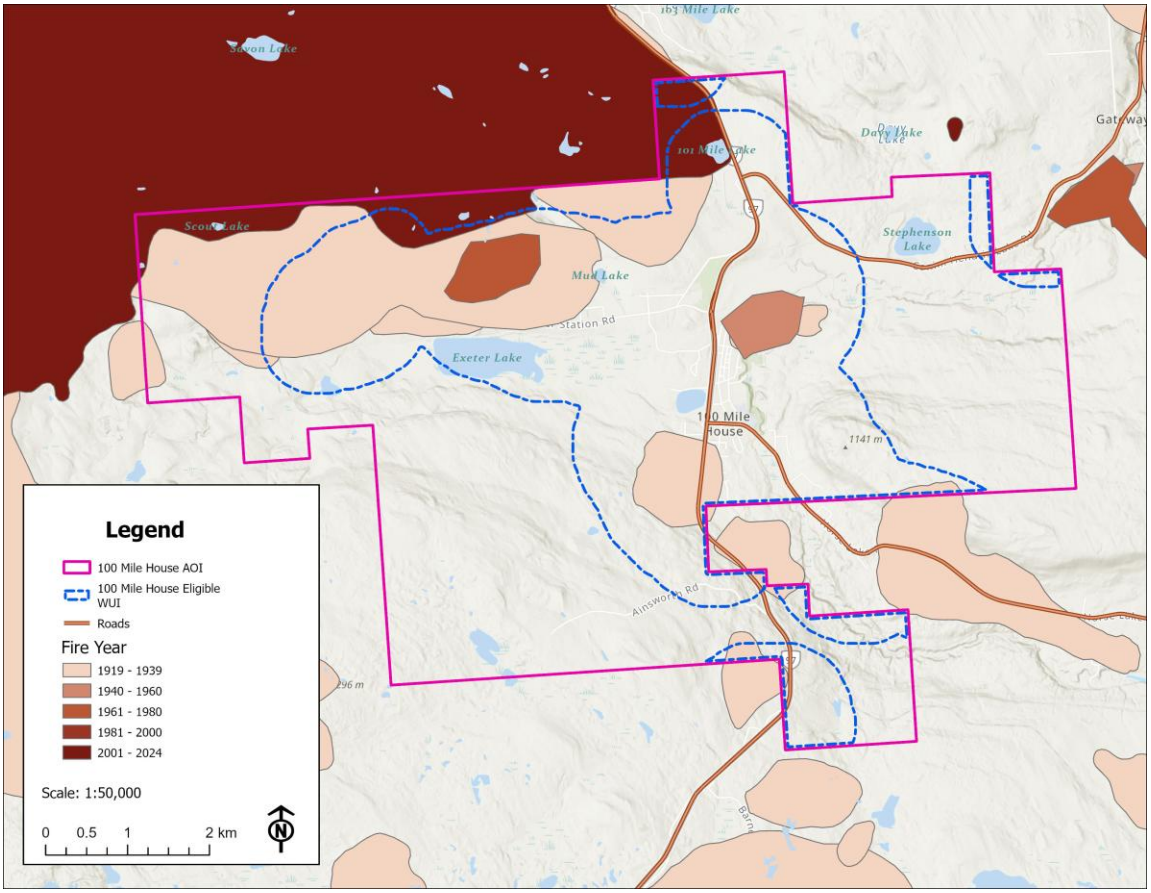

Figure 12: Fires greater than 0.1 hectares in size from 1919-2024 in the AOI and surrounding area

A historical wildfire analysis was conducted for the District of 100 Mile House and a surrounding 20-kilometre area. Using data from the BC Wildfire Service's *Fire Incident Locations - Historical* database, Table 13 presents the types of wildfires within the District of 100 Mile House and a 20-kilometre buffer from 1950 to 2023.[17]

Table 13. Area burnt within a 20-kilometer buffer from 1950-2022, summarized by fire start type.

	Lightning	Person	All
Total Area Burnt (ha)	29,827.9	49,300.6	79,128.4
Percentage of Wildfires (%)	37.7	62.3	100

The historical record indicates that person-caused fires are both more frequent and responsible for burning a larger total area than lightning-caused fires in the region. This suggests that wildfire risk

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

reduction efforts—particularly prevention strategies—could have a substantial impact if focused on mitigating human-caused ignitions, alongside continued preparedness for naturally occurring lightning fires. Areas of particular concern for human-caused wildfire ignition and spread include activities such as fires lit by unhoused individuals in parks and wildland areas, sparks from vehicle traffic, the use of off-road vehicles without spark arresters, and ignition sources from railway operations.

A secondary historical wildfire analysis was conducted for the District of 100 Mile House and a surrounding 20-kilometre area, covering 1919 to 2023. This analysis utilized multiple data sets provided by the BC Wildfire Service. Figure 13 illustrates the annual frequency of historical ignitions, with the mean annual ignition rate over the past decade calculated at nine. This implies that the District of 100 Mile House and the BC Wildfire Service can typically expect to respond to approximately nine 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 months of May through August, as seen in Figure 14.

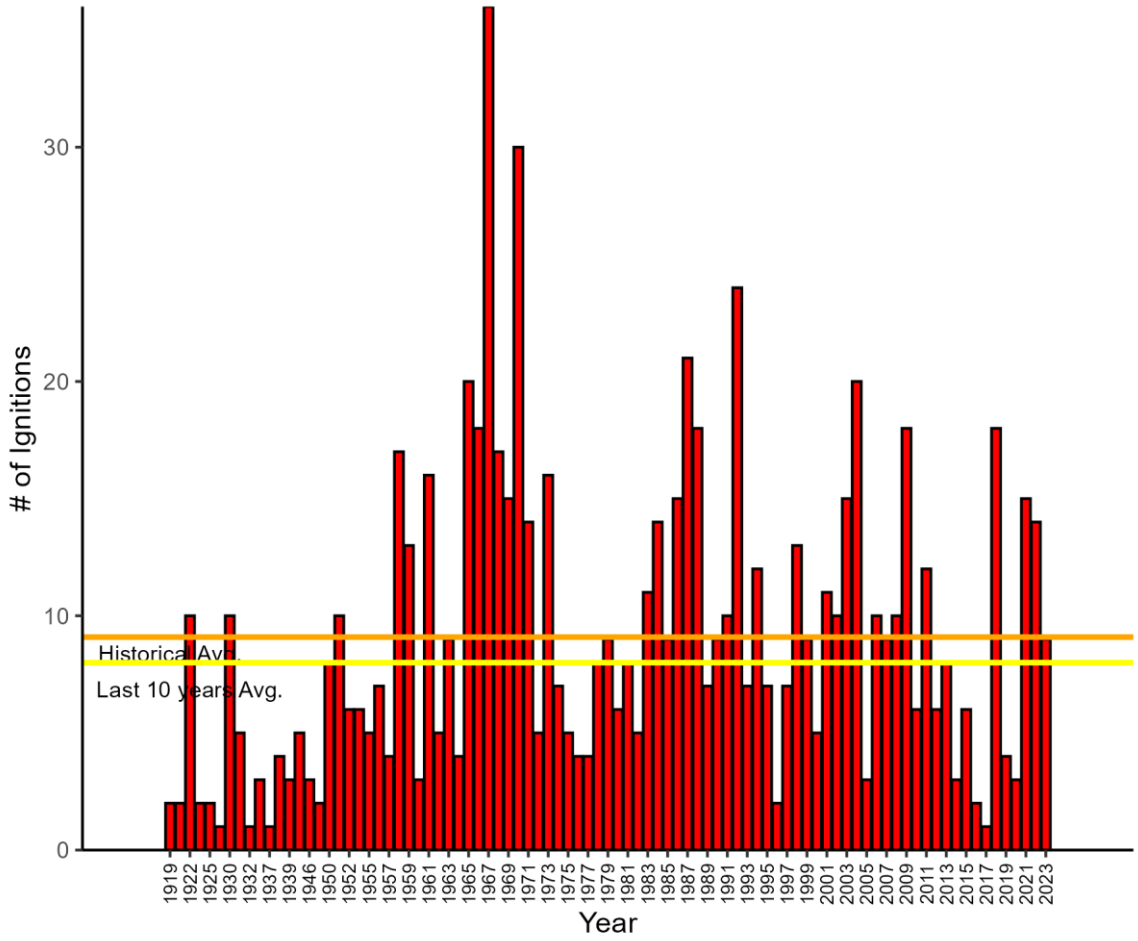

Figure 13: Annual frequency of historical wildfire ignitions, within 10 km radius of the AOI, between the years of 1919-2023. Historical mean annual ignitions is 9. Mean annual ignitions in the last decade is 8.

