CITY OF Quesnel

Community Wildfire Resiliency Plan 2025

BRITISH COLUMBIA FireSmart™

UBCM

FORSITE FIRE

Registered Professional Signature and Seal

This CWRP has been prepared for the City of Quesnel Municipality.

RPF PRINTED NAME	RPF #
Lauren Shinnimin	5154
DATE SIGNED	
October 15, 2025	
I certify that the work described herein fulfils 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

Signature Page

Erin Robinson
Forestry Initiatives Manager
City of Quesnel

December 1, 2025
Date

Ron Richert
Fire Chief/Director of Emergency Services
City of Quesnel

DECEMBER 1, 2025
Date

Joel McKay
City Manager
City of Quesnel

December 1, 2025
Date

Acknowledgments

The City of Quesnel respectfully acknowledges this Community Wildfire Resiliency Plan takes place on the unceded traditional territories of the Lhtako Dené, ʔEsdilagh, Nazko, and Lhoosk'uz Dené First Nations.

Forsite Fire would like to acknowledge the many individuals who invested time and provided invaluable input and contributions during the development of this CWRP, including but not limited to:

- Erin Robinson, Forestry Initiatives Manager, City of Quesnel
- Ron Richert, Fire Chief/Director of Emergency Services, City of Quesnel
- Kirby Booker, Safety Officer, City of Quesnel
- Lyndon Hunter, Planner, City of Quesnel
- Roland Jarrett, RPF
- Tom Foley, Wildfire Prevention Officer, BC Wildfire Service Cariboo Fire Centre
- John Salewski, Wildfire Officer, BC Wildfire Service Quesnel Fire Zone
- Jon McCuaig, Wildfire Technician, BC Wildfire Service Quesnel Fire Zone
- Vincent Luu, Ministry of Forests, Quesnel Natural Resource District
- Tyrone Green, Ministry of Forests, Quesnel Natural Resource District
- Alex Itcush, Junior Planner, Forsite
- Richelle Parada Storla, GIS, Forsite

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

Executive Summary

Wildfire is a natural ecological disturbance agent on the landscape; however, in the past ten years British Columbia has seen significant increases in the number and frequency of extreme wildfire events, with unprecedented ecological, social, and economic impacts[1]. The notable fire seasons of 2017, 2018, 2021, 2023 and 2024 demonstrate that most severe wildfire seasons of the last half-century in BC have occurred in just the past seven years[2]. Specific to the Quesnel Fire Zone, the 2024 Antler Creek wildfire of note near Wells-Barkerville, approximately 70 kilometres east of Quesnel, was part of a conglomerate of 20 wildfires in the area that resulted in the evacuation of Wells, Barkerville, and the Bowron Lakes area. Much of the increasing severity and frequency of these wildfires is exacerbated by the impacts of climate change, including altered moisture regimes, rising temperatures, and an increase in extreme and unpredictable weather events.

In light of recent extreme wildfire seasons, the City of Quesnel retained Forsite Consultants to develop an updated Community Wildfire Resilience Plan (CWRP) for the municipality. The purpose of this CWRP is to (a) identify and assess wildfire hazards within and adjacent to the City of Quesnel, and (b) provide effective and feasible mitigation strategies to reduce identified hazards and risks.

The CWRP addresses the seven FireSmart Disciplines of FireSmart Canada and applies 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

The City of Quesnel previously had a Community Wildfire Protection Plan completed in 2018 for the municipality and surrounding area. This CWRP will build upon the recommendations and completed activities from the 2018 CWPP, with a greater focus on the six other FireSmart principles, in addition to vegetation management.

The development of this CWRP followed a multi-phase approach including analysis of background data, collaboration with local City staff, completion of local wildfire threat assessments, and development of a risk mitigation strategy based on the needs of Quesnel. The following wildfire risks and associated recommended action items (Table 1) have been identified for the City of Quesnel. Implementing these action items will require coordinated efforts between City staff, local First Nations, Provincial Government agencies, adjacent Regional District government staff, stakeholders, and community members/private landowners.

[1] Lori D. Daniels, Sarah Dickson-Hoyle, Jennifer N. Baron, Kelsey Copes-Gerbitz, Mike D. Flannigan, Dante Castellanos-Acuna, Kira M. Hoffman, Mathieu Bourbonnais, Sophie L. Wilkinson, Dominik Roeser, Jill E. Harvey, Jocelyne Laflamme, Florencia Tiribelli, James Whitehead, Sonja E.R. Leverkus, and Robert W. Gray. 2025. The 2023 wildfires in British Columbia, Canada: impacts, drivers, and transformations to coexist with wildfire. Canadian Journal of Forest Research. 55: 1-18. https://doi.org/10.1139/cjfr-2024-0092

[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.

Summary of Identified Risks and Action Plan

Table 1: City of Quesnel CWRP Risk Assessment and Action Plan

Risk Summary
The purpose of a risk assessment is to identify the specific risks to a community and its assets. An ongoing review of the risk assessment should occur annually.

The risks listed below were identified based on background research, field work data collection, conversations with the City of Quesnel Forestry Initiatives Manager, the Quesnel Fire Chief, BC Wildfire Service Officers, and others.

1. Over the past decade, The City of Quesnel has been proactive in building wildfire resiliency for the municipality and surrounding area, implementing many of the recommendations from the 2018 Community Wildfire Protection Plan (CWPP). However, due to changes in the Community Resiliency Investment (CRI) funding program requirements, the combined Area of Interest (AOI) and Wildland Urban Interface (WUI) for this CWRP has been reduced from over 88,000 hectares in the 2018 CWPP, to just over 8,000 ha for this CWRP. Where the previous CWPP AOI included unincorporated surrounding communities from the Cariboo Regional District (CRD), Provincial Parks, and important communications infrastructure on Dragon and Milburn Mountains, the AOI of this CWRP is limited to the municipal boundary plus a one-kilometre buffer. This change is significant in that where the City of Quesnel has capacity and resources to implement wildfire risk reduction activities for the region, the shift in responsibilities to the CRD, BC Parks, and the Ministry of Forests to implement wildfire risk reduction activities in their community may pose capacity issues. As a result, implementation of wildfire risk reduction activities may become less streamlined with increased jurisdictional bureaucracy.

2. Over 60% of the area within the AOI and eligible WUI for Quesnel is private land. This significantly limits meaningful opportunities for fuel management treatments within or directly adjacent to the City. Additionally, fuel management treatments are further limited by steep, unstable slopes along the Fraser River, Quesnel River, and Baker Creek.

3. Currently, Development Permit Areas (DPA) exist for identified hazard areas including Hillside Hazard (steep slopes) DPAs and Floodplain DPAs. Wildfire risk is not identified as a hazardous area requiring consideration during development, leaving newly built structures and future development throughout potentially at risk from wildfires if they are not built to FireSmart standards. An updated version of the OCP is being developed by the City in late 2025 in which all Development Permit Areas will specify installing FireSmart principles in development planning.

4. There is a high prevalence of deciduous shrubs and trees within the warm, moist river valleys where Quesnel resides. Deciduous trees retain moisture and can help to slow and reduce wildfire intensity. As a result, the majority of Quesnel's forested areas are classified as a "Moderate" threat. However, beyond City limits and out on the landscape, there is a high proportion of hazardous coniferous fuel types resulting from drier climatic trends ascending up and away from the river

valleys. This demonstrates the critical need for comprehensive and integrated landscape level forest planning around Quesnel and surrounding area, as well as increased local efforts to implement FireSmart principles.

5. As a result of two main bridges and Highway 97 running through the downtown core, evacuation of the City of Quesnel and surrounding areas in the event of an emergency would quickly become congested. This underscores the importance of strategic city and regional planning and development and building overall wildfire resiliency at multiple scales.

6. Currently, the City of Quesnel has not completed a Hazard, Risk and Vulnerability Assessment (HRVA) for large emergency events such as wildfire. However, during the development of this CWRP, the City of Quesnel began the process of updating its HRVA through a new Disaster Risk Reduction–Climate Adaptation Plan. The project integrates climate data, Indigenous knowledge, and partner input to safeguard people, protect services, and strengthen resilience to natural hazards. Findings from the HRVA will articulate with the CWRP.

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

The Action Plan table below is provided at the beginning of this CWRP in fulsome, as well as within each associated FireSmart discipline in Section 5.

City of Quesnel CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
Education						
1. Read and understand this CWRP's identified risks and recommended actions.	Quesnel Forestry Initiative Manager, FireSmart Coordinator	Very High	Immediate	A completed and comprehensive CWRP	Clear understanding of actions required over the next 5 years to further enhance community wildfire resiliency by City staff.	The CWRP acts as the roadmap for developing and enhancing wildfire resiliency within communities. It is designed to last approximately 5 years, upon which reassessment of status and progress is required.
2. Develop a FireSmart public communication plan/strategy to effectively plan and monitor annual FireSmart educational strategies and activities for the City of Quesnel.	Quesnel Forestry Initiative Manager, FireSmart Coordinator	Very High	Immediate and ongoing	Communications and planning resources	Development of an annual communications plan that clearly outlines FireSmart education objectives and targets tailored towards the City of Quesnel and its residents.	A public communications plan/strategy can help clarify and set goals, objectives, and measurable targets. It also allows for successful tracking and adaptive management for improving activities that are not meeting objectives or targets.

City of Quesnel CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
3. Continue to employ a FireSmart Coordinator. This position runs all aspects of the FireSmart program and generally is in charge of actioning many aspects of this CWRP. The City of Quesnel currently has a FireSmart Coordinator position contracted.	Quesnel Forestry Initiative Manager	Very High	Ongoing	An annual salary for the position and appropriate training and orientation. This can be covered through grant funding.	Successfully retain at least one individual in the FireSmart position who is enthusiastic about promoting FireSmart.	A FireSmart Coordinator will be required to receive CRI funding beginning in 2024. Funding is available under the UBCM's CRI program to support a salary for a FireSmart Coordinator, Local FireSmart Representative, Wildfire Mitigation Specialist, or Wildfire Forest Professional.
4. Continue to run the City of Quesnel FireSmart Program and utilize the FireSmart Public Communication Strategy to set and track measurable targets.	Quesnel Forestry Initiative Manager, FireSmart Coordinator	Very High	Ongoing	Administrative resources, communication resources.	Continue to run all successful aspects of the existing Quesnel FireSmart Program and implement adaptive management to make continual adjustments and improvements.	The City of Quesnel has been actively involved in running a comprehensive FireSmart program over the last several years, which has many proven successes. The City should continue with this work, utilizing the CRI funding program to implement various FireSmart and wildfire risk reduction activities.

City of Quesnel CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
5. Continue to organize and hold a variety of FireSmart events within the City of Quesnel. Event types include but are not limited to a Wildfire Community Preparedness Day, Farm and Ranch Wildfire Preparedness Workshop, Neighbourhood Champion workshop, and Fire Hall open house.	Quesnel Forestry Initiative Manager, FireSmart Coordinator	Very High	Annually, ideally between the months of May and October	Communication and public outreach resources such as social media, webpage postings, posters, etc. Resources to run the event such as tent, food, staff/volunteers, FireSmart promotional materials.	Hold a minimum of one type of FireSmart event per year. Set reasonable targets for attendance in the FireSmart Public Communications Strategy.	Funding is available through the UBCM's Community Resiliency Investment (CRI) program to organize, host or support FireSmart events.

City of Quesnel CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
6. Continue to organize and promote Community Chipper Days/Community Waste Disposal/Pickup Days for residents, particularly those that may have difficulty accessing the landfill (e.g. vulnerable populations). This will encourage and aid residents with removal of hazardous vegetation and debris around their homes.	Quesnel Forestry Initiative Manager, FireSmart Coordinator, Public Works	High	Semi-annually or annually	Chipper, disposal bins, waste management staff or contractors.	Removal of hazardous debris, vegetation, invasive plants and other flammable materials around homes is completed on an annual basis.	Funding is available through the UBCM's CRI program to provide off-site vegetation debris disposal for residential properties who have undertaken their own residential-scale FireSmart vegetation management, including: • Provide a dumpster, chipper or other collection method. • Waive tipping fees. • Provide curbside debris pick-up.

City of Quesnel CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
7. Continue to encourage and promote residents to have a Local FireSmart Representative (LFR) complete a FireSmart Home Ignition Zone (HIZ) Assessment for their home/property or complete their own Assessment using the FireSmart App. Based on the outcome of the Assessments, encourage property owners to implement as many mitigation activities as possible through local rebate programs for completed eligible FireSmart activities.	Quesnel Forestry Initiative Manager, FireSmart Coordinator	High	Ongoing	FireSmart Coordinator, Local FireSmart Representative, Neighbourhood Champion, or other qualified staff to complete the Home Ignition Assessment.	Residents within Quesnel continue to request FireSmart HIZ Assessments be completed for their home/property. Set reasonable targets for completed Assessments in the FireSmart Public Communications Strategy.	Funding is available through the UBCM's CRI program to have LFRs complete FireSmart HIZ Assessments, as well as Farm and Ranch Assessments for property owners.

City of Quesnel CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
8. Continue to offer the local FireSmart Rebate Program to residential property or homeowners that complete eligible FireSmart activities. This is critical to providing incentive and to assisting residents with the financial barriers to implementing FireSmart on private land.	Quesnel Forestry Initiative Manager, FireSmart Coordinator	Very High	Ongoing	Administrative capacity to run the Rebate Program.	Residents are aware of the FireSmart Rebate program and are actively taking part in implementing eligible FireSmart activities and applying for rebates upon completion. Set reasonable targets for tracking completed FireSmart activities in the FireSmart Public Communications Strategy.	Funding is currently available through the UBCM's Community Resiliency Investment (CRI) program to support rebate programs.

City of Quesnel CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
9. Continue to assist vulnerable property owners with completing FireSmart activities around their home, including removal of vegetation and materials around the home, eaves cleaning, etc.	Quesnel Forestry Initiative Manager, FireSmart Coordinator, Public Works	Very High	Ongoing	Support from Public Works to volunteer labour, equipment, etc.	Prioritize assisting vulnerable property owners with completing FireSmart activities around their homes. Set reasonable targets for completing such FireSmart activities in the FireSmart Public Communications Strategy.	Quesnel has been actively assisting vulnerable property owners with completing FireSmart activities around their homes over the past several years and should continue to do so. Funding is currently available through the CRI Program to assist seniors, elders, and vulnerable populations with FireSmart activities.

City of Quesnel CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
10. Promote and encourage neighbourhoods to work together to implement FireSmart activities at a neighbourhood level and apply for the FireSmart Canada Neighbourhood Recognition Program. Once recognized, annual renewal of FireSmart Recognition is required.	FireSmart Coordinator	Moderate	Within 3 years (2028), then annually.	A certified Local FireSmart Representative or Neighbourhood Champion to complete Neighbourhood Wildfire Hazard Assessments and keep neighbourhoods on track	Work to recruit Neighbourhood FireSmart Champions in forested neighbourhoods to lead and organize FireSmart initiatives. At least one new neighbourhood achieves FireSmart Neighbourhood Recognition by the end of 2028.	Quesnel currently has one neighbourhood (South Hills) that is recognized. The program requires ongoing participation each year to maintain recognition. Application to be filled out and required actions for recognition must be completed3. Funding is available through the UBCM's CRI program to complete Neighbourhood Wildfire Hazard Assessments and FireSmart Neighbourhood Plans.

[3] https://www.firesmartcanada.ca/programs-and-education/neighbourhood-recognition-program/

City of Quesnel CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
Legislation and Planning						
11. Incorporate information and recommendations from this CWRP into the Quesnel Forest Landscape Planning (FLP) Process to ensure alignment between community wildfire risk reduction and landscape wildfire risk reduction objectives	Quesnel Forestry Initiative Manager	Very High	Immediate and ongoing	A completed comprehensive CWRP	This CWRP is introduced into the ongoing Quesnel FLP process.	Community wildfire risk is one of the highest values of concern that is being considered through the ongoing Quesnel FLP process. This presents a critical opportunity to link community wildfire resiliency planning with forest management at the landscape scale.

City of Quesnel CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
12. Amend Zoning Bylaw No. 1880 to incorporate required setbacks from hazardous forested areas for various forms of development, where feasible to do so, including residential, commercial, and industrial.	Quesnel Forestry Initiative Manager, Quesnel City Development Department	High	Within 3 years (2028)	Communication resources, internal staff capacity, FireSmart and wildfire risk reduction guidance, potential legal support	Zoning Bylaw is amended to include setback requirements from hazardous forested areas by 2028.	Funding is currently available through the CRI program to revise landscaping requirements in zoning and development permit documents to incorporate FireSmart principles.

City of Quesnel CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
Development Considerations						
13. Continue to implement FireSmart recommendations and mitigation activities resulting from the 2019 City of Quesnel Buildings FireSmart Risk Assessment Report, with the goal of reducing hazard scores for each building/structure as much as feasibly possible.	Quesnel Forestry Initiative Manager, FireSmart Coordinator, Public Works	Very High	Ongoing	Labour, machinery, construction materials	FireSmart recommendations have been implemented for an average of one critical structure/building per year.	Funding is currently available through the CRI program to complete mitigation activities on assessed critical structures, including building materials and labour.
Interagency Cooperation						
14. Continue to actively organize and participate in the Quesnel and Area Community Wildfire Preparedness Roundtable. This includes working with partners in the Roundtable to implement wildfire risk reduction activities identified in Roundtable meetings.	Quesnel Forestry Initiative Manager, FireSmart Coordinator	Very High	Ongoing	Communication and organizational resources, meeting space	Continue to hold two Roundtable meetings per year and actively track meeting action items and outcomes.	Funding is currently available through the CRI program to support participation in and organization of interagency meetings.

City of Quesnel CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
15. Work collaboratively with Lhtako Dené and the Cariboo Regional District on the development of their respective CWRP updates to ensure a holistic and comprehensive approach to wildfire risk reduction for the broader Quesnel area.	Quesnel Forestry Initiative Manager, FireSmart Coordinator, Fire Chief	High	Immediate and ongoing	Internal communication and planning resources	This CWRP is shared with neighbouring local governments, and the City of Quesnel plays an active role in assisting with streamlining wildfire risk reduction activities between all local governments within the Quesnel area.	The Lhtako Dené and Cariboo Regional District (Electoral Areas A, B, C, and I) have plans to develop updated CWRPs within the next 1-2 years for their respective communities located within the Quesnel area. The City of Quesnel should work collaboratively with these neighbouring local governments to ensure each wildfire risk reduction plan is complementary to all other plans and streamlined for the broader Quesnel area.
16. Pursue the development of the Cariboo Large Incident Response Protocol between the City of Quesnel, Williams Lake, and 100 Mile House.	Fire Chief	High	Within 4 years (2029)	Internal staff capacity within the City of Quesnel, Williams Lake, and 100 Mile House; communication resources.	The Cariboo Large Incident Response Protocol is developed and ready for implementation.	The three municipalities located within the Cariboo Region (Quesnel, Williams Lake, 100 Mile House) are in early stages of planning and development of a mutual aid agreement pertaining to large incident response within the region.

City of Quesnel CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
17. Send staff from Protective Services or other applicable City of Quesnel staff to attend the annual **Wildfire Resiliency and Training Summit.**	Quesnel Forestry Initiative Manager, FireSmart Coordinator, Fire Chief	Moderate	Annually	CRI funding for attendance and disbursements, e.g., transportation and travel costs.	A minimum of one Quesnel staff member to attend the Wildfire Resiliency and Training Summit each year.	Funding is currently available under the CRI program to send up to 4 staff per eligible applicant. Eligible costs include conference fees and travel.

City of Quesnel CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
Cross-Training						
18. Provide cross-training opportunities to Quesnel Protective Services staff and other applicable personnel to further build capacity and redundancy within and between departments. Examples of cross training courses include: I. Local FireSmart Representative (LFR) training II. EMRG-100 - Introduction to Emergency Management in Canada III. ICS-100 - Incident Command System	Quesnel Forestry Initiatives Manager, FireSmart Coordinator, Fire Chief	High	As required based on needs of staff.	CRI Funding	Redundancy of all critical skills relating to FireSmart and Emergency Management within the Quesnel Protective Services and other applicable departments.	Funding for cross-training courses for Emergency Management staff is currently available through the CRI program.

City of Quesnel CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
19. Provide ongoing cross-training opportunities for local firefighters in the Quesnel Fire Department, including the following wildfire suppression training courses: I. S-100 – Basic Fire Suppression and Safety II. S-185 – Fire Entrapment Avoidance and Safety III. ICS-100 – Incident Command System Introduction IV. SPP-WFF1 Wildland Firefighter Level 1 (includes S-100, S-185, ICS-100) V. WSPP-115 - Wildland Structure Protection Program (training for structure protection unit crews)	Quesnel Fire Chief	Moderate	Annually	Facility to hold the training, potentially some basic suppression equipment.	Successfully hold at least one wildfire suppression training course for local structural firefighters.	Funding for cross-training courses for fire fighters is currently available through CRI program.

City of Quesnel CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
20. Continue to coordinate cross-training opportunities between the Quesnel Fire Department and BCWS Quesnel Fire Zone, as well as surrounding volunteer fire departments from the Cariboo Regional District (CRD).	Quesnel Fire Chief	Moderate	Annually	Facility to hold the training, potentially some basic suppression equipment.	Help organize a minimum of one BCWS cross-training event every two years.	Implementation of this recommendation is dependent upon BCWS availability.
Emergency Planning						
21. Update the Quesnel Emergency and Recovery Plan to reflect updated emergency legislation, area demographics, emergency planning from neighbouring local governments, and the Quesnel Hazard and Risk Vulnerability Analysis (HRVA).	Quesnel Forestry Initiatives Manager, Fire Chief	Very High	Within 3 years (2028)	Communication resources, internal staff capacity, emergency management guidance, potential legal support	An updated comprehensive emergency management plan for the City of Quesnel is completed by 2028.	The City of Quesnel is currently waiting for the completion of the HRVA and finalization of the new Emergency and Disaster Management Act (EDMA) before completing necessary updates to their Emergency Plan.

City of Quesnel CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
22. Ensure strong emergency management and communication strategies are developed and maintained between the City of Quesnel, the Lhtako Dené Nation, and the CRD regarding emergency response operations. This will help ensure clear, consistent, and coordinated efforts during emergency events in the region.	Quesnel Forestry Initiatives Manager, Fire Chief	High	Immediate and ongoing	Communication resources	Strong communication and working relationships are built and maintained between Quesnel and neighbouring local governments.	The Quesnel area is populated by the City of Quesnel, multiple First Nations, and surrounding rural communities in the CRD. It is important that these local governments work together in coordinating emergency planning and response for the region.

City of Quesnel CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
23. Promote and encourage all Quesnel residents to subscribe to the Voyent Alert! Public Alerting System (PAS). Emergency notices can be delivered via email or phone.	Quesnel Forestry Initiatives Manager, Fire Chief	High	Immediate and ongoing	Communication resources	An increase in subscription rate to Voyent Alert! by 10% annually.	As of 2025, the City of Quesnel has a Voyent Alert! subscription rate of approximately 2,200 residents. This accounts for around 22% of the City's population. One of the key findings from the Wambura, V., & Wong, S. D. (2024) study was that government messaging, such as Voyent Alert! and social media were the most preferred sources of evacuation orders. As such, Voyent Alert! utilization and subscription, as well as government social media avenues should be prioritized in evacuation community strategies.

City of Quesnel CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
24. Organize and/or participate in cross-jurisdictional meetings, tabletop exercises, or mock scenarios specifically focused on wildfire preparedness and suppression in the Quesnel region. This could include implementing mock evacuation scenarios informed by the 2020 Evacuation Plan.	Quesnel Forestry Initiatives Manager, Fire Chief	High	Annually	Communication and planning resources, facility and funds to hold meeting/exercise.	A minimum of one cross-jurisdictional meeting/tabletop exercise/mock scenario is held per year.	Funding to hold wildfire preparedness meetings/exercises is currently available through the CRI program.

City of Quesnel CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
25. Use and/or promote the provincial Wildfire Preparedness Guide and/or Wildfire Evacuation Checklist for community emergency preparedness events focused on wildfire.	Quesnel Forestry Initiatives Manager, FireSmart Coordinator, Fire Chief	Moderate	Annually or biannually	Communications and planning resources	Hold one emergency preparedness event focused on wildfire annually or every two years.	One of the key findings from the Wambura, V., & Wong, S. D. (2024) report was community preparedness for emergency evacuations could be improved to reduce evacuation timing. Community preparedness education/programs/events could help increase evacuation preparedness among residents in Quesnel. Funding to hold emergency preparedness events is currently available through the CRI program.

City of Quesnel CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
Vegetation Management						
26. Encourage residents to remove/reduce flammable vegetation in the Immediate, Intermediate, and Extended zones on their properties. Promote the use of the *FireSmart BC Landscaping Guide* to inform vegetation management best practices and replace flammable vegetation with more fire-resistant landscaping.	FireSmart Coordinator	Very High	Immediate and ongoing	Communication and educational resources	Residents begin to show interest in FireSmart landscaping and actively removing flammable vegetation nearest to homes and structures on their property. Set targets for tracking completed FireSmart vegetation management activities in the FireSmart Public Communications Strategy.	Utilize the funding available through the CRI program for the FireSmart Rebate Program and providing off-site vegetation debris disposal for property owners who have undertaken their own vegetation management.

City of Quesnel CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
27. Apply for funding to develop fuel management prescriptions for forested areas identified on municipal and provincial crown land within the eligible WUI. NOTE: This should occur in collaboration with the Ministry of Forests, First Nations, and applicable land managers for any fuel treatments located on provincial crown land.	Quesnel Forestry Initiatives Manager	High	Annually, ongoing	A Registered Professional Forester is required to write all fuel management prescriptions.	A minimum of one fuel management prescription is completed every two years.	Funding is available through the CRI program for fuel management prescription development .

City of Quesnel CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
28. Apply for funding to undertake fuel management treatment operations on municipal or provincial crown land within the eligible WUI based on completed fuel management prescriptions. NOTE: This should occur in collaboration with the Ministry of Forests, First Nations, and applicable land managers for any fuel treatments located on provincial crown land.	Quesnel Forestry Initiatives Manager	High	Every two years, ongoing	Contractors must be acquired to complete treatment operations.	After the prescription phase is completed, at least one fuel management treatment is operationally completed every 2-3 years.	Funding is available through the CRI program for fuel management treatment operations/ implementation.

City of Quesnel CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
29. Work with the Three Rivers Community Forest to implement identified objectives in the Community Forest Management Plan relating to community wildfire protection, including: I. Integrating recreation trails and access roads with fire suppression opportunities, II. Exploring funding to support fuel management efforts, III. Exploring the use and application of wildfire-resilient stocking standards for silviculture activities within close proximity to the community.	Quesnel Forestry Initiatives Manager	High	Ongoing	Communication and planning resources, forest management resources	Ongoing collaboration with the Three River Community Forest manager to help implement management strategies within the Community Forest relating to wildfire risk reduction around Quesnel.	The Three Rivers Community Forest is an active member of the Quesnel and Area Community Wildfire Preparedness Roundtable and is working to incorporate wildfire risk reduction into community forestry management.

City of Quesnel CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
30. Apply for funding to complete an initial *FireSmart CSGS Assessment* in City parks and green spaces. If deemed appropriate by the assessment, apply for funding to complete the recommended eligible mitigation activities identified (limited to labour and material costs).	Quesnel Forestry Initiatives Manager	Moderate	Ongoing	Complete **Checklist for CRI Requirements for Fuel Management Prescription before CSGS Assessment is started,** personnel qualified to complete a FireSmart CSGS Assessment	An initial FireSmart CSGS Assessment is completed for all parks and green spaces within the City of Quesnel.	Funding is currently available through the CRI program to complete FireSmart mitigation activities on vegetation for cultural sites or green spaces. To be eligible for funding, all projects must have a completed Checklist for CRI Requirements for Fuel Management Prescription and a completed FireSmart Cultural Sites and Green Spaces (CSSGS) Assessment submitted to UBCM prior to commencing work.

City of Quesnel CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
31. Create an inventory and monitoring system to track planned and completed wildfire risk reduction and FireSmart vegetation management activities throughout the City of Quesnel, including: • Areas that have had fuel management prescriptions and treatment operations completed, • Monitoring and maintenance planning for completed fuel treatment areas, • Critical infrastructure assessments and associated FireSmart treatments completed, • FireSmart Assessments completed for private property owners.	Quesnel Forestry Initiatives Manager, FireSmart Coordinator	Moderate	Within 2 years (2027), updated annually	Tracking system and geospatial database.	Creation of a vegetation management tracking system.	Establishing an inventory will streamline the process of tracking ongoing treatments and identifying the necessary maintenance tasks needed at different intervals.

City of Quesnel CWRP Action Plan						
Action	**Lead(s)**	**Priority**	**Timeframe**	**Resources Required**	**Metric for Success**	**Rationale/Notes**
32. Complete ongoing maintenance of completed fuel treatments. See section 5.7.5 Maintenance Plan for Previously Treatment Fuel Management Units.	Quesnel Forestry Initiatives Manager	Moderate	Ongoing	A Registered Professional Forester may be required to write another fuel management prescription. Contractors must be acquired to complete treatment operations.	Completed fuel management treatments are being monitored for maintenance activities. Maintenance activities are being undertaken when needed.	Funding is available through the CRI program for fuel management treatment operations/ implementation.

Contents

List of Figures

List of Tables

Frequently Used Acronyms

AOI	Area of Interest
AOP	Annual Operating Plan
BCBC	British Columbia Building Code
BC	British Columbia
BCWS	British Columbia Wildfire Service
BEC	Biogeoclimatic Ecosystem Classification
CFFDRS	Canadian Forest Fire Danger Rating System
CFRC	Community FireSmart Resiliency Collaborative
CFS	Community Funding and Support
CI	Critical infrastructure
CLWRR	Crown Land Wildfire Risk Reduction
CIFFC	Canadian Interagency Forest Fire Centre
CRI	Community Resiliency Investment
CWRP	Community Wildfire Resiliency Plans
DP	Development Permit
DPA	Development Permit Area
EDMA	Emergency and Disaster Management Act
EMCR	Emergency Management and Climate Readiness
EMP	Emergency Management Plan
EOC	Emergency Operations Centre
EPA	Emergency Program Act
FBP	Fire Behaviour Prediction System
FCFS	FireSmart Community Funding and Supports
FESBC	Forest Enhancement Society of British Columbia
FMP	Fuel Management Prescription
FNESS	First Nations Emergency Services Society
FRPA	Forest & Range Practices Act
FTU	Fuel Treatment Unit

GIS	Geographic Information Systems
FSCCRP	FireSmart Canada Community Recognition Program
HIZ	Home Ignition Zone
HRVA	Hazard, Risk, and Vulnerability Analysis
LRMP	Land and Resource Management Plan
MOF	Ministry of Forests
MOTT	Ministry of Transportation and Transit
PSOE	Provincial State of Emergency
PSTA	Provincial Strategic Threat Assessment
OCP	Official Community Plan
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

Wildfire is a natural ecological disturbance agent on the landscape; however, in the past ten years British Columbia has seen significant increases in the number and frequency of extreme wildfire events, with unprecedented ecological, social, and economic impacts[4]. The notable fire seasons of 2017, 2018, 2021, 2023 and 2024 demonstrate that most severe wildfire seasons of the last half-century in BC have occurred in just the past seven years[5]. 2023 marks the largest wildfire season in BC's recorded history, with all regions of BC experiencing record-breaking fire weather, burning over 2.8 million hectares—ten times the 20-year average[1]. Much of the increasing severity and frequency of these wildfires is exacerbated by the impacts of climate change, including altered moisture regimes, rising temperatures, and an increase in extreme and unpredictable weather events.