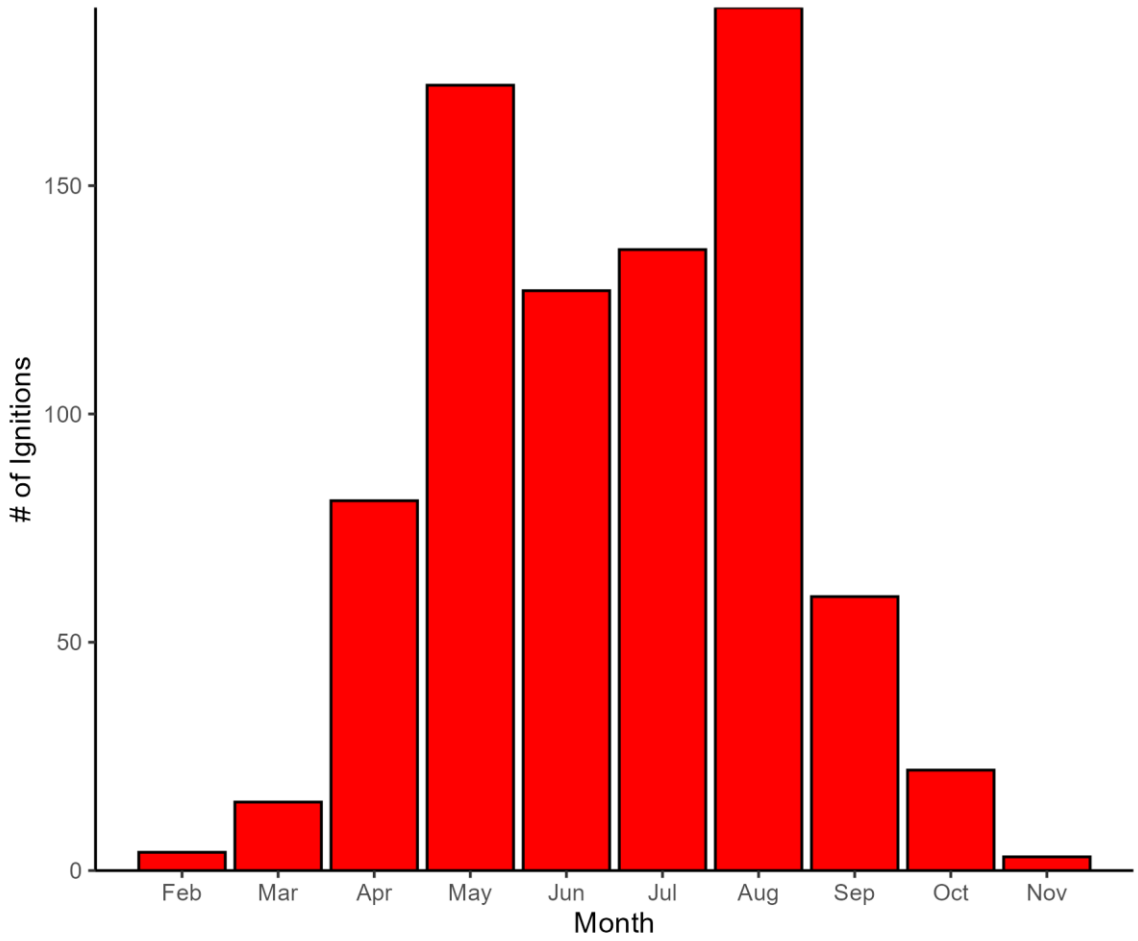

Figure 14: Historical wildfire ignitions by monthly frequency between the years of 1919-2023

4.3 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.

Table 14. The five fire danger classes and general fire descriptions[18]

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.

Using data from the Lone Butte weather station (**Table 12**), an analysis was conducted to evaluate the High (Danger Class 4) and Extreme (Danger Class 5) Fire Danger ratings recorded from 1987 to 2024. Table 15 presents the average, median, and maximum number of days per fire season with High or Extreme fire danger ratings. The 2017 fire season recorded the highest number of Danger Class 5 days. Over this period, the Lone Butte weather station recorded an average of 16.8 Danger Class 4 and 5 days per fire season.

Table 15: Summary of Fire Danger Class 4 and 5 days from the Lone Butte weather station

Station Name	Period	Danger Class	Days			Year of Maximum
			Average	Median	Maximum	
Lone Butte	1987-2024	Danger Class 4	12.6	10.5	33	1998
		Danger Class 5	4.2	0	46	2017
		Danger Class 4/5	16.8	10.5	75	2017

[18] **Fire Danger**. BC Wildfire Service.

As seen in Table 15, since 1987 there has been an overall increase in Danger Class 4 and Danger Class 5 danger days recorded at the Lone Butte weather station, indicating a trend in increased fire danger in the Cariboo during fire season.

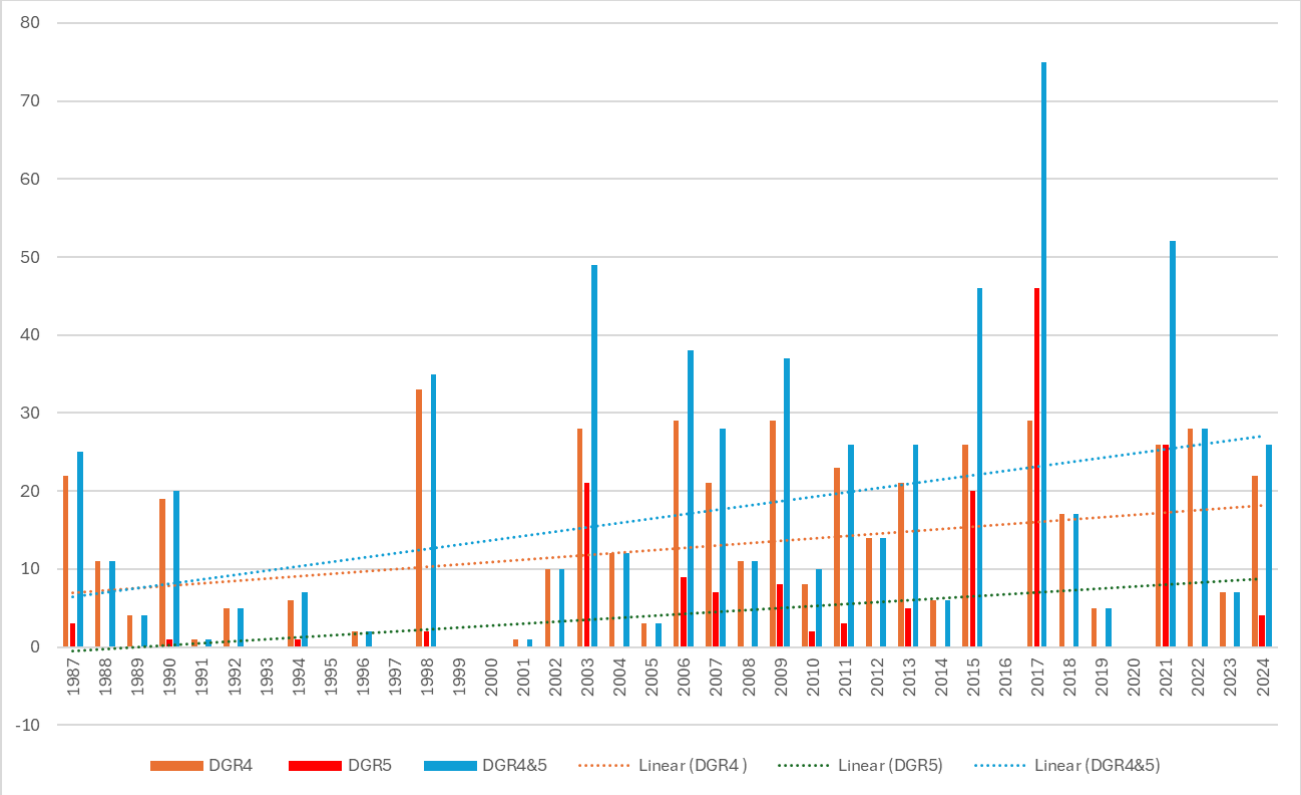

Figure 15: Summary of Fire Danger Class 4 and 5 days from the Lone Butte weather station

4.4 Provincial Strategic Threat Analysis (PSTA)

The BC Wildfire Service developed the Provincial Strategic Threat Analysis (PSTA) and Risk Class framework as provincial spatial datasets 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 **(Figure 16).** Further details regarding the derivation of the PSTA dataset are available through the BC Wildfire Service.[19]

It is important to note that the PSTA does **not include assessment of private property**. Since approximately 37.4% of the WUI within the District is privately owned, this area remains unassessed. Due to the level of privately owned land within the District, a robust FireSmart program is crucial. The

[19] 2021 Update: Provincial Strategic Threat Analysis (PSTA). Accessed March 2024.

FireSmart Program should emphasize engagement, education, and raising awareness among private property owners to increase wildfire resilience.

The analysis identified approximately 817.5 hectares within the WUI classified as either High or Extreme Threat. However, it is important to note that the PSTA, which is developed spatially by the Province and BC Wildfire Service, can differ from field-based observations. For example, areas that have been fuel treated are often not reflected in the PSTA dataset. For more accurate on-the-ground findings, please refer to the section **4.6** Local Wildfire Threat Assessment.

Table 16: PSTA Fire Threat class and associated areas for the District of 100 Mile House Eligible WUI

FIRE THREAT CLASS	AREA (HA)	PERCENTAGE (%)
No Data (Private Land)	1661.1	62.6
Extreme	106.7	4.0
High	710.8	26.8
Moderate	101.4	3.8
Low	0	0
Water	74.9	2.8
Total	2,654.8	100

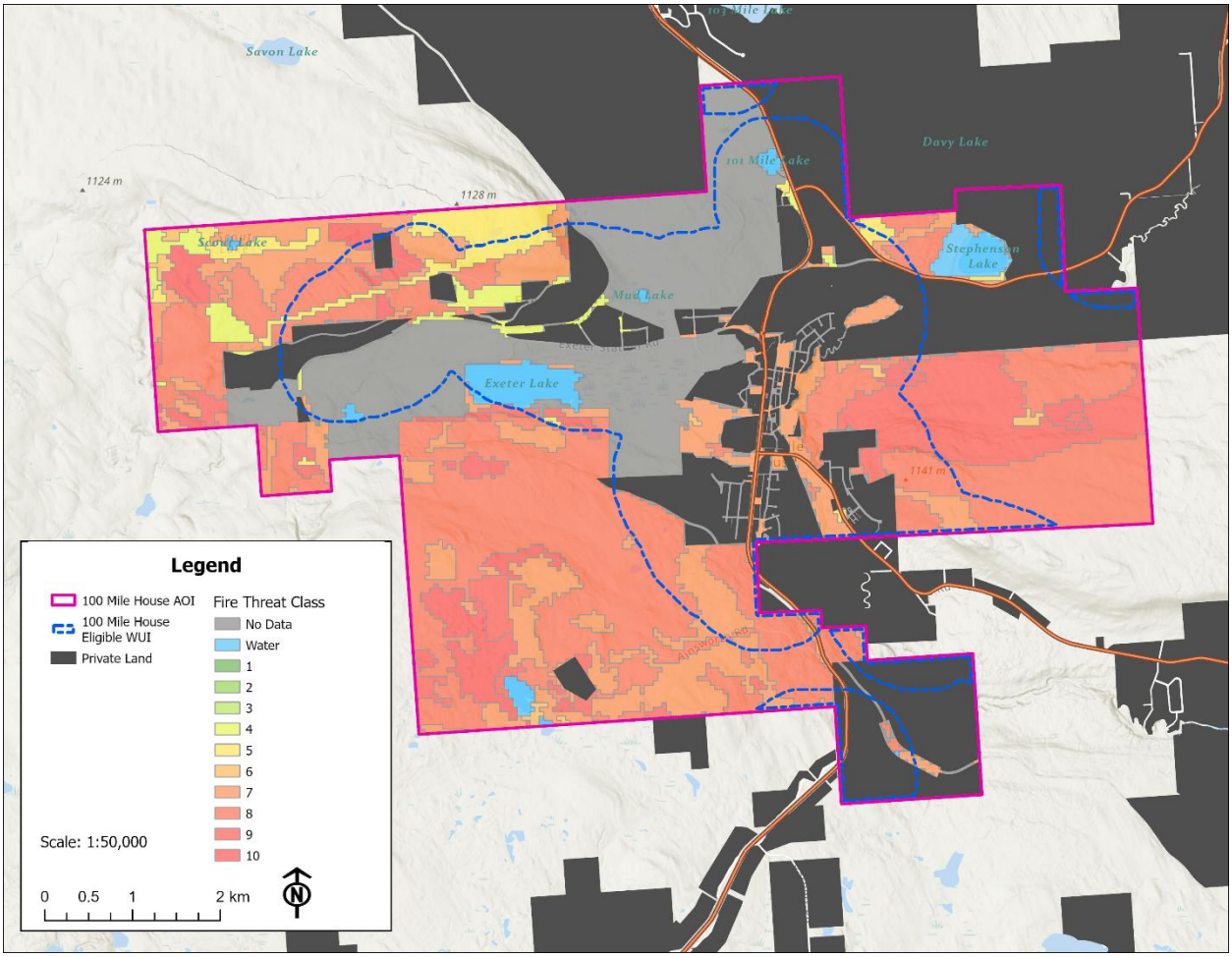

Figure 16: PSTA Fire Threat class and associated areas for the District of 100 Mile House AOI

4.5 Hazard, Risk, and Vulnerability Assessment

The District is currently upgrading its Emergency Management Plan, which will include a Hazard, Risk, and Vulnerability Assessment (HRVA) as part of the process.

4.6 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 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 behavior 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 June 2025, including fuel type verification and wildfire threat analysis for the DOH WUI. A total of eleven threat assessments were taken within the CWRP WUI (Error! Reference source not found.). The District's eligible WUI is 2,654.8 ha in size, of which 37.4% (993.5 ha) is private land. This left 1,661 ha eligible for fuel treatment and assessment.

Wildfire threat assessments, in general, were found to have **Moderate** and **High** ratings. Private land was not assessed; the condition and hazard of forested private land is difficult to determine and may not reflect the ratings observed on municipal land.

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.

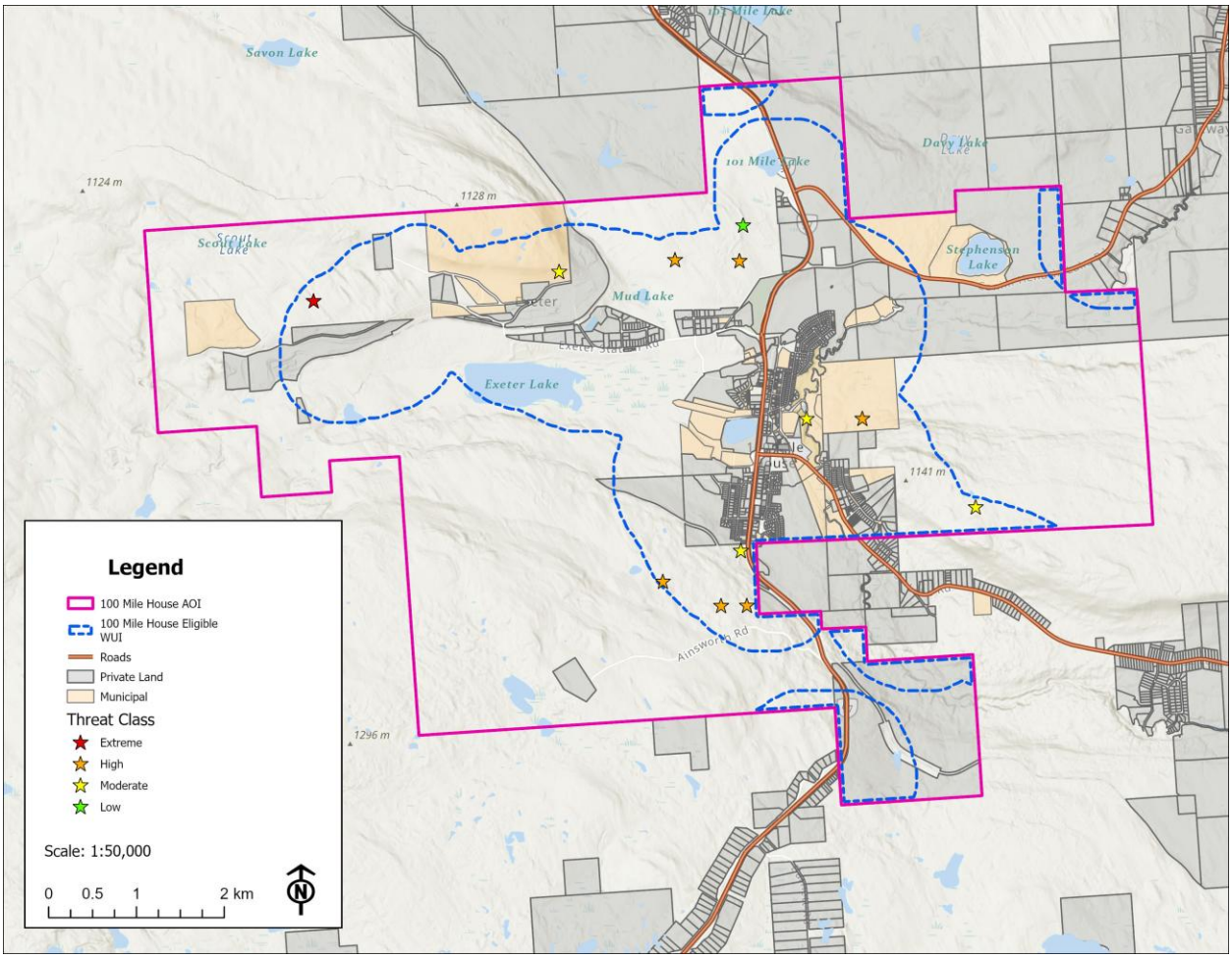

Figure 17: The locations of the wildfire threat assessment plots within the District of 100 Mile House's eligible WUI

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 their role in resiliency planning for the District of 100 Mile House is outlined in the subsequent sections below.[20]

NEW in 2024: 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 the following FireSmart components developed/active in their community:

- FireSmart Position
- Community FireSmart and Resiliency Committee
- Current Community Wildfire Resiliency Plan[21]

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. 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.

[20] For more information on the BC FireSmart program, visit: **https://firesmartbc.ca/**
[21] 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 100 Mile House and can play their role to reduce that risk.

Context: The District of 100 Mile House has recently taken initial steps toward enhancing community education through FireSmart initiatives. The District hired a dedicated FireSmart Coordinator in January 2025, with the first public education events scheduled for May 2025. The District also hired a Junior FireSmart coordinator for the first time in the Summer of 2025. There are two volunteer Local FireSmart Representatives (LFRs) in the area; however, both have reported minimal public contact or requests for support. The District is not currently enrolled in the *FireSmart Canada Neighbourhood Recognition Program*.[22] Targeted resident education on FireSmart principles has been limited, contributing to the current low uptake.

Past efforts to advance FireSmart goals stem from the *2017 Wildfire Recovery Plan*, which recommended that the District pursue official FireSmart recognition. Some fuel management treatments were completed on municipally owned lands following wildfire recovery efforts, but these actions were not sustained due to funding constraints.