Specific to the Quesnel Fire Zone, the 2024 Antler Creek wildfire of note near Wells-Barkerville, approximately 70 kilometres east of Quesnel, was part of a conglomerate of 20 wildfires in the area that made up the Groundhog Wildfire Complex. The Antler Creek Fire grew to over 14,000 ha, resulting in evacuation orders for the Wells, Barkerville, and Bowron Lakes area, a region that typically experiences infrequent stand-initiating fire events.

In light of recent extreme wildfire seasons, it is more important than ever for local governments and communities to prepare for such events and continue to build wildfire resiliency in a substantial way. The Community Wildfire Resiliency Plan (CWRP) is a critical component of wildfire resiliency planning that provides a comprehensive approach to wildfire risk reduction. CWRPs are the next generation of the Community Wildfire Protection Plans (CWPPs), which were introduced in BC in 2004 as part of the Strategic Wildfire Prevention Initiative (SWPI) and served as the primary wildfire risk reduction planning mechanism for British Columbia communities. To better ensure that CWPPs consistently took a comprehensive approach toward wildfire resiliency measures, the BC Wildfire Service (BCWS) partnered with the BC FireSmart Committee to develop a new framework for Community Wildfire Resiliency Planning.

The CWRP addresses the seven FireSmart Disciplines of FireSmart Canada and applies 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

[4] Lori D. Daniels, Sarah Dickson-Hoyle, Jennifer N. Baron, Kelsey Copes-Gerbitz, Mike D. Flannigan, Dante Castellanos-Acuna, Kira M. Hoffman, Mathieu Bourbonnais, Sophie L. Wilkinson, Dominik Roeser, Jill E. Harvey, Jocelyne Laflamme, Florencia Tiribelli, James Whitehead, Sonja E.R. Leverkus, and Robert W. Gray. 2025. The 2023 wildfires in British Columbia, Canada: impacts, drivers, and transformations to coexist with wildfire. Canadian Journal of Forest Research. 55: 1-18. https://doi.org/10.1139/cjfr-2024-0092

[5] 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.

The City of Quesnel had a CWPP completed in 2018 for the municipality and surrounding areas, including unincorporated communities within the Cariboo Regional District (Electoral Areas A, B, and C) and BC provincial parks. This CWRP will build upon the recommendations and completed activities from the 2018 CWPP, with a greater focus on the six other FireSmart principles in addition to vegetation management.

1.1 PLAN GOALS

The purpose of this CWRP is to identify and assess wildfire hazards within and around the City of Quesnel, assess potential risks and impacts to the community and infrastructure from wildfires, and provide effective and feasible mitigation strategies to reduce the identified hazards and risk. This plan will aim to:

1. Further enhance the City of Quesnel's capacity and understanding of wildfire risk,
2. Foster greater collaboration within and across administrative boundaries,
3. Address the diverse community needs of Quesnel, and
4. Develop achievable recommendations and action items for effectively reducing identified wildfire hazards and risks.

1.2 PLAN DEVELOPMENT SUMMARY

Forsite Consultants Ltd. (Forsite) was retained in spring 2025 to develop an updated CWRP for the City of Quesnel. The Forsite team worked closely with the City's Forestry Initiatives Manager to develop a meaningful plan tailored to the unique needs of the Quesnel community. The development of this plan included the following components and phases:

1. Gathering and analysis of background information: A project kick-off meeting was held by the Forsite project manager and the City of Quesnel's Forestry Initiatives Manager, and a community questionnaire was completed to help gather local information. Community plans and background information were gathered and reviewed, including the previous 2018 Quesnel and Area Community Wildfire Protection Plan, Quesnel's Official Community Plan, urban planning documents, bylaws and relevant legal directives, etc.
2. Identification of values at risk: Spatial data of City infrastructure and values at risk was provided by the City of Quesnel or retrieved from publicly available provincial data. The data was collated to create a values-at-risk spatial database.
3. Public and partner engagement: During the planning process of this CWRP, it was determined that First Nations and public engagement would be completed by the City of Quesnel and assistance from Forsite was not required. See Appendix B: Engagement Summary for details on engagement completed by the City of Quesnel. Forsite virtually attended the Quesnel and Area Community Wildfire Roundtable on May 5, 2025, and provided a status update to attending partners on plans for the 2025 Quesnel CWRP project. An interview with local BC Wildfire Service – Quesnel Zone wildfire officers was conducted June 3, 2025, to obtain information and input regarding wildfire behaviour, hazard concerns, and response tactics.
4. Assessment of local wildfire threat: In July 2025, on-the-ground wildfire threat assessments were completed in forested areas on municipal land and provincial crown land within the Wildland Urban

Interface. The results of these assessments were then utilized to identify and delineate recommended areas for fuel management treatments within the WUI.

5. Development of a risk mitigation strategy and actionable recommendations: The data and information collected in the above phases provided the necessary content to develop an actionable CWRP that is tailored to the City of Quesnel. The action table provides a comprehensive list of recommendations for the City to implement to continue the wildfire risk reduction work that has been occurring and further increase their wildfire resiliency.

This plan is intended for use by the City of Quesnel and its partners to guide efforts in wildfire risk reduction and resilience. Comprehensive data collection and engagement with City staff, and local BC Wildfire Service and Ministry of Forests staff ensure a tailored approach specific to the City of Quesnel and its residents.

1.3 COMMUNITY RESILIENCY INVESTMENT PROGRAM

The Community Resiliency Investment (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. The CRI program provides funding to local governments and First Nations through the *FireSmart Community Funding & Supports* (FCFS) stream 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 Plan, an active FireSmart Coordinator position, and participate in a Community FireSmart Resiliency Collaborative in order 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 this CWRP's 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 2 were consulted during the CWRP development process to ensure alignment with existing community and land objectives.

Table 2: Key Plans and Relationship to CWRP

Key Plans and Relationships to CWRP		
Plan Type	**Description**	**Relationship to CWRP**
City of Quesnel Official Community Plan (2024) (Bylaw No. 1879)	OCPs provide the legal framework to local governments for directing land use planning and development. The Quesnel OCP provides objectives and policies for land use and development that align with the social, economic, cultural, and environmental needs and values of the community. The most recent 2024 OCP will guide the City's future growth and development towards the year 2030.	The following sections of the OCP are relevant to this CWRP through objectives and policies pertaining to FireSmart and wildfire in community planning and development: • 5.1 Residential • 5.2 Commercial • 6.6 Environment and Sustainability • 6.6.5 FireSmart Guidelines • 6.7 Hazardous Areas • 7.0 Development Permit Area Guidelines
City of Quesnel Emergency Plan and Recovery Plan (2015)	The Emergency and Recovery Plan provides guidance on the operations, organizational structure, responsibilities, and coordination efforts necessary to provide effective response and recovery from major emergencies/disasters.	Within the Emergency Plan, wildland urban interface wildfires are identified as a hazard to the community, with a checklist of specific operations and logistics outlined for the Emergency Operations Centre (EOC).
City of Quesnel – North Cariboo Trails Inventory and Master Plan (2017)	The Trails Inventory and Master Plan provides a strategy for the expansion and management of the regional trail system around Quesnel. The objectives of the Plan are to inventory, classify and assess the existing trail network; analyse the trail network to identify recommended improvements; and recommend strategies for maintenance and enhancement.	Trails and recreation plans relate to the CWRP through aligning park vegetation management objectives with wildfire risk reduction, and incorporating wildfire risk reduction into visitor use, regulations, and public safety planning. The North Cariboo Trails Master Plan recognizes wildfire awareness and safety as an important objective to integrate into recreational trail planning and use, such as the use of educational/interpretive signage. The Plan also identifies the potential for and

Key Plans and Relationships to CWRP		
Plan Type	**Description**	**Relationship to CWRP**
		benefits of strategically aligning firebreaks with trails.
City of Quesnel Parks, Green Spaces and Outdoor Recreation Master Plan (2015)	The Master Plan includes an inventory of all parkland, green spaces and trails within Quesnel. It provides an overview of best practices and trends, and the development of a hierarchy of parkland categories. It also identifies trail connections that would strengthen the existing trail network and provides recommendations regarding next steps.	The Parks, Green Spaces, and Outdoor Recreation Master Plan does not incorporate vegetation management or wildfire risk reduction objectives into park planning, development, or maintenance. Parks and trail planning should support overall wildfire risk reduction planning.
City of Quesnel Walking Trails Wildfire Risk Assessment (2020)	The Walking Trail Networks Assessment was commissioned by the City of Quesnel under the 2018 Community Wildfire Protection Plan (CWPP) to provide wildfire threat rating and treatment recommendations for design and maintenance of municipally owned and operated walking trails.	The Trails Wildfire Threat Assessment provides tailored treatment recommendations for fuel reduction along trails within the City of Quesnel that pose a wildfire threat of "Moderate" or higher.
Quesnel and Surrounding Area Community Wildfire Protection Plan (2018)	The Quesnel and Surrounding Area CWPP is the predecessor of community wildfire resiliency planning. The CWPP identifies wildfire threat and risk to values within and surrounding Quesnel. It provides recommendations and action items to help reduce overall wildfire threat and risk to the community and infrastructure.	This CWRP will build off the analyses, recommendations, and action items presented in the 2018 CWPP and provide updated information relating to continuing to build wildfire resiliency.
City of Quesnel Climate Action Plan (2020)	The City of Quesnel Climate Action Plan identifies proposed and planned climate actions the City intends to address to help mitigate and adapt to the impacts of climate change.	The Climate Action Plan recognizes climate change as a contributor to less predictable weather resulting in increased forest fire activity. It recognizes the importance of land use planning tools to help mitigate risks and adapt to potential wildfire events adjacent to the City.
Three Rivers Community Forest	A Management Plan for Community Forest Agreement holders is legally required under the provincial *Forester's*	Community wildfire protection is an important management value identified in the TRCF Management Plan. Strategies to

Key Plans and Relationships to CWRP		
Plan Type	**Description**	**Relationship to CWRP**
(K3W) Management Plan (2023)	*Act.* The Community Forest Management Plan outlines the mission, vision, and guiding principles for the Three Rivers Community Forest (TRCF) as well as identifies resource-specific values and strategies for managing these resources or values.	help achieve specific objectives for wildfire in the Plan include: • Sec 5.2.2 – Community Wildfire Protection o Integrating recreation trails and access roads with fire suppression opportunities, o Exploring funding to support fuel management efforts, o Exploring the use and application of wildfire-resilient stocking standards for silviculture activities within close proximity to the community.
City of Quesnel Buildings FireSmart Risk Assessment Report (2019)	The City of Quesnel Buildings FireSmart Risk Assessment Report outlines the results of FireSmart assessments completed on 19 City owned buildings/structures, including infrastructure, local government buildings, and community buildings. The Assessment also provides key recommendations for implementing FireSmart activities for each building/structure assessed.	FireSmart Assessments on critical infrastructure (CI) are currently funded through the Community Resiliency Investment (CRI) Program. Additionally, many FireSmart activities for CI can also be funded under CRI. This CWRP will build upon the recommendations within the FireSmart Risk Assessment Report and provide an update on recommended activities from the Report.
Quesnel Evacuation Route Plan (2020)	The Evacuation Route Plan establishes the principles, structures, and roles and responsibilities for a coordinated evacuation of the City. The Plan is complementary to the Emergency Response Plan and includes actions and considerations for the EOC to safely evacuate people from a hazardous community environment to a safe location.	Within the Evacuation Plan, wildfire is identified as a High Risk to the City; a high likelihood of occurrence with high consequence. The Evacuation Plan provides important information relating to evacuations in the event of a wildfire, including stats on evacuees, potential transportation routes, road capacities, and evacuation timelines.

Key Plans and Relationships to CWRP		
Plan Type	**Description**	**Relationship to CWRP**
Quesnel Service and Housing Options Review For Vulnerable Populations (2023)	The Review for Vulnerable Populations report presents a comprehensive analysis of housing and support services needed to address the vulnerabilities faced by select populations within the City of Quesnel, including the Lhtako Dené Nation, Nazko First Nation, Lhoosk'uz Dené Nation, and ʔEsdilagh First Nation communities. The analysis involves an evaluation of existing resources, an assessment of the current and future unmet needs, and recommendations to enhance support infrastructure.	The Review for Vulnerable Populations report details existing and projected vulnerable populations. The current at-risk population estimate in Quesnel is 21% of the total population. The report also details the current housing options for vulnerable populations. Understanding the needs, demographics, and locations of vulnerable populations can help enhance emergency and evacuation planning in the event of a wildfire by ensuring vulnerable populations receive the assistance they need.
Cariboo Regional District – Quesnel Fringe Area Official Community Plan (2014)	The Quesnel Fringe Area OCP provides a general statement of the policies of the Cariboo Regional District regarding land uses and servicing requirements in the communities surrounding Quesnel. The plan policies will guide decisions to be made by the CRD Board of Directors when considering applications for various types of land use and development.	The Quesnel Fringe Area OCP identifies objectives for encouraging development that minimizes the impacts of wildfire under the following sections: • 3.3 Environmental and Climate Objectives • 3.4 General Environmental Policies ○ Specific policies pertaining to wildfire in the interface, including development requirements and spatially identified areas of high wildfire probability (Schedule E)

In addition to existing plans, community bylaws were reviewed for their relevance to the CWRP, as outlined in Table 3.

Table 3. Key Bylaws and Relationship to CWRP

Key Bylaws and Relationships to CWRP		
Plan Type	**Description**	**Relationship to CWRP**
Fire Protection, Prevention and Emergency Services Bylaw No. 1902 (2021)	The Fire Protection Bylaw legally establishes the responsibilities and services provided by the Quesnel Fire Rescue Service, including fire suppression of all types of fires and general fire prevention services. It contains regulations for open burning permits, campfires, and hazardous fire conditions.	The bylaw contains the following regulations pertaining to wildfire prevention: • 5.1 Restrictions for Open Burning • 5.2 Discarding Burning Substances • 5.3 Accumulation of Combustibles • 5.5 Open Burning Permit • 5.6 Camp Fires • 5.7 Fire Rescue Service Open Burning – for the elimination of fire hazards or for training. • 5.8 Hazardous Fire Conditions – permits the Fire Chief to prohibit open burning.
Zoning Bylaw No. 1880 (2024)	The Zoning Bylaw legally establishes land use regulations for development and re-development. It applies to all land, buildings, and structures within the City boundary.	Zoning for land use within the wildland urban interface can influence the spread of incoming and outgoing fires in adjacent forested areas.
Building Bylaw No. 1550 (2003)	The Building Bylaw legally establishes local administration of the provincial *BC Building Code* and regulates the construction and alteration of buildings and structures within the City of Quesnel.	Currently, the *BC Building Code* does not address wildfire hazard areas. Changes made to the *BC Building Act* in 2015 allow local governments and Treaty First Nations to create Development Permit Areas (DPAs) that can include wildfire risk reduction measures, including technical building requirements.

3.0 Community Description

3.1 AREA OF INTEREST

The Area of Interest (AOI) is the geographic scope of the CWRP. The Community Resilience Investment (CRI) program provides guidance for defining the AOI, which varies depending on the type of local government (e.g. First Nations, municipality, regional district, etc.). For the purposes of the CRI FireSmart Community Funding and Supports (FCFS) program, the AOI of this CWRP is defined as the area within the municipal boundary of the City of Quesnel (Figure 1). Therefore, the AOI encompasses a total of 3,926.6 hectares (the municipal boundary).

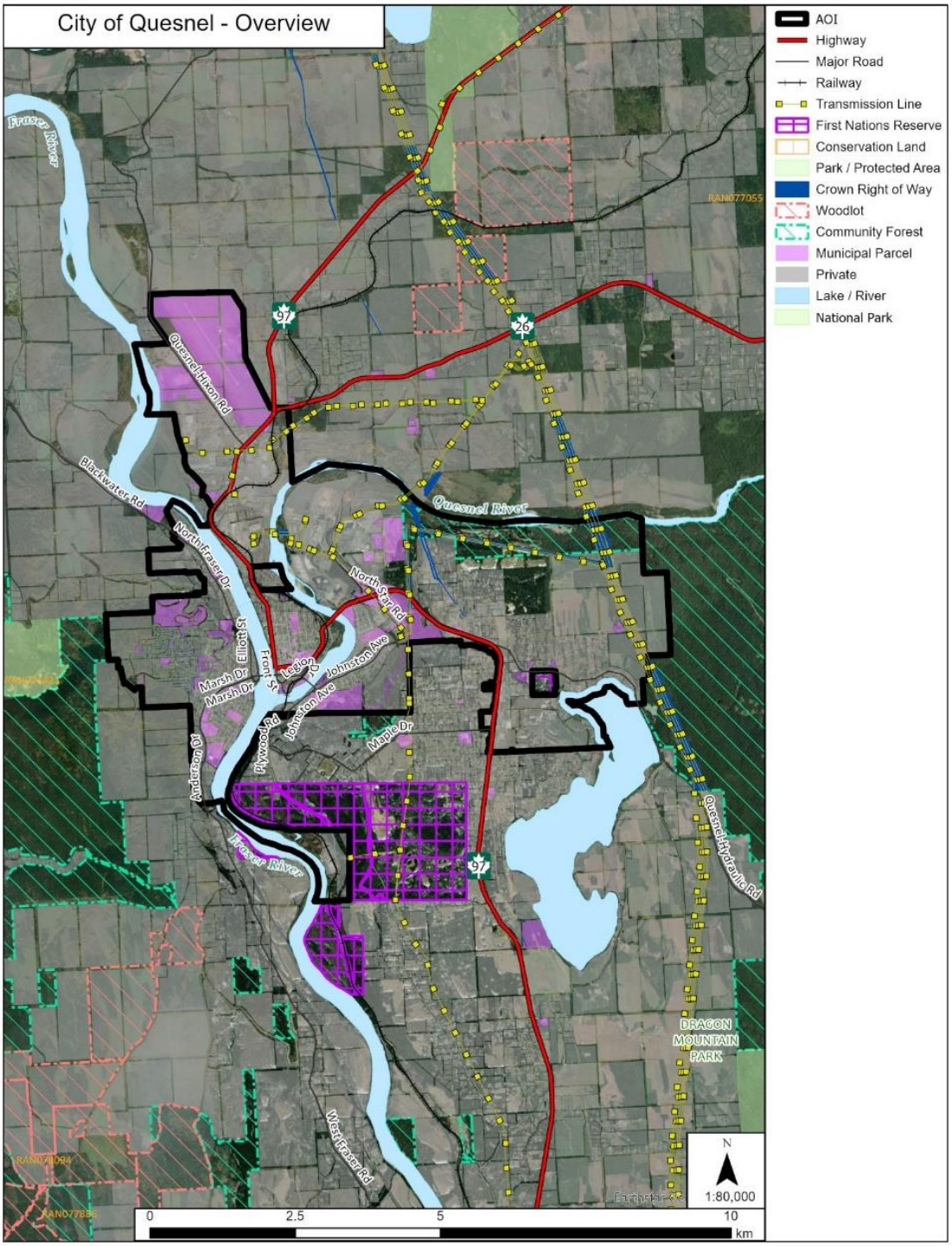


Figure 1: Area of Interest (AOI) of this CWRP. The AOI is equivalent to the municipal boundary of Quesnel, outlined in black

3.2 WILDLAND-URBAN INTERFACE

The Wildland Urban Interface (WUI) denotes the zone where combustible forest fuel is adjacent to homes, structures, and critical infrastructure. 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 CWRP, the WUI differs from the AOI due to the criteria set forth by the provincial FireSmart FCFS program. For the purposes of the FCFS program, the **Eligible WUI** is defined as a maximum one-kilometer buffer surrounding areas with a structure density greater than six structures per square kilometre, located within the AOI (Figure 3). This buffer is intended to represent a reasonable distance within which embers from a wildfire can travel and ignite structures. Eligible fuel management treatment activities are limited to municipal or provincial crown land within this defined WUI area.

Within the AOI of this CWRP, the eligible WUI encompasses approximately 3,745 hectares. Land ownership within the eligible WUI is summarized in Figure 2. Over 60% of land within the eligible WUI is constrained by private ownership.

Land jurisdiction dictates where provincial funding is eligible to support fuel/vegetation management projects. Funding for fuel management treatments is not available for private land; therefore, private landowners are responsible for reducing wildfire hazard on their property. This can often result in continuous tracts of forested private land around communities, limiting opportunities and efficacy of fuel treatments on municipal or provincial crown land.

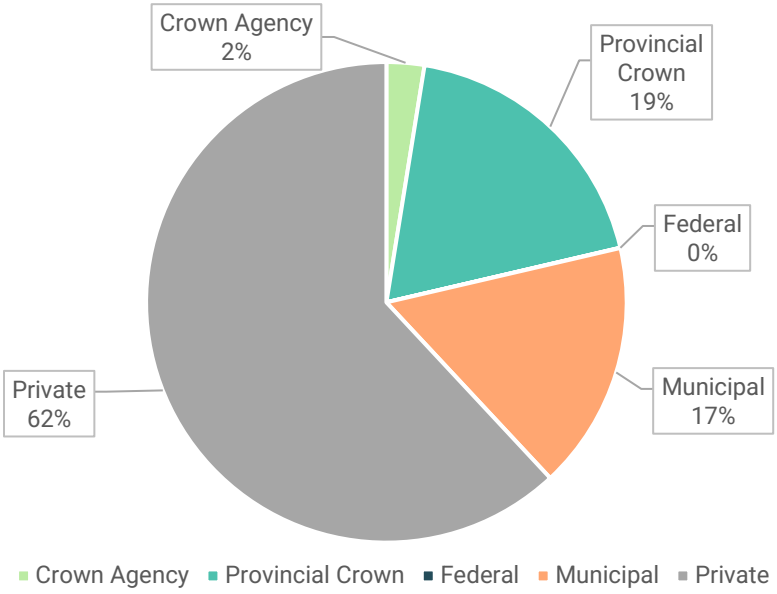


Figure 2: Land Ownership within the Eligible Wildland Urban Interface

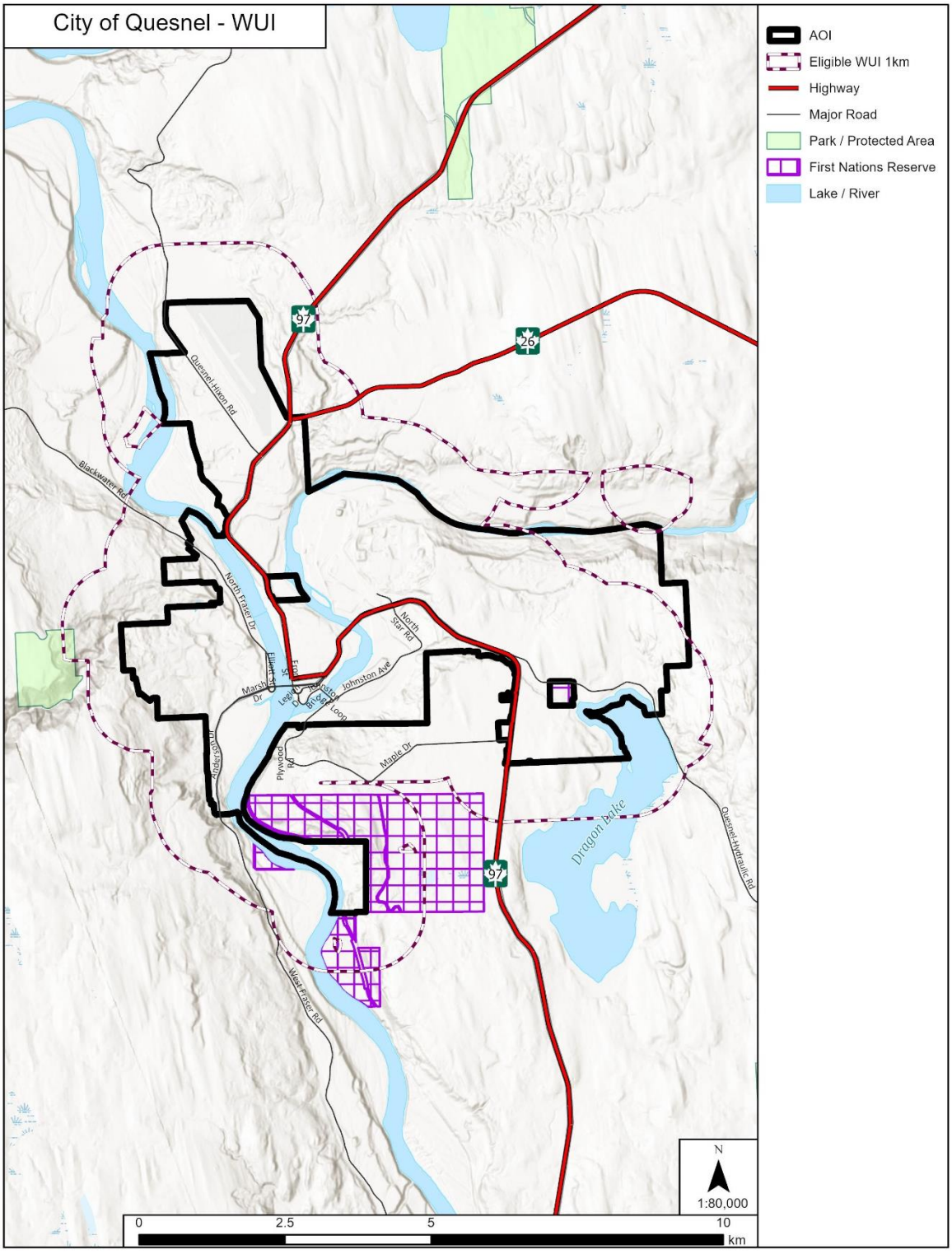


Figure 3: Eligible One-Kilometre Wildland Urban Interface (WUI)

3.3 COMMUNITY INFORMATION

The City of Quesnel is located in the North Cariboo region of BC and is home to several First Nation communities. It is situated at the confluence of the Fraser and Quesnel Rivers along provincial Highway 97, relatively equidistant between Williams Lake to the south and Prince George to the north. The City of Quesnel has a population of approximately 10,000 residents, with an additional 13,000 people residing within the surrounding area, including the adjacent Lhtako Dené Nation reserve. Table 4 below outlines basic community statistics based on the 2021 Statistics Canada census.

Table 4: Community profile for the City of Quesnel. Source: Statistics Canada, 2021 Census

Community Information	
Total Population (2021)	9,889
Total Population (2016)	9,879
Population Percentage Change (2016 -2021)	0.1%
Total Private Dwellings	4,766
Private Dwellings Occupied by Usual Residents	4,508
Population Density Per Square Kilometre	279.8
Land Area (square kilometres)	35.35

Split by the Fraser and Quesnel Rivers, Quesnel's western upland side is mainly residential, while the area between the rivers includes Downtown, North Quesnel, and the industrial district. To the east, the northern neighbourhoods blend residential and industrial/commercial zones, while South Quesnel is characterized primarily by commercial buildings and services.

The forestry industry is Quesnel's primary resource sector and economic contributor with multiple West Fraser mills located within the City's boundaries. Forestry contributes over 1,500 direct local jobs, including a collaborative community forest agreement between the City of Quesnel, Lhtako Dené, Nazko, ʔEsdilagh, and Lhoosk'uz Dené Nation Governments[6] (the Three Rivers Community Forest). Additionally, the Quesnel and area community rely on mining, agriculture, and recreation tourism. However, the region has faced significant economic uncertainty and challenges particularly around the forest industry related to timber supply, forest policy, volatility in the global market, and large-scale ecosystem disturbances such as recent wildfires and the late 1990s to early 2000s Mountain Pine Beetle (MPB) epidemic. Therefore, implementing

[6] https://www.threeriverscomfor.ca/

forest management practices that support ecosystem resiliency to disturbance events is imperative for both economic and wildfire resiliency.

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, which include human life, property, critical infrastructure, high environmental and cultural values, and resource values.

3.4.1 Human Life and Safety

Safeguarding human life and safety becomes the top priority during an imminent wildfire, often necessitating the evacuation of at-risk areas. Orderly evacuations take time and can be impeded by factors such as traffic congestion, accidents, or the unpredictable behaviour of wildfires.

Highway 97, running north and south, Highway 26 running west, and Nazko Highway (Hwy 59) running east, are the primary transportation corridors to and from the City of Quesnel. These routes are critical during a large-scale evacuation. Major receiving areas include Prince George to the north, 120 kilometres via Highway 97, and Williams Lake to the south, 120 kilometres via Highway 97.

During the summer months there is an increase in seasonal workers, including tree planters and construction crews, as well as tourists. The bridges and major highway passing through Front Street downtown can cause major issues for evacuation. As a result, the City of Quesnel is lobbying for an interconnector with the Province, which would provide an alternate route for north bound traffic out of the City.

Residences on the northwest, west, and southeastern edges of the City of Quesnel and its surrounding areas are at higher risk from wildfires moving from the west and southeast directions as a result of prevailing wind patterns and forest ecosystem types on the landscape.

3.4.2 Emergency Management and Response

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

The current Quesnel Emergency and Recovery Plan was developed in 2015. The Emergency and Recovery Plan provides guidance on the operations, organizational structure, responsibilities, and coordination efforts necessary to provide effective response and recovery from major emergencies/disasters for the City of Quesnel. Within the Emergency Plan, wildland urban interface wildfires are identified as a hazard to the

community, with a checklist of specific policies, coordination efforts, operations, and logistics outlined for the Quesnel Emergency Operations Centre (EOC) in the event of an interface wildfire event.