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, brochures, or emails to residents.
- Utilizing **social media** platforms to share FireSmart tips and updates.
- Organizing **neighbourhood meetings** or events focused on wildfire preparedness.

[22] To learn more about the FireSmart Canada Neighbourhood Recognition program visit **https://firesmartbc.ca/firesmart-canada-neighbourhood-recognition-program-fcnrp/**

- Collaborating with **local schools** to integrate FireSmart education into curriculum or extracurricular activities.
- Conducting **home assessments** and providing personalized recommendations for wildfire mitigation measures.
- Support the **FireSmart BC Plant Program** at local garden centers or nurseries. This includes plant tags, banners and in-store advertising.
- Support the **FireSmart BC Library Program** at local library locations.

Actions:

Action #1: Read and understand this CWRP's identified risks and recommended actions and make this CWRP publicly available to community members on the District of 100 Mile House website.

Action #2: Continue to employ a full-time FireSmart Coordinator within the District. This position is responsible for implementing the FireSmart program and generally oversees actioning aspects of this CWRP.

Action #3: Continue to employ a seasonal Junior FireSmart Coordinator.

Action #4: Promote FireSmart information and wildfire preparedness through the District website and Facebook page.

Action #5: Hold the following events to introduce FireSmart concepts to the community and educate members on actions they can take.

- Wildfire Community Preparedness Day (annually)
- Neighbourhood Champion Workshop (annually)

Action #6: Promote and encourage the **FireSmart Neighbourhood Recognition Program** to local neighbourhoods

Action #7: Support the **FireSmart Plant Program** through local garden centers or nurseries.

Action #8: Support the **FireSmart BC Education Program** at local School District 27.

Action #9: Support the **FireSmart BC Library Program** at local library locations.

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 federal legislation, including acts and regulations, play a role in supporting or influencing the CWRP and wildfire risk management process. Although there is currently no federal legislation that provides direct guidance on FireSmart policies, legislation, or planning, there are documents that support wildfire risk reduction activities. Below is a non-exhaustive list of provincial and federal legislation and regulations that may directly or indirectly affect FireSmart action and wildfire risk reduction activities.

BC Building Act and Building Code – Provincial regulation that governs how new construction, building alterations, repairs, and demolitions are completed. The Building Act provides the ability for First Nations to create development Permit Areas (DPA's) that can include wildfire risk reduction measures, including technical building requirements.

BC Emergency Program Act – Provide the legislative framework for management of disasters and emergencies in British Columbia. The act requires local authorities to prepare a local all-hazard Emergency Management Plan (EMP) that addresses mitigation, preparedness, response and recovery.

BC Open Burning and Smoke Control Regulations (OBSCR) – These regulations govern vegetation burning and the set of conditions under the burning can be authorized.

BC Wildfire Act and Wildfire Regulations – These regulations define the legal responsibilities and obligations in terms of bans and restrictions, fire use, prevention, control, and rehabilitation as it relates to wildfire.

Canada Federal Fisheries Act – This act applies to fish and fish habitat associated with freshwater rivers, streams, creeks, ditches, and seasonally wetted habitat. The act prohibits any action that would result in harmful alteration, disruption or destruction of fish habitat.

Canada Federal Species at Risk Act – This act designates which wildlife species are 'at risk' due to human activity and manages them to prevent further harm. With regards to the CWRP, action items may need to consider the requirements and prohibitions of the act, especially in areas with 'species at risk'.

A review of legislation and planning documents pertinent to the District of 100 Mile House wildfire resiliency was completed. Currently 100 Mile House does not have any bylaws or policies that directly address FireSmart principles. However, the District of 100 Mile House Zoning Bylaw No. 1290 does provide direction that if a proposed site is in an area with a high or extreme wildfire hazard as identified within this CWRP, the applicant must submit a wildfire hazard assessment and mitigation strategy. As plans and bylaws are amended, they should incorporate FireSmart objectives and language. Plans which should include this are the Official Community Plan, Emergency Management Plan, and housing policies.

District of 100 Mile House Open Burning Bylaw No. 951 – This bylaw regulates the outdoor burning within the District of 100 Mile House. Key provisions include prohibited and regulated burning, permit requirements, fire safety measures, and enforcement. All burning activities recommended in this CWRP will be carried out in accordance with this bylaw.

District of 100 Mile House Zoning Bylaw No. 1290 – This bylaw establishes land use regulations to guide development and land management within the municipality. Section 4.25 Fire Hazard Areas provides direction that if a proposed site is in an area with a high or extreme wildfire hazard as identified in this CWRP, the applicant must submit a wildfire hazard assessment and mitigation strategy—prepared by a qualified forest professional—before the District will approve rezoning, building permits, or subdivision applications.

District of 100 Mile House Fire Protection Bylaw No. 959 – This bylaw outlines the establishment, responsibilities, and regulations of the District of 100 Mile House Fire Department. It speaks to the responsibilities of the 100 Mile House Fire Department in areas such as evacuations, mutual aid, and fire prevention. It also outlines the obligations of property owners regarding fire hydrant and water supply systems, and fire hazard reduction.

District of 100 Mile House Land Use and Development Application Procedures and Fees House Bylaw No. 1275, 2014 – This bylaw outlines the procedures and fee schedules for land use and development applications. It functions as a procedural gateway through which wildfire-resilient development standards can be integrated into planning processes.

Actions:

Action #10: As legislation is changed (Official Community Plan, Bylaws, housing policies) incorporate FireSmart objectives, language, and terminology. This may include:

- Address aspects of open fire that the District is responsible for regulating under the *Wildfire Act*
- A preferred species and plant list (refer to the *FireSmart BC Landscaping Guide*)
- Reference to FireSmart Home Ignition Zones (see *FireSmart Begins at Home Guide*)

- Guidelines for coniferous tree spacing and pruning (as outlined in the *FireSmart Begins at Home Guide*)

Action #11: Update bylaws to create requirements for FireSmart material to be used on new buildings.

Action #12: Develop FireSmart policies and practices for the design and maintenance of publicly owned land, such as parks and green spaces and incorporate into *Section 9 Parks, Recreation & Open Spaces of* the Official Community Plan.

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:

- **Defensible Space** – create and maintain defensible space around structures by FireSmart guidelines, clearing flammable vegetation and materials within a specified distance to prevent wildfire spread.
- **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 embers' entry into the structure. Incorporate ember-resistant vents and cover eaves with non-combustible materials or metal flashing.
- **Access and Water Supply** – as per FireSmart guidelines, ensure adequate access for emergency vehicles and maintain a reliable water supply for firefighting efforts, including installing fire hydrants and water storage tanks at strategic locations throughout the community.
- **Community Planning** – integrate FireSmart principles into community planning and zoning regulations to promote wildfire-resilient design and minimize the overall risk of wildfire to neighbourhoods and developments.

The District of 100 Mile House contains infrastructure buildings and operational structures that are vital to the functionality of the district and surrounding communities. These are all outlined in *Section 3.4.5.* Similar to homes, critical infrastructure also has FireSmart Ignition Zones (Figure 18) and a FireSmart

Critical Infrastructure Assessment[23] to identify mitigation efforts and fuel management needed around these resources.

Figure 18: FireSmart Critical Infrastructure Ignition Zone graphic including the three ignition zones

Critical Infrastructure Assessments are eligible for publicly owned buildings critical for effective emergency response to Wildfires such as Emergency Support Facilities (e.g., reception centers, group lodging for evacuees), water pump stations, communication towers, etc. FireSmart projects for critical infrastructure and community assets can include:

- Completion of required initial FireSmart Assessment before mitigation work begins.
- Retrofitting existing structures/properties.
- New Construction, provide that:
    - Construction was completed within the past 12 months from the date of application
    - Construction follows the Wildfire-Resilience best-practices checklist for home construction, renovation, and landscaping[24].
    - Only incremental FireSmart expenditures are eligible.
    - An eligible assessment is completed when construction is finished.
- Completion of a second require FireSmart Assessment after mitigation work is complete.

[23] BC FireSmart. FireSmart Critical Infrastructure Guide. https://firesmartbc.ca/resource/firesmart-critical-infrastructure-guide/
[24] FireSmart Canada. Wildfire-Resilience Best-Practice checklist for home construction, renovation, and landscaping. https://firesmartbc.ca/wp-content/uploads/2022/01/Wildfire-Resilience-Home-Construction-Renovation-and-Landscaping-Checklist.pdf

When reviewing and approving future subdivisions, give particular attention to the quality and quantity of proposed access/ egress route. As new subdivisions and developments are created, this action item should continue to be considered.

Private property owners also play a key role in the development of a FireSmart landscape. It is important to encourage private property owners and residents to contribute to the FireSmart landscape by conducting FireSmart Home Assessments, upgrading external building materials, removal of hazardous vegetation and replace with native FireSmart species, etc. This can be done through education as discussed above, and provide the tools and tactics for property owners to do it themselves:

- Implement a **FireSmart Rebate program** which gives an incentive to private property owners to participate in the District of 100 Mile House FireSmart Program.
- Provide **off-site debris removal** like a free chipping day or haul-away vegetation day.

Actions:

Action #13: Complete FireSmart assessments for municipal owned critical infrastructure and/or green spaces.

- Use the FireSmart Critical Infrastructure Guide and hazard Assessment Form to assess critical infrastructure vulnerability to wildfire in the AOI.
- Complete the mitigation actions recommended from the Critical Infrastructure hazard assessment to reduce vulnerability of the critical infrastructure to wildfire in the AOI.