Additionally, the City of Quesnel completed an Evacuation Plan in 2020 to help streamline the evacuation process, when necessary, by providing a framework for coordinating and implementing an evacuation. The Evacuation Plan does not replace the need for an Emergency Response Plan or EOC procedures, but supplements the aforementioned plans and procedures by providing options for evacuation routes, reception centres, transportation for vulnerable groups, procurement of traffic control and enforcement resources, etc.

Since the recent changes to BC's Emergency and Disaster Management legislation (EDMA), the City has increased multi-party collaboration with local First Nation Governments and the Cariboo Regional District and coordinated efforts for various aspects of Emergency Management (i.e. mitigation, preparedness, response, and recovery planning). This includes training, hosting EOCs within various communities, and ensuring lines of communication remain open prior to and during emergency events.

3.4.2.1 Methods of Communication

The City of Quesnel, along with Cariboo Regional District communities in the surrounding area, utilize the Voyent Alert! public emergency notification system to inform residents about relevant emergency incidents and events. This includes Evacuation Alerts or Orders issued in response to wildfires. The system is free for residents and works across multiples devices, providing notifications via text, email, and/or landline. As of 2025, the City of Quesnel has a Voyent Alert! subscription rate of approximately 2,200 residents. This accounts for around 22% of the City's population.

The City utilizes the Emergency Preparedness page on their website and sends mailouts annually with utilities and City tax notices to share important emergency information and promote emergency preparedness and FireSmart. Residents are updated on current fire hazard conditions and fire ban information via the local Ministry of Forests' Fire Danger Class board and City of Quesnel's social media pages.

The primary communications towers that serve the North Cariboo, including the City of Quesnel, are located on the top of Dragon Mountain, located approximately 20 kilometres southeast of the City. The Dragon Mountain Site is the hub tower location in a primary communications network that serves the North Cariboo for cellular and emergency support services, as well as many other utilities and industry needs.

There are 10 communications tenures at the top of Dragon Mountain including:

1. Provincial Emergency Program (RCMP 911; North Cariboo Fire Departments; BC Ambulance Service Emergency Services; North Cariboo Hwy Rescue)
2. TELUS Communications
3. Rogers Communications
4. CN Rail
5. EMCON Road Services
6. Fortis BC
7. BC Hydro and Power Authority
8. Regional District of Fraser-Fort George

9. Canadian Broadcasting Corporation/ Corus Television
10. Jim Pattison Industries Ltd, Real Estate Department

Dragon Mountain is partially designated a Provincial Park (Dragon Mountain Provincial Park). As a result, implementing effective wildfire risk reduction activities has historically been challenging due to restrictive regulations relating to parks and protected areas, coupled with difficult terrain. This raises significant concerns regarding the potential impacts of wildfire on these communications structures, particularly as it relates to cell service and communication during an emergency event.

Should the communication towers become compromised during a wildfire event, emergency response and recovery efforts would be directly affected in a number of ways:

1. Cellular customers, both smartphones and smart hubs in the City of Quesnel and parts of the Cariboo Regional District (CRD), as well as anyone travelling through the North Cariboo (approximately a 20 km radius) would lose cell service.
2. Agency interoperability would become more challenging as various agencies move to their secondary (backup) communication method. As each agency relies on different secondary methods, emergency communication between agencies would be compromised.

3.4.3 Fire Suppression Capabilities

The City of Quesnel operates three fire halls (Fire Hall #1, #2, and #3), located downtown, in Red Bluff, and West Village. Combined, the fire halls staff four paid career fire fighters and 41 volunteer fire fighters. All volunteer fire departments located in the North Cariboo have a mutual aid agreement in place that allows them to call upon any of the other departments for support when needed. This includes providing support for the West Fraser, Bouchie Lake, Barlow Creek, Kersley and Ten Mile Fire Departments for Regional District areas surrounding Quesnel.

All fire fighters receive training initially during their 5-month recruiting phase and then annually afterwards. The required training includes the following:

- National Fire Protection Association (NFPA) 1001 Fire Fighter Level 2 Professional Certification
- First Responder Training
- High Angle and Confined Spaces

Additionally, they receive annual wildland fire suppression cross-training with Sprinkler Protection Unit (SPU) certification. Weekly training occurs every Tuesday for two hours. Cooperative training sessions between the Quesnel Volunteer Fire Department (QVFD) and District and Wells/Barkerville fire departments also occur.

The QVFD owns the following fire response equipment:

- Two frontline engines with 1250 gal tanks and 1750 gallons/min (gpm) pumps
- One reserve engine
- One 100’ aerial platform truck with 300 gal tank and 2000 gpm pump
- One 3000-gal tender with 750 gpm pump
- One 2000-gal tender with 350 gpm pump

- One rescue truck, equipped for motor vehicle extrication, high angle rope/confined space rescue, and HazMat decontamination
- Four pickups, ¾ ton to 1 ton. One pickup has a 250-gal tank and 50 gpm pump, and equipment to meet BC Wildfire Service type 6 engine standard
- One Type 2 Structure Protection Unit (SPU) trailer, fully equipped to new BC provincial standard.
- One Type 3 SPU trailer – old standard, no longer in effect
- Various extra miscellaneous equipment (small engine portable pumps, bladders, nozzles, hose, hose rollers, etc.) and structural and wildland firefighting PPE for 50+ firefighters, located between the three firehalls

All apparatuses and fire equipment within the Quesnel Volunteer Fire Department meet or exceed NFPA standards. The QVFD holds additional equipment and larger diameter hose to aid in servicing surrounding Cariboo Regional District Fire Departments and neighbourhoods lacking fire hydrant access, and to ensure water flow requirements for suppression are met.

Mutual aid between the QVFD and surrounding area fire departments have been implemented for major structural fires and some wildfire support in the past. All departments have worked well together, making changes to equipment when necessary to adapt to other department equipment for more streamlined mutual aid efforts.

3.4.3.1 BC Wildfire Service - Quesnel Fire Zone

Within the BC Wildfire Service, the Quesnel area falls under the Quesnel Fire Zone, directed by the Cariboo Fire Centre. The Quesnel Fire Zone Base is located at the Quesnel airport and staffed with the following resources during the wildfire season (as of 2025):

- 4-person IA crew x4
- 21-person unit crew
- Wildfire officer x1
- Office technicians x6
- Fire Wardens x8
- Contract crews – Type 3 (basic) crews
- Access to 200+ pieces of local heavy equipment

In addition to a well-resourced Base, the Quesnel Fire Zone has strong established working relationships with the eight volunteer fire departments located within the Zone. The Zone meets three times a year with all fire departments for planning, coordination, and cross-training opportunities.

The Quesnel Fire Zone also runs a successful Junior Program each summer, consisting of local high-school students. The registration rate can be as high as 30 participants, with the majority of them successfully graduating from the program. Hiring success of graduates from the program has been very high.

3.4.4 Electric Power

Electrical power is supplied to the City of Quesnel by BC Hydro, primarily by above-ground transmission and distribution lines. A select few areas of the City and surrounding area contain underground electrical lines. The City has backup generators at City Hall, the RCMP detachment, the Arts and Recreation Centre, Public

Works building, all firehalls, the sewage lift stations and pre-treatment plant, and the airport. The generators do not provide back-up power to the whole building; they are meant to provide back-up power to the critical parts of each building. The number of generators owned by private landowners is unknown.

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

Table 5 and Figure 4 outline the critical infrastructure identified for the City of Quesnel. Critical infrastructure may not necessarily be owned by the City of Quesnel or located within the municipal boundary but provides the City and its residents with the essential services needed to support daily activities and well-being.

Table 5. Critical infrastructure for the City of Quesnel

Critical Infrastructure	Ownership	Location
Quesnel City Hall	City of Quesnel	410 Kinchant Street
Quesnel Volunteer Fire Department – Fire Halls (x3)	City of Quesnel	Fire Hall No 1 (main fire hall and administration offices): 310 Kinchant St, Quesnel Fire Hall No 2: 611 Fir St. (Red Bluff) Fire Hall No 3: 345 Anderson Drive (West Village)
Quesnel and District Arts and Recreation Centre	City of Quesnel Cariboo Regional District	500 North Star Road, Quesnel
Quesnel and District Rescue Society	Volunteer run	14 Johnston Bridge Loop, Quesnel, BC V2J 0A9
Dunrovin Park Lodge	Northern Health	Complex care facility
Schools in Quesnel	School District 28	Various locations
G.R. Baker Memorial Hospital	Northern Health	543 Front St, Quesnel

Critical Infrastructure	Ownership	Location
CRD Fire Halls	Cariboo Regional District	Barlow Creek, Bouchie Lake, Ten Mile, Kersley, West Fraser
RCMP – Quesnel Detachment	City of Quesnel	584 Carson Ave, Quesnel
Sugarloaf Communication Tower	City of Quesnel (tenure holder)	
Dragon Mountain Communication Towers	Multiple tenures	Durrell Road, Dragon Mountain
Dragon Lake Dam	City of Quesnel	
City Water Reservoirs (x8)	City of Quesnel	1558 Abbott Dr 1544 Abbott Dr 120 Tatchell Rd Hwy 97 Junction 560 Baker Dr Carson Pit Rd 180 Pinecrest Rd 108 Tachell Rd (backup)
Quesnel Regional Airport	City of Quesnel	651 Airport Rd, Quesnel
School District 28 Quesnel (Transportation Office)	School District 28	1120 N Fraser Dr, Quesnel, BC V2J 1Z9

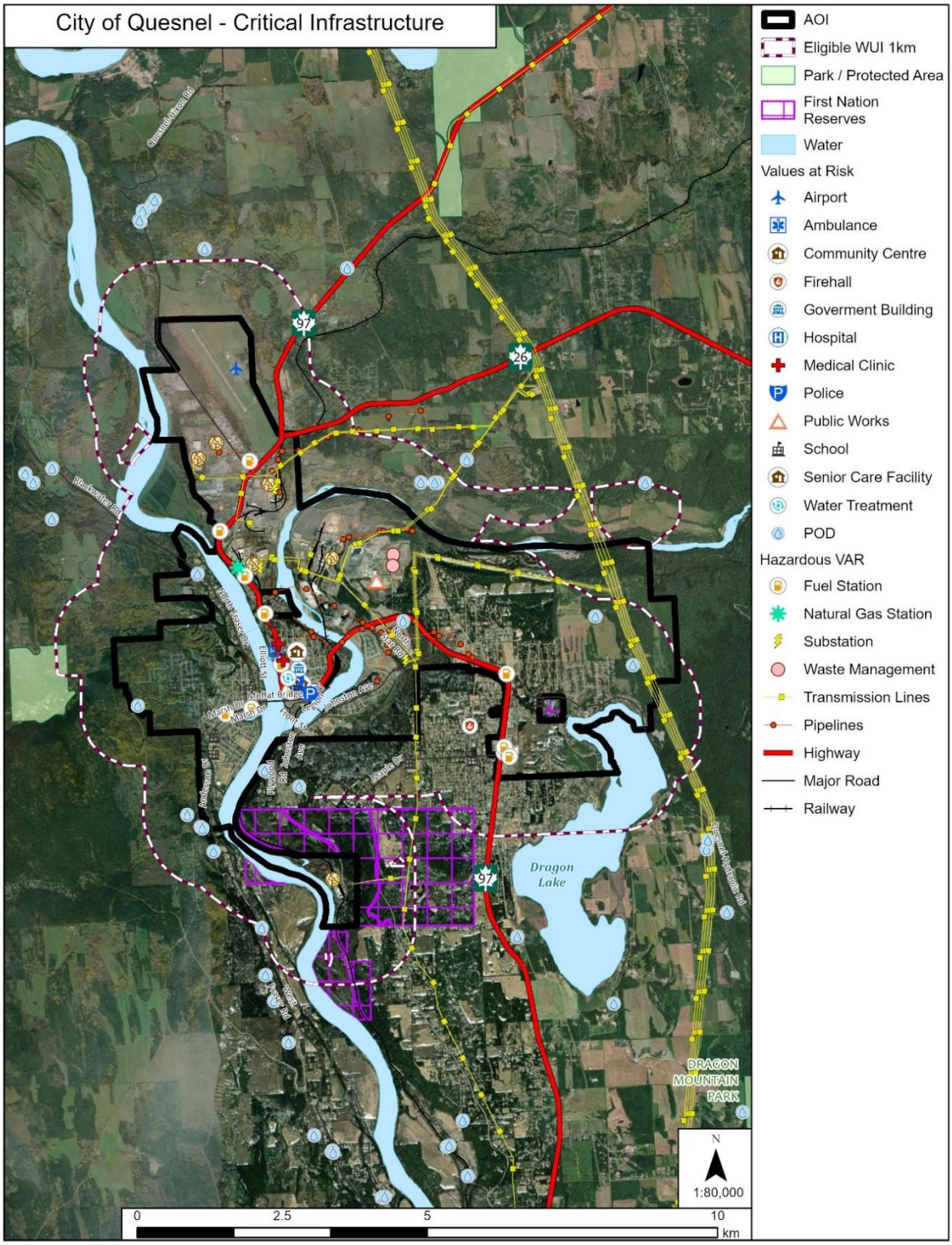


Figure 4: Critical Infrastructure (CI) identified within the City of Quesnel

3.4.6 Community Water Supply and Sewage

Potential impacts to watersheds that provide surface water resources for communities should be identified, as wildfires may affect soil integrity and sedimentation levels, as well as increase likelihood of landslides. These effects can significantly degrade water quality for extended periods of time. There are no designated community watersheds for surface water use within or surrounding the City of Quesnel.

The City of Quesnel obtains its water via groundwater wells. The City's water system services the commercial, industrial, and residential needs of approximately 10,000 people. It is comprised of 6 operating groundwater wells (main system), 8 reservoirs, 5 booster pump stations, 2 main Pressure Relief Valve (PRV) stations, and approximately 100 km of water mains. In addition, the City also maintains one independent groundwater well on Sword Road (small system) in South Quesnel to provide water to the ball parks.

At present there is no treatment or disinfection provided to the City's water system. Additionally, a Bulk Water Station (distribution plant) is available 24 hours a day, 7 days a week for residents to access clean drinking water for a fee. The station accommodates a variety of connections and container sizes.

Currently, there are no concerns regarding water availability in the near future. The City has identified and implemented water conservation efforts, such as outdoor sprinkler regulations and limitations during peak summer months. Since implementation of these restrictions in 2003, water use records indicate an approximate 15% reduction in Maximum Day Demand during times of active restrictions[7]. Additionally, the bulk water distribution plant was built to ensure the safety and integrity of the water system, for cost recovery, and to promote the responsible use of water. Continued efforts towards water conservation will help ensure the City maintains an adequate water supply for use, consumption, and fire suppression.

The City of Quesnel sanitary sewer system is comprised of 8 lift stations and a pre-treatment facility (near the confluence of the Fraser and Quesnel Rivers). The City has a contract for treatment with Cariboo Pulp and Paper once it is pumped from the pre-treatment facility to the lagoons at Cariboo Pulp.

3.4.7 Cultural Values

The City of Quesnel is situated within the traditional territories of the Dakehl and Tŝilhqot'in Nations, specifically the Lhtako Dené, ʔEsdilagh, Nazko, and Lhoosk'uz Dené First Nations. The City of Quesnel has developed a working relationship with the Nations surrounding the Quesnel area, including the Lhtako Dené Nation who have multiple reserve areas adjacent to Quesnel. The City and the Lhtako Dené Nation have a Memorandum of Understanding that recognizes the Nation's traditional territory and allows for cooperative government to government relations. The City is currently working on similar MOU's with each of the surrounding First Nation Governments.

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 resources. Prior to any

[7] (2020) *City of Quesnel Water Conservation Strategy*. https://www.quesnel.ca/media/file/2020-03-03water-conservation-strategy

land disturbance, a Preliminary Field Reconnaissance (PFR) will likely be required to identify any cultural values within the area that could be impacted, with potential for more in-depth archaeological assessments and mitigation efforts as requested by the Nation. Any planned activities or treatments for the purpose of fuel reduction must be appropriately communicated to local Indigenous Governments and allow for meaningful engagement throughout the project.

In addition to indigenous cultural values, the City of Quesnel also contains non-indigenous heritage values including historical and heritage sites. The Quesnel and District Museum and Archives is located in downtown Quesnel in the same building facility as the Visitor Centre. The Museum and Archives operates a Heritage Register containing an official list of buildings and sites within Quesnel with heritage value or character. Although the Heritage Register does not provide any formal protection for sites/properties, it provides important information and documentation reflecting the history of the community.

3.4.8 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 6. Red listed species represent any species or ecosystem that is at risk of being lost (extirpated, endangered or threatened). Blue listed species are any species or ecosystem that is of special concern.

Table 6. Red and blue listed species found within or directly surrounding the Quesnel AOI

Common Name	Scientific Name	Element Type	BC List Status
White Sturgeon (Upper Fraser River Population)	Acipenser transmontanus pop. 5	Vertebrate Animal	Red
Gypsy Cuckoo Bumble Bee	Bombus bohemicus	Invertebrate Animal	Red
Yellow-banded Bumble Bee	Bombus terricola	Invertebrate Animal	Blue
Pacific willow / red-osier dogwood / horsetails	Salix lasiandra var. lasiandra / Cornus sericea / Equisetum spp.	Ecological Community	Blue
Awned sedge Fen – Marsh	Carex atherodes Fen - Marsh	Ecological Community	Blue
Common spike-rush Herbaceous Vegetation	Eleocharis palustris Herbaceous Vegetation	Ecological Community	Blue
Sprengel's sedge	Carex sprengelii	Vascular Plant	Blue

In addition to the red- and blue-listed species identified above, there were mapped occurrences of secured data overlapping the AOI. Some element occurrences are secured:

- to protect the element from persecution or harm
- for proprietary reasons
- to protect government interests

Secured records are either for internal government use only, or are released on a need-to-know basis. For example, secure occurrence information may be requested on a need-to-know basis if a project location overlaps a secured element occurrence and the details of the occurrence are relevant to decision making. This includes fuel reduction and wildfire mitigation activities.

3.4.8.1 Parks and Recreation

The municipal footprint threads two salmon-bearing rivers—the Fraser and the Quesnel—linked by 12 kms of trails connecting greenspaces, rivers, and creeks, that provide areas for people to walk, run, bike, and snowshoe. Together these green spaces preserve riparian cottonwoods, seasonal floodplain wetlands, and a key migration corridor for sockeye, chinook, and coho that move through the lower Fraser/Quesnel system.

Just outside the city, Pinnacles Provincial Park (124 ha) protects Baker Creek's hoodoo-rimmed valley, while Ten Mile Lake (north) and Dragon Lake (south) offer beach access, nature trails, and regionally renowned trout fisheries. These adjacent parks extend wildlife connectivity onto the wider Cariboo Plateau and provide recreational refuges that complement the in-town river corridor.

Within City limits, Quesnel houses the following high value parks and recreational features:

- West Fraser Timber Park
- Baker Creek Park
- Quesnel Bike Park
- Fuel Management Trails
- Riverfront Trails
- Sugarloaf Dog Park
- LeBourdais Park
- Lhtako Dené Park
- Chuck Beath Park
- Fraser River Park
- The Cariboo Raceway Park, Speedway Tracks, and Offroad Tracks
- South Quesnel Park
- Albert Johnson Memorial Park
- Alex Fraser Park
- Weldwood Park
- Patchett Street Park
- Johnston Subdivision Park

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 City of Quesnel's resiliency to wildfire.

Understanding the difference between **wildfire threat** and **wildfire risk** provides context for the risk assessment process and promotes alignment and support for risk mitigation strategies. Wildfire risk differs from wildfire threat in that risk takes into consideration the likelihood and potential consequences of a wildfire event on human values.

Wildfire Risk: the likelihood of fire occurrence, fire behaviour, and its potential negative impacts on human values. Overall wildfire risk-based framework considers the combination of the following:

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

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
- **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 5).

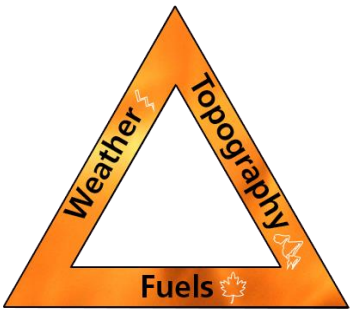


Figure 5. The fire triangle – interacting components that drive a wildfire

4.1 LOCAL WILDFIRE ENVIRONMENT

Analysis of local wildfire environment factors, such as topography, fuels, and weather facilitate a deeper understanding of their combined effects on fire regimes, which includes frequency, intensity, size, severity, season, and ignition sources.

4.1.1 Topography

Topography describes components of the landscape that can influence fire behaviour including prominent land features, elevation, slope steepness, and slope aspect. These features affect fire behaviour in the following ways:

- **Slope:** Steeper slopes accelerate the preheating and combustion phases of fuels uphill due to rising of hot air and shorter distance between burning and unburned fuels. Fires typically move slower going downhill.

- Aspect: Determines amount of sun exposure influencing fuel composition and moisture content. In the northern hemisphere, south-facing slopes receive more sunlight throughout the day, resulting in dryer conditions and increased flammability of fuels compared to northern aspects.
- Elevation: Influences weather conditions such as air temperature and seasonal moisture levels. Higher elevations generally mean cooler temperatures and slower snow melt rates.
- Prominent land features: Funnel and concentrate wind flows, increasing fire intensity. The spatial structure of these features can also increase radiant and direct heat transfer.

Within the city, elevations range from ~470 m along the Fraser and Quesnel rivers to the mid-500 m benches on the surrounding uplands. The steep river bluffs expose thick lake-bed (glaciolacustrine) silts and clays, which underlie much of West Quesnel. Beneath this area lies the ancient West Quesnel Slide—a large, slow-moving landslide. It likely began when the Fraser River and Baker Creek rapidly incised their valleys after glaciation, removing lateral support; records note a >230 m river-level drop and weak volcanic/tuffaceous units overlain by silts and clays. Movement today is highly sensitive to groundwater and seasonal rain/snowmelt, which is why the City monitors and dewaters the slide zone.

While the Fraser River carves the city's north–south spine, broad plateau lands stretch for hundreds of kilometres on either side—the Cariboo Plateau to the east and the Chilcotin Plateau to the west—creating rolling, lake-studded uplands and steep river bluffs that frame Quesnel's benches, terraces, and hoodoo-cut side valleys.

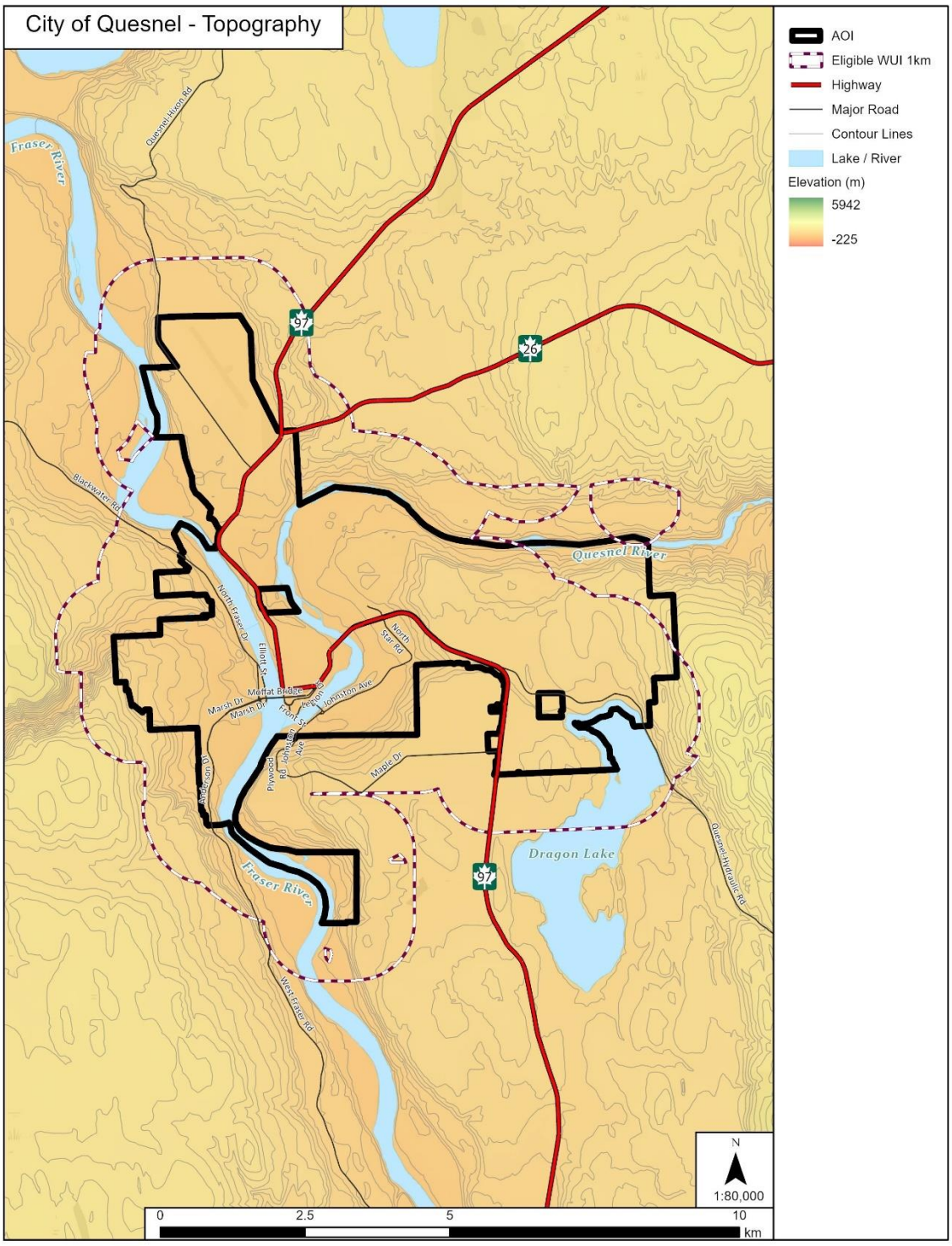


Figure 6: Topographic map and Digital Elevation Model for the City of Quesnel

4.1.2 Fuel, Ecosystems and Fire Regimes

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

4.1.2.1 Biogeoclimatic Zones

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

Quesnel is situated within the Sub-Boreal Spruce BEC zone and more specifically, the Sub-Boreal Spruce moist hot (SBSmh) and Sub-Boreal Spruce Dry Warm (Horsefly variant) (SBSdw1) subzones (Table 7) (Figure 7). The SBS Zone is part of the Canadian Boreal Forest Region but is broadly transitional between the true boreal forest (BWBS Zone) to the north and warmer and drier Douglas-fir and pine dominated forests to the south[8]. In the Cariboo Forest Region, the SBS Zone occurs primarily on gently to strongly rolling topography of the eastern Fraser Plateau.

Table 7: Area Breakdown of BEC Subzones within the City of Quesnel Boundary

BEC Subzone	NDT	Area (ha)	% of AOI
SBSmh	3	3,901	99
SBSdw1	3	24	1

The SBSmh occurs along the lower slopes and valley floors of the Fraser River and Quesnel River valleys. It is the warmest subzone of the SBS in the Cariboo Forest Region. Warm summer and ample moisture support abundant tall shrub species and productive mosaics of coniferous and deciduous stands on mesic to subhygric slopes. Forested areas contain hybrid spruce, subalpine fir, Douglas-fir, trembling aspen, black cottonwood, and paper birch.

SBSdw1 sits on the 900–1250 m plateaus above the Quesnel and Fraser River valleys where a warm but drier climate prevails; climax stands are uncommon due to frequent stand-initiating fires historically, but where present feature hybrid spruce, subalpine fir, with some Douglas-fir. Seral stands are dominated by even-aged stands of Douglas-fir, lodgepole pine, and trembling aspen on mesic–xeric terrain.

[8] LMH 39: A Field Guide to Forest Site Identification and Interpretation for the Cariboo Forest Region. http://library.nrs.gov.bc.ca/digipub/Lmh39_Part1.pdf

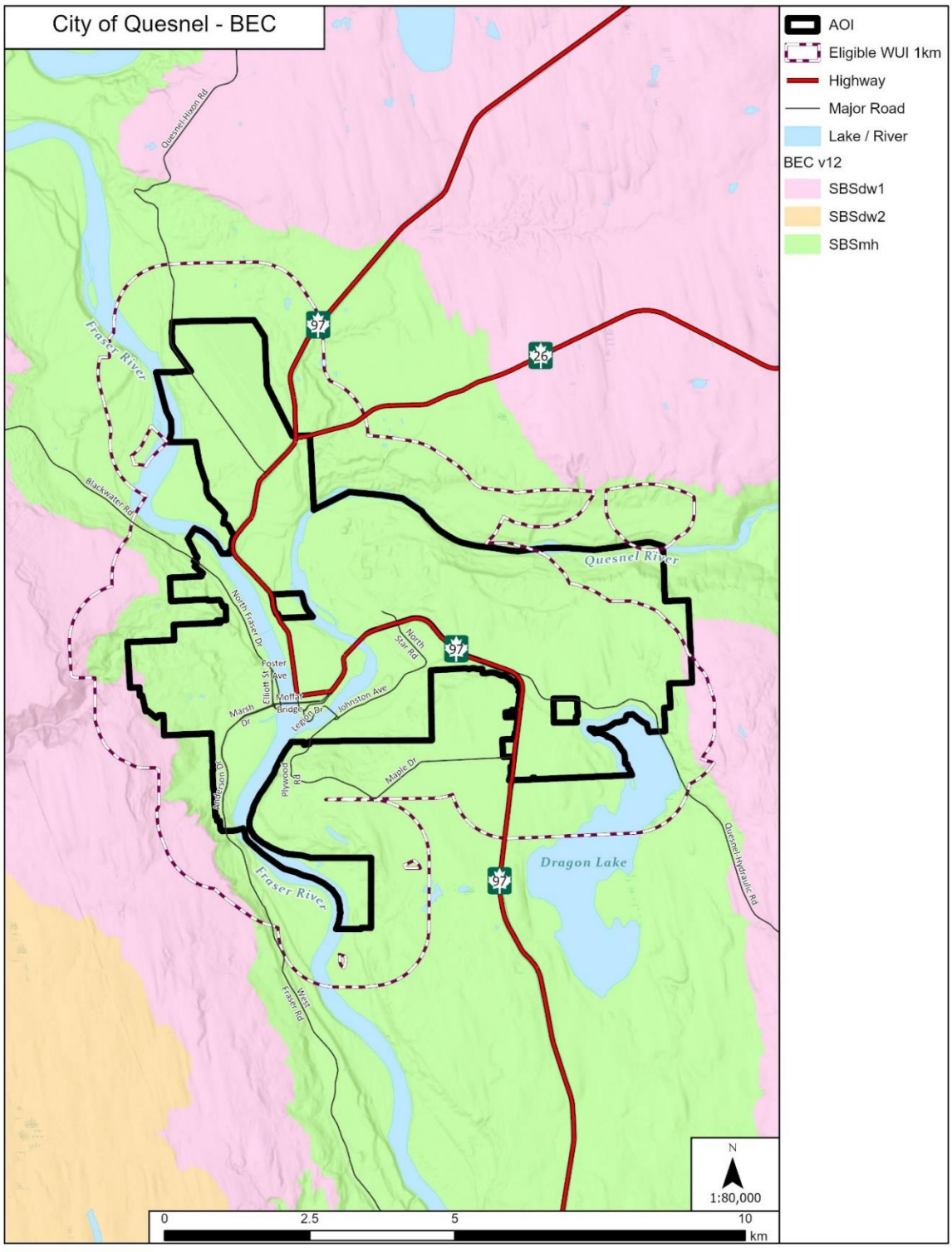


Figure 7: Biogeoclimatic Zones and Subzones within the Quesnel area

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, such as wildfire. NDTs are closely tied to the BEC Zones and are categorized into five broad disturbance regimes: NDT 1 through NDT 5 (Table 8).

Table 8: Description of Natural Disturbance Types (NDTs) within British Columbia

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

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[9]. These alterations may disrupt the natural disturbance regime, highlighting the need for proactive management strategies to address these challenges.

The Quesnel area falls within a Natural Disturbance Type 3 (NDT 3) regime. NDT 3 is characterized by ecosystems that experience frequent, large-scale stand-initiating events with fire being the primary disturbance, although outbreaks of defoliating insects are also frequent. Fires in this NDT range in size, but can commonly exceed 100 000 ha, resetting vast areas and producing young, even-aged forest with scattered islands of survivors. Typical attributes include (i) mean disturbance intervals of 125 years, (ii) tree ages rarely beyond ≈250 years, and (iii) management "old seral" thresholds set at > 140 years for conifer-

[9] 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.

leading stands (> 100 yrs if deciduous-leading)[10]. The SBSmh and SBSdw1 sub-boreal spruce variants dominating the Quesnel area are classic examples of this disturbance-driven template, with evidence of both large-scale fires and pest infestation events.

4.1.2.3 Fuel Types

For fire behaviour prediction purposes, Canadian forests and grasslands are categorised 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 Quesnel AOI, including a five-kilometre buffer to capture fuels adjacent to the City. More detailed descriptions of these fuel types can be found on the Natural Resources Canada website. [11]

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 present within the stand. For example, the C-3 (Mature Lodgepole Pine) fuel type does not require exclusively mature pine trees be present, but rather considers the overall forest and fuel complex, including stand density, arrangement, and continuity. As many of the vegetation communities within BC are not suitably represented by the boreal-based FBP fuel types, fuel types should be regarded as a 'best fit' based on best available scientific research and professional knowledge/experience.

Table 9. Canadian Fire Behaviour Prediction FBP System Fuel Types present within the Quesnel AOI and a five-kilometre buffer

Fuel Type	Characteristics and Local Attributes	Percentage of Area
O-1a/b Grass	Fastest rate of spread potential. Local Attributes: Characterized by continuous grass cover, with no more than occasional trees or shrub clumps that do not appreciably affect fire behaviour. Two subtype designations; O1-a for the matted grass condition common after snowmelt or in the spring, and O-1b for standing dead grass common in late summer to early fall.	31%
M-1/2 Mixedwood (25-75% 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.	28%

[10] Forest Practices Code of BC: Biodiversity Guidebook (1995) https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/natural-resource-use/land-water-use/crown-land/land-use-plans-and-objectives/cariboo-region/cariboochilcotin-rlup/biodiversity_guidebook.pdf

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

Fuel Type	Characteristics and Local Attributes	Percentage of Area
	Local Attributes: Characterized by stand mixtures of various coniferous and deciduous species, including hybrid spruce, subalpine fir, Douglas-fir, lodgepole pine, birch, cottonwood, and aspen. Stands exhibit wide variability in structure and development with anywhere from 25-75% conifer component. Forest floor is often comprised of deciduous shrubs and leaf litter. In the summer, when the deciduous overstory and understory are in leaf (M-2), fire spread is greatly reduced, with maximum spread rates only one-fifth that of spring or fall fires under similar burning conditions (M-1 leafless).	
C-7 Ponderosa Pine – Douglas Fir	Lowest rate of spread and lowest fire intensity of the conifer fuel types. Higher fire intensity classes required for continuous crown fire to occur. **Local Attributes:** Comprised predominantly of Douglas-fir. Structure is uneven-aged, patchy, with gaps in the overstory. The forest floor primarily composed of perennial grasses and patchy shrubs.	15%
D-1/2 Deciduous (D1 leafless aspen, D2 green aspen)	Lower rates of spread, lower ember production and lower fire intensity (than conifer) when trees have leaves (D-2) due to high retention of moisture. Often used in urban interface areas to reduce fire behaviour around values. Increased flammability in the spring during their leafless phase (D-1) as temperatures warm. **Local Attributes:** Stands are comprised of >75% deciduous trees and shrubs, including trembling aspen, birch, and cottonwood.	13%
C-3 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. **Local Attributes:** Fully stocked/higher density conifer stands that have matured at least to the stage of complete crown closure. Conifer understory may be present. Forest floor is moss with some dead woody fuels.	3%

The most common fuel types found within the City of Quesnel and surrounding area (within 5km) are O-1a/b, M-1/2, C-7, and D-1/2 (Figure 9). Vegetative fuel types representing less than 1% of the area are not listed in Table 9. O-1a/b is highly represented at around 30% due to the fact that residential properties within the City and surrounding agricultural land are typed as a grass fuel type. Forested areas throughout and surrounding the City of Quesnel are predominantly mixedwood, with varying proportions of conifer components (Figure 8). The mixedwood fuel type represents nearly 30% of the analysis area. C-7 and D-1/2 fuel types each represent approximately 15% of the area, with C-7 found on more well-drained sites and D-1/2 on more water-receiving or disturbed sites.

Figure 8: Representative example of a mixedwood stand (M-1/2 fuel type) within the City of Quesnel

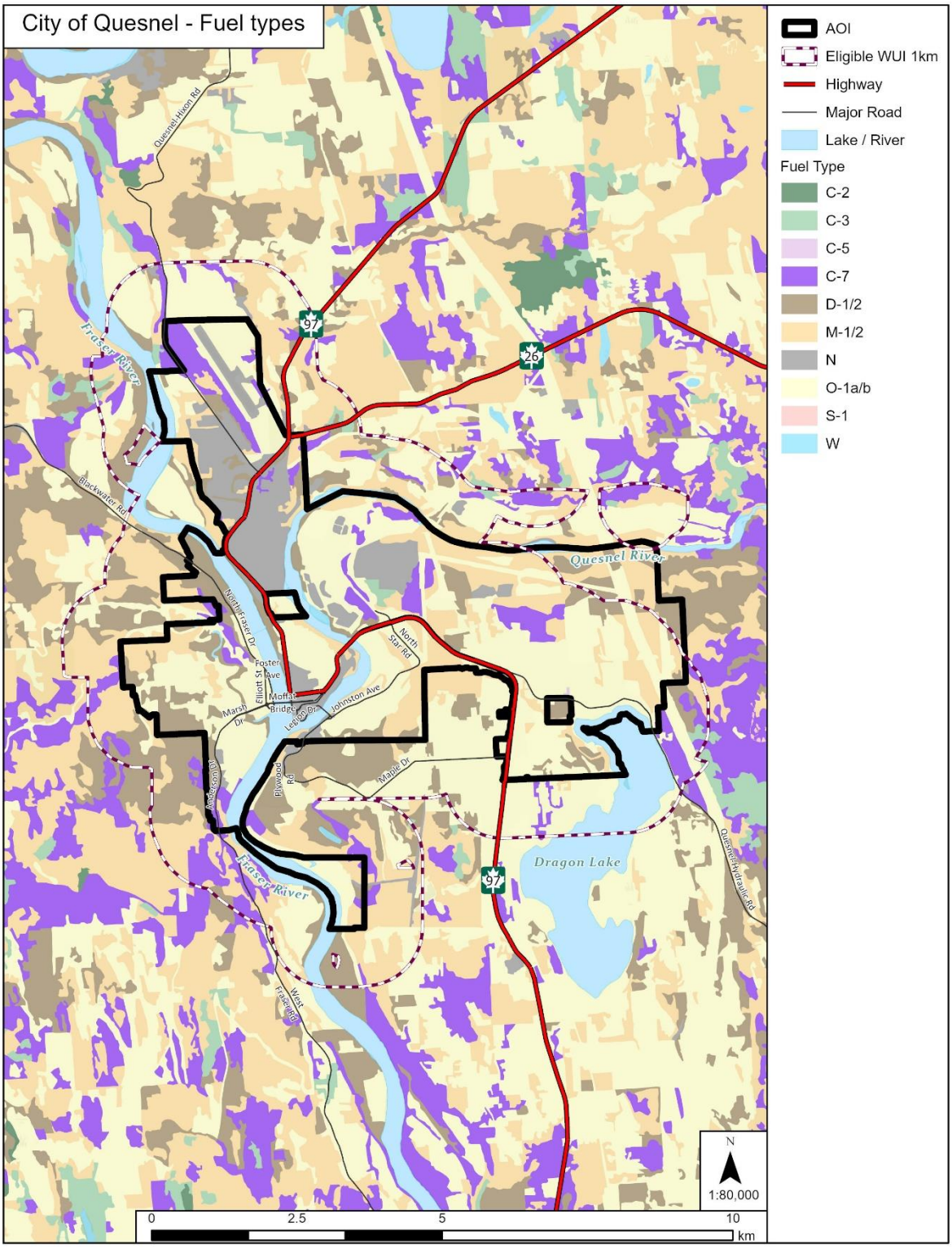


Figure 9: FBP Fuel Types located within and around the Quesnel area

4.1.2.4 Forest Health

The Quesnel Natural Resource District has been experiencing a number of forest health challenges over the past decade since the decline of the mountain pine beetle (MPB) epidemic that ravaged the region from the late 1990s through to 2015, causing unprecedented spread, damage and mortality to lodgepole pine-dominant forests. Since the MPB epidemic, the region has seen increases in various other forest health factors such as Douglas-fir bark beetle (*Dendroctonus pseudostugae*), spruce beetle (*Dendroctonus rufipennis)*, western balsam bark beetle (*Dryocoetes confusus*), western spruce budworm (*Choristoneura occidentalis)*, and aspen leaf miner (*Phyllocnistis populiella*).

The Douglas-fir bark beetle caused significant mortality of mature Douglas-fir trees in the Quesnel Timber Supply Area (TSA) starting in 2017 through to 2020, with an infestation peak of 10,501 hectares in 2018. Results from the Douglas-fir beetle funnel trapping program in the Quesnel district over the last few years have shown a decrease in beetles captured, demonstrating an overall decline in Douglas-fir beetle activity in the region since 2020[12].

Spruce beetle infestation has been sporadic across the Quesnel TSA, reaching a peak infestation of 19,088 hectares in 2022. However, there has been a significant decrease in outbreak area from 2022.

Western balsam bark beetle activity reached peak infestation levels in 2018 and is still considered to be at elevated levels. Most activity is concentrated in high elevation forests and is generally lightly dispersed over large areas. It is most common southeast of Wells but is found across the district.

Despite its name, the western spruce budworm feeds primarily on interior Douglas-fir. In 2023, an outbreak of western spruce budworm began impacting interior and coastal transition Douglas-fir forests of higher elevation (800-1000m) throughout BC. Within the Quesnel TSA, increased budworm attack has been reported along the Fraser River near Margeurite and Castlerock. This generally represents the northernmost extent of this defoliator but with increasing temperatures, the range of the budworm should be monitored.

The aspen leaf miner continues to be a major health factor in trembling aspen throughout the central interior and has been responsible for considerable defoliation throughout the Quesnel TSA. The leaf miner itself does not usually cause enough damage to a tree to cause mortality, but it can reduce photosynthetic capacity by up to 75%. This weakens the ability of trees to fend off or recover from other pathogens. These cumulative effects can cause mortality.

Drought associated stress of various conifer species has been reported over large areas of the Quesnel District beginning in 2021. Drought stress decreases the health and resiliency of forests and may lead to an increase of bark beetles or other forest health factors in subsequent years.

The impacts of forest health agents acting on forest stands on the landscape can result in large tracts of stressed, declining, or dead trees, which increases the incidence of dry fuels available to burn and further exacerbates wildfire hazard. Forest health management must be considered locally and on the landscape to maintain forest stand resilience.

[12]Quesnel Natural Resource District Forest Health Strategy. 2024. https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/forestry/forest-health/forest-health-docs/dqu_forest_health_strategy_2024_approved.pdf

4.1.3 Weather and Climate

Weather attributes, including temperature, relative humidity, precipitation, wind speed and wind direction, are critical factors in the ignition, spread, and duration of wildfires. Weather is the most variable and complex component of the wildfire environment, and it has a direct relationship to fuel moisture, which is a crucial determinant of combustibility. Local difference in aspect, topography and vegetation will also influence fuel-moisture at the site level. All weather forecasting for this CWRP is dependent on observations from the Quesnel Airport weather station, located within the valley.

Table 10. Weather station information for the Quesnel Airport

Weather Station	Quesnel Airport
Network	Environment Canada
Coordinates	53.03° N, 122.51° W
Elevation	545.3 m

4.1.3.1 Temperature and Precipitation

Precipitation analysis from the Quesnel Airport weather station indicates that July is, on average, the wettest month during fire season, with a monthly average of 49 mm of rainfall (Figure 10). April has the lowest level of precipitation on average, indicating that the spring season is generally the driest period of the wildfire season, which can result in moisture deficits leading into the fire season. Warming spring days with lower moisture levels result in a buildup of cured, flammable fuels until the green-up phase in late May or June. This is known as “spring dip” where deciduous shrubs and trees are most flammable.

Temperature records show that over the past decade, July and August have consistently been the hottest months, with average temperatures of 21.8 °C and 21.3 °C, respectively. The highest recorded temperature occurred in June 2021 at 36.4 °C, coinciding with the 2021 heat dome event that impacted British Columbia.

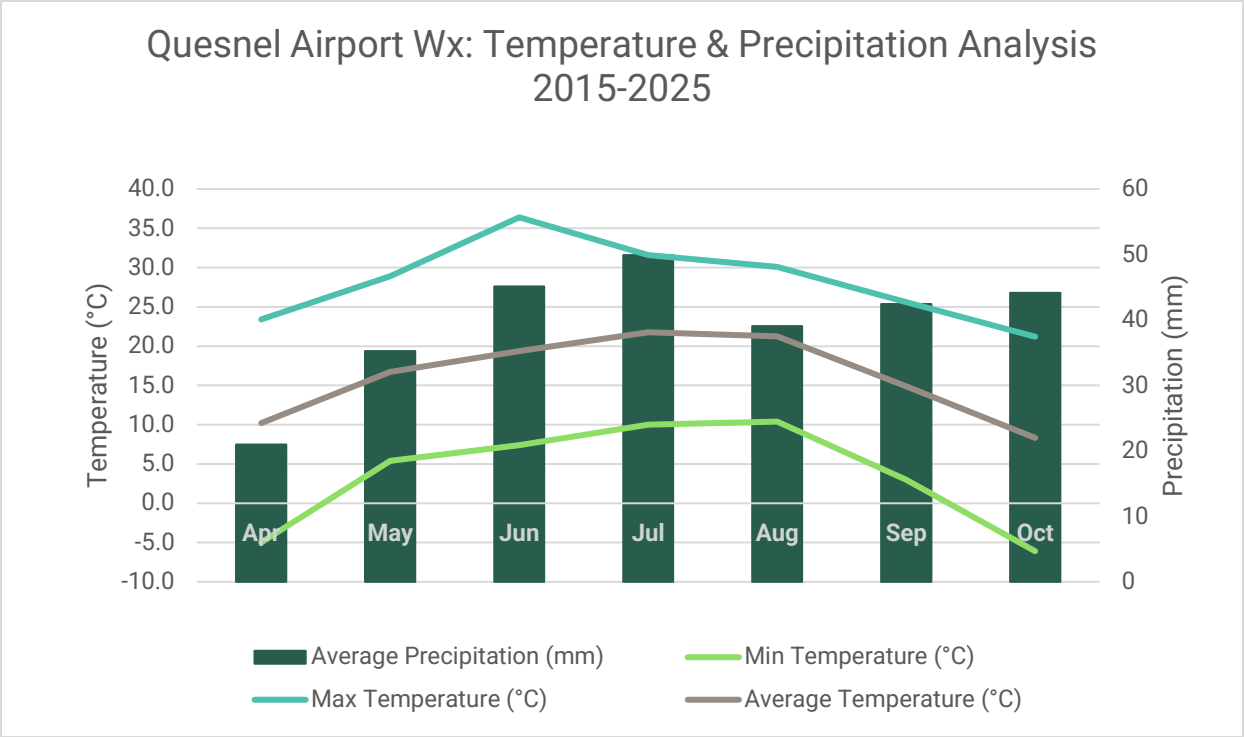


Figure 10. Average monthly precipitation and minimum, maximum and average temperatures recorded from the Quesnel Airport Weather Station from April through October (2015 to 2025).

4.1.3.2 Wind

Wind speed and direction are the most variable factors influencing fire behaviour, contributing to the unpredictability of fire behaviour, intensity, and severity. Over the past decade, wind-driven events and observations highlight the importance of readiness for high winds from any direction. While historical data can aid in prioritizing treatment locations, communities must be prepared for wind-driven fires from any direction.

Wind roses are used as visual tools to illustrate wind speed and direction for a particular location on a monthly basis. In these diagrams, colours indicate Initial Spread Index (ISI), while the area within each cardinal quadrant represents the percentile of wind occurrences driven from a particular direction. ISI is a numeric rating of the expected rate of fire spread based on wind speed and moisture content of fuels. Wind data from the Quesnel Airport weather station was analysed for the wildfire season (April to October) for the period from 2010 to 2025 to illustrate local wind patterns applicable to the City of Quesnel (Figure 11).

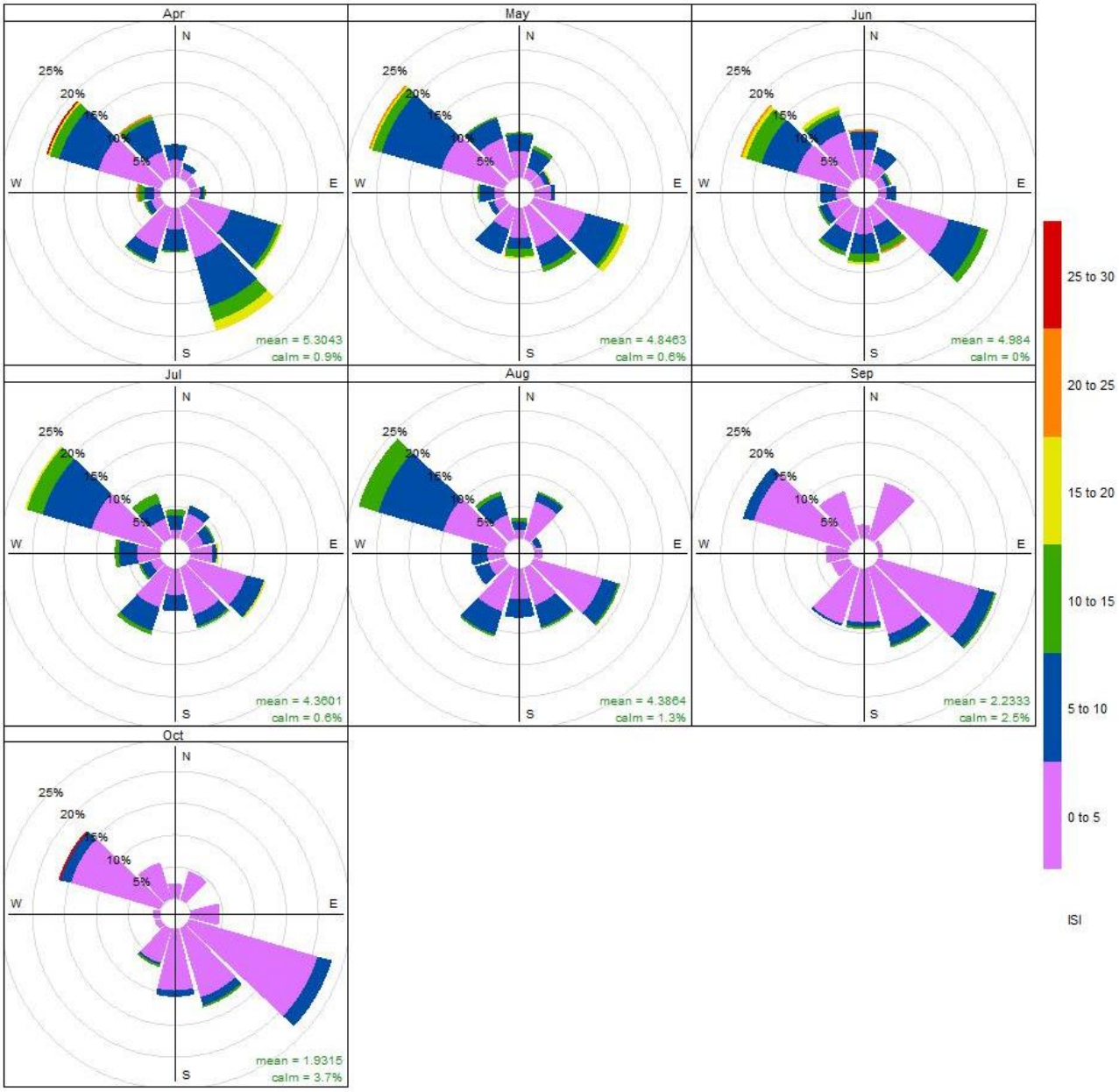


Figure 11: Wind Rose for the Quesnel Airport Weather Station (2010-2025)

As illustrated in Figure 11 above, the predominant wind direction during the wildfire season for the City of Quesnel is from the southeast and northwest, generally following the topography of the Fraser River Valley. The spring months of April, May and June experience the highest wind speeds, which increases the potential for increased fire spread during warm, dry spring conditions prior to leaf out of deciduous vegetation.

4.1.3.3 Climate Change

The province of BC has witnessed the most severe wildfire seasons of the last half-century, occurring in 2017, 2018, 2021, 2023 and 2024, all characterized by extreme weather conditions. The recent surge in fire activity is not entirely unexpected, given recent weather extremes. However, the emergence of increased wildfire activity and the magnitude of events around 2000 occurred earlier than climate models anticipated. For instance, four of the past eight years saw more than 1 million hectares burned, compared to only three wildfire seasons from 1919 to 2016 exceeding 0.5 million hectares burned. Additionally, the average length of the wildfire season and the onset of fire activity has increased by 26.7 and 27.1 days respectively, since the early 20th century.[13] Figure 12 below demonstrates the relationship between weather, vegetation/fuels, and ignition potential, and the impacts on each of these components under a changing climate.

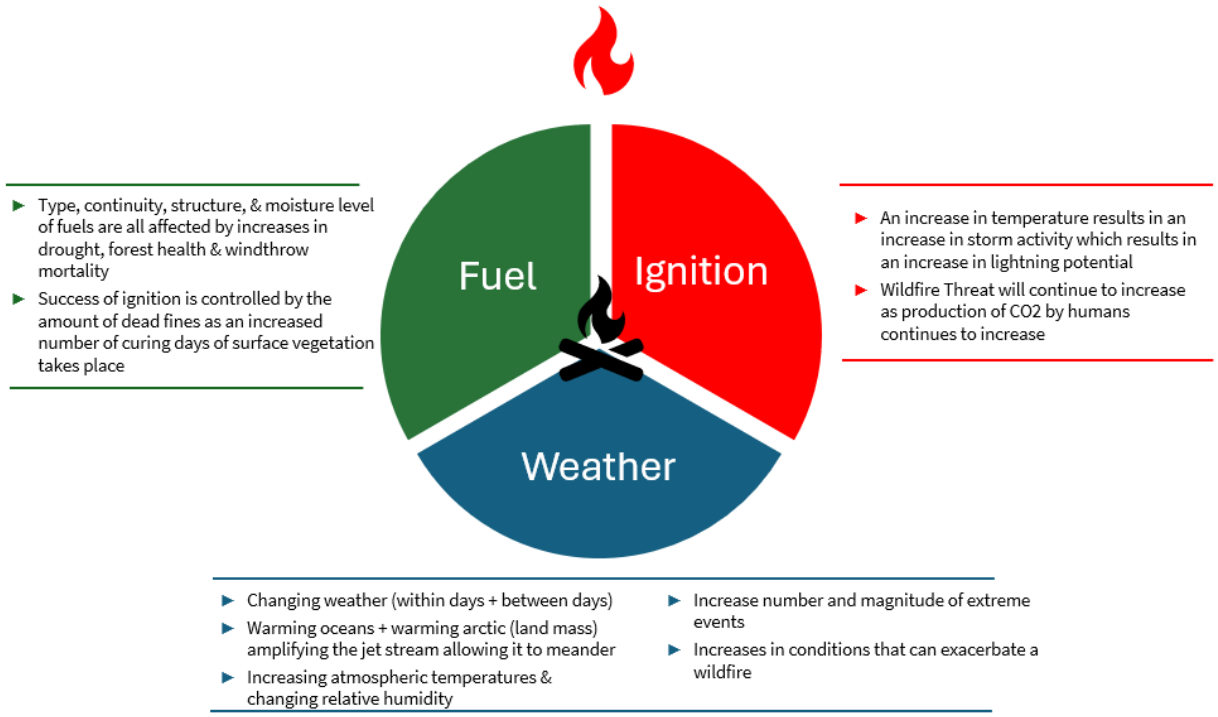


Figure 12: Potential impacts of climate change on weather, fuels/vegetation, and ignition potential.

The Pacific Climate Impacts Consortium (PCIC) conducts quantitative studies on the impacts of climate change and variability.[14] Projected climate change data from the PCIC presents a comprehensive view of potential climate change risks and impacts due to inputs from many raw data sources. Strong trends in temperature and precipitation, as well as an integrated measure of the two, the moisture deficit, have been observed in BC over the past century. Annual area burned correlates significantly to the climatic moisture

[13] 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.

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

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.[15]

Table 11: Projected change in temperature and precipitation for the Cariboo Region (PCIC)

Climate Variable	Season	Baseline Mean Value (1981 – 2010)	Projected change from historical baseline (1981-2010) to the 2050s (2041-2070) for the Cariboo Region	
			Ensemble Median*	Range^ (10th to 90th percentile)
Temperature	Annual	2.3 °C	+2.6°C	+2.1 °C to +4.2 °C
	Summer	11.8 °C	+3.5°C	+2.4 °C to +5.0 °C
	Winter	-7.1 °C	+2.4°C	+1.1 °C to +3.3 °C
Precipitation	Annual	2.04 mm/day	+8%	+5% to +12%
	Summer	1.91 mm/day	-2%	-12% to +4%
	Winter	2.25 mm/day	+18%	+12% to +27%

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

^The range values represent the lowest and highest results within the set.

It is predicted that by 2050, Quesnel's climate will likely be warmer and somewhat wetter overall, but seasonal patterns have a significant influence on potential wildfire behaviour (Table 11). Forecasts suggest an annual temperature rise of roughly +2.6°C (with a low-to-high range of +2.1°C to +4.2°C) and a modest annual precipitation increase of about +8% (range +5% to +12%). Most of that extra moisture is expected in winter (+18%), whereas summer shows minimal change in average precipitation (-2%) with potential to be up to 12% drier.

Warmer conditions combined with lower summer rainfall typically translate into drier surface fuels, faster curing of fine vegetation, and a longer window each year when fires can start and spread. Even if winters become wetter, the extra precipitation may come as snow or early-season rain that promotes vegetation growth; once that growth cures in a hotter summer, it can add to fuel loads. A 2°C warming can also increase the number of days with high fire-weather indices, elevate lightning activity, and intensify convective winds, all of which raise the probability of fire ignition and rapid spread. Forest health may be

[15] 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.

strained: heat and intermittent drought favour bark-beetle outbreaks and other pests, while more frequent stand-replacing fires could significantly impact timber and other values on the landscape. In short, the model consensus suggests a climate for Quesnel that is warmer year-round, wetter in winter, but effectively drier in summer—conditions that generally elevate wildfire likelihood and potential fire behaviour while putting additional stress on local forest ecosystems.

4.2 WILDFIRE HISTORY

Wildfire is a common occurrence in the Cariboo/central plateau region of BC due to its rolling landscapes covered predominantly by sub-boreal coniferous forest types that support large-scale fires. A historical wildfire analysis was conducted for the City of Quesnel and the surrounding area. Using data from the BC Wildfire Fire Incident Locations - Historical database, Table 12 examines the types of wildfires within the Quesnel AOI and a ten-kilometre buffer from 1919-2024.

Table 12. Area burnt within the City of Quesnel (AOI) boundary and within a 10km buffer of the AOI, summarized by ignition source (Source: BC Wildfire Service Historical Fire Perimeters spatial dataset)

	Lightning	Person	All
Number of Ignitions	61	512	784 (211 starts are unknown)
Total Area Burnt (ha)	0.0	4,118.2	4,118.2
Percentage of Burned Area (%)	0.0	100	
Percentage of Wildfires (%)	0	100	

BC Wildfire Service records show that, aside from a few very small lightning starts, almost every fire within about 10 km of Quesnel since 1950 has been classed as human-caused—meaning anything not started by lightning (Figure 13). Most arise from everyday activities such as escaped debris piles, smouldering campfires, spark-throwing equipment, or hot exhaust on dry grass, though oddities like wildlife contacting power lines is also considered "human-caused". In the wider Cariboo, human ignitions dominated the rail-and-settlement boom of the 1920s-50s, but their frequency has declined since. Province-wide, lightning now accounts for about 60% of starts and roughly 85% of the area burned.

Over the past decade, wildfire size has soared as a century of fire exclusion built up fuels and a warmer, drier climate stretched fire-weather windows, giving lightning the perfect conditions to drive today's largest burns. Five of BC's ten worst fire seasons have occurred since 2010, including back-to-back "mega seasons" in 2017-18 and the record-breaking 2023 season.

These escalating seasons have already left their mark on Quesnel. The 545,000 ha Plateau Complex of 2017 filled the city with smoke, triggered repeated evacuation alerts, and even shut Highway 97 and key east–west routes in the region. The Green Mountain Fire (2017)—about 25 km southeast of town—prompted local alerts (including Kersley) and drew attention to the proximity of critical Dragon Mountain communications sites. In 2018, the Narcosli Creek Fire led the City and CRD to place West Quesnel under evacuation alert as winds and access constraints raised concern for fast-moving spread. Together, these incidents underscore how quickly fires can disrupt neighbourhoods and transportation lifelines around Quesne, and why even moderate starts on the surrounding plateaus can escalate into community-scale emergencies.