Action #14: Continue including the fire department and/or emergency personnel are included during the referral process for new developments.

Action #15: Implement a FireSmart rebate program which gives an incentive to private property owners to participate in the District of 100 Mile House FireSmart Program.

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 100 Mile House Fire Rescue, District of 100 Mile House Council, British Columbia Wildfire Service, the Cariboo Regional District, and other stakeholder groups to achieve a wildfire resilient community.

Context: Like other natural hazards, administrative boundaries themselves have little to no impact on the spread of wildfire. Addressing wildfire hazards requires a collaborative and shared understanding of jurisdictional responsibilities. From a wildland firefighting perspective, jurisdictional fire response responsibility falls to the Cariboo Fire Centre. The 100 Mile House Fire Rescue can be involved in wildfire incidents within the municipal boundary as they have a reciprocal agreement with BCWS. The 100 Mile House Fire Rescue also has mutual aid agreements with Lone Butte, 108 Mile, and Forest Grove volunteer fire departments.

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).[25] 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**.

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

- **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.
- 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 scales 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. [26]

The District of 100 Mile House established its CFRC in February 2025 bringing together nine members representing local government, provincial agencies, First Nations, and the community:

- **District of 100 Mile House**
  - Bylaw Services
  - Community Services
  - Community Forest Manager
  - FireSmart Coordinator
  - Fire Chief
- **BC Wildfire Service**
  - Land Resources
  - Wildfire Prevention Officer
- **Tsq'escen First Nation**
  - Ranch Manager
- **Community Member** (e.g., forestry expertise)

The CFRC currently acts as an advisory body to the FireSmart Coordinator in the development of the Community Wildfire Resiliency Plan, meeting regularly to review priorities and share local knowledge.

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

While its present focus is on guiding the CWRP, the committee is expected to expand into project collaboration and implementation

Actions:

Action #16: Maintain the District of 100 Mile House CFRC and share findings of CWRP with partners.

Action #17: Establish regular channels and protocols for exchanging records and plans between agencies, with a focus on documenting and sharing past wildfire risk reduction treatments and current or planned mitigation projects.

Action #18: Annually attend the Wildfire Resiliency Training Summit

Action #19: Continue to provide Indigenous cultural safety and humility training to emergency management personnel in order to more effectively partner with, and provide assistance to, Indigenous communities for both wildfire prevention and suppression.

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, as well as a safe and effective response.

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 skilled workers to support the development of comprehensive and effective CWRP activities, including a safe and effective wildfire response.

Context: District of 100 Mile House Fire Rescue has highly trained firefighters and staff to respond to structural and wildfires within the District of 100 Mile House, and within the mutual aid communities of Lone Butte, 108 Mile, and Forest Grove. Members attend training sessions once a week, regular weekend training, and occasional cross-training with BCWS. All members attending callouts have completed a WSPP-WFF1 course

Additional training should be made available for other members of the District 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[27], 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 relationship and help identify strengths and weaknesses in the current evacuation plan. Additionally local FireSmart Representatives and 100 Mile House Fire Department members 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
- **Local FireSmart Representative** training

[27] BC FireSmart. Home Partners Program Wildfire Mitigation Training. **https://firesmartbc.ca/wildfire-mitigation-program-hub/**

- **FireSmart Community Champion** training
- **Wildfire Mitigation Specialist** training
- **ICS – 100** (introduction to effective system for command, control, and coordination of response at an emergency site; available online)
- **S – 100** Basic fire suppression and safety
- **S – 186** Fire entrapment avoidance and safety (general knowledge course on wildfire safety and entrapment avoidance for local governments, contract crews and First Nations)
- **S – 231 Engine Boss** (training for structure protection program in a WUI event)
- **WSPP – 115** (training for structure protection unit crews) and WSPP-FF1 (train the trainer)
- **Task Force Leader** (for structure protection only)
- **Structure Protection Group Supervisor** (GrpS) (for structure protection only)
- **Wildfire Resiliency and Training Summit** (held annually in April)

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

Cross training opportunities also exist for District 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.

Actions:

Action #20: Develop and/or participate in cross-jurisdictional meetings and tabletop exercises specifically focused on wildfire preparedness and response, including wildfire readiness meetings.

Action #21: Send FireSmart Coordinator to the Wildfire Mitigation Specialist training.

Action #22: Provide opportunities for residents to attend Local FireSmart Presentative training, FireSmart 101 courses, and FireSmart Community Champion Training.

Action #23: Provide opportunities for the District of 100 Mile House Fire Rescue members and key District staff to receive additional training in wildfire, FireSmart, emergency management, and incident command system.

Action #24: 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 preparations for a wildfire emergency requires a multi-pronged approach. Individuals and agencies need to be ready to react by developing plans, mutual-aid agreements, resource inventories, training, and emergency communication systems. All of these make it possible for a community to respond effectively to the threat of wildfires.

Goal: The goal of emergency planning is to prepare the community to respond safely and effectively, in partnership with local first response agencies and local and regional authorities to wildfire events. This CWRP aims to increase the number of community members that:

1. Understand the risk associated with wildfire in their community,
2. Know what to do to be safe and mitigate damage,
3. Take action to increase individual preparedness, and
4. Participate in community resilience 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.

Emergency management in BC is centered around a four-phased interconnected approach that consists of mitigation, preparedness, response, and recovery (Figure 19). It is important to recognize that a CWRP is not intended to supplant a local government's legally required emergency plan. Rather, the bulk of a CWRP primarily addresses two of the four phases of emergency management: mitigation and preparedness.

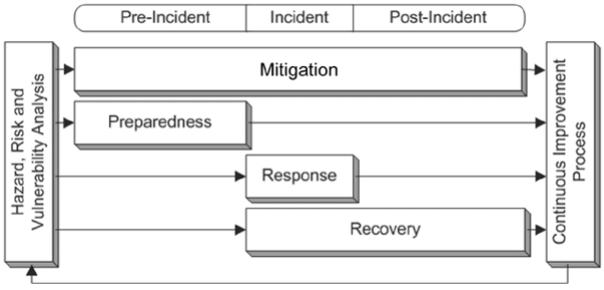

Figure 19: Emergency management is a four-phased interconnected approach.

5.6.1 Pre – Incident Wildfire Response Planning

Pre-incident wildfire response planning is recommended for the District of 100 Mile House 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.[28] The guide includes a planning checklist, which is listed below (Table 17), to help develop the plan and accompanying maps. Evacuation route planning and testing are high priorities for incorporating into the pre-incident plan.

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

Table 17: Example of a pre-incident planning checklist

Command • Escape Fire Situation Analysis (if appropriate) • Pre -positioning needs • Draft delegation of authority • Management constraints • Interagency agreements • Evacuation protection needs • Closure procedures	**Operations** • 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 • 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	**Planning** • 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 municipality should be updated to reflect the current fire danger.

Table 18: 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. • Staff will update fire danger signs.
III HIGH	• All Community staff on normal shifts. • Daily BCWS fire behaviour advisory reviewed (request to be added to the Caribou Fire Centre distribution list for weather forecast). • Caribou Fire Centre and Fire Zone fire situation reviewed (request for a weekly or daily fire situation update from the 100 Mile Fire Zone). • 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. • Prohibit certain activities by District municipal staff that are high risk, such as mowing or brushing roadside ditches.
IV EXTREME	• Daily BCWS fire behaviour advisory reviewed (request to be added to the Caribou Fire Centre distribution list for weather forecast). • Caribou Fire Centre and 100 Mile Fire Zone fire situation reviewed (request for a weekly or daily fire situation update from the 100 Mile Fire Zone). • EOC staff considered for stand-by. • District emergency management trained staff and LCFD 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/Park closures to align with regional situation. • Provide regular updates and engagement to media services members/Community staff on fire situation and fire prevention messaging. • Update public website as current information changes.
V FIRE(S) ONGOING	• All conditions apply as for Level IV (regardless of actual fire danger rating). • Provide regular updates to District staff and residents. • Mobilize EOC support if evacuation is possible, or fire event requires additional support. • Mobilize District Emergency Management trained staff under the direction of the Emergency Program Lead. • Implement Evacuation Alerts and Orders based on fire behaviour prediction and under the direction of the BC Wildfire Service.

The guide should also explore operational considerations and fire danger protocols for District Public Works staff. This includes developing appropriate standards and work procedures to follow during periods of elevated wildfire risk. The *Wildfire Act* and *Wildfire Regulation* can serve as benchmarks for these guidelines. For instance, during periods of Extreme Fire Danger, Public Works employees operating equipment capable of generating sparks in grasslands or forested areas should follow the protocols outlined in the *Wildfire Regulation*, including:

- Ceasing activity between 1:00 p.m. and sunset and maintaining a fire watcher for a minimum of two hours after operations conclude.
- Ceasing activity entirely after three consecutive days of Danger Class 5 conditions.
- Firefighting hand tools are available on site (pulaskis, shovels, 5-gal water packs).[29]

For more detailed information, refer to the *Wildfire Act* and *Wildfire Regulation*. The development of these internal guidelines should be undertaken in consultation with a Registered Professional Forester.

Actions:

Action #25: Finalize the District of 100 Mile House Emergency Management Plan. Incorporate pre-incident planning measures, including mapping of water resources, base camp locations, and heli-spots, as well as establishing wildfire response preparedness condition guidelines. These elements should be reviewed and updated prior to each fire season to ensure readiness. Assess community water delivery ability as required for suppression activities, limited to current water system evaluation and available flow analysis.