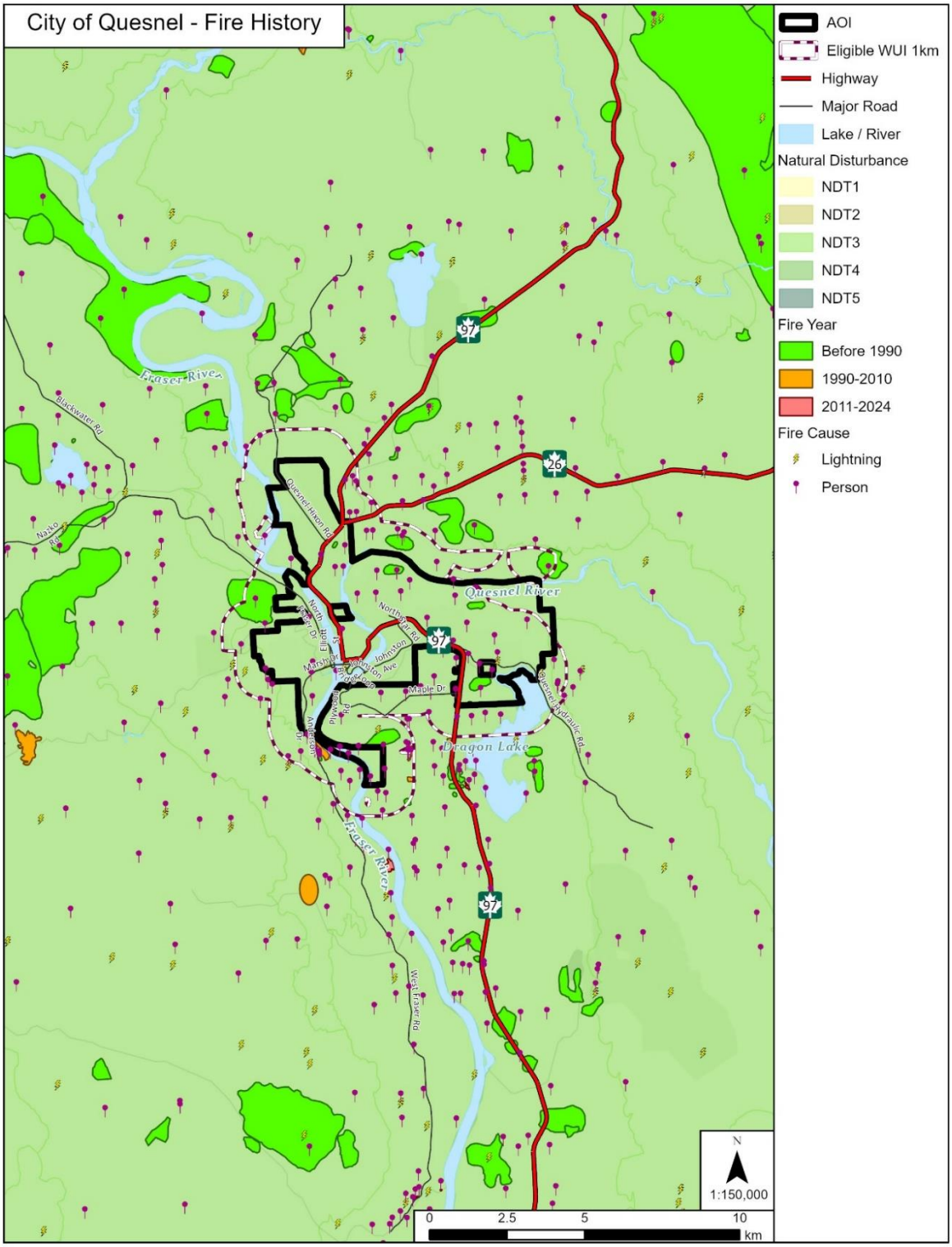


Figure 13: Historical wildfire perimeters and ignition sources within ten kilometres of the City of Quesnel

4.2.1 Lessons Learned – Previous Wildfire Seasons

Following discussions with wildfire officers and technicians from the local BC Wildfire Service – Quesnel Fire Zone, the following trends and challenges from previous wildfire seasons and major events over the last decade were identified:

Response Resources

- *Staffing Resources*: Rapid initial attack remains the surest way to keep fire starts small and contained. The Quesnel Fire Zone base has had its own initial attack (IA) crew since 2021, and now employs four, 4-person IA crews. The Zone also has the Blackwater Unit Crew, a 21-person sustained attack unit crew. This has provided critical resources and autonomy to dispatch local personnel with knowledge of the landscape quickly for initial and sustained response to fires.
- *Equipment Resources*: Local availability of heavy industrial equipment has been critical for effective wildfire response and suppression. Although still limited, increases in helicopter resources have aided in effective wildfire suppression in the region, particularly where resource road bridges have been pulled, cutting off necessary road access.
- *Technology*: Technological advancements allowing for early detection have been pivotal. Improvements in MODIS (Moderate Resolution Imaging Spectroradiometer) and satellite imagery have been very useful in enhancing early detection.

Early Planning and Coordination

- *Interagency Cooperation:* The BCWS Quesnel Zone coordinates with other local agencies and stakeholders through the Quesnel & Area Roundtable and maintains well-established working relationships with EMCR and eight volunteer fire departments in the region, aligning pre-season priorities, training touchpoints, and expectations for joint response.
- *Readiness & Detection Posture:* The Quesnel Zone has been contributing important input and influence into regional detection plans. Since the 2017 wildfires in the Cariboo, a more robust support structure has been put in place for the Zone, including increased resources and personnel, and pre-determined EOCs and fire camps.
- *Protecting Critical Values:* Planning emphasizes the Highway 97 north–south corridor, east–west links (Hwy 56, 24), and Dragon Mountain communications infrastructure as critical values so emergency communications, route continuity, traffic control points, and contingency access are built into pre-plans.
- *Ongoing Mitigation Work*: BCWS Crews continue to assist with fuel management projects and industrial pile burning/hazard abatement throughout the zone. Current fuel management projects are occurring at Troll Mountain with Mountain Resorts Branch, and Kostas Cove Park at Ten Mile Lake around the rec site.

Fire Behaviour Challenges

- 2017 and 2024 wildfires saw extreme and unprecedented fire weather and fire behaviour that tested wildland firefighters and response staff in the Zone. Fuel types were displaying fire spread and intensity that were beyond the normal range.
- Although the majority of hazardous fuels are located west of Quesnel, the Antler Creek wildfire complex in 2024 burned in moist, high elevation forest stands in the Caribou Mountains,

approximately 60km east of Quesnel. Large fire events to the east of Quesnel are rare but are becoming more frequent with more extreme fire weather.

Terrain and Access Limitations

- Suppression in the Quesnel Fire Zone is largely via road access; however, many resource roads are deactivated with bridges pulled, effectively cutting off access to these routes and complicating mechanized action. The Zone has requested more heli response resources, which they have been granted, but these air attack resources can be quickly pulled to other areas of the province.
- Steep, unstable slopes along the Fraser River, Quesnel River, and Baker Creek pose operational challenges for both fuel management treatments and suppression efforts in the event of a wildfire. These areas are also at elevated risk of landslides if vegetation is removed. The Zone recognizes these constraints and plans for quick deployment of IA crews for manual response in these areas.

4.3 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. Further details regarding the derivation of the PSTA dataset are available through the BC Wildfire Service.[16]

[16] 2021 Update: Provincial Strategic Threat Analysis (PSTA). Accessed March 2024.

A spatial analysis of the most recent (2021) PSTA data within the AOI and 1-kilometre eligible WUI for the City of Quesnel was completed and is summarized in Table 13 below.

Table 13. PSTA Fire Threat class for the City of Quesnel and one-kilometre WUI

FIRE THREAT CLASS	AREA (HA)	PROPORTION OF AREA
No Data (Private Land)	5,061.0	61.8%
Extreme	64.6	0.8%
High	678.5	8.3%
Moderate	1,371.2	16.7%
Low	233.4	2.8%
Water	781.0	9.5%
Total	8,189.6	

Within the municipal boundary and one-kilometre WUI, more than 60% of the wildland-urban interface is privately owned, which gets classified in the PSTA dataset as "No Data." Just over 15% of area is classified as having a Moderate Fire Threat Class (Figure 14). This can be attributed to the prominence of mixedwood stands and deciduous tree components within and adjacent to the City. Less than 10% of land inside the WUI is classified as High or Extreme.

Expanding the view to 20 kilometres beyond the City boundary tells a different story. The proportion of High to Extreme Fire Threat Class jumps to over 40%. These higher threat forested areas are outside the jurisdiction of local government control. The Provincial Ministry of Forests is working on implementing a landscape-level Wildfire Risk Reduction Plan on provincial crown land surrounding the City of Quesnel. However, the high proportion of private land within and directly adjacent to the municipal boundary makes a strong FireSmart program and FireSmart uptake by private landowners essential. Reducing wildfire risk at the community level is a shared responsibility that begins with private landowners at the home level, while coordinated work with the Regional and Forest Districts on the broader landscape-level will also play a key role in building resilience.

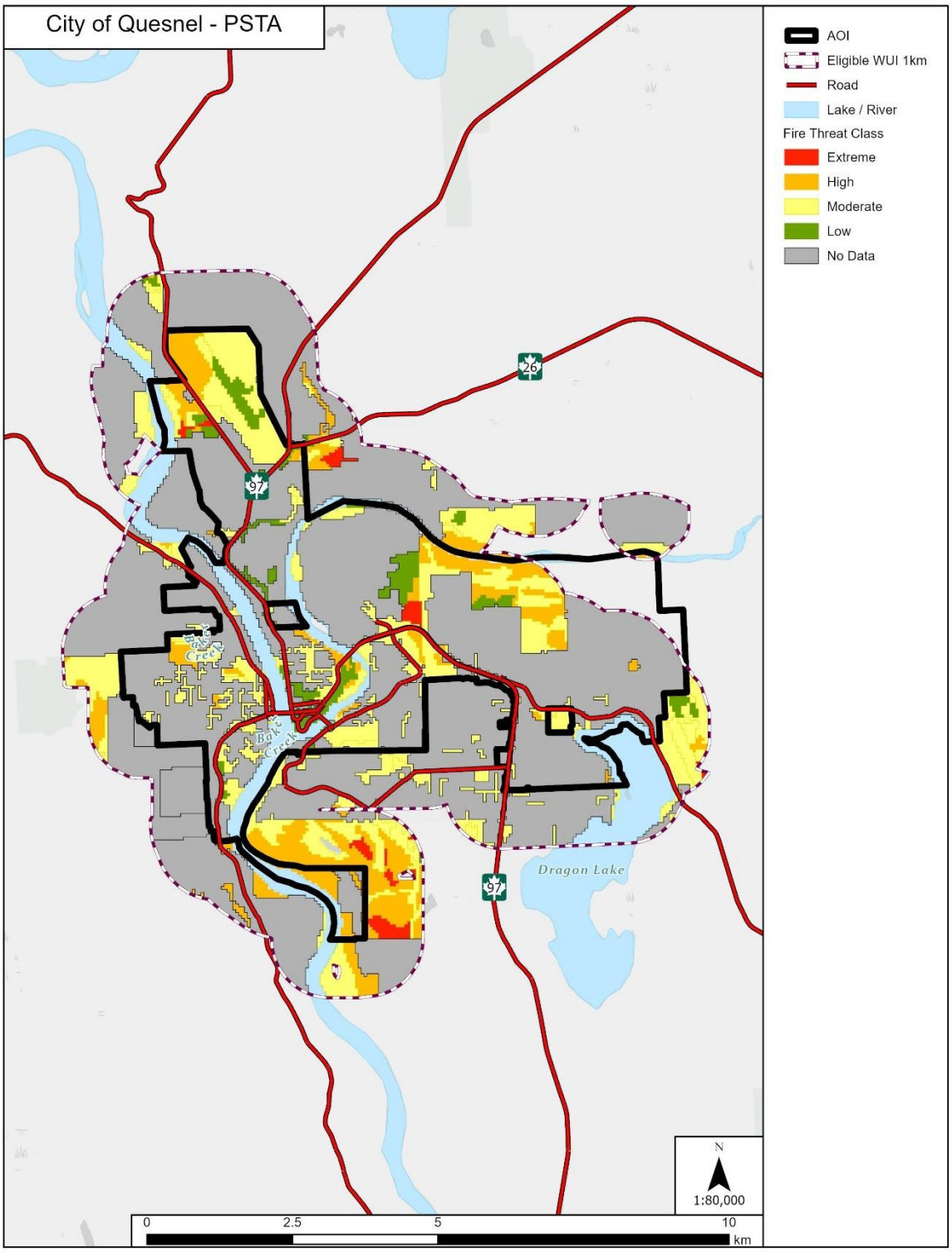


Figure 14: PSTA Threat Classes within the City of Quesnel and one-kilometre WUI

4.4 HAZARD, RISK, AND VULNERABILITY ANALYSIS

The Hazard, Risk, and Vulnerability Analysis (HRVA) is an organized process to identify hazards that may trigger an emergency response and assign a hazard rating based on the likelihood and potential consequences of those hazards. Understanding local hazards and risks helps a community establish priorities, plans and strategies to prevent or reduce the risks. Hazard-specific guides provide additional guidance for responding to specific emergency situations and address the essential operational actions to facilitate effective response to that specified emergency event.

The City of Quesnel is currently in the process of completing an HRVA as per the *Local Authority Emergency Management Regulation.* The HRVA is set to be finalized in 2026.

4.4.1 Quesnel Fire Exposure and Vulnerability Assessment

A study completed by Jen Beverly et al. (2025)[17] from the University of Alberta assessed fire exposure and directional vulnerability for the City of Quesnel. Fire exposure was mapped using hazardous fuel types. Fire exposure measures the potential for fire to reach a location with categories of fire exposure ranked from Nil to Extreme. Short-range maps assess ember exposure within 100 meters, while long-range maps cover ember exposure from 100 to 500 meters (Beverly et al., 2025).

Vulnerability diagrams were created by mapping a 15-km radius around the community and dividing it into segments, using a method developed by Beverly & Forbes (2023). If a significant part of a segment shows high fire exposure (as discussed above), it is considered vulnerable and a viable pathway. These rose diagrams visually represent the community's directional vulnerabilities to wildfire based solely on available hazardous fuels.

The study found that long-range fire exposure for the core community areas within Quesnel is overall low. However, the outskirts of neighbourhoods within the wildland interface have moderate to high long-range fire exposure. These neighbourhoods include, but are not limited to:

- *West Quesnel Uplands/Abbott Heights* – includes select properties on Findlay Rd, Dodds Ave, Donnelly St, Dixon St, Panagrot Ave, Pierce St, Paley Ave, Stork Ave, Crane Ave, Hawk St, Allard St, and upper Abbott Dr.
- *Racing/Westland Road* – includes select properties on Oval Rd, Westland Rd, Racing Rd, Westland Close, Woodridge Rd, and Dennis Rd.
- *South Hills* – includes select properties on Coach Rd N, Britton Rd, Grosz Rd N, Grosz Rd S, Brears Rd N, Phillips Rd N, Enemark Rd N, Pederson Rd, Morast Rd, Fiege Rd, Vachon Rd, Redden Rd, and Tatchell Rd.

In addition to the areas listed above, any property that abuts the forested wildland interface will have a long-range fire exposure rating of moderate or greater.

Figure 15 below outlines potential directional pathways for wildfire entering the City of Quesnel. Viable pathways are identified from most wind directions, except from the northeast.

[17] Beverly, J., Karimi, N., Forbes, A., Mahler, P. (2025) Quesnel Community Wildfire Report. *Wildfire Analytics Group, & Department of Renewable Resources, University of Alberta*.

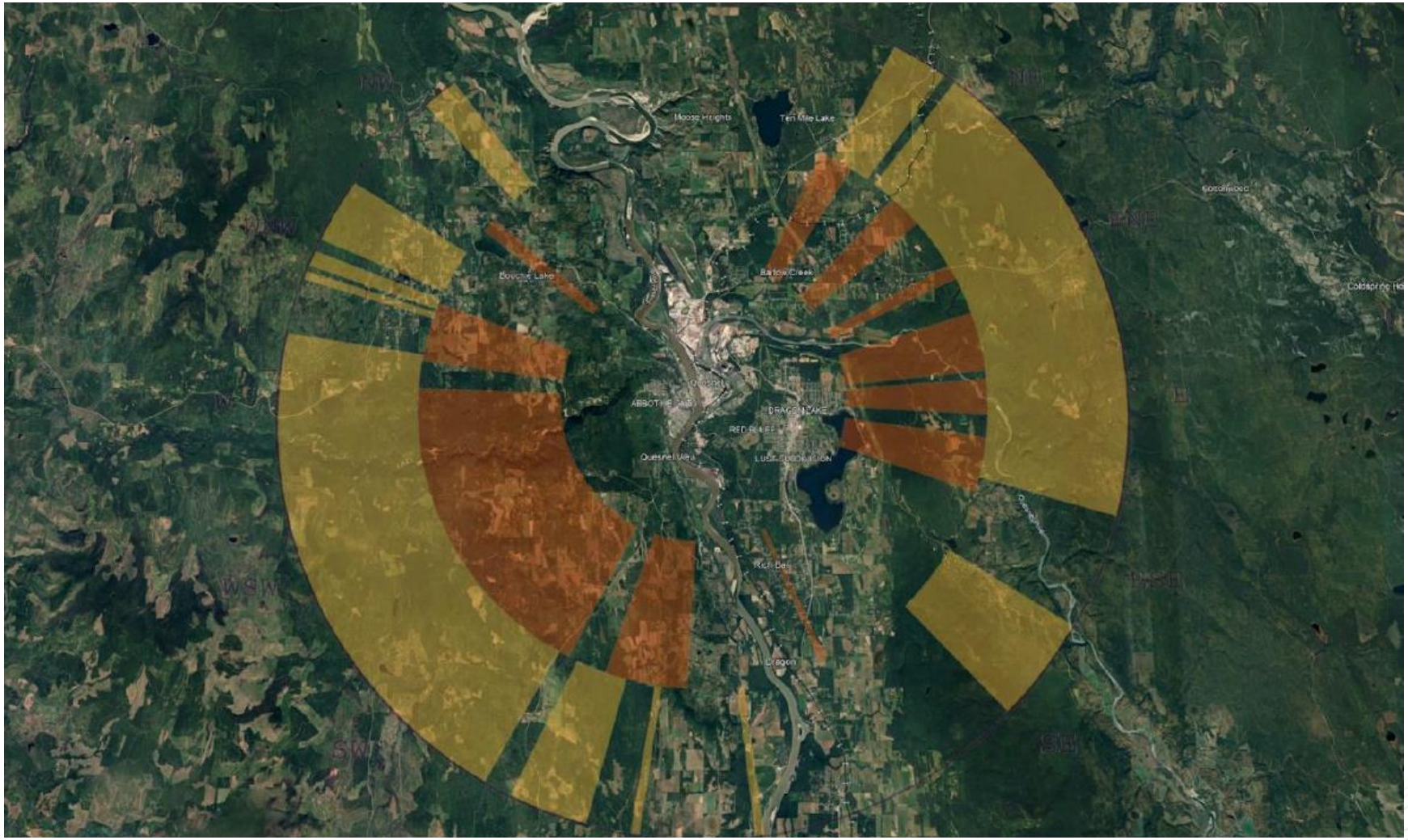


Figure 15: Directional vulnerability map indicating viable pathways for wildfire into the City of Quesnel (Beverly et al., 2025)

Findings from the Beverly et al. (2025) report were utilized to delineate fuel treatment areas for this CWRP and aided in the prioritization of those fuel treatment units.

4.5 LOCAL WILDFIRE THREAT ASSESSMENT

Part of the process of developing this CWRP involved on-the-ground verification and assessment of local vegetation types and the inherent wildfire threat of forested areas within and surrounding the eligible WUI. Wildfire threat is assessed using the Wildfire Threat Assessment (WTA) tool developed by the BC Wildfire Service, which focuses on assessing forest stand attributes and fuel structure that contribute to wildfire intensity and spread, independent of fire weather. Wildfire threat differs from wildfire risk in that fire threat classification does not take into account proximity to values or the consequences of damage to those values in a wildfire event.

Field verification and wildfire threat analyses were completed in July 2025 on municipal and provincial crown land within the one-kilometre eligible WUI within and adjacent to the City of Quesnel (Figure 16). A total of 24 WTAs were completed. Table 14 outlines the threat rating results of completed WTAs.

Table 14: Summary of Wildfire Threat Assessments completed throughout the City of Quesnel and one-kilometre WUI

Wildfire Threat Assessment Rating	Number of WTAs	Proportion of WTAs Completed
Extreme	0	0%
High	3	13%
Moderate	14	58%
Low	7	29%

Nearly 60% of the WTAs completed throughout the WUI represented a “Moderate” wildfire threat rating. These forested areas were characterized primarily by mixedwood stands with varying levels of conifer component, typically greater than 50%. Nearly 30% of areas assessed represented a “Low” wildfire threat rating. These areas were characterized by mature mixedwood stands containing high proportions of deciduous trees (>50%), or areas that have received previous fuel reduction treatment. Areas receiving a “High” wildfire threat rating had higher densities of conifer, typically in the understory acting as ladder fuels into the canopy.

The local WTA sample results completed within the WUI show a similar trend as the spatially-driven PSTA analysis outputs, where a majority of the forested areas are represented by a “Moderate” wildfire threat class rating.

Figure 16: Wildfire Threat Assessments completed on municipal and provincial crown land within the AOI and 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 its role in resiliency planning for the City of Quesnel is outlined in the subsequent sections below.[18]

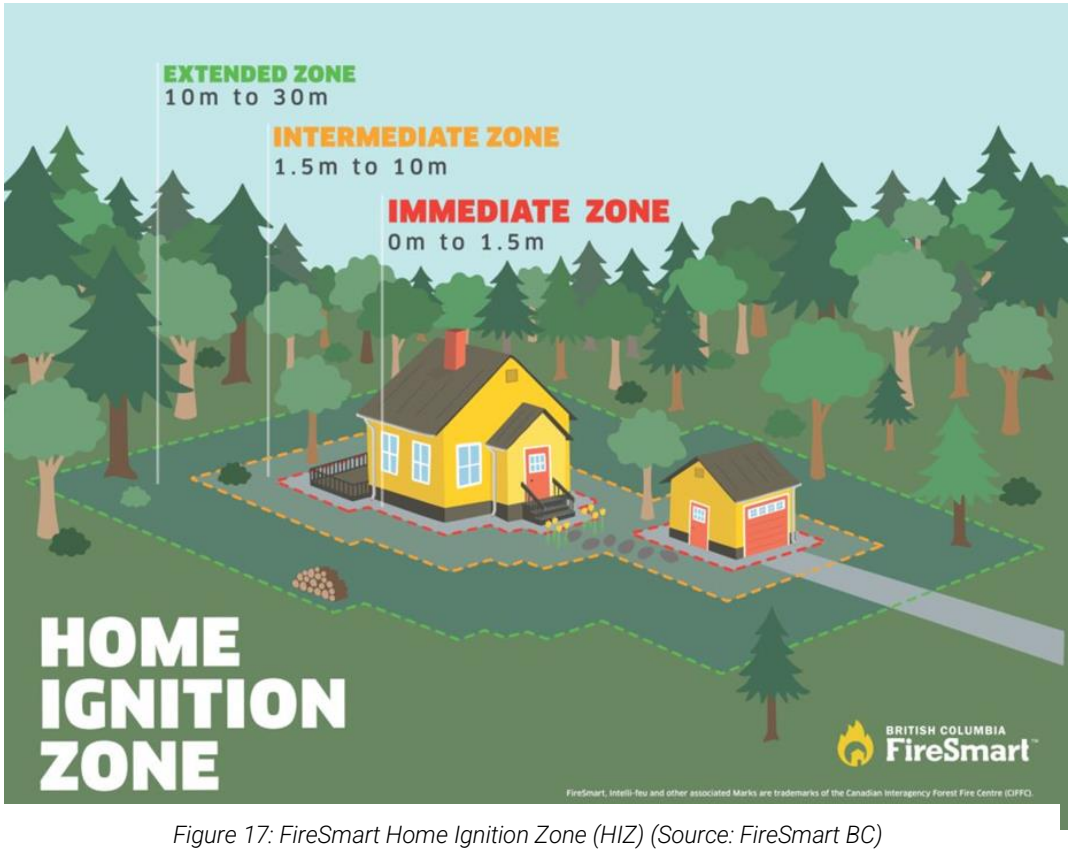


Figure 17: FireSmart Home Ignition Zone (HIZ) (Source: FireSmart BC)

[18] For more information on the BC FireSmart program, visit: **https://firesmartbc.ca/**

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: This CWRP aims to establish effective FireSmart educational activities and strategies so community members understand the potential risk of interface wildfire in the City of Quesnel and can play an active role to reduce that risk.

Context: The CWRP is only successful if community members and stakeholders are collectively engaged in taking action to reduce wildfire risk at the individual and community level. To enhance community engagement and education, several outreach tools and tactics can be employed, including:

- Hosting community FireSmart events including:
    - Wildfire Community Preparedness Day
    - Farm and Ranch Wildfire Preparedness workshop
    - Neighbourhood Champion workshop
    - FireSmart booths at community events
    - Wildfire season open houses at fire halls
- Distributing informational pamphlets and promotional items to residents during public events.
- Utilizing social media platforms to share FireSmart tips and updates.
- Collaborating with local schools to integrate the FireSmart BC Education Program into curriculum or extracurricular activities.
- Conducting FireSmart Home Assessments for private landowners and providing personalized recommendations for wildfire mitigation measures.

Current Status: Since 2018, the City of Quesnel's Forestry Initiatives Program has delivered a comprehensive FireSmart program through support of the Community Resilience Investment (CRI) Program, the Canadian Red Cross, and the Forest Employment Program. The City has a page on their website dedicated to FireSmart information and initiatives, as well as Emergency Preparedness where information on wildfire prevention is shared. Additionally, the City has a comprehensive annual FireSmart campaign dedicated to increasing FireSmart awareness and assisting residents with FireSmart activities.

The FireSmart campaign includes:

- Disseminating FireSmart education and outreach at public events.
- Carrying out FireSmart Home Assessments through the City's Local FireSmart Representatives and encouraging homeowners to use the FireSmart Home Assessment App to assess their own properties.
- Carrying out door-knocking and targeted campaigns to encourage property owners to remove problem landscaping and yard debris.
- Hosting FireSmart workshops for home and business owners.
- Hosting Sprinkler Protection Unit demonstrations with local Volunteer Fire Departments.
- Working with building supply and gardening stores to educate customers on FireSmart approved construction materials and landscaping.
- Working with realtors and building contractors to disseminate FireSmart education.
- Distributing FireSmart home rebates for landscaping and building choices.
- Running targeted FireSmart youth campaigns through Youth Serving Organizations and the School District 28.
- Hosting an annual FireSmart kids colouring contest
- Assisting neighbourhood groups to achieve (and renew) FireSmart Canada Neighbourhood Recognition Status (FCNRS)
- Assisting vulnerable property owners with support to remove trees and shrubs, clean eaves, move firewood, and remove built up landscaping and building materials from the Home Ignition Zone
- Coordinating a Chipper Days Pilot in 2024 to assist homeowners with disposal of significant landscaping debris.

The City of Quesnel has a seasonal Local FireSmart Representative (LFR) on staff who is contracted to be the FireSmart Coordinator (2018-2025), and the Forestry Initiatives Manager is also a certified LFR. Both LFRs work closely with the local BC Wildfire Service Zone on education and outreach campaigns at various local events including Farmers Markets, Trade Shows, School District 28 Events, Indigenous Day, and other community events and celebrations. The LFRs also assist homeowners by carrying out FireSmart Home Assessments and coordinating the FireSmart rebate program that helps private landowners cover the costs of completing recommended FireSmart activities within the Home Ignition Zone.

In 2019, the City of Quesnel received the Community Protection Achievement Award from FireSmart Canada for development and implementation of the 2018 Community Wildfire Protection Plan. Additionally, the South Hills neighbourhood, a heavily treed neighbourhood adjacent to continuous coniferous forest in the eastern portion of the City, worked together to receive FireSmart Canada Neighbourhood Recognition in 2022. The Neighbourhood Recognition Program requires annual FireSmart efforts to be completed to maintain recognition status.

Actions: The following are recommended action items for the City of Quesnel to maintain and further increase FireSmart awareness, education, and action within the community:

Action	Lead(s)	Priority	Timeframe	Resources Required	Metric for Success	Rationale/Notes
Education						
1. Read and understand this CWRP's identified risks and recommended actions.	Quesnel Forestry Initiatives Manager, FireSmart Coordinator	Very High	Immediate	A completed and comprehensive CWRP	Clear understanding of actions required over the next 5 years to further enhance community wildfire resiliency by City staff.	The CWRP acts as the roadmap for developing and enhancing wildfire resiliency within communities. It is designed to last approximately 5 years, upon which reassessment of status and progress is required.
2. Develop a FireSmart public communication plan/strategy to effectively plan and monitor annual FireSmart educational strategies and activities for the City of Quesnel.	Quesnel Forestry Initiatives Manager, FireSmart Coordinator	Very High	Immediate and ongoing	Communications and planning resources	Development of an annual communications plan that clearly outlines FireSmart education objectives and targets tailored towards the City of Quesnel and its residents.	A public communications plan/strategy can help clarify and set goals, objectives, and measurable targets. It also allows for successful tracking and adaptive management for improving activities that are not meeting objectives or targets.

Action	Lead(s)	Priority	Timeframe	Resources Required	Metric for Success	Rationale/Notes
3. Continue to employ a FireSmart Coordinator. This position runs all aspects of the FireSmart program and generally is in charge of actioning many aspects of this CWRP. The City of Quesnel currently has a FireSmart Coordinator position contracted.	Quesnel Forestry Initiatives Manager	Very High	Ongoing	An annual salary for the position and appropriate training and orientation. This can be covered through grant funding.	Successfully retain at least one individual in the FireSmart position who is enthusiastic about promoting FireSmart.	A FireSmart Coordinator will be required to receive CRI funding beginning in 2024. Funding is available under the UBCM's CRI program to support a salary for a FireSmart Coordinator, Local FireSmart Representative, Wildfire Mitigation Specialist, or Wildfire Forest Professional.
4. Continue to run the City of Quesnel FireSmart Program and utilize the FireSmart Public Communication Strategy to set and track measurable targets.	Quesnel Forestry Initiatives Manager, FireSmart Coordinator	Very High	Ongoing	Administrative resources, communication resources.	Continue to run all successful aspects of the existing Quesnel FireSmart Program and implement adaptive management to make continual adjustments and improvements.	The City of Quesnel has been actively involved in running a comprehensive FireSmart program over the last several years, which has many proven successes. The City should continue with this work and utilize the CRI funding program to implement various FireSmart and wildfire risk reduction activities.

Action	Lead(s)	Priority	Timeframe	Resources Required	Metric for Success	Rationale/Notes
5. Continue to organize and hold a variety of FireSmart events within the City of Quesnel. Event types include but are not limited to a Wildfire Community Preparedness Day, Farm and Ranch Wildfire Preparedness Workshop, Neighbourhood Champion Workshop, or Fire Hall open house.	Quesnel Forestry Initiatives Manager, FireSmart Coordinator	Very High	Annually, ideally between the months of May and October	Communication and public outreach resources such as social media, webpage postings, posters, etc. Resources to run the event such as tent, food, staff/volunteers, FireSmart promotional materials.	Hold a minimum of one type of FireSmart event per year. Set reasonable targets for attendance in the FireSmart Public Communications Strategy.	Funding is available through the UBCM's Community Resiliency Investment (CRI) program to organize, host or support FireSmart events.

Action	Lead(s)	Priority	Timeframe	Resources Required	Metric for Success	Rationale/Notes
6. Continue to organize and promote Community Chipper Days/ Community Waste Disposal/Pickup Days for residents, particularly those that may have difficulty accessing the landfill (e.g. vulnerable populations). This will encourage and aid residents with removal of hazardous vegetation and debris around their homes.	Quesnel Forestry Initiatives Manager, FireSmart Coordinator, Public Works	High	Semi-annually or annually	Chipper, disposal bins, waste management staff or contractors	Removal of hazardous debris, vegetation, invasive plants and other flammable materials around homes is completed on an annual basis.	Funding is available through the UBCM's CRI program to provide off-site vegetative debris disposal for residential properties who have undertaken their own residential-scale FireSmart vegetation management, including: • Provide a dumpster, chipper or other collection method. • Waive tipping fees. • Provide curbside debris pick-up.

Action	Lead(s)	Priority	Timeframe	Resources Required	Metric for Success	Rationale/Notes
7. Continue to encourage and promote residents to have a Local FireSmart Representative (LFR) complete a FireSmart Home Ignition Zone (HIZ) Assessment for their home/property or complete their own Assessment using the FireSmart App. Based on the outcome of the Assessments, encourage property owners to implement as many mitigation activities as possible through local rebate programs for completed eligible FireSmart activities.	Quesnel Forestry Initiatives Manager, FireSmart Coordinator	High	Ongoing	FireSmart Coordinator, Local FireSmart Representative, Neighbourhood Champion, or other qualified staff to complete the Home Ignition Assessment.	Residents within Quesnel continue to request FireSmart HIZ Assessments be completed for their home/property. Set reasonable targets for completed Assessments in the FireSmart Public Communications Strategy.	Funding is available through the UBCM's CRI program to have LFRs complete FireSmart HIZ Assessments, as well as Farm and Ranch Assessments for property owners.

Action	Lead(s)	Priority	Timeframe	Resources Required	Metric for Success	Rationale/Notes
8. Continue to offer the local FireSmart Rebate Program to residential property or homeowners that complete eligible FireSmart activities. This is critical to providing incentive and assisting residents with the financial barriers to implementing FireSmart on private land.	Quesnel Forestry Initiatives Manager, FireSmart Coordinator	Very High	Ongoing	Administrative capacity to run the Rebate Program	Residents are aware of the FireSmart Rebate program and are actively taking part in implementing eligible FireSmart activities and applying for rebates upon completion. Set reasonable targets for tracking completed FireSmart activities in the FireSmart Public Communications Strategy.	Funding is currently available through the UBCM's Community Resiliency Investment (CRI) program to support rebate programs.
9. Continue to assist vulnerable property owners with completing FireSmart activities around their home, including removal of vegetation and materials around the home, eaves cleaning, etc.	Quesnel Forestry Initiatives Manager, FireSmart Coordinator, Public Works	Very High	Ongoing	Support from Public Works to volunteer labour, equipment, etc.	Prioritize assisting vulnerable property owners with completing FireSmart activities around their homes. Set reasonable targets for completing such FireSmart activities in the FireSmart Public Communications Strategy	Quesnel has been actively assisting vulnerable property owners with completing FireSmart activities around their homes over the past several years and should continue to do so. Funding is currently available through the CRI Program to assist seniors, elders, and vulnerable populations with FireSmart activities.

Action	Lead(s)	Priority	Timeframe	Resources Required	Metric for Success	Rationale/Notes
10. Promote and encourage neighbourhoods to work together to implement FireSmart activities at a neighbourhood level and apply for the FireSmart Canada' Neighbourhood Recognition Program. Once recognized, annual renewal for FireSmart Recognition is required.	FireSmart Coordinator	Moderate	Within 3 years (2028), then annually.	A certified Local FireSmart Representative or Neighbourhood Champion to complete Neighbourhood Wildfire Hazard Assessments and keep neighbourhoods on track.	Work to recruit Neighbourhood FireSmart Champions in forested neighbourhoods to lead and organize FireSmart initiatives. At least one new neighbourhood achieves FireSmart Neighbourhood Recognition by the end of 2028.	Quesnel currently has one neighbourhood (South Hills) that is recognized. The program requires ongoing participation each year to maintain recognition. Application to be filled out and required actions for recognition must be completed[19]. Funding is available through the UBCM's CRI program to complete Neighbourhood Wildfire Hazard Assessments and FireSmart Neighbourhood Plans.

[19] https://www.firesmartcanada.ca/programs-and-education/neighbourhood-recognition-program/

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/municipal, provincial, and federal legislation can either support or restrict the ability to implement local wildfire risk reduction policies and bylaws.

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

Official Community Plans (OCPs) manage all aspects of local community planning and development and establish objectives and policies used to guide land use decisions. They are important planning documents for establishing proactive mitigation measures for local hazards such as wildfire through the establishment of policies, development permits, and bylaws.

Current Status: The City of Quesnel has multiple legally enforceable planning documents and local bylaws regulating community planning, development, and fire protection and prevention.

City of Quesnel Official Community Plan (2024): The Quesnel OCP provides objectives and policies for land use and development that align with the social, economic, cultural, and environmental needs and values of the community. The OCP is currently in the process of being updated, with a new version planned for completion in late 2025. The following sections outline policies or guidelines pertaining to FireSmart and wildfire risk reduction:

- Section 5.0 Land Use Designation Policies
  - 5.1 Residential: contains policies relating to development of medium & high density residential that provides landscaping that meets the intent of FireSmart Guidelines.
  - 5.2 Commercial: contains policy relating to promotion of FireSmart landscaping throughout downtown development.
- Section 6.0 General Policies
  - 6.6 Environment and Sustainability: for natural areas, contains policy to work with the Cariboo Regional District to help prevent wildfires. Section 6.6.5 is dedicated to FireSmart Guideline policies to encourage all new development to be in accordance with the CWPP/CWRP and FireSmart, and encourage households to complete a FireSmart Home Assessment. It also contains specific direction for FireSmart site design, building/ structures, and landscaping.

- Section 6.7 Hazardous Areas outlines objectives and policies for hazardous areas identified as areas with hazardous conditions including floodplains and steep slopes. Wildfire hazard is not listed as an identified hazardous area. Additionally, section 7.0 Development Permit Area Guidelines contains sections relating to Development Permit Areas for Hillside Hazards, Floodplains, and Sensitive Ecosystems; wildfire is currently not identified as a Development Permit Area. The Forestry Initiatives Manager is currently working with the City Planner on making amendments to the OCP to bolster FireSmart policies during planning and development processes.

Fire Protection, Prevention and Emergency Services Bylaw No. 1902 (2021): legally establishes the responsibilities and services provided by the Quesnel Fire Rescue Service, including fire suppression of all types of fires and general fire prevention services. The Fire Protection bylaw contains sufficient regulations for fire prevention including regulations for open burning permits, campfires, accumulation of combustibles, and hazardous fire conditions. The bylaw contains the following regulations pertaining to wildfire prevention:

- Restrictions for Open Burning
- 5.2 Discarding Burning Substances
- 5.3 Accumulation of Combustibles
- 5.5 Open Burning Permit
- 5.6 Camp Fires
- 5.7 Fire Rescue Service Open Burning – for the elimination of fire hazards or for training
- 5.8 Hazardous Fire Conditions – permits the Fire Chief to prohibit open burning

Zoning Bylaw No. 1880 (2024): The Zoning Bylaw legally establishes land use regulations for development and re-development. It applies to all land, buildings, and structures within the City boundary. Zoning for land use within the wildland urban interface can influence the spread of incoming and outgoing fires in adjacent forested areas. The Zoning Bylaw outlines requirements relating to setbacks on floodplains for safety purposes, and streams for the protection of riparian/sensitive ecosystems; there are no requirements within the Zoning Bylaw relating to setbacks from forested wildlands.

Building Bylaw No. 1550 (2003): The Building Bylaw legally establishes local administration of the provincial *BC Building Code* and regulates the construction and alteration of buildings and structures within the City of Quesnel. Currently, the *BC Building Code* does not address wildfire hazard areas. However, changes made to the *BC Building Act* in 2015 allow local governments to create Development Permit Areas (DPA's) that can include wildfire risk reduction measures, including technical building requirements.

Other Relevant Higher-level Plans

Quesnel Forest Landscape Planning Process: The BC Ministry of Forests has initiated four pilot projects aimed at establishing Forest Landscape Plans (FLPs), including one for the Quesnel Timber Supply Area (TSA). FLPs will serve as integrated plans to guide forest development and are intended to replace the current forest stewardship plans (FSPs), which establish the legal requirements for forest licence holders. First Nations, local government, stakeholder groups, and the public will have several avenues to engage in FLPs.

The Quesnel FLP process is currently ongoing. Community wildfire risk is one of the highest values of concern that is being considered through the planning process. This presents a critical opportunity to link community wildfire resiliency planning with forest management at the landscape scale. Primary initiatives relating to wildfire resilience are being developed which will include, but are not limited to, strategies for vegetation/forest management along critical evacuation corridors, as well as Potential Operational Delineations (PODs) around values (such as the Quesnel municipal boundary) that will be utilized for wildfire suppression.

Cariboo Regional District – Quesnel Fringe Area Official Community Plan (2014): The Quesnel Fringe Area OCP provides a general statement of the policies of the Cariboo Regional District regarding land uses and servicing requirements in the communities surrounding Quesnel. The Quesnel Fringe Area OCP identifies objectives for encouraging development that minimizes the impacts of wildfire and requires developers of subdivisions with four or more parcels to undertake a wildfire hazard assessment report (Section 3.4.53). Schedule E spatially delineates areas of high wildfire hazard and probability. However, this OCP is over ten years old and thus private land parcels are outdated.

Actions: The City of Quesnel should consider developing and implementing additional local regulatory requirements related to planning that incorporate further wildfire risk reduction principles:

v

Action	Lead(s)	Priority	Timeframe	Resources Required	Metric for Success	Rationale/Notes
Legislation and Planning						
11. Incorporate information and recommendations from this CWRP into the Quesnel Forest Landscape Planning (FLP) Process to ensure alignment between community wildfire risk reduction and landscape wildfire risk reduction objectives.	Quesnel Forestry Initiatives Manager	Very High	Immediate and ongoing	A completed comprehensive CWRP	This CWRP is introduced into the ongoing Quesnel FLP process.	Community wildfire risk is one of the highest values of concern that is being considered through the ongoing Quesnel FLP process. This presents a critical opportunity to link community wildfire resiliency planning with forest management at the landscape scale.
12. Amend Zoning Bylaw No. 1880 to incorporate required setbacks from hazardous forested areas for various forms of development, where feasible to do so, including residential, commercial, and industrial.	Quesnel Forestry Initiatives Manager, Quesnel City Development Department	High	Within 3 years (2028)	Communication resources, internal staff capacity, FireSmart and wildfire risk reduction guidance, potential legal support	Zoning Bylaw is amended to include setback requirements from hazardous forested areas by 2028.	Funding is currently available through the CRI program to revise landscaping requirements in zoning and development permit documents to incorporate FireSmart principles.

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 utilize regulatory and administrative tools to guide new development and increase the number of homes and infrastructure compliant with FireSmart principles.

Context: In BC, communities can establish Development Permit Areas (DPAs) that incorporate wildfire risk into construction and development. This tool can effectively enhance wildfire preparedness and mitigation by addressing development factors like subdivision layouts, fire-resistant building materials, and landscaping. Wildfire Hazard Development Permit Areas are typically delineated in fringe areas around a community where development occurs within or near the wildland urban interface. Development considerations could include the following:

- Wildfire Hazard Assessment: Require completion of a wildfire hazard assessment by a qualified professional (e.g. Registered Forest Professional) prior to the development of new neighbourhoods, subdivisions, or primary residences.
- Landscaping: Utilize FireSmart approved vegetation and spacing in landscaping within the Home Ignition Zones. Prohibit the use of cedar hedging as a form of privacy screening.
- 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.
- Access and Water Supply: When developing new subdivisions, ensure multiple egress options, 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.

Current Status: The City of Quesnel currently does not have delineated Wildfire Hazard Development Permit Areas. The Quesnel OCP allows for the development of Development Permit Areas for hazard areas, which could include areas of high wildfire risk for all new development and city expansion. The City is currently in the process of updating their OCP to include Development Permit Areas and stronger requirements for integrating FireSmart principles into development considerations.

In addition to new developments, it is important to assess and address the vulnerability of existing critical infrastructure, facilities, and homes to wildfire. The state of the structure in question and the immediate 30-meter vicinity are crucial in determining the likelihood of ignition and potential damage from wildfire. FireSmart BC has developed Hazard Assessments for both Critical Infrastructure and the Home Ignition

Zone. The assessments should be undertaken by an individual who has the appropriate knowledge and experience in wildfire vulnerability, such as a Local FireSmart Representative (LFR). Recommendations from the assessments can then be implemented to help reduce the spread, intensity, and associated damage to structures from wildfire. The City of Quesnel has been running their FireSmart rebate program for five years and currently offers up to a $1,000 rebate on $2,000 spent on labour or goods.

The City of Quesnel completed the City of Quesnel Buildings FireSmart Risk Assessment Report in 2019, in which 19 City owned buildings and infrastructure had FireSmart assessments completed. The Report outlines the results of the completed FireSmart assessments and provides key recommendations for implementing FireSmart activities for each building/structure assessed. The recommendations from this report should be implemented strategically as time and budget allow (replacing conifers with different species, siding considerations, roofing considerations, etc.). Since the 2019 report, FireSmart principles have been incorporated into various city departments (Public Works, Community Services, Planning etc.).

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

Action	Lead(s)	Priority	Timeframe	Resources Required	Metric for Success	Rationale/Notes
Development Considerations						
13. Continue to implement FireSmart recommendations and mitigation activities resulting from the 2019 City of Quesnel Buildings FireSmart Risk Assessment Report, with the goal of reducing hazard scores for each building/structure as much as feasibly possible.	Quesnel Forestry Initiatives Manager, FireSmart Coordinator, Public Works	Very High	Ongoing	Labour, machinery, construction materials	FireSmart recommendations have been implemented for an average of one critical structure/building per year.	Funding is currently available through the CRI program to complete mitigation activities on assessed critical structures, including building materials and labour.

5.4 INTERAGENCY COOPERATION

It takes the collaborative efforts of multiple partners 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 partner organizations are dependent upon each other to develop an effective Community Wildfire Resiliency Plan and undertake a successful wildfire response.

Goal: To establish and maintain collaborative relationships amongst the City of Quesnel's key emergency response and management partners, including the Quesnel Fire Department, the Cariboo Regional District, Lhtako Dené Nation, BC Wildfire Service, EMCR, Ministry of Forests, and other stakeholder groups to achieve a more wildfire resilient region.

Context: As of 2024, the CRI FCFS Program required all applicants to participate in a *Community FireSmart and Resiliency Collaborative* (CFRC) in order to receive additional funding through the program.[20] This requirement for funding was implemented upon recognition of the importance of collaboration in emergency preparedness and response between various partners, agencies, and stakeholders sharing the landbase. Understanding the roles and responsibilities different groups have helps streamline wildfire preparedness and emergency response efforts.

The Wildfire Resiliency and Training Summit is an annual conference hosted by FireSmart BC that brings together wildfire practitioners from across BC. Attendees range widely from fire department chiefs and local government emergency management staff to provincial government staff, BC Wildfire Service, First Nations representatives, and forestry consultants. Currently under the CRI FCFS Program, funding is available for up to four local government staff (including fire departments) to attend the Wildfire Resiliency and Training Summit annually.

Current Status: The City of Quesnel and surrounding area proactively formed the Quesnel and Area Community Wildfire Preparedness Roundtable in November 2023. The Roundtable meets twice a year and works to support the implementation of the CWPP/CWRP. Issues addressed by the Roundtable include, but are not limited to:

- FireSmart education strategies
- Strategic timber harvesting opportunities
- Fuel management treatments

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

- Resources and capacity – volunteer fire departments, ranchers, agriculture sector, forest industry, etc.
- First Nations traditional burning

The Roundtable is composed of representatives of organizations involved in all aspects of wildfire preparedness and risk reduction in the area, including:

- City of Quesnel
- Cariboo Regional District
- Lhtako Dené First Nation
- Nazko First Nation
- ʔEsdilagh First Nation
- Ministry of Forests
- Ministry of Water, Land and Resource Stewardship
- Ministry of Emergency Management and Climate Readiness
- BC Wildfire Service
- CN Rail
- Forest industry (major licensees, BC Timber Sales, woodlot licensees, community forests)
- Volunteer fire departments
- Other organizations, individuals or businesses that have infrastructure to protect, or resources or capacity to provide (e.g., agricultural organizations, communications companies)

Actions: The following actions are recommended for the City of Quesnel for continuing successful interagency cooperation:

Action	Lead(s)	Priority	Timeframe	Resources Required	Metric for Success	Rationale/Notes
Interagency Cooperation						
14. Continue to actively organize and participate in the Quesnel and Area Community Wildfire Preparedness Roundtable. This includes working with partners in the Roundtable to implement wildfire risk reduction activities identified in Roundtable meetings.	Quesnel Forestry Initiatives Manager, FireSmart Coordinator	Very High	Ongoing	Communication and organizational resources, meeting space	Continue to hold two Roundtable meetings per year and actively track meeting action items and outcomes.	Funding is currently available through the CRI program to support participation in and organization of interagency meetings.
15. Work collaboratively with Lhtako Dené and the Cariboo Regional District on the development of their respective CWRP updates to ensure a holistic and comprehensive approach to wildfire risk reduction for the broader Quesnel area.	Quesnel Forestry Initiatives Manager, FireSmart Coordinator, Fire Chief	High	Immediate and ongoing	Internal communication and planning resources	This CWRP is shared with neighbouring local governments, and the City of Quesnel plays an active role in assisting with streamlining wildfire risk reduction activities between all local governments within the Quesnel area.	The Lhtako Dené and Cariboo Regional District (Electoral Areas A, B, C, and I) have plans to develop updated CWRPs within the next 1-2 years for their respective communities located within the Quesnel area. The City of Quesnel should work collaboratively with these neighbouring local governments to ensure wildfire risk reduction plans complement each other and are streamlined for the broader Quesnel area.

Action	Lead(s)	Priority	Timeframe	Resources Required	Metric for Success	Rationale/Notes
16. Pursue the development of the Cariboo Large Incident Response Protocol between the City of Quesnel, Williams Lake, and 100 Mile House.	Fire Chief	High	Within 4 years (2029)	Internal staff capacity within the City of Quesnel, Williams Lake, and 100 Mile House; communication resources.	The Cariboo Large Incident Response Protocol is developed and ready for implementation.	The three municipalities located within the Cariboo Region (Quesnel, Williams Lake, 100 Mile House) are in early stages of planning and development of a mutual aid agreement pertaining to large incident response within the region.
17. Send staff from Protective Services or other applicable City of Quesnel staff to attend the annual **Wildfire Resiliency and Training Summit.**	Quesnel Forestry Initiatives Manager, FireSmart Coordinator, Fire Chief	Moderate	Annually	CRI funding for attendance and disbursements, e.g. transportation and travel costs.	A minimum of one Quesnel staff attend the Wildfire Resiliency and Training Summit each year.	Funding is currently available under the CRI program to send up to 4 staff per eligible applicant. Eligible costs include conference fee and travel.
18. Continue to coordinate cross-training opportunities between the Quesnel Fire Department and BCWS Quesnel Fire Zone, as well as surrounding volunteer fire departments from the Cariboo Regional District (CRD).	Quesnel Fire Chief	Moderate	Annually	Facility to hold the training, potentially some basic suppression equipment.	Help organize a minimum of one BCWS cross-training event every two years.	Implementation of this recommendation is dependent upon BCWS availability.

5.5 CROSS-TRAINING

Wildland-Urban Interface resiliency planning and incident response draw on many different professions that do not typically work in wildfire environments. 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 local government, community members, Fire Departments, etc. to build redundancy and facilitate understanding across individuals/groups engaged in wildfire preparedness and response.

Context: Cross training helps build relationships between different groups/agencies/organizations, identifies areas of strength and weakness in existing emergency operations and processes, and ultimately enhances emergency preparedness. Currently, a number of cross training courses are available to local government staff and fire department personnel.

Examples of available training courses for fire department members include:

- Wildfire Risk Reduction Basics Course - free, online course for non-forest professionals that provides an introduction to the key concepts to minimize the negative impacts of wildfires in BC.
- Fire Life and Safety Educator - public education course for fire safety education.
- ICS-100 (Incident Command System) - introduction to an effective system for command, control, and coordination of response at an emergency site.
- S-100 - Basic fire suppression and safety and S-100A (annual refresher).
- S-185 - Fire entrapment avoidance and safety.
- SPP-WFF1 - Wildland Firefighter Level 1 (includes S100, S-185, and ICS-100).
- Wildland Structure Protection Program (WSPP-115) - training for structure protection unit crews and WSPP-FF1(train the trainer).
- S-231 - Engine Boss (training for structure protection program in a WUI event).
- SPP-115 - Structure Protection Program (training for structure protection within the WUI).
- WSPP-WFF1 - Trainer (train the trainer for WFF1).

Cross-training opportunities also exist for local government emergency management personnel and the FireSmart Coordinator position. Eligible training courses available to these personnel include:

- Local FireSmart Representative (LFR) training – free online course to enhance understanding of current Wildland Urban Interface concepts and wildfire hazard assessments.
- Wildfire Mitigation Program – Wildfire Mitigation Specialist (WMS) training for new applicants to the WMP program.

- Wildfire Mitigation Specialist 'Train the Trainer' - This course is available for active WMS to become a certified WMS trainer that can instruct WMS training to staff within their community or neighbouring communities.
- 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 an emergency site.
- FireSmart BC Landscaping Course - free online course suitable for public works, lands, and/or parks staff.

Current Status: All volunteer fire departments located in the North Cariboo have a mutual aid agreement in place that allows them to call upon any of the other departments for support when needed. As such, cooperative training sessions between the Quesnel Volunteer Fire Department (QVFD), the Cariboo Regional District fire departments, and Wells/Barkerville fire department often occur. Additionally, QVFD fire fighters receive annual wildland fire suppression cross-training with Sprinkler Protection Unit (SPU) certification.

In 2025, several government staff from both the City of Quesnel and the Cariboo Regional District took the Wildfire Mitigation Specialist Course with the goal of Quesnel joining the FireSmart Home Partners Program. This will further enhance the existing knowledge and skills within local government emergency management staff regarding wildfire risk, FireSmart activities, and public engagement.

The City of Quesnel works with various partner organizations, including BC Wildfire Service, on emergency tabletop exercises and mock drills. For example, in May of 2025, the City hosted a workshop with participation from the four local First Nations and the Cariboo Regional District to foster collaboration, strengthen relationships, and support meaningful partnerships between Indigenous governing bodies and local authorities. Participants went through a condensed simulation of an emergency management cycle, using a hypothetical wildfire scenario to explore seasonal preparedness and response efforts. The interactive session provided a platform for participants to examine current assumptions, evaluate gaps in readiness, and enhance interagency coordination. Through facilitated discussion, the workshop aimed to clarify roles, improve mutual understanding, and promote collaboration among all emergency management partners.

Key recommendations include establishing biannual preparedness planning meetings, expanding localized and scenario-based training, developing a unified communications group, and creating a collaborative evacuation planning process. These practical measures are designed to build trust, improve coordination, and ensure emergency systems reflect the needs and values of all communities.

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

Action	Lead(s)	Priority	Timeframe	Resources Required	Metric for Success	Rationale/Notes
Cross-Training						
19. Provide cross-training opportunities to Quesnel Protective Services staff and other applicable personnel to further build capacity and redundancy within and between departments. Examples of cross training courses include: I. Local FireSmart Representative (LFR) training II. EMRG-100 - Introduction to Emergency Management in Canada III. ICS-100 - Incident Command System	Quesnel Forestry Initiatives Manager, FireSmart Coordinator, Fire Chief	High	As required based on needs of staff	CRI Funding	Redundancy of all critical skills relating to FireSmart and Emergency Management within the Quesnel Protective Services and other applicable departments.	Funding for cross-training courses for Emergency Management staff is currently available through the CRI program.

Action	Lead(s)	Priority	Timeframe	Resources Required	Metric for Success	Rationale/Notes
20. Provide ongoing cross-training opportunities for local firefighters in the Quesnel Fire Department, including the following wildfire suppression training courses: I. S-100 – Basic fire suppression and Safety II. S-185 – Fire entrapment avoidance and safety III. ICS-100 – Incident Command System introduction IV. SPP-WFF1 Wildland Firefighter Level 1 (includes S-100, S-185, ICS-100) V. WSPP-115 - Wildland Structure Protection Program (training for structure protection unit crews)	Quesnel Fire Chief	Moderate	Annually	Facility to hold the training, potentially some basic suppression equipment	Successfully hold at least one wildfire suppression training course for local structural firefighters.	Funding for cross-training courses for fire fighters is currently available through CRI program.

Action	Lead(s)	Priority	Timeframe	Resources Required	Metric for Success	Rationale/Notes
21. Continue to coordinate cross-training opportunities between the Quesnel Fire Department and BCWS Quesnel Fire Zone, as well as surrounding volunteer fire departments from the Cariboo Regional District (CRD).	Quesnel Fire Chief	Moderate	Annually	Facility to hold the training, potentially some basic suppression equipment.	Help organize a minimum of one BCWS cross-training event every two years.	Implementation of this recommendation is dependent upon BCWS availability.

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.

Context: Emergency management programs should focus on the four pillars of emergency management planning:

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

As observed in recent busy fire seasons, simultaneous wildfire emergencies across the province can strain resources, leading to shortages in heavy equipment, BCWS staff, and contractors. Resource availability may be severely limited or scarce during such times, necessitating the triage or prioritization of emergencies provincewide. Therefore, local governments, partners, and individuals must be prepared and proactive in their response efforts. Comprehensive and apt Emergency Response Plans are a critical first step for communities to prepare for a large emergency event.

Current Status: The current Quesnel Emergency and Recovery Plan was developed in 2015 and requires an update to better reflect the changes in development and demographics in Quesnel over the past decade. Within the Emergency Plan, wildland urban interface wildfires are identified as a hazard to the community, with a checklist of specific policies, coordination efforts, operations, and logistics outlined for the Quesnel Emergency Operations Centre (EOC) in the event of an interface wildfire event.

In November 2023, the new *Emergency and Disaster Management Act* (EDMA) came into force, replacing the previous *Emergency Program Act*. To support the new legislation, the provincial government is updating and developing regulations in consultation and cooperation with First Nations. Since the introduction of EDMA, the City has been working more closely with the Cariboo Regional District and various local First Nations on collaborative mitigation, preparedness, response, and recovery planning, and coordinating efforts for various other aspects of Emergency Management (i.e. EOC training and hosting within the various communities and ensuring lines of communication remain open prior to emergency events). The City of Quesnel is currently waiting for the new EDMA regulations to be finalized before proceeding with updating their Emergency Plan, to ensure the new Plan aligns with new legislative requirements. The City is currently in the process of carrying out a comprehensive Hazard and Vulnerability Risk Analysis to be completed by fall 2026.

Additionally, the City of Quesnel completed an Evacuation Plan in 2020 to help streamline the evacuation process, when necessary, by providing a framework for coordinating and implementing an evacuation. The Evacuation Plan supplements the Emergency Plan and EOC procedures by providing options for evacuation routes, reception centres, transportation for vulnerable groups, procurement of traffic control and enforcement resources, etc.

Wildfire Evacuation Planning: Insights from Communities in Alberta and British Columbia (2024)

A study by Wambura and Wong (2024)[21] from the University of Alberta presents a profile of five communities in Alberta and British Columbia that have previously been affected by wildfires or are prone to experiencing wildfire events in the future. The City of Quesnel was chosen as part of the study. The report provides community-specific insights into evacuation decisions, preparedness, and logistical considerations during wildfire events, based on public survey data collected. Important emergency planning considerations resulting from the study for the City of Quesnel include:

- Overall community preparedness for emergency evacuations could be improved to reduce evacuation timing and improve efficiencies. Community preparedness education/programs/events could help increase evacuation preparedness among residents.
- Government messaging, such as Voyent Alert! and social media were the most preferred sources of evacuation orders. As such, Voyent Alert! utilization and subscription, as well as government social media avenues should be prioritized in evacuation community strategies.
- A majority of survey respondents in the study would evacuate north from Quesnel to Prince George. Given anticipated high vehicle usage during evacuations, highways connecting Quesnel to Prince George should be well prepared.

5.6.1 Pre-Incident Wildfire Response Planning

Pre-incident wildfire response planning is recommended for the City of Quesnel 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.[22] The guide includes a planning checklist, which is listed below (Table 15), to help develop the plan and accompanying maps. Evacuation route planning and testing are high priorities for incorporating into the pre-incident plan. This process of pre-planning will coincide and articulate with the HRVA that will establish specific plans for each identified hazard with priorities, plans, and strategies.