Action #26: Encourage local residents to sign up for the Voyent Alert system.

Action #27: Continue to maintain wildfire structure protection equipment inventory and annually assess if further equipment is required.

Action #28: Develop a Wildfire Response Preparedness Condition Guide that speaks to standard operating procedures for District staff including the Public Works department during periods of High or Extreme fire behavior.

Action #29: Annually review the **UBCM Community Emergency Preparedness Fund** for funding opportunities.

Action #30: Promote the **EMCR Wildfire Preparedness Guide** and **Wildfire Evacuation Checklist** at open houses and community engagement events.

[29] **Wildfire Regulation**.

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: Proactively manage vegetation at multiple scales such as the Home Ignition Zone, Community Zone and Landscape Zone to reduce the potential wildfire intensity and ember exposure to people, infrastructure, and other values.

Context: 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 involved actions taken at various scales, 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 two primary levels of focus and responsibility:

1. **Residential 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.
2. **Green Space Treatments:** These treatments work to create a FireSmart landscape within municipal green spaces and parks.
3. **Stand or Landscape-Level Treatments:** These interventions address fuel complexes that could pose hazards to the Wildland-Urban Interface (WUI).

5.7.1 Residential FireSmart Activities

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.

Approximately **37%** of the one-kilometre WUI area in the District is occupied by private land parcels on which fuel management is ineligible for funding. The effectiveness of fuel management on Crown land is compromised in the 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.[30,31] 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

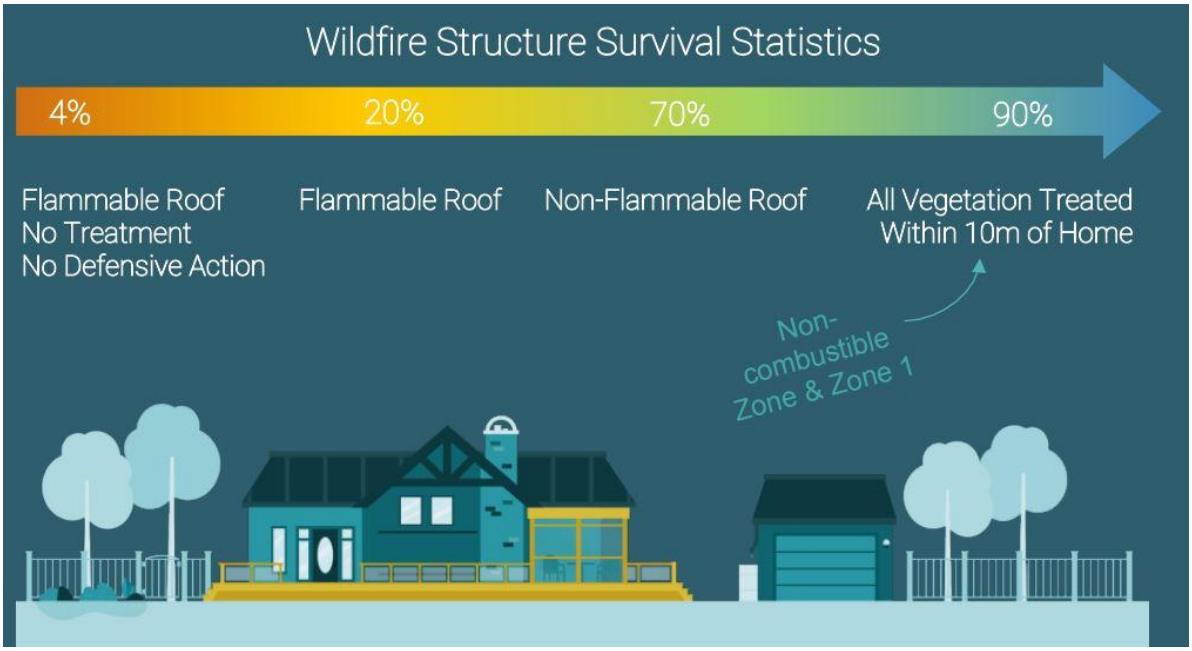

Figure 20. FireSmart wildfire structure survival statistics.

[30] 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**

[31] 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**

managing vegetation, using fire-resistant materials, maintaining a green zone around structures, removing yard debris, and using sprinklers to dampen areas.

5.7.2 Green Space Treatments

As discussed in Section 3.4.8, green spaces include parks, gardens, cemeteries, naturalized spaces, trail and pathways, linear parks and greenways, rights-of-way and boulevards. Implementing FireSmart activities in green spaces involves managing vegetation and implementing fire-resistant landscaping practices to reduce wildfire risk and enhance site and space resilience.

Figure 21: FireSmart Green Space Infographic

FireSmart Culturally Significant Sites & Green Space Hazard Assessment forms should be completed to address potential mitigation action for the Green Spaces within the District of 100 Mile House. There are approximately 136 ha of parks and green spaces within the District that could qualify for this funding to receive the initial assessment and follow-up with mitigation efforts. For further information and guidance regarding requirements for assessment and funding please refer to the **Cultural Sites and Green Spaces Guide** webpage.

5.7.3 Stand or Landscape Level-Treatments

The general goal of vegetation management is to reduce the potential wildfire intensity and ember exposure to infrastructure, structures, and other values through the manipulation of vegetation within or adjacent to the community.

5.7.3.1 Complete or Active Fuel Treatment Units

The District of 100 Mile House and its partners have undertaken significant fuel management and wildfire risk reduction projects (**Error! Reference source not found.**). A major initiative began in 2020 within the Community Forest and Woodlot through a risk reduction project that created strategic fuel breaks to protect the community. Funded in part by grants secured through the Forest Enhancement Society (FES) and Forest Employment Program (FEP), the project focussed on construction of wildfire fuel breaks in the 100 Mile community woodlot and community forest, particularly on areas near and adjacent to the 99 Mile ski trails and railroad, and within the community forest along Horse Lake Road. The work included mechanical harvesting and piling, followed by hand treatments where crews pruned, thinned the understory, and piled debris. Remaining FEP funding was spent on additional treatments on other municipal lands identified as having elevated wildfire risk, including public road rights-of-way, parkland, the cemetery, and other District-owned properties. Additional fuel management has included BCWS cleanup activities south of town and the burning of debris piles in March 2025.

In total, approximately $3 million has been invested in wildfire mitigation across District-managed lands since 2020, reflecting a multi-year commitment to reducing hazardous fuels and increasing community resilience.

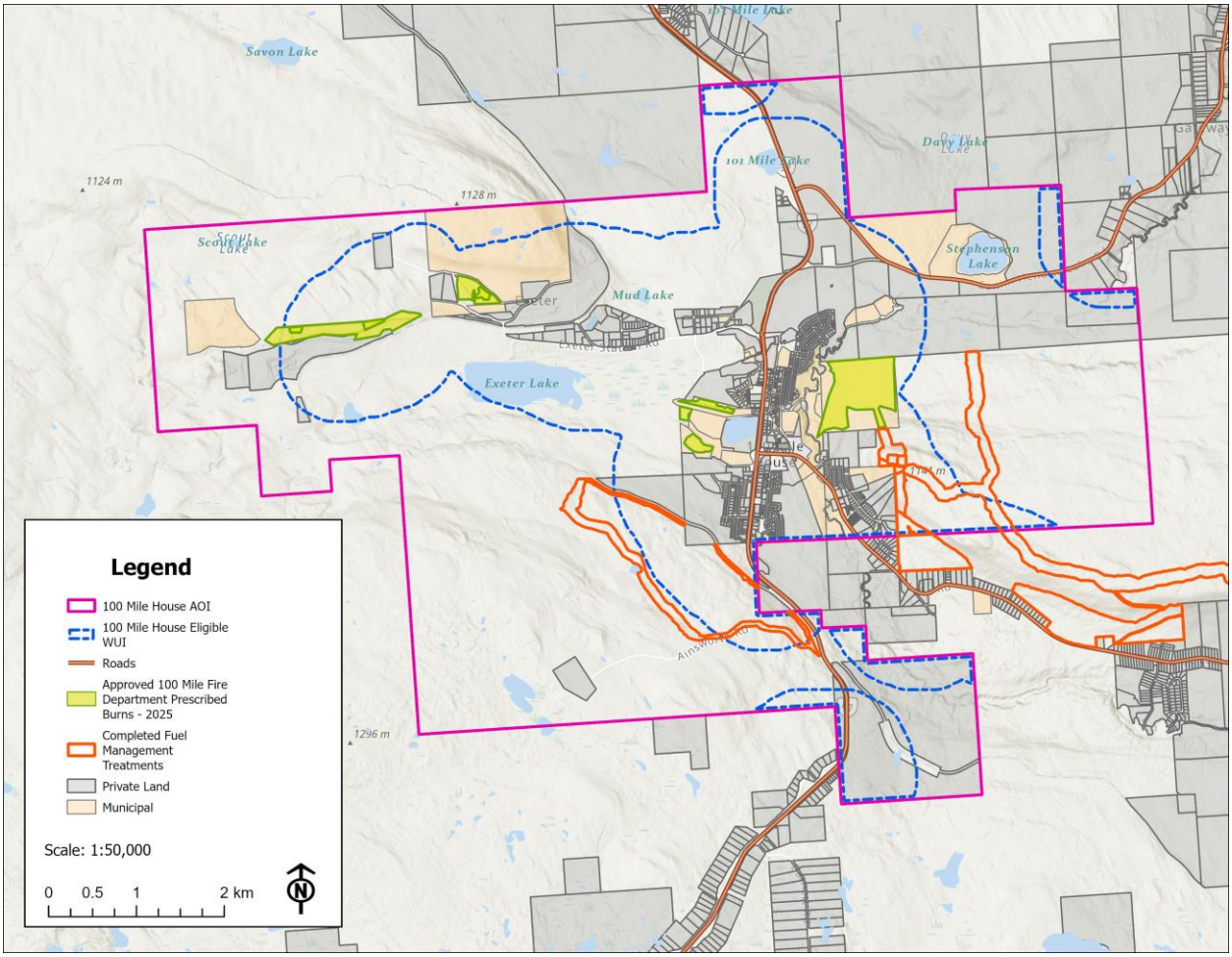

Figure 22: Completed and planning fuel/prescribed burning treatments overlapping and adjacent to the District of 100 Mile House

5.7.4 Proposed Fuel Treatment Units

As part of this CWRP, proposed fuel management treatment areas were identified and delineated (Figure 23) on factors includes the PSTA, local wildfire threat, location and proximity to critical infrastructure/values, and the wildfire environment. The areas identified for potential treatment are detailed in Table 19.