[21] Wambura, V., & Wong, S. D. (2024). *Wildfire Evacuation Planning: Insights from Communities in Alberta and British Columbia*. https://doi.org/https://era.library.ualberta.ca/items/fa82dcdd-de8d-48a3-8849-ed9ff5a82690/view/3cc4d333-982b-475e-884b-d737865e549f/Community_profiles_UofA_Final.pdf

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

Table 15. Example of a pre-incident planning checklist

Pre-Incident Planning Checklist (Example)	
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) • Archaeological 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. Table 16 below provides a template that can be tailored specifically to the Municipality outlining actions that staff, fire department members, and other emergency staff can take as fire danger levels change throughout the year. Some of these actions are already undertaken annually, (e.g. during Extreme fire danger, EOC staffing availability information is updated, and natural area closures occur), while other actions have not yet been initiated. Year-round, fire danger signs posted throughout the municipality should be updated to reflect the current fire danger. This process of preparedness planning will coincide and articulate with the HRVA that will establish specific plans for each identified hazard with priorities, plans, and strategies.

Table 16: Wildfire Response Preparedness Condition Guide

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

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

Action	Lead(s)	Priority	Timeframe	Resources Required	Metric for Success	Rationale/Notes
Emergency Planning						
22. Update the Quesnel Emergency and Recovery Plan to reflect updated emergency legislation, area demographics, emergency planning from neighbouring local governments, and the Quesnel Hazard and Risk Vulnerability Analysis (HRVA).	Quesnel Forestry Initiatives Manager, Fire Chief	Very High	Within 3 years (2028)	Communication resources, internal staff capacity, emergency management guidance, potential legal support	An updated comprehensive emergency management plan for the City of Quesnel is completed by 2028.	The City of Quesnel is currently waiting for the completion of the HRVA and finalization of the new Emergency and Disaster Management Act (EDMA) before completing necessary updates to their Emergency Plan.
23. Ensure strong emergency management and communication strategies are developed and maintained between the City of Quesnel, the Lhtako Dené Nation, and the CRD regarding emergency response operations. This will help ensure clear, consistent, and coordinated efforts during emergency events in the region.	Quesnel Forestry Initiatives Manager, Fire Chief	High	Immediate and ongoing	Communication resources	Strong communication and working relationships are built and maintained between Quesnel and neighbouring local governments.	The Quesnel area is populated by the City of Quesnel, multiple First Nations, and surrounding rural communities in the CRD. It is important that these local governments work together in coordinating emergency planning and response for the region.

Action	Lead(s)	Priority	Timeframe	Resources Required	Metric for Success	Rationale/Notes
24. Promote and encourage all Quesnel residents to subscribe to the Voyent Alert! Public Alerting System (PAS). Emergency notices can be delivered via email or phone.	Quesnel Forestry Initiatives Manager, Fire Chief	High	Immediate and ongoing	Communication resources	An increase in subscription rate to Voyent Alert! by 10% annually.	As of 2025, the City of Quesnel has a Voyent Alert! subscription rate of approximately 2,200 residents. This accounts for around 22% of the City's population. One of the key findings from the Wambura, V., & Wong, S. D. (2024) study was that government messaging, such as Voyent Alert! and social media were the most preferred sources of evacuation orders. As such, Voyent Alert! utilization and subscription, as well as government social media avenues should be prioritized in evacuation community strategies.
25. Organize and/or participate in cross-jurisdictional meetings, tabletop exercises, or mock scenarios specifically focused on wildfire preparedness and suppression in the Quesnel region. This could include implementing mock evacuation scenarios informed by the 2020 Evacuation Plan.	Quesnel Forestry Initiatives Manager, Fire Chief	High	Annually	Communication and planning resources, facility and funds to hold meeting/exercise	A minimum of one cross-jurisdictional meeting/tabletop exercise/mock scenario is held per year.	Funding to hold wildfire preparedness meetings/exercises is currently available through the CRI program.

Action	Lead(s)	Priority	Timeframe	Resources Required	Metric for Success	Rationale/Notes
26. Use and/or promote the provincial Wildfire Preparedness Guide and/or Wildfire Evacuation Checklist for community emergency preparedness events focused on wildfire.	Quesnel Forestry Initiatives Manager, FireSmart Coordinator, Fire Chief	Moderate	Annually or biannually	Communications and planning resources	Hold one emergency preparedness event focused on wildfire annually or every two years.	One of the key findings from the Wambura, V., & Wong, S. D. (2024) report was community preparedness for emergency evacuations could be improved to reduce evacuation timing. Community preparedness education/programs/events could help increase evacuation preparedness among residents in Quesnel. Funding to hold emergency preparedness events is currently available through the CRI program.

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: Fuel management, also referred to as vegetation management or fuel treatment, is an important element of wildfire risk reduction within the WUI. The primary objective of fuel management treatments is to reduce the fuels available to burn and alter aspects of wildfire behaviour to allow for safer and more effective suppression strategies.

Over 60% of the one-kilometre WUI area for the City of Quesnel is occupied by private land parcels in which funded fuel management treatments are ineligible. Completing fuel management treatments on municipal or provincial crown land without similar wildfire risk reduction activities and treatment on adjacent private land will ultimately reduce the effectiveness of those fuel treatments. This highlights the critical importance for private landowners of implementing FireSmart treatments on their homes/structures and extending out into the Immediate, Intermediate, and Extended Zones.

5.7.1 FireSmart Landscaping (Residential and Critical Infrastructure)

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 Home Ignition Zone around homes, structures, and infrastructure. The *FireSmart BC Landscaping Guide*[23] is an excellent tool to help residents and planners make informed choices about how to manage their lawns and gardens to increase resilience to wildfire on their properties. The guide provides a diverse list of fire-resilient plants suitable for different areas of the province based on cold-hardiness, drought tolerance, and avoidance of harmful invasive species. Additionally, it provides tips for spacing and pruning of vegetation, mulch considerations, and maintenance.

[23] https://firesmartbc.ca/wp-content/uploads/2021/04/FireSmartBC_LandscapingGuide_Web_v2.pdf

Vegetation management guidelines at the residential scale are further delineated by the FireSmart priority zones. Please refer to Engagement Summary and Home Ignition Zone for guidelines within each priority zone.

Current Status: Local FireSmart Representatives with the City of Quesnel, including the Forestry Initiatives Manager and the FireSmart Coordinator, have been completing FireSmart Home Assessments for residents within the City of Quesnel and surrounding areas for the past six years. To date, ~200 home assessments have taken place and ~50 rebates have been issued. These assessments provide recommendations relating to management of vegetation and landscaping on the property. To date, the most common recommended FireSmart activities that have been undertaken by private landowners in Quesnel are conifer tree removal, removal of ornamental cedar, juniper and Mugo pine shrubs, and removal of all vegetation in the Immediate Zone around the home.

The City of Quesnel also works with local garden centres to educate customers on making FireSmart landscaping choices and choosing appropriate plants for the three FireSmart priority zones. The City has made handouts and QR codes for the FireSmart Landscaping Guide, that educate both the plant nurseries and customers about suitable fire resilient landscaping options. Some stores give the handouts to customers at the time of purchase and also post the QR Codes in store.

5.7.2 Cultural Sites and Green Spaces

The FireSmart Cultural Sites and Green Spaces Assessment is a qualitative process that is intended for assessing vulnerability of First Nation cultural sites and local government green spaces[24]. These can include sacred or traditional use sites, cultural features, parks, cemeteries, trails, recreation features, and greenways. Implementing FireSmart activities in cultural sites and green spaces (CSGS) involves managing vegetation and adopting fire-resistant landscaping practices to reduce wildfire risk and enhance resilience. FireSmart vegetation management focuses on intentionally removing or reducing flammable plants and vegetation, both natural and cultivated. This minimizes potential fuel sources, lowers wildfire intensity, and decreases overall risk in CSGS from embers and flames.

[24] FireSmart Cultural Sites and Green Spaces Assessment. Chrome. https://firesmartbc.ca/wp-content/uploads/2023/08/09.05.23_FireSmartBC_AssessmentandDesign.pdf

Completing FireSmart CSGS Assessments was beyond the scope of this CWRP. However, funding is currently available for FireSmart activities within these spaces should the City of Quesnel be interested in implementing FireSmart landscaping in any of their community parks, recreation trails, or other important green spaces. Please refer to the most recent CRI Program Guide[25] for requirements and eligibility of CSGS projects. A *Checklist for CRI Requirements for Fuel Management Prescription*[26] is required to be completed before CSGS Assessment is started (completed checklist must be submitted at time of application but the cost is an eligible expense provided the assessment is completed within six months prior to the date of application submission).

Overall, the parks and green spaces in the City of Quesnel are well maintained with frequent grass mowing, surface fuel reduction, and pruning. However, any cultural site or municipally owned park/green space that does not meet the criteria for a fuel management prescription could be a candidate for a FireSmart CSGS Assessment and implementation of any recommended treatment or maintenance activities. Potential candidates include:

- Tim's Park (Carson Subdivision)
- City Hall Terrace

See Section 3.4.8.1 Parks and Recreation for a list of parks, green spaces, and recreational features within the City of Quesnel.

[25] CRI FireSmart Community Funding and Supports Program. https://www.ubcm.ca/cri/firesmart-community-funding-supports

[26] Checklist for CRI Requirements for a Fuel Management Prescription. https://cdn.sanity.io/files/dymqkurm/production/71ae3accf458f282ed5d2c0cab00c4d144c48ff8.pdf

5.7.3 Completed or Overlapping Fuel Treatment Units

5.7.3.1 2018 Quesnel and Surrounding Area Community Wildfire Protection Plan

Since the development of the 2018 Quesnel and Area CWPP, the City of Quesnel has been actively completing fuel management treatments within the municipality and the surrounding areas. The Area of Interest from the previous CWPP included a two-kilometre buffer from all the fire protections zones of City of Quesnel, Kersley, Bouchie Lake, 10 Mile Lake, West Fraser, and Barlow Creek, and was further expanded to include the communications towers on Dragon and Milburn Mountains. Table 17 below details the proposed fuel treatment areas from the CWPP that have been completed to date. Approximately 640 hectares of fuel treatments have been completed within or surrounding the City of Quesnel. The current CRI funding rules no longer allow municipalities to apply for or complete fuel management treatments beyond the reaches of their one-kilometre eligible WUI from the municipal boundary. As a result, the AOI for this CWRP is significantly smaller than the previous CWPP. The City of Quesnel is now limited in the areas for which they can complete fuel management treatments (see section 3.2 Wildland-Urban Interface).

Table 17: Status of Proposed Fuel Treatment Units from the 2018 Quesnel and Area CWPP

Treatment Unit ID	Priority Class	Area (Ha)	Status/Org	Year Completed (or Scheduled)
12 Pinnacles Rd	Moderate	19.7	Complete/City	2022
15 Marsh Rd	High	336.3	Complete/City and MoF	2021
11 Pinnacles Park	High	89.9	Complete/City	2021
4 South Hills	High	5.9	Complete/City	2020
5 South Hills	High	6.7	Complete/City	2020
6 Bjornson Rd	High	3.2	Complete/City	2020
9 Ten Mile Lake Park	High	12.1	Complete/City	2020
13 Sugarloaf Park	Moderate	3.5	Complete/City	2020
14 Airport Trails	High	87.4	Complete/City	2019
21 Barlow Sub	High	187.2	Proposed/BCTS	(Scheduled 2025)
33 Dragon Bluff	High	38.8	Complete/City	2023
7 Ten Mile Lake Park	High	12.6	Complete/City	2021
8 Ten Mile Lake Park	High	5.5	Complete/City	2021
10 Ten Mile Lake Park	High	0.8	Complete	2021
23 Dragon Tower	High	11.0	Complete/City	2021
29 Hangman Spring	High	34.8	Complete/City	2020
22 Barlow North	Moderate	56.2	Proposed/BCTS	(Scheduled 2025)
24 Cottonwood	Moderate	22.4	Proposed/MoF	TBD
34 Hallis Lake	Moderate	219.3	Proposed/TRCF	(Scheduled 2026)

Treatment Unit ID	Priority Class	Area (Ha)	Status/Org	Year Completed (or Scheduled)
34a Wonderland	Moderate	90	In process/City	Scheduled 2026
16 Sisters Creek	Moderate	88.5	In process/City and MoF	2024-2027
17 Dragon Mountain	Moderate	120.2	Proposed/BC Parks	2026-2029
31 Claymine Trails	Moderate	19.6	Complete/City	2021
18 Durrell Road	Moderate	235.2	Proposed/BC Parks	2026-2029
20 Barlow Creek	Moderate	27.8	Proposed/BCTS	2026
19 Dragon Approach	Moderate	222.4	Proposed/MoF	TBD
25 Garner Road	Moderate	60.3	Proposed and removed due to access	Report only
26 Garner Road	Moderate	19.5	Proposed and removed due to access	Report only
27 West Fraser Road	Moderate	93.1	Proposed and removed due to access	Report only
30 Pinnacles West	Moderate	57.8	Proposed/TRCF or MoF	TBD
32 Baker Creek Hand	Moderate	8.6	Complete/City	2024
32 Baker Creek Mechanical	Moderate	71.2	Prescription Complete/TRCF	TBD
28 Milburn Towers	Moderate	8.1	Complete/City and MoF	2020
Area Proposed		**2,661.6 ha**	**Area Completed**	**794.5 ha**

** Note on abbreviations - "City" is City of Quesnel; "BCTS" is BC Timber Sales; "TRCF" is Three Rivers Community Forest; and "MoF" is Ministry of Forests*

5.7.3.2 2024 Quesnel and Area Wildland Urban Interface Wildfire Risk Reduction Plan

In 2024, the Ministry of Forests – Quesnel Natural Resource District began developing a landscape-level Wildfire Risk Reduction Plan for the Quesnel and surrounding area. Known provincially as a Wildland Urban Interface (WUI) Wildfire Risk Reduction (WRR) Plan, these Plans focus on assessing wildfire hazard at a broader landscape level surrounding populated areas and values at risk. Where a CWRP focuses on land within the boundary of a local government, the outcome of the WUI WRR Plan is a summary of prioritized planning and fuel management units located on provincial crown land outside of communities. The following Planning Units and Fuel Management Units resulting from the Quesnel Area WUI WRR Plan overlap this CWRP's Wildland Urban Interface and/or Area of Interest:

Table 18: Planning Units and Fuel Management Units (including proposed Fuel Treatment Units) from the Quesnel Area WUI WRR Plan that overlap with the Quesnel CWRP WUI and AOI

Wildfire Risk Reduction Planning Unit ID	Fuel Management Unit ID
QE-CO-01	QE_FTU-01
QE-CO-01	QE_AMU_01
QE-CO-02	QE_AMU-01
QE-CO-04	QE_AMU-01
QE-CO-05	QE_AMU-01
QE-CO-07	QE_AMU-01
QE-CO-19	QE_AMU-01
QE-CO-21	QE_AMU-01, QE_AMU-02
QW-CI-01	QW_AMU-01
QW-CO-04	QW_AMU-01
QW-CO-09	QW_AMU-01, QW_AMU-03

The *Overlapping Values/Treatment Constraints* column found in the Proposed Fuel Treatment Unit table (Table 19) and Proposed Maintenance Treatment table (Table 20) in the sections to follow outline the specific treatment unit overlaps with the above Quesnel WUI WRR units.

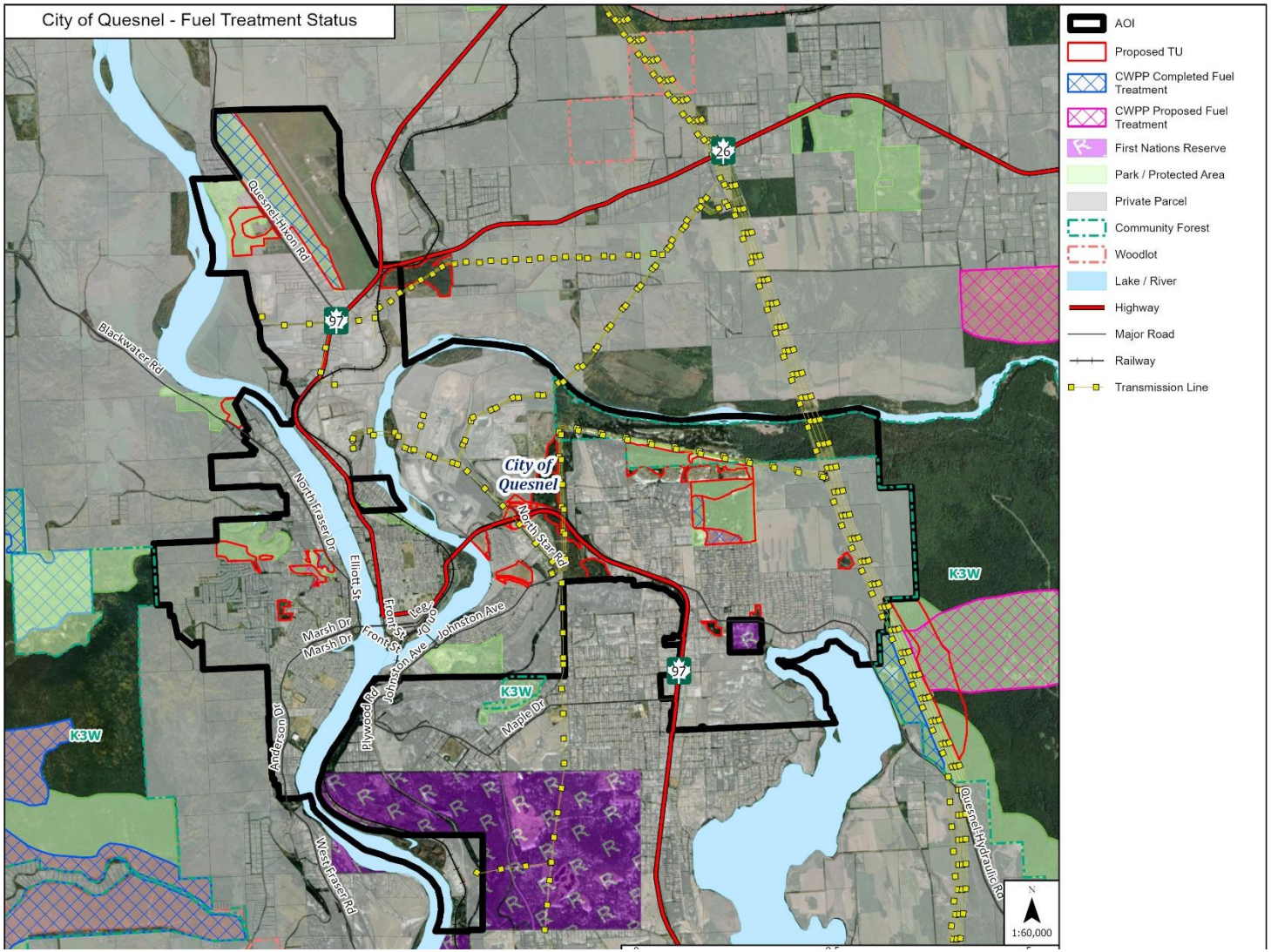


Figure 18: Other planned/proposed or completed fuel management treatments from the 2018 Quesnel CWPP and the 2024 Quesnel Area WUI WRR Plan, overlapped with proposed fuel treatment areas from this CWRP.

5.7.4 Proposed Fuel Treatment Units

The proposed fuel management treatment units (FTUs), prescribed burn units (BUs) and Demonstration Forest projects (DEMOs) for this CWRP were identified based on field work completed, available municipal or provincial crown land located within the eligible WUI, proximity to values, and forest fuel types. The areas identified for proposed fuel treatment or prescribed burning are detailed in Table 19. Demonstration Forest projects are characterized by locations that are visible and accessible by the public, are small in size (no larger than 5.0 ha) and contain an educational component, such as signage, trails, etc.

The proposed FTUs in Table 19 are listed in order of general priority. Priority Ranking assignment took into consideration a multitude of factors including both the Wildfire Threat Assessment Scores and Priority Setting Scores from the Wildfire Threat Assessment Worksheet completed in the field, as well as other local factors such as density of values, anchoring features, and/or constraints to fuel management activities. As assigning priority levels and rankings can be a subjective process based on best available information and an imperfect science, the City of Quesnel withholds the right to complete proposed fuel treatment activities in whatever order they deem most appropriate and are not required to complete FTUs in the order listed in Table 19. The Priority Ranking of FTUs within this CWRP is intended to guide the City in pursuing fuel treatment activities based on overall wildfire threat of a stand, risk to values, and efficacy of treatment. Furthermore, the FTUs identified as part of this CWRP are only proposed and require further boundary refinement based on more intensive data collected during the fuel management prescription/burn plan development phase.

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 sensitivities including riparian areas, geotechnical concerns, and species at risk and their habitats. Assistance and advice from a Registered Professional Biologist, geotechnical engineer, or other qualified professional may be required prior to the implementation of any wildfire risk reduction activities in the area to determine potential adverse impacts and guide treatment activities.

Table 19: Proposed Fuel Treatment Units (FTU) and Prescribed Burn Units (BU) for the City of Quesnel

FTU ID	Total Area (ha)	Treatment Unit Type / Objective	Local Fuel Threat	Overlapping Values / Treatment Constraints	Treatment Rationale
FTU-1 (Speedway/Raceway Park)	21.96	Community interface treatment; landscape fuel break	High (WTA-19)	Land ownership: provincial crown Managed Forest License: Three Rivers Community Forest (K3W) Overlaps Assess Monitor Unit *QE_AMU-01* from the 2025 Quesnel WUI WRR Plan	The proposed TU is adjacent to the north side of the Quesnel speedway and raceway parks and overlaps the Three Rivers Community Forest license area. It ties into private land to the west, transmission right of way to the north, Oval Road to the east, and the speedway/raceway parks to the south. The area can be accessed via Oval Road. The area is comprised of an immature mixedwood (M-1/2) stand containing a mix of hybrid spruce, Douglas-fir and paper birch, with scattered Douglas-fir vets. Intermediate layer of conifers is prominent. Understory of >1,500 stems per hectare of spruce with a patchy distribution interspersed with deciduous patches. Woody surface fuels are high. Proposed treatment activities would include thinning of overstory/intermediate and understory conifers with a focus on removal of spruce. Increase Crown Base Height (CBH) and reduce surface fuels. Treatment would reduce large swathes of hazardous fuels in the eastern portion of Quesnel and reduce potential for human ignitions near the speed/raceways.
DEMO-2 (Dragon Lake Elementary School)	2.45	Community interface/critical infrastructure (school) treatment; education opportunities (Demo Forest)	High (WTA-24)	Land ownership: municipal Dragon Lake Elementary School Treatment constraints/considerations: riparian management	The proposed TU is a small, forested area containing multiple trails, located on the school grounds of Dragon Lake Elementary School. The unit is surrounded by private land and ties into Dragon Creek along the southwest. The area can be accessed via the school grounds on Quesnel-Hydraulic Road. The area is comprised of a mature, multi-layered mixedwood (M-1/2) stand containing a mix of hybrid spruce, Douglas-fir, paper birch, and trembling aspen. Intermediate layer of conifers is prominent. Understory of >1,500 stems per hectare of spruce with a patchy

FTU ID	Total Area (ha)	Treatment Unit Type / Objective	Local Fuel Threat	Overlapping Values / Treatment Constraints	Treatment Rationale
					distribution interspersed with deciduous patches. Deciduous shrub layer well developed. Standing dead and partially down stems pose a safety concern. Proposed treatment activities would include danger tree removal and thinning of intermediate and understory conifers with a focus on removal of spruce. Increase CBH and reduce surface fuels. Treatment would reduce hazardous fuels adjacent to the elementary school, increase safety along trails, and would be a good candidate for a Demonstration Forest with interpretive/educational signs along trails.
FTU-3 (Off-road Park South)	13.84	Community interface treatment	High (WTA-3)	Land ownership: provincial crown Overlaps Assess Monitor Unit *QE_AMU-01* from the 2025 Quesnel WUI WRR Plan	The proposed TU is a forested area located on the south side of Oval Road near the Quesnel Raceway and Offroad Association. To the west, the unit ties into private properties on Westland Close and a previously completed treatment area. The area can be accessed via Oval Road. Note, there is barbed wire between Oval Road and the forested area. The area is comprised of a mature mixedwood (M-1/2) stand containing a mix of Douglas-fir, paper birch, hybrid spruce, and subalpine fir. Intermediate layer of conifers is prominent with scattered Douglas-fir vets. Moderate density of understory spruce and Douglas-fir at >700 stems per hectare. Deciduous shrub layer is patchy. Proposed treatment activities would include thinning of overstory/intermediate and understory conifers with a focus on removal of spruce and subalpine fir. Increase CBH and reduce surface fuels. Treatment would reduce hazardous fuels adjacent to Oval Road and reduce large swathes of hazardous fuels in the eastern portion of Quesnel.

FTU ID	Total Area (ha)	Treatment Unit Type / Objective	Local Fuel Threat	Overlapping Values / Treatment Constraints	Treatment Rationale
DEMO-4 (Aspen Heights)	3.17	Community interface treatment	Moderate (WTA-9)	Land ownership: municipal	The proposed TU is a small, forested area located behind the Aspen Heights apartment complex and private residents on Blair Street. The unit is surrounded by private land on all sides. The area can be accessed via Bouchie Street and contains lots of garbage. The area is comprised of a mature mixedwood (M-1/2) stand containing a mix of Douglas-fir, trembling aspen, and cottonwood in the overstory. Understory is dense with >1,600 stems per hectare of spruce with a patchy distribution interspersed with deciduous patches. Deciduous shrub layer is well developed. Standing dead stems may pose a safety concern. Proposed treatment activities would include danger tree removal and removal of understory conifers. Increase CBH and reduce excess surface fuels, including dead shrubs and garbage. Treatment would reduce hazardous fuels and danger trees adjacent to the apartment complex and private residences. This area would be a good candidate for a Demonstration Forest. Opening up the stand and turning it into a green space with trails would increase safety from unsanctioned encampments.
FTU-5 (West Quesnel Uplands)	10.11	Community interface treatment	Moderate (WTA-8)	Land ownership: municipal Overlaps Assess Monitor Unit *QW_AMU-01* from the 2025 Quesnel WUI WRR Plan	The proposed TU is a forested area located off Healy Street in the uplands area of West Quesnel. It ties into private residences on Paley Avenue and Healy Street to the south, a large private parcel to the west, and deciduous forest to the north. The area is comprised of a mature mixedwood (M-1/2) stand containing 40-50% conifer. It is comprised of a mix of paper birch, hybrid spruce, Douglas-fir, and cottonwood. Moderate density of understory spruce at >700 stems per hectare with a patchy distribution interspersed with deciduous patches. Deciduous shrub layer is well

FTU ID	Total Area (ha)	Treatment Unit Type / Objective	Local Fuel Threat	Overlapping Values / Treatment Constraints	Treatment Rationale
					developed. Proposed treatment activities would include removal of understory conifers and dead shrub stems. Increase CBH where needed. Treatment would reduce hazardous fuels adjacent to private residences upslope in the uplands neighbourhood and increase defensible space along the northwest side of West Quesnel.
FTU-6 (Baker Dr SW)	4.54	Community interface treatment	Moderate (WTA-7)	Land ownership: municipal Overlaps Assess Monitor Unit *QW_AMU-01* from the 2025 Quesnel WUI WRR Plan Treatment constraints/considerations: riparian management, slope stability	The proposed TU is a forested area located on the southwest side of Baker Drive. The unit ties into Baker Drive along the east, Baker Creek to the southwest, and private property to the north. There is a relatively steep slope break from Baker Drive down towards Baker Creek. The area is comprised of a mature C-7 stand containing almost entirely Douglas-fir. Moderate density of understory Douglas-fir at >600 stems per hectare. Deciduous shrub layer is patchy. Proposed treatment activities would include thinning of understory conifers and some intermediate layers. Increase CBH and reduce surface fuels. Potential for use of post-treatment prescribed fire to reduce surface fuels and for ecological restoration. Slope stability along Baker Creek must be considered. Treatment would reduce hazardous fuels adjacent to Baker Drive and surrounding neighbourhoods.
FTU-7 (Northstar Reservoir)	13.15	Critical Infrastructure treatment	Moderate (WTA-15, WTA-16)	Land ownership: provincial crown Dragon Hill water reservoir; Water main ID WML002240 Girl Guides Camp	The proposed TU is a forested area located off Carson Pit Road, surrounding the Dragon Hill water reservoir and the Girl Guides Camp. The unit ties into an electrical transmission line to the east, Highway 97 to the south, and Carson Pit Road to the west. The northwest corner of the unit abuts the Quesnel SPCA property. Slopes are moderate between 20-50%. The unit is accessible via Carson Pit Road or the transmission line. Unofficial trails are located throughout the area. The area is comprised of a mature C-7 stand containing almost entirely

FTU ID	Total Area (ha)	Treatment Unit Type / Objective	Local Fuel Threat	Overlapping Values / Treatment Constraints	Treatment Rationale
					Douglas-fir. Overstory density is generally low at approximately 500 stems per hectare. Evidence of root rot in the stand resulting in patches of dead standing and down Douglas-fir with infill of deciduous trees, shrubs, and some conifer regeneration. Deciduous shrub layer is well developed. Woody surface fuels moderate to high in some sections. Proposed treatment activities would include removal of dead standing danger trees, thinning of intermediate and understory layers of conifers, and surface fuel reduction. Potential for commercial thin of overstory. Potential for use of post-treatment prescribed fire to reduce surface fuels and for ecological restoration. Treatment would reduce hazardous fuels adjacent to the SPCA, the Girl Guides Camp, and the Dragon Hill water reservoir. Potential to enhance trail network in the area for recreation.
DEMO-8 (Bike Trails)	4.04	Community interface treatment; recreation	Moderate (WTA-11, WTA-12)	Land ownership – municipal Quesnel Bike Park	The proposed TU is an upslope portion of the Quesnel Bike Park. It ties into Highway 97 to the north and is bisected by an electrical transmission line right of way. The area can be accessed via the bike trail network and contains numerous bike trails running through it that need to be well-maintained. The area is comprised of a mature mixedwood (M-1/2) stand with 60-70% conifer containing a mix of Douglas-fir, paper birch, and trembling aspen, and minor components of hybrid spruce. Understory contains patches of dense conifer (spruce and Douglas-fir) interspersed with deciduous patches. Deciduous shrub layer well developed in more open areas. Proposed treatment activities would include danger tree removal and thinning of understory conifers. Increase CBH and reduce surface fuels. Treatment would reduce hazardous fuels adjacent to Highway 97, increase safety along bike trails, and enhance recreation features.

FTU ID	Total Area (ha)	Treatment Unit Type / Objective	Local Fuel Threat	Overlapping Values / Treatment Constraints	Treatment Rationale
FTU-9 (Barkerville Hwy Junction)	25.53	Community interface treatment	Moderate (WTA-3)	Land ownership – provincial crown Old Growth Priority Deferral Area ID 46169 Overhead communication cable runs along railway	The proposed TU is a forested area located on the south side of Barkerville Highway at the Highway 97/Barkerville Hwy junction. The unit ties into the CN railway along the north boundary, the Callis pit along the south, and private properties on Callis Road to the east. The area is comprised of a conifer-dominant mature mixedwood (M-1/2) stand containing a mix of hybrid spruce, trembling aspen, cottonwood, and paper birch. Crown base height of overstory spruce extends to the ground. Moderate density of understory spruce at >900 stems per hectare. Deciduous shrub layer is patchy. Woody surface fuels patchy with sections of high fuel loading. Proposed treatment activities would include thinning of understory conifers, increase CBH, and surface fuel reduction. Increase defensible space along railway line and overhead communication cables through removal of overstory spruce within 10 metres of lines. Treatment would reduce hazardous fuels adjacent to the railway line and communication infrastructure and help reduce potential ignition from railway track grinding. Additionally, treatment would reduce hazardous fuels adjacent to rural neighbourhood on Callis Road in the Cariboo Regional District.
FTU-10 (Quesnel Landfill)	6.50	Critical infrastructure treatment	Moderate (WTA-14)	Land ownership - municipal	The proposed TU is a forested area located southeast of the Quesnel landfill. The unit ties into an electrical transmission line to the east, the landfill site to the north, and Carson Pit Road to the west. The unit is accessible through the landfill site or the transmission line. The area is comprised of a mature C-7 stand containing Douglas-fir and minor components of trembling aspen and hybrid spruce. Overstory density is generally low at approximately 500 stems per hectare. Intermediate layer of conifers present resulting in overall low fuel strata gap. Understory density is moderate at approximately 800 stems per

FTU ID	Total Area (ha)	Treatment Unit Type / Objective	Local Fuel Threat	Overlapping Values / Treatment Constraints	Treatment Rationale
					hectare of Douglas-fir. Woody surface fuels are moderate. Proposed treatment activities would include thinning of intermediate and understory layers of conifers, and surface fuel reduction. Potential for commercial thin of overstory. Potential for use of post-treatment prescribed fire to reduce surface fuels and for ecological restoration. Treatment would reduce fuels adjacent to the landfill and reduce potential for ignition and fire spread originating from the landfill. It is important to note that there was a large amount of garbage in the unit from the landfill. Thinning of this area could result in garbage migrating on the transmission line corridor and potentially further into neighbourhoods.
FTU-11 (Dragon Hill Rd)	7.01	Community interface treatment	Moderate (WTA-11)	Land ownership - municipal	The proposed TU is located behind private properties on Dragon Hill Road, to the southeast of the Quesnel Bike Park. It is accessible via the bike park trail system or through private land. The unit does not overlap any existing bike trails. The area is comprised of a mature mixedwood (M-1/2) stand containing a mix of Douglas-fir, paper birch, and trembling aspen, and minor components of hybrid spruce. Understory contains patches of dense conifer (spruce and Douglas-fir) interspersed with deciduous patches. Deciduous shrub layer well developed in more open areas. Proposed treatment activities would include thinning of understory conifers, increase CBH, and surface fuel reduction, with a focus on treatment directly behind private properties. Treatment would reduce hazardous fuels adjacent to private properties located at the top of Dragon Hill.

FTU ID	Total Area (ha)	Treatment Unit Type / Objective	Local Fuel Threat	Overlapping Values / Treatment Constraints	Treatment Rationale
FTU-12 (Enemark Rd N)	34.27	Community interface treatment	Moderate (WTA-22)	Land ownership – provincial crown Overlaps Assess Monitor Unit *QE_AMU-01* from the 2025 Quesnel WUI WRR Plan	The proposed TU is a forested area located off Enemark Road. To south and west, the unit ties into a previously completed treatment area. To the east the unit ties into Enemark Road and private agricultural fields. The area is comprised of a mature mixedwood (M-1/2) stand containing a mix of Douglas-fir, hybrid spruce, subalpine fir, trembling aspen, and paper birch. Intermediate layer of conifers is present. Moderate density of understory spruce. Deciduous shrub layer is well developed. Area is characterized by rich soils. Proposed treatment activities would include thinning of intermediate and understory conifers with a focus on removal of spruce and subalpine fir. Increase CBH. Treatment would reduce hazardous fuels within a forested area adjacent to neighbourhoods.
FTU-13 (Quesnel Cemetery)	17.44	Community interface treatment	Low (WTA-2)	Land ownership – municipal	The proposed TU is a small, forested area located adjacent to the Quesnel and District Cemetery and municipal gravel pit. The unit ties into the West Fraser Mill property to the south, Quesnel-Hixon Road to the east and the Fraser River to the west. The area is comprised of a mature mixedwood (M-1/2) stand with 30-40% conifer containing a mix of trembling aspen, hybrid spruce, subalpine fir, Douglas-fir, and paper birch. Understory density is low to moderate. Deciduous shrub layer is well developed. Proposed treatment activities would include removal of understory conifers and increase CBH. Treatment would reduce potential for fire spread from industrial ignitions originating from the mill or other industrial sites nearby.

FTU ID	Total Area (ha)	Treatment Unit Type / Objective	Local Fuel Threat	Overlapping Values / Treatment Constraints	Treatment Rationale
FTU-14 (Oval Rd)	8.17	Community interface treatment; landscape fuel break	High (WTA-19)	Land ownership – provincial crown Managed Forest License: Three Rivers Community Forest (K3W) Overlaps Assess Monitor Unit *QE_AMU-01* from the 2025 Quesnel WUI WRR Plan	The proposed TU is adjacent to the north side of the Quesnel Offroad Association and overlaps the Three Rivers Community Forest license area. It ties into private land to the east, transmission right of way to the north, Oval Road to the west, and the offroad motor parks to the south. The area can be accessed via Oval Road. The area is comprised of an immature mixedwood (M-1/2) stand containing a mix of hybrid spruce, Douglas-fir and paper birch, with scattered Douglas-fir vets. Intermediate layer of conifers is prominent. Understory of >1,500 stems per hectare of spruce with a patchy distribution interspersed with deciduous patches. Woody surface fuels are high. Proposed treatment activities would include thinning of overstory/intermediate and understory conifers with a focus on removal of spruce. Increase CBH and reduce surface fuels. Treatment would reduce large swathes of hazardous fuels in the eastern portion of Quesnel and reduce potential for human ignitions near the motor parks.
FTU-15 (Blackwater Rd)	6.07	Community interface treatment	Low (WTA-4)	Land ownership – provincial crown, municipal	The proposed TU is adjacent to the west side of the Mills Road/Dyke Road neighbourhood in the north end of West Quesnel. The unit is located outside of the Quesnel municipal boundary. It ties into Blackwater Road to the south, the Fraser River to the north, and private land to the east. The area next to the unit has been partially cleared for what appears to be future development. The area is comprised of a mature (M-1/2) stand containing a mix of hybrid spruce, paper birch, trembling aspen, and cottonwood. Some deciduous dieback is present. Crown base height on spruce extends to the ground. Deciduous shrubs are well developed. Soils are moist and

FTU ID	Total Area (ha)	Treatment Unit Type / Objective	Local Fuel Threat	Overlapping Values / Treatment Constraints	Treatment Rationale
					rich and waterlogged in some areas. Proposed treatment activities would include removal of dead danger trees, thinning of understory spruce, and increasing CBH. Treatment would reduce fuels adjacent to the Mills Road/Dyke Road neighbourhood.
FTU-16 (Wonderland North)	65.80	Landscape fuel break treatment; recreation	Moderate (WTA-14)	Land ownership – provincial crown Managed Forest License: Three Rivers Community Forest (K3W) Overlaps Assess Monitor Unit *QE_AMU-01* from the 2025 Quesnel WUI WRR Plan Treatment constraints/considerations: Legal Old Growth Management Area CAR_RCA_1391; Ungulate Winter Range u-5-001 (conditional harvest) for mule deer; Wonderland Trail Network	The proposed TU is a forested area located in the east outskirts of Quesnel. The unit overlaps a portion of the Wonderland Trail Network and is located within the Three River Community Forest. The unit ties into an electrical transmission line to the west and private land to the north. The unit is accessible via the Wonderland Trail system or the transmission line. The area is comprised of a mix of deciduous stands and mature C-7 stands containing Douglas-fir with high crown base heights and components of hybrid spruce. Understory density is moderate. Proposed treatment activities must adhere to general wildfire measures under the applicable UWR Order and/or requirements under legally established Old Growth Management Area. Alternatively, an exemption to these legal requirements may be needed. Trails within the Wonderland Trail Network should be maintained with a Trail Management Zone. The City must work with the Community Forest regarding any treatment activities within their license area. Treatment would reduce fuels in large swaths of coniferous forests on the east side of Quesnel and enhance suppression opportunities from a fire coming from the east. Additionally, it would reduce fuels along well-used recreation trails.

FTU ID	Total Area (ha)	Treatment Unit Type / Objective	Local Fuel Threat	Overlapping Values / Treatment Constraints	Treatment Rationale
TU-17 (South Hills Reservoir)	2.76	Critical infrastructure treatment	Moderate (WTA-12)	Land ownership – municipal South Hills Reservoir and underground watermains	The proposed TU surrounds the South Hills Reservoir. The unit is surrounded by private property on all sides. The area is comprised of a mature mixedwood (M-1/2) stand containing primarily Douglas-fir and minor components of paper birch, trembling aspen, and hybrid spruce. Proposed treatment activities would include thinning of intermediate and understory conifers, increasing CBH, and surface fuel reduction. Treatment would reduce hazardous fuels around the water reservoir.
DEMO-18 (South Quesnel Park)	1.86	Demonstration Forest / Green Space FireSmart treatment	Moderate (WTA-23)	Land ownership – municipal South Quesnel Park	The proposed Demonstration Forest Area is located within South Quesnel Park. Trails are braided throughout. The park is surrounded by private residences. The area is comprised of a mature C-5 fuel type containing Douglas-fir and hybrid spruce. Understory density is moderate with a well-developed deciduous shrub layer. Proposed treatment activities would include thinning of understory conifers and increase CBH where needed. The area is a good candidate for either a Demonstration Forest with interpretive signage along trails, or a Greenspace FireSmart treatment.
BU-1 (Nadeau St S)	7.98	Prescribed burn	Low (WTA-25)	Land ownership - municipal	The proposed burn unit is a grass dominant field (O-1a/b fuel type) located on either side of Nadeau Street South. The unit is surrounded by private land on all sides and abuts residential homes. The area is comprised of grasses and herbs, with some small shrubs. Invasive plants are present. No pre-treatment of vegetation removal is anticipated prior to burning other than creating fuel free guards along private properties. Periodic or frequent burning of the area would

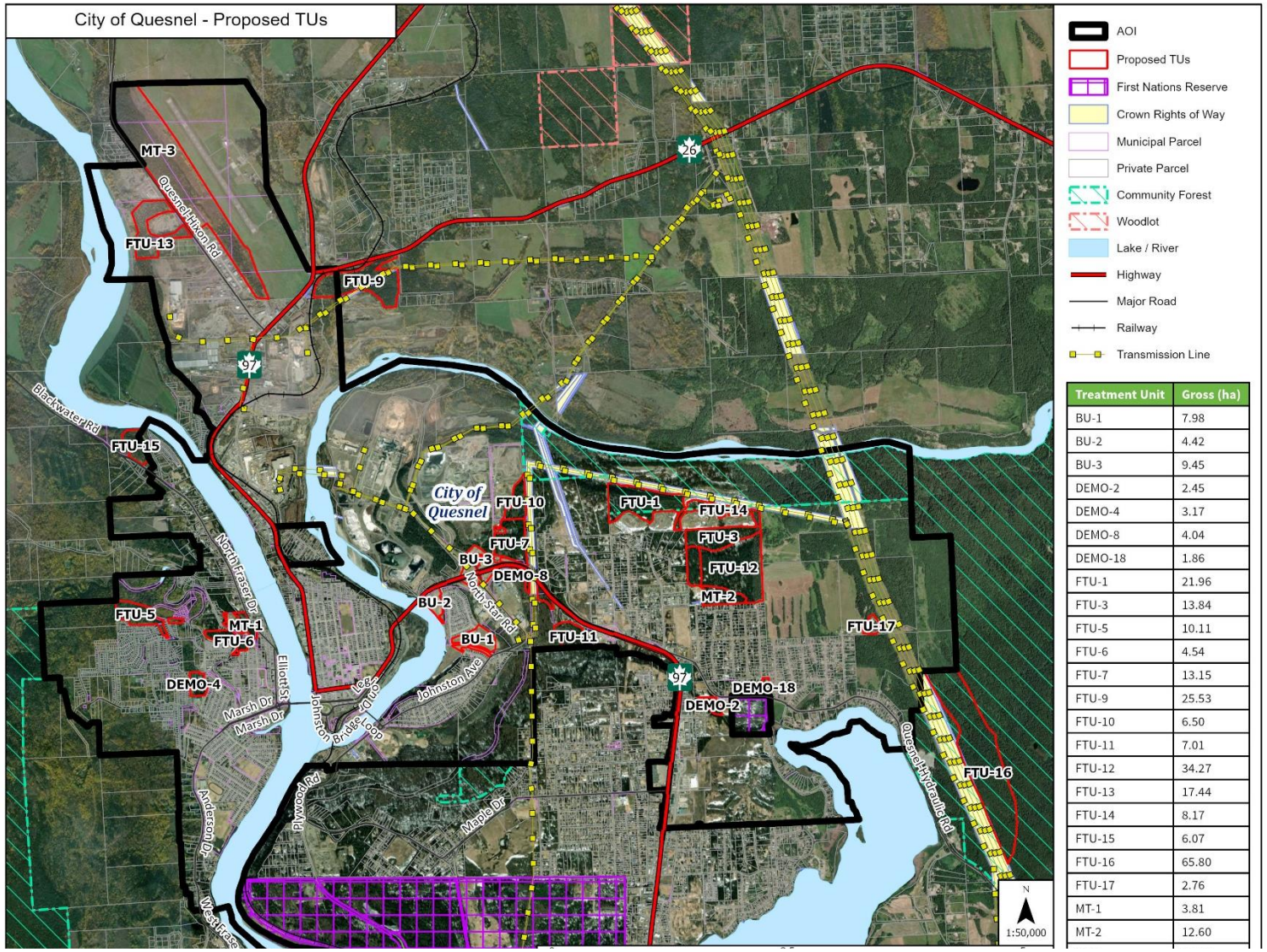
FTU ID	Total Area (ha)	Treatment Unit Type / Objective	Local Fuel Threat	Overlapping Values / Treatment Constraints	Treatment Rationale
					reduce flashy fuels and reduce encroachment of shrubs and trees.
BU-2 (Nadeau St N)	4.42	Prescribed burn	Low (WTA-25)	Land ownership – municipal	The proposed burn unit is a grass dominant field (O-1a/b fuel type) located on Nadeau Street. The unit ties into Highway 97 to the north, The Fraser River to the southwest, and Nadeau Street to the east. The area is comprised of grasses and herbs, with some small shrubs. Invasive plants are present. No pre-treatment of vegetation removal is anticipated prior to burning other than creating fuel free guards along private properties and boundaries. Periodic or frequent burning of the area would reduce flashy fuels and reduce encroachment of shrubs and trees.
BU-3 (North Star Overpass)	9.45	Prescribed burn	Low (WTA-25)	Land ownership - municipal	The proposed burn unit is a grass dominant field (O-1a/b fuel type) located around the North Star Overpass clover. The unit is planned to be burned in 2025. The area is comprised of grasses and herbs, with some small shrubs. Invasive plants are present. No pre-treatment of vegetation removal is anticipated prior to burning other than creating fuel free guards along private properties and boundaries. Periodic or frequent burning of the area would reduce flashy fuels and reduce encroachment of shrubs and trees.

5.7.5 Maintenance Plan for Previously Treated Fuel Management Units

The City of Quesnel has completed a number of fuel management treatments throughout the municipality and surrounding areas. Fuel treatments are intended to reduce fuels and maintain subsequent stand structure for an extended period of time. However, the lifespan of a treated area is dependent on the type of treatment, site-specific conditions, and other natural processes such as disturbance events. Previously treated areas were reassessed during fieldwork for this CWRP. Table 20 below details maintenance planning for previously treated areas in the eligible WUI.

Table 20: Proposed Maintenance Treatment (MT) for previously completed fuel treatments

FTU ID	Total Area (ha)	Treatment Unit Type / Objective	Overlapping Values / Treatment Constraints	Treatment Information
MT-1 (Sugarloaf Park)	3.81	Maintenance Treatment	Land Ownership: Municipal, crown provincial Water reservoir and communication tower Overlaps Assess Monitor Unit *QW_AMU-01* from the 2025 Quesnel WUI WRR Plan	Previously Treated: 2020 Proposed Maintenance: Reassess for treatment in approximately 3 years (2028). Treatment will likely include thinning of conifer tree regeneration/ingress and surface fuel reduction.
MT-2 (South Hills ID 4&5)	12.60	Maintenance Treatment	Land Ownership: Crown provincial Overlaps Fuel Treatment Unit *QE_FTU-01* and Assess Monitor Unit *QE_AMU-01* from the 2025 Quesnel WUI WRR Plan	Previously Treated: 2020 Proposed Maintenance: Reassess for treatment in approximately 4 years (2029). Treatment will likely include thinning of conifer tree regeneration/ingress and surface fuel reduction.
MT-3 (Fuel Management Trails)	87.42	Maintenance Treatment	Land Ownership: Municipal, crown provincial Overlaps Assess Monitor Unit *QE_AMU-01* from the 2025 Quesnel WUI WRR Plan	Previously Treated: 2019 Proposed Maintenance: Reassess for treatment in approximately 5 years (2030). Treatment will likely include thinning of conifer tree regeneration/ingress and surface fuel reduction.



Treatment Unit	Gross (ha)
BU-1	7.98
BU-2	4.42
BU-3	9.45
DEMO-2	2.45
DEMO-4	3.17
DEMO-8	4.04
DEMO-18	1.86
FTU-1	21.96
FTU-3	13.84
FTU-5	10.11
FTU-6	4.54
FTU-7	13.15
FTU-9	25.53
FTU-10	6.50
FTU-11	7.01
FTU-12	34.27
FTU-13	17.44
FTU-14	8.17
FTU-15	6.07
FTU-16	65.80
FTU-17	2.76
MT-1	3.81
MT-2	12.60

Figure 19: Proposed Fuel Treatment Units (FTUs), Prescribed Burn units (Bus) and Maintenance Treatment Units (MTs) within the AOI and WUI

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

Action	Lead(s)	Priority	Timeframe	Resources Required	Metric for Success	Rationale/Notes
Vegetation Management						
33. Encourage residents to remove/reduce flammable vegetation in the Immediate, Intermediate, and Extended zones on their properties. Promote the use of the *FireSmart BC Landscaping Guide* to inform vegetation management best practices and replace flammable vegetation with more fire-resistant landscaping.	FireSmart Coordinator	Very High	Immediate and ongoing	Communication and educational resources	Residents begin to show interest in FireSmart landscaping and actively removing flammable vegetation nearest to homes and structures on their property. Set targets for tracking completed FireSmart vegetation management activities in the FireSmart Public Communications Strategy.	Utilize the funding available through the CRI program for the FireSmart Rebate Program and providing off-site vegetative debris disposal for property owners who have undertaken their own vegetation management.

Action	Lead(s)	Priority	Timeframe	Resources Required	Metric for Success	Rationale/Notes
34. Apply for funding to develop fuel management prescriptions for forested areas identified on municipal and provincial crown land within the eligible WUI. NOTE: This should occur in collaboration with the Ministry of Forests, First Nations, and applicable land managers for any fuel treatments located on provincial crown land.	Quesnel Forestry Initiatives Manager	High	Annually, ongoing	A Registered Professional Forester is required to write all fuel management prescriptions	A minimum of one fuel management prescription is completed every two years.	Funding is available through the CRI program for fuel management prescription development.
35. Apply for funding to undertake fuel management treatment operations on municipal or provincial crown land within the eligible WUI based on completed fuel management prescriptions. NOTE: This should occur in collaboration with the Ministry of Forests, First Nations, and applicable land managers for any fuel treatments located on provincial crown land.	Quesnel Forestry Initiatives Manager	High	Every two years, ongoing	Contractors must be acquired to complete treatment operations	After the prescription phase is completed, at least one fuel management treatment is operationally completed every 2-3 years.	Funding is available through the CRI program for fuel management treatment operations/ Implementation.

Action	Lead(s)	Priority	Timeframe	Resources Required	Metric for Success	Rationale/Notes
36. Work with the Three Rivers Community Forest to implement identified objectives in the Community Forest Management Plan relating to community wildfire protection, including: I. Integrating recreation trails and access roads with fire suppression opportunities, II. Exploring funding to support fuel management efforts, III. Exploring the use and application of wildfire-resilient stocking standards for silviculture activities within close proximity to the community.	Quesnel Forestry Initiatives Manager	High	Ongoing	Communication and planning resources, forest management resources	Ongoing collaboration with the Three River Community Forest manager to help implement management strategies within the Community Forest relating to wildfire risk reduction around Quesnel.	The Three Rivers Community Forest is an active member of the Quesnel and Area Community Wildfire Preparedness Roundtable and is working to incorporate wildfire risk reduction into community forestry management.

Action	Lead(s)	Priority	Timeframe	Resources Required	Metric for Success	Rationale/Notes
37. Apply for funding to complete an initial *FireSmart CSGS Assessment* in City parks and green spaces. If deemed appropriate by the assessment, apply for funding to complete the recommended eligible mitigation activities identified (limited to labour and material costs).	Quesnel Forestry Initiatives Manager	Moderate	Ongoing	Complete Checklist for CRI Requirements for Fuel Management Prescription before CSGS Assessment is started, personnel qualified to complete a FireSmart CSGS Assessment	An initial FireSmart CSGS Assessment is completed for all parks and green spaces within the City of Quesnel.	Funding is currently available through the CRI program to complete FireSmart mitigation activities on vegetation for cultural sites or green spaces. To be eligible for funding, all projects must have a completed Checklist for CRI Requirements for Fuel Management Prescription and a completed FireSmart Cultural Sites and Green Spaces (CSSGS) Assessment submitted to UBCM prior to commencing work

Action	Lead(s)	Priority	Timeframe	Resources Required	Metric for Success	Rationale/Notes
38. Create an inventory and monitoring system to track planned and completed wildfire risk reduction and FireSmart vegetation management activities throughout the City of Quesnel, including: • Areas that have had fuel management prescriptions and treatment operations completed • Monitoring and maintenance planning for completed fuel treatment areas • Critical infrastructure assessments and associated FireSmart treatments completed • FireSmart Assessments completed for private property owners	Quesnel Forestry Initiatives Manager, FireSmart Coordinator	Moderate	Within 2 years (2027), updated annually	Tracking system and geospatial database	Creation of a vegetation management tracking system.	Establishing an inventory will streamline the process of tracking ongoing treatments and identifying the necessary maintenance tasks needed at different intervals.

Action	Lead(s)	Priority	Timeframe	Resources Required	Metric for Success	Rationale/Notes
39. Complete ongoing maintenance of completed fuel treatments. See section 5.7.5 Maintenance Plan for Previous Treatment Fuel Management Units	Quesnel Forestry Initiatives Manager	Moderate	Ongoing	A Registered Professional Forester may be required to write another fuel management prescription. Contractors must be acquired to complete treatment operations.	Completed fuel management treatments are being monitored for maintenance activities. Maintenance activities are being undertaken when needed.	Funding is available through the CRI program for fuel management treatment operations/ Implementation.

6.0 Implementation

6.1 FIRESMART ROADMAP

No two FireSmart journeys are the same, however FireSmart has created a roadmap to help local governments understand where to start and general steps to take on the way to community wildfire resiliency[27]. The roadmap is broken into four different phases, and should be completed sequentially, but will depend on previous FireSmart activities and the recommended action items in this CWRP.

FireSmart Roadmap Phases

Engagement Phase

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

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

- FireSmart Positions: Training.
- Education: Develop/update signage, social media, community websites and/or newsletters; organize and host public information meetings and workshops; promote and distribute FireSmart educational materials and resources; host a Wildfire Community Preparedness Day.
- Interagency Cooperation: Participate in a Community Wildfire Roundtable or other planning tables; attend the annual Wildfire Resiliency and Training Summit.
- Residential Areas: Undertake Home ignition zone assessments; offer off-site debris removal programs.

Initiative Phase

In this phase, the primary objective is acting and implementing local FireSmart activities. The focus is on building capacity both in people and your community's capacity to withstand wildfire events.

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

- Education: Support neighbourhoods to apply for FireSmart Canada Neighbourhood Recognition Program.
- Community Planning: Complete FireSmart assessments for critical infrastructure, community assets, culturally significant sites and/or green spaces.
- Emergency Planning: Assess community water delivery ability; FireSmart Structure Protection Trailer development and plan.
- Training: Undertake training for other FireSmart positions (beyond initial FireSmart Coordinator), fire departments, and emergency management staff; develop local Home Partners program.
- FireSmart Projects: Complete mitigation activities for critical infrastructure, community assets culturally significant sites and/or green spaces with completed assets.
- Residential areas: Offer local rebate programs.

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

Expansion Phase

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

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

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

Integration Phase

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

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

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

6.2 PLAN MONITORING TRACKING AND REPORTING

The CWRP action plan (Table 1: City of Quesnel CWRP Risk Assessment and Action Plan) 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 City of Quesnel. In addition, a five-year comprehensive review/update should take place, including specific updates on:

- How wildfire risk has changed based on recent wildfires;
- 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.

Table 21 provides an example monitoring plan, tracking, and update summary for the City of Quesnel CWRP. Annual updates should consider renaming the plan version as 1.1, 1.2, 1.3, etc. Five-year comprehensive updates should consider renaming the plan version as 2.0, 3.0, etc. Columns for actions in progress or completed actions may refer to the action item numbers. Annual tracking is useful for creating

accountability, as well as reporting accomplishments and successes. Summaries of specific measurable outcomes are useful both for reporting to decision makers and applying for future funding.

Table 21. City of Quesnel CWRP monitoring, tracking and update summary

Plan Version	Update Year	Update Type	Actions in Progress	Completed Actions	Notes
1.0	2018	CWPP			
2.0	2025	CWRP			
3.0	TBD				

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:

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 Engagement Summary

Public, stakeholder, and First Nations engagement for the 2025 Quesnel Community Wildfire Resilience Plan took place throughout 2024 and 2025 through the following avenues:

- Various interested parties were engaged through the Quesnel and Area Community Wildfire Roundtable. Participants in the biannual roundtable include the Ministry of Forests, BC Wildfire Service, BC Parks, BC Hydro, Fortis, CN Rail, Cariboo Regional District, Pet Safe Coalition, Quesnel Fire Department, RCMP, Forest Enhancement Society, the Three Rivers Community Forest, the Wells Community Forest, Telus, and Woodlots BC. All local First Nation Governments also participated in the Quesnel and Area Community Wildfire Roundtable including: Lhtako First Nation, Nakzo First Nation, ʔEsdialgh First Nation, Xats'ull First Nation, and Lhoosk'uz Dené First Nation. At both the November 19, 2024, and May 5, 2025 Quesnel and Area Community Wildfire Roundtable meetings, City of Quesnel staff discussed the CWRP planning process with Roundtable members to update them and to garner information and feedback on the CWRP. During the May 5, 2025, Roundtable, a Forsite staff member presented the early planning stages of the CWRP and answered questions from the stakeholder groups present.
- In separate meetings throughout 2024 and 2025, City of Quesnel Staff met with representatives from Lhtako Dené First Nation, the First Nation community with lands (several different IRs) directly adjacent to the City of Quesnel. At these meetings, collaborating with the Lhtako Dené First Nation Government on CWRP's that articulate and share values as well as overlapping areas was discussed. During 2024 and 2025, the City hosted two meetings with both First Nation and Cariboo Regional District (CRD) staff to ensure the multiple CWRPs (CRD/City/Lhtako Dené) as well as the Emergency Management plans complement each other and are coordinated in a strategic manner.
- The public engagement for the CWRP process was carried out by City of Quesnel staff who provided information and an opportunity for public input into the planning process at the two-day long Quesnel & District Chamber of Commerce Tradeshow, on May 3 and 4, 2025, as well as multiple Farmer's Markets throughout the spring and summer of 2025. City staff explained the transition from the existing 2018 Quesnel and Area Community Wildfire Protection Plan (CWPP) to the new CWRP. A map of the proposed AOI as well as information on FireSmart and wildfire risk reduction activities were discussed. The most frequently asked question was regarding the change in area from the 2018 CWPP (88,000 ha) to the new proposed area (the municipal boundary plus 1km). CRD residents also expressed concern that they would no longer have access to the City's rebate and assistance to private land programs. They were advised to call their local CRD Director or CRD office and discuss their concerns with the local government directly. No other concerns were brought forward in the CWRP planning process from public engagement activities.

Appendix C Home Ignition Zone

FireSmart describes three Priority Zones around a building, collectively named the Home Ignition Zone (Figure 20) alongside descriptions of what these zones should look like, starting from the edge of a building and moving outwards.

Figure 20. FireSmart Home Ignition Zone, which is comprised of three priority zones, as illustrated in the BC FireSmart Begins at Home Manual

Of particular importance are neighbourhoods where homes and buildings are situated close together in a relatively higher density than 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 D Wildfire Threat Assessments

See accompanying Annex D: Quesnel CWRP Wildfire Threat Assessment worksheets.

Appendix E Maps

See accompanying Annex E: Quesnel CWRP AOI/VAR, Fire Risk, and Treatment Unit Maps for required CRI submission maps and spatial data

Appendix F Key Provincial and Federal Acts and Regulations, and 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

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
- The BC Building Code (2024) is a provincial regulation that regulates how new construction, building alterations/repairs, and demolitions are completed. Local bylaws pertaining to FireSmart development must be in compliance with the BC Building Code.
- 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 is 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

- Indigenous Services Canada
  - Emergency Management Assistance Program (EMAP), 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 – 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. – 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 - The FireSmart BC Landscaping Guide is meant to help British Columbians make informed choices about how to manage their lawns and gardens to increase resilience to wildfire on their properties
- FireSmart Cultural Sites and Green Spaces - The FireSmart Cultural Sites and Green Spaces assessment is a qualitative process that is intended for assessing vulnerability of First Nations Cultural Sites and Local Government Green Spaces. This assessment may replace the need for Fuel Management Prescriptions on smaller sites and spaces that have high levels of human impact and are no longer being protected solely as natural spaces.