These are preliminary shapes delineated through a combination of field and office review, and final unit boundaries should be established based on additional field verification and prescription development performed by a qualified professional with fire management expertise. Many high risk areas in the AOI that could benefit from fuel treatments are located on private land. Communication of this CWRP to the public and advocacy of future funding to support fuel management and FireSmart activities on private land is strongly encouraged.

A total of 16 Fuel Treatment Units (FTUs) were delineated for the District of 100 Mile House covering 754 ha total. The fuel treatment is numbered based on location, not by priority level. A summary table describing the size, threat plot number, local wildfire risk classification, and rationale for each suggested unit is displayed below in Table 19. All units proposed for fuel management treatment intend to reduce crown fire potential, reduce surface fire intensity, and reduce rate of spread. Prescribed burning may be appropriate as a follow-up treatment in some areas, or pre-treatment spot burning to reduce accumulations. This determination will be left to the prescribing forest professional. Priority for treatment should be given to proposed units with a **High** priority ranking.

FTU_2, FTU_4, FTU_7, FTU_11 and FTU_13 are partially located outside of the eligible WUI. This was done so that proposed units can be tied into logical anchor points in order to increase the effectiveness of treatment.

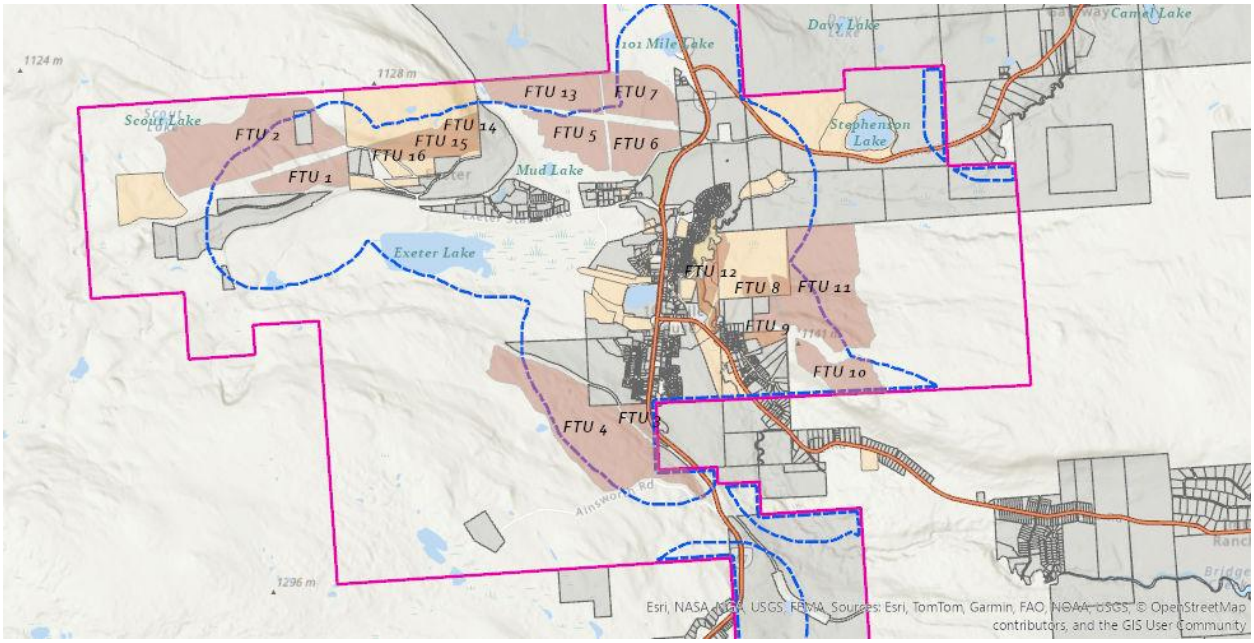

Figure 23: Proposed fuel treatment units as identified through threat assessment field work.

Table 19: Proposed fuel treatment units within the District of 100 Mile House AOI.

FTU #	Priority	Area (ha)	Treatment Unit Objectives	Treatment Options	Wildfire Threat (ha)			Overlapping Values / Constraints	Treatment Rationale	WTA Plot
					Extreme / High	Moderate	Low			
FTU_1	**High**	31.8	Conduct a fuel treatment to reduce fuel loading, increase canopy base height and create stand characteristics that do not support an active crown fire.	Overstory thinning and/or understory thinning	31.8			Ungulate winter range; Visually sensitive area; Range tenure; Critical Habitat for Federally Listed Species at Risk: American badger; BC CDC Species at Risk: American badger	This treatment area is adjacent to the South Cariboo Landfill along Gustafsen Lake FSR. There have been several fires in the landfill that can be difficult to action due to materials that have been disposed of. Treatment in this FTU will increase safety for fire fighters should a fire start in the landfill and spread beyond the property into adjacent timber.	HS_1
FTU_2	**High**	140.9	Conduct a fuel treatment to reduce fuel loading, increase canopy base height and create stand characteristics that do not support an active crown fire.	Overstory thinning and/or understory thinning	140.9			Ungulate winter range; Visually sensitive area; Range tenure; Critical Habitat for Federally Listed Species at Risk: American badger; BC CDC Species at Risk: American badger	This treatment area is adjacent to the South Cariboo Landfill along Gustafsen Lake FSR. There have been several fires in the landfill that can be difficult to action due to materials that have been disposed of. Treatment in this FTU will increase safety for fire fighters should a	HS_1

FTU #	Priority	Area (ha)	Treatment Unit Objectives	Treatment Options	Wildfire Threat (ha)			Overlapping Values / Constraints	Treatment Rationale	WTA Plot
					Extreme / High	Moderate	Low			
									fire start in the landfill and spread beyond the property into adjacent timber.	
FTU_3	Moderate	8.8	Conduct a fuel treatment to increase defensible space surrounding private land within a high use area in the community.	Understory thinning		8.8		Visually Sensitive Area; Critical Habitat for Federally Listed Species at Risk: American badger; BC CDC Species at Risk: American badger; Recreation trails	This treatment area overlaps the 99 Mile recreation trails. This is a high use area that borders private land. While treatment will increase defensible space, the high CBH, patchy understory and low fuel loading make this unit a lower priority for treatment. Treatment in FTU_3 should not occur prior to treatment in FTU_4	HS_3
FTU_4	High	151.2	Conduct a fuel treatment to increase defensible space surrounding private land within a high use area in the community.	Overstory thinning and/or understory thinning	151.2			Visually Sensitive Arae; Range tenure; Critical Habitat for Federally Listed Species at Risk: American badger; BC CDC Species at Risk: American badger; Woodlot W0577; Recreation trails;	This treatment area overlaps the 99 Mile recreation trails. This is a high use area that is surrounded by a completed landscape fuel break. South of the proposed unit, and outside of the WUI, there is a significant level of fuel loading (>50 t/ha). Treating the proposed unit will	HS_4; LH_3; LH_4

FTU #	Priority	Area (ha)	Treatment Unit Objectives	Treatment Options	Wildfire Threat (ha)			Overlapping Values / Constraints	Treatment Rationale	WTA Plot
					Extreme / High	Moderate	Low			
									increase chances of tree survival, defensible space and fire fighter safety in the event that a fire approaches 100 Mile House from the south.	
FTU_5	Low	40.3	Conduct a fuel treatment to increase defensible space and create a stand that does not support an active crown fire within an area that is adjacent to a busy commercial area of the district.	Overstory thinning and/or understory thinning	20.2	20.1		Ungulate winter range; Critical Habitat for Federally Listed Species at Risk: American badger; BC CDC Species at Risk: American badger; Woodlot W0555	Half of the treatment area overlaps a partial cut from 2005. Treatment of the retained stems, and the area that was not harvested will increase safety and protection of the commercial area. Treatment will reduce hazard in this area and increase survivability of retained stems.	LH_1
FTU_6	Low	36.6	Conduct a fuel treatment to increase defensible space and create a stand that does not support an active crown fire within an area that is adjacent to a busy commercial area of the district, as well as the Marmot Ridge Golf Course.	Overstory thinning and/or understory thinning	36.6			Ungulate winter range; Critical Habitat for Federally Listed Species at Risk: American badger; BC CDC Species at Risk: American badger	The treatment area overlaps a partial cut from 2005. Treatment of the retained stems will increase safety and protection surrounding the commercial area. Treatment will reduce hazard in this area and increase survivability of retained stems as well as increase protection	LH_2

FTU #	Priority	Area (ha)	Treatment Unit Objectives	Treatment Options	Wildfire Threat (ha)			Overlapping Values / Constraints	Treatment Rationale	WTA Plot
					Extreme / High	Moderate	Low			
									around the Marmot Ridge Golf Course	
FTU_7	Low	43.3	Conduct a fuel treatment to increase defensible space and create a stand that does not support an active crown fire within an area that is adjacent to a busy commercial area of the district.	Overstory thinning and/or understory thinning		21.6	21.7	Ungulate winter range; Critical Habitat for Federally Listed Species at Risk: American badger; BC CDC Species at Risk: American badger	The treatment area overlaps a partial cut from 2005. Treatment of the retained stems will increase safety and protection surrounding the commercial area. Treatment will reduce hazard in this area and increase survivability of retained stems. Half of the unit overlaps a M-1/2 fuel type, which lowers priority for treatment.	HS_2
FTU_8	Moderate	7.7	Conduct a fuel treatment to expand upon completed treatments in the area that will increase defensible space and improve safety in the event of a fire.	Overstory thinning and/or understory thinning	7.7			Ungulate winter range; Critical Habitat for Federally Listed Species at Risk: American badger; BC CDC Species at Risk: American badger	This proposed treatment unit is adjacent to private land and several completed fuel treatment areas. It is within a high use area of the community as it is adjacent to Centennial Park and has recreation trails in the area. Completion of treatment in FTU_8 and FTU_9 will connect the completed fuel break and a treatment in the	LH_5

FTU #	Priority	Area (ha)	Treatment Unit Objectives	Treatment Options	Wildfire Threat (ha)			Overlapping Values / Constraints	Treatment Rationale	WTA Plot
					Extreme / High	Moderate	Low			
									north to create a larger area of defensible space adjacent to private properties.	
FTU_9	Moderate	15.4	Conduct a fuel treatment to expand upon completed treatments in the area that will increase defensible space and improve safety in the event of a fire.	Overstory thinning and/or understory thinning	7.7	7.7		Ungulate winter range; Critical Habitat for Federally Listed Species at Risk: American badger; BC CDC Species at Risk: American badger; 100 Mile House Community Forest (K2W)	This proposed treatment unit is adjacent to private land and several completed fuel treatment areas. It is within a high use area of the community as it is adjacent to Centennial Park and has recreation trails in the area. Completion of treatment in FTU_8 and FTU_9 will connect the completed fuel break and a treatment in the north to create a larger area of defensible space adjacent to private properties.	LH_5
FTU_10	Moderate	35.5	Conduct a fuel treatment to expand upon completed treatments in the area and create stand characteristics that do not support an active crown fire.	Overstory thinning and/or understory thinning		35.5		Ungulate winter range; Visually sensitive area; Range tenure; Critical Habitat for Federally Listed Species at Risk: American badger; BC CDC Species at Risk:	A treatment in this area would connect two landscape fuel breaks to increase stand survival and defensible space in the event of a wildfire. There are residential areas to the west of the proposed	HS_6

FTU #	Priority	Area (ha)	Treatment Unit Objectives	Treatment Options	Wildfire Threat (ha)			Overlapping Values / Constraints	Treatment Rationale	WTA Plot
					Extreme / High	Moderate	Low			
								American badger; 100 Mile House Community Forest (K2W)	unit, additional fuel management in the area will increase protection potential in the event of a wildfire.	
FTU_11	Low	130.3	Conduct a fuel treatment to expand upon completed treatments in the area and create stand characteristics that do not support an active crown fire.	Overstory thinning and/or understory thinning		130.3		Ungulate winter range; Visually sensitive area; Range tenure; Old Growth Management Area; Critical Habitat for Federally Listed Species at Risk: American badger; BC CDC Species at Risk: American badger; 100 Mile House Community Forest (K2W); Grassland Benchmark Area (CCLUP); Recreation trails;	The proposed unit is located adjacent to several completed landscape level fuel breaks and anchors into open private land. Completion of a fuel treatment would increase stand survival and defensible space in the event of a wildfire.	HS_6; LH_5
FTU_12	High	20.7	Conduct a fuel treatment to increase defensible space and create a stand that does not support an active crown fire within a high use area within the community.	Understory thinning		20.7		Critical Habitat for Federally Listed Species at Risk: American badger; BC CDC Species at Risk: river jewelwing; Critical Habitat for Fish (CCLUP); District park	This proposed unit is in close proximity to critical District infrastructure and overlaps Centennial Park, a busy District park. Treatment will reduce fuels within the high use area, increase	HS_5

FTU #	Priority	Area (ha)	Treatment Unit Objectives	Treatment Options	Wildfire Threat (ha)			Overlapping Values / Constraints	Treatment Rationale	WTA Plot
					Extreme / High	Moderate	Low			
									protection around critical infrastructure and provide defensible space around private properties - including the 100 Mile District General Hospital.	
FTU_13	Low	51.2	Conduct a fuel treatment to increase defensible space and create a stand that does not support an active crown fire within an area that is adjacent to a busy commercial area of the district.	Understory thinning			51.2	Ungulate winter range; Critical Habitat for Federally Listed Species at Risk: American badger; BC CDC Species at Risk: American badger	While the majority of this proposed FTU is located outside of the eligible WUI area, the stand is untreated, unharvested and surrounded on two sides by anchor points, the unit is adjacent to a railway and commercial area. The south and east sides of the unit border other proposed treatment units. In order to increase effectiveness of FTUs 5, 6 & 7, FTU_13 needs to be considered for treatment. The proposed unit overlaps an M-1/2 fuel type, which lowers priority for treatment.	HS_2

FTU #	Priority	Area (ha)	Treatment Unit Objectives	Treatment Options	Wildfire Threat (ha)			Overlapping Values / Constraints	Treatment Rationale	WTA Plot
					Extreme / High	Moderate	Low			
FTU_14	Moderate	5.6	Conduct a prescribed burn that creates landscape continuity between proposed fuel management units to lower risk within an area that is adjacent to a busy commercial area of the district.	Understory thinning, prescribed burn		5.6		Range tenure; Critical Habitat for Federally Listed Species at Risk: American badger; BC CDC Species at Risk: American badger	This proposed unit is located adjacent to a 100 Mile House Fire Department burn unit and connects two proposed FTUs to create landscape continuity. The unit has good control lines and will increase defensible space in the event of a wildfire around the Exeter business area.	AH_1
FTU_15	Moderate	26.5	Conduct a prescribed burn that creates landscape continuity between proposed fuel management units to lower risk within an area that is adjacent to a busy commercial area of the district.	Understory thinning, prescribed burn		26.5		Ungulate winter range; Range tenure; Critical Habitat for Federally Listed Species at Risk: American badger; BC CDC Species at Risk: American badger	This proposed unit is located adjacent to a 100 Mile House Fire Department burn unit and connects two proposed FTUs to create landscape continuity. The unit has good control lines and will increase defensible space in the event of a wildfire around the Exeter business area.	AH_1
FTU_16	Moderate	8.2	Conduct a prescribed burn that creates landscape continuity between proposed fuel management units to lower risk within an area	Prescribed burn		5.6		Ungulate winter range; Critical Habitat for Federally Listed Species at Risk: American badger; BC CDC	This proposed unit is located adjacent to a 100 Mile House Fire Department burn unit and connects two proposed FTUs to	AH_1

FTU #	Priority	Area (ha)	Treatment Unit Objectives	Treatment Options	Wildfire Threat (ha)			Overlapping Values / Constraints	Treatment Rationale	WTA Plot
					Extreme / High	Moderate	Low			
			that is adjacent to a busy commercial area of the district.					Species at Risk: American badger	create landscape continuity. The unit has good control lines and will increase defensible space in the event of a wildfire around the Exeter business area.	

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

Action #31: 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 #32: 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 #33: Create and publish a directory of local contractors experienced in FireSmart vegetation management and fuel mitigation practices to assist residents in selecting qualified service providers. This resource should be updated regularly and made accessible through the District's website and community outreach materials.

Action #34: Create an inventory system to track areas that have been fuel managed, their respective maintenance cycles, and various FireSmart assessments.

Action #35: Complete FireSmart assessments (HIZ, Critical Infrastructure and Home Partners) on eligible local critical infrastructure and community assets.

Action #36: Complete recommended mitigation activities identified in the FireSmart assessments on local critical infrastructure and community assets.

Action #37: Complete initial FireSmart CSGS Assessment and checklist on all cultural sites and District owned green spaces.

Action #38: Complete recommended mitigation activities identified in the FireSmart CSGS Assessment

6.0 Implementation

6.1 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 the District. 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, and
- 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.

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: 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 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 24) 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 24. 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 at 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

Local Bylaws

- District of 100 Mile House Open Burning Bylaw No. 951
- District of 100 Mile House Zoning Bylaw No. 1290
- District of 100 Mile House Fire Protection Bylaw No. 959
- District of 100 Mile House Land Use and Development Application Procedures and Fees House Bylaw No. 1275, 2014

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

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 has been attached separately.

Appendix E CRI Spatial Submission Maps

Appendix E has been attached separately